

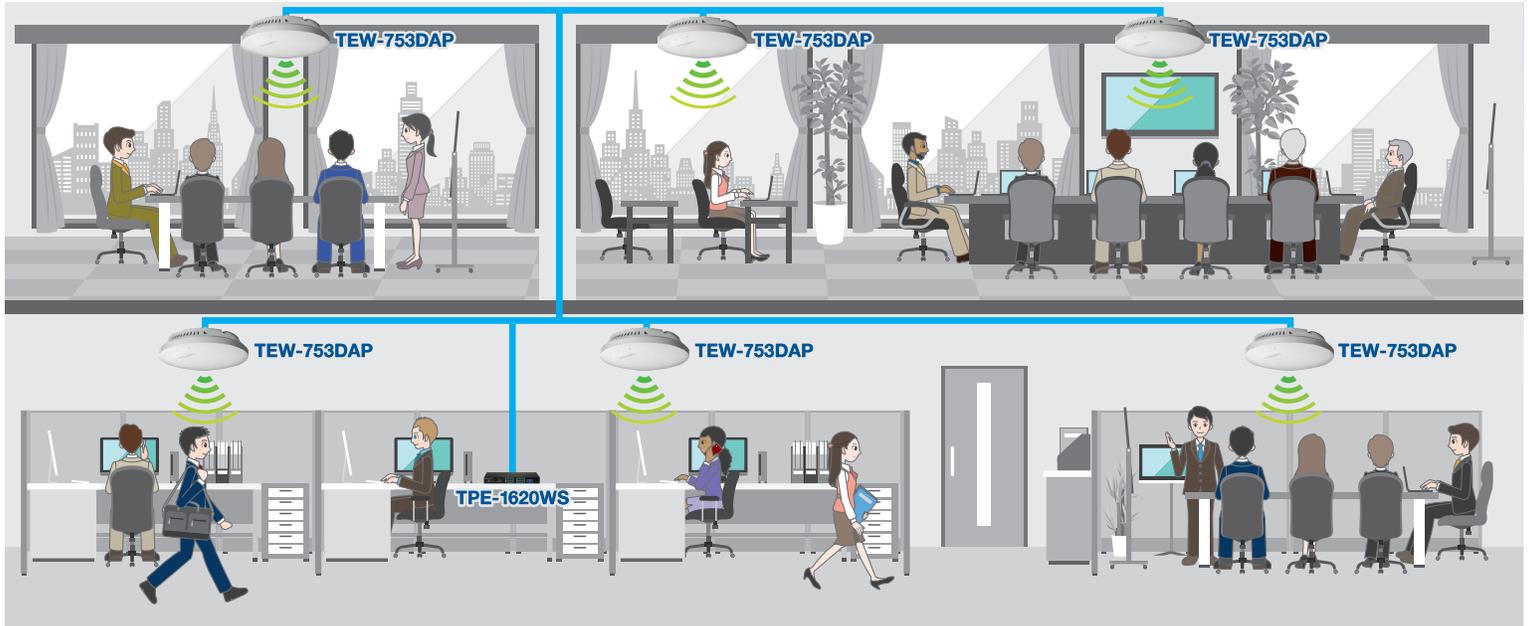
PoE Access Point Solution

Roaming Wireless Network for Two-Story Office Building

Project Summary

A medium-sized company, housed in a two-story office building, needed to create a building-wide high speed WiFi network. The challenge was to create a single continuous network that didn't require multiple SSIDs and passwords, so users could move freely throughout the building without ever losing connectivity. To construct a seamless wireless network, TRENDnet implemented a roaming wireless network solution that utilized six separate TRENDnet PoE access points, all powered by a single TRENDnet web smart switch.

Network Solution Diagram



This diagram demonstrates the strategic positioning of the TRENDnet access points and web smart switch to create a roaming wireless network solution. Please note that the diagram is not to scale.

Solution Details

TRENDnet offers a wide range of products to provide network solutions for varying needs. For the roaming wireless network solution, TRENDnet engineers needed to design a solution that would give users access to the company's wireless network without interruption, even when moving from one end of the building to the other. With just two sets of products, engineers were able to design a simple and cost-effective solution.

Six of TRENDnet's N600 Dual Band PoE Access Points, model TEW-753DAP, were strategically mounted on the ceilings throughout the entire building on both floors. Customized configuration of the network allowed for the same SSID and encryption to be used on all access points on both wireless bands. With TRENDnet's TEW-753DAP, network traffic can be managed by organizing network connections on multiple bands. Specific channels were designated for each access point to help eliminate network data confusion by ensuring no channels overlapped. Another added benefit to TEW-753DAP is its off-white, low-profile housing that blends into the environment and is often mistaken for a smoke detector.

To power and manage the PoE access points, the project utilized TRENDnet's 16-Port Gigabit Web Smart PoE+ Switch, model TPE-1620WS. The TPE-1620WS was specifically chosen for this project because its total power budget is capable of powering all

TRENDnet Equipment List:

6x **TEW-753DAP**
N600 Dual Band
PoE Access Point



1x **TPE-1620WS**
16-Port Gigabit
Web Smart
PoE+ Switch



six access points without the need for an external power supply. Moreover, this web smart PoE switch allows users to enable and disable PoE power through the web interface without needing to physically unplug a cable, as well as power cycle devices that may be inaccessible such as access points or IP cameras.

TRENDnet's roaming wireless network solution allows all users, whom have access to the company's encrypted wireless network, unhindered connectivity throughout the building. For more information on TRENDnet and how its products can solve your network challenges, please visit www.TRENDnet.com.

PoE Benefits

- Reduced installation cost, with power and data provided over existing network cables
- No need for an external power source
- Reduced cable clutter
- Installation flexibility
 - No need for power outlets on the ceiling for ceiling mounted PoE access points
 - No need for power outlets on the roof for outdoor camera applications