

New Oakland Apartments Feature Property-Wide Omada Wi-Fi 6.

Case Study: PPSK GSD Solutions

Project Scope:

New Multifamily
Development with
100+ Doors

**Omada AX3000 Ceiling
Mount Wi-Fi 6 Access
Point:**

[EAP653](#)

**JetStream 28-Port
Gigabit Smart Switch with
24-Port PoE+:**

[TL-SG2428P](#)

**Omada VPN Router with
10G Ports:**

[ER8411](#)

**Omada SDN Software
Controller:**

[Free On-Premises
Controller with Cloud
Access for Remote
Management](#)

TP-Link Omada Solution with PPSK Provides “Excellent Features” and Greater Affordability for Newly Built Oakland Apartment Complex

GSD Solutions, a Bay Area Managed Service Provider, Successfully Completes First TP-Link MDU Network Deployment for High-Speed Managed Wi-Fi Services.

Omada SDN Solution for Multifamily Residential Properties

The Need: Reliable, Affordable PPSK Solution

GSD Solutions deployed the TP-Link Omada SDN solution featuring PPSK authentication in a new multifamily development with 100+ units located in Oakland, California. GSD installed ultra-fast and efficient Omada Wi-Fi 6 access points, ensuring reliable network performance for residents’ high bandwidth needs such as gaming, video streaming, and remote work applications, among others.

“We were looking for a vendor that could do pre-shared key for our clients at a reasonable price point,” stated Scott Davison, CTO at GSD Solutions. “TP-Link fits that bill.”

PPSKs are used in home and small business wireless networks, VPNs, and other secure communications systems to prevent unauthorized access and maintain network security. The TP-Link Omada SDN solution utilizes unique pre-shared keys called Private Pre-Shared Keys (PPSK). These are created for individual users on the same SSID and can be used to create

subnetworks within the same SSID, each with a different password, but with the ability to share the same Wi-Fi.

The project also provided Wi-Fi coverage property-wide to indoor and outdoor amenities enabling residents to move or roam between access points throughout the property. Without entering a username and password each time, residents will stay securely connected to their network when visiting on-site Wi-Fi-enabled locations such as the pool, gym, clubhouse, and various outdoor amenities.

According to the National Multifamily Housing Council, the demand for fast, reliable internet services is a top priority for residents in multifamily properties. This combined with the need for managing property-wide Wi-Fi services has increased rapidly in the wake of the pandemic. Businesses adopted touchless services such as online ordering, food delivery, telehealth, video conferencing, and the public adapted.

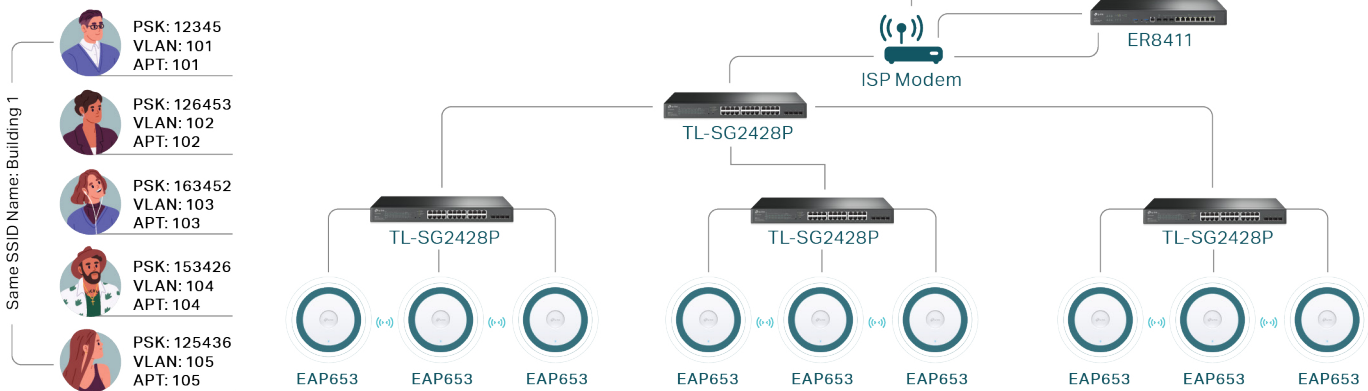
¹ [Bisnow, National Multifamily Housing Council](#)

A recent survey of renters by the National Apartment Association² showed that fast, reliable internet connectivity is the second most desired feature in apartment homes, while only in-unit laundry ranks above this. Properties are now putting priority on adding or upgrading Wi-Fi services throughout to keep up with demand while helping to attract new potential residents.

Apartment builders' interest in managed high-speed internet, which includes managed Wi-Fi, grew from 5% of new luxury developments in 2018 to 80% in early 2021, according to Parks Associates.³

The Solution: Omada SDN

Apartment Building (MDU, Student Housing)



While vetting alternative vendors, GSD Solutions found that TP-Link offered more than just what they were looking for; they found a complete solution with PPSK support at a "reasonable price point," just as GSD's customer requested.

"Well, availability is very important when you're doing a networking project, and TP-Link was available," said Davison. "They are also very solid in their networking."

"We needed a solution that could do PPSK, and that could be a firewall, PoE switch, and access points," asserted Davison. "The features are excellent, and we have had no issues with any of the products. We also like the fact that they can be cloud managed - PPSK, availability, pricing, and the overall solution."

The Omada PPSK solution is an easy-to-deploy authentication method for residential buildings. Each unit is assigned their own password and can establish a secure VLAN. Smart home devices are easily connected to the resident's network without compatibility issues and tenants can enjoy seamless mesh wireless coverage as they roam throughout the properties' indoor and outdoor amenities. Omada supports unique VLANs for up to 4K residential units - though at this size, Omada will require the use of a radius server for an equivalent number of PPSKs. For smaller MDUs, hosting the PPSKs on the Omada Controller can be sufficient and will help reduce operational expenses for

service providers and property managers.

Due to the size of the deployment, the GSD Solutions team deployed the system and configured the network for PPSK using an externally hosted radius server through a hosted Wi-Fi management platform for service providers. Omada supports integrations with RG Nets and ElevenOS. This allows GSD to control bandwidth for each residential unit, manage subscription plans and provide a better overall residential Wi-Fi experience.

"TP-Link's team helped us overcome the challenges of finding the right vendor to meet our project needs," said Davison. "They are great to work with. They pick up the phone and respond to emails. They support our work."

GSD Solutions' first project with TP-Link was a resounding success. According to Davison, Omada *"will be deployed in at least 5-10 more [projects] in the next year."*

When asked what the biggest reason is that he would recommend TP-Link, Scott Davison said, *"Support. When we needed some help or [had a] request, they were right on it."*

gsdsolutions

Contact Your TP-Link Sales Manager Today.

For additional information on the TP-Link Omada SDN Solution, please visit <https://www.tp-link.com/us/business-networking/> or contact us at B2BSales.USA@tp-link.com

² [YieldPro. National Apartment Association](#)

³ [Broadband Communities. Parks Associates](#)