

# WiFi Performance that Delights Users



- 60 APs: installed in 5 Hours: Zero touch onboarding reduced installation time by a third
- More than 10X improvement over 2.4 GHz performance
- 60X increase in overall capacity



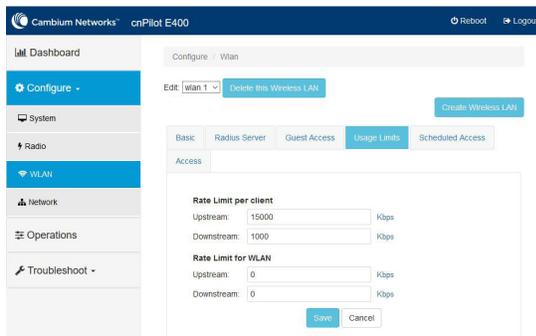
“When done right, campus WiFi can outperform DSL or Cable Internet, and lets end users tap the inherent value of devices with embedded WiFi. The cnPilot™ equipment gave us a 10X increase in 2.4 GHz performance and a 60X increase in overall capacity.”

- ERIC OZRELIC,  
PRESIDENT,  
WEBFORMIX

## Challenge

**EAGLE LANDING IS A 150 UNIT RESIDENCE APARTMENT COMPLEX IN BEND, OREGON THAT** provides a full array of amenities to residents. As is the case around the world, people living there found reliable WiFi connectivity to be as important as the fitness center, pool, spa, parking, and fireplace. Over the years of trying to keep up with the increasing demand for connectivity, the apartment management had installed an assortment of inexpensive, 802.11g-based Access Points (AP) without any central monitoring or management. With no proactive monitoring, a complaint was the first indication of an equipment failure.

Eagle Landing needed to start over. They called Webformix to propose a solution.



## Solution

**WEBFORMIX, A TECH SAVVY SERVICE** provider, saw this as an opportunity to fork lift upgrade the network to the latest technology. “We knew that currently there are enough devices that support Multiple In/Multiple Out (MIMO) and 5 GHz,” says Eric Ozrelic, President, Webformix. “We also wanted a system that would be affordable and scalable that would provide great connectivity at a reasonable price.”

After reviewing the residents’ needs, Webformix developed a list of requirements:

- Intelligent dual-band 2.4/5 GHz APs with MIMO and Power over Ethernet (PoE)
- Small equipment footprint with easy installation
- Versatile APs that could work in any network topology
- Centralized configuration, monitoring, and management with and without cloud access
- Options for indoor and outdoor equipment with backhails within one system

Ozrelic describes his view of the available WiFi equipment alternatives: “Some had high hidden costs with expensive management systems or support contracts, and other low-cost solutions lacked the features and configuration controls that we needed.”

In a trial network at Webformix offices and his house, Eric was able to verify the performance of the E400 Enterprise APs.

- Works with 2.4 and 5 GHz legacy and 802.11n and 802.11ac devices
- Intelligent channel selection features to avoid interference
- Configurable in stand-alone mode via the radio’s User Interface with no cloud access needed
- Deploys configurations and firmware updates to radios managed in the cloud
- Equipment continues to perform without access to the cloud
- Supports individual VLANs per SSID, dynamic VLANs, user rate limiting and other AP grooming features

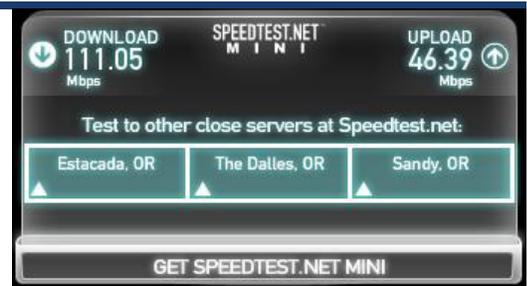
## Installation

**“ZERO TOUCH INSTALLATION IS GREAT,” SAYS OZRELIC. “THE RADIO** can be onboarded by plugging it into a router connected to the Internet that has DHCP and entering the serial number. For the 60 APs that we installed, we completed 15 hours of preconfiguration work in only 5 hours.”

Webformix also used the cnMaestro™ management system to manage the network and provide a view of the performance of all 60 APs deployed throughout the apartment complex. This helped verify the wiring and configuration settings prior to cutover. In addition, cnMaestro enabled the team to identify devices that were monopolizing the the network and allows for optimized bandwidth controls to be pushed out to some or all of the E400 radios..

## Results

**“WITH THE OLD EQUIPMENT, MOST CLIENTS WERE LUCKY TO GET** an over the air rate of 24 to 36 Mbps, which gave them 10 to 15 Mbps of actual throughput,” says Ozrelic. “The E400 provided more than 100 Mbps downloads. That’s a 10X increase in performance at 2.4 GHz. The addition of 5GHz and 802.11ac provides a 60x increase in overall capacity over the old 802.11g radios. End users notice that.”



## About Webformix

[www.webformix.com](http://www.webformix.com)

Webformix is a locally owned and operated wireless high speed Internet service provider in Bend, Oregon. They satisfy business and residential customers throughout Central Oregon by focusing on using industry leading network hardware and bringing the latest solutions to their customers.

## Why Webformix chose cnPilot WiFi Access Points:

- **Intelligent WiFi** with the latest in dual-band WiFi with MIMO, PoE and a small installation footprint.
- **Zero Touch Installation** that use equipment intelligence to reduce the time of equipment installation.
- **Affordable and Scalable technology** that operates both indoors and outdoors to provide a full turn-key solution.