

Cambium Networks

SOLUTION PAPER

Cambium's ONE Network Enables High Return Managed Wi-Fi Services for Multi-Dwelling Units

Overview

Cambium Networks offers a robust solution for deploying wired, wireless, and fiber networks in multi-dwelling units (MDU), including apartment complexes, student residential housing, and senior living communities. The high demands of residents and the increasing density of connected devices pose challenges that Cambium uniquely addresses through the simplicity, scalability, and security of our ONE Network solution, empowering managed service providers (MSP) to deliver high-value managed Wi-Fi services while supporting proptech, IoT, and smart home innovations.

Cambium One Network Solution for MDU at a Glance

Product	Details
Wi-Fi	Wi-Fi 6, 6E, and 7 indoor and outdoor access points (AP) with auto-RF, IoT, Passpoint, and enhanced PSK
Switch	Access and aggregation switches with multi-gig and policy-based automation (PBA)
Fiber	GPON and XGS-PON solutions for high-speed backhaul with indoor and outdoor ONT options
SD-WAN and Security	NSE (Network Service Edge) providing threat protection, vulnerability detection, firewall, VPN, routing, and network services in a single solution
Wireless Backhaul	Multi-gig 60 GHz and point-to-multipoint solutions for network backhaul in building-to-building or site-to-site applications
G.hn Wired Home Networks	G.hn solutions in conjunction with ecosystem partners for existing coax and twisted-pair wiring for brownfield deployments
Management and Wi-Fi Provisioning	Single-pane-of-glass management with cnMaestro [™] X, including Al-driven Assurance analytics and MarketApps for simple Wi-Fi provisioning for property managers and residents
Support and Services	24x7 support with design, deployment, monitoring, and troubleshooting services by industry experts NOTE: Qualified MSP partners are eligible for Cambium's Concierge Services delivered by a dedicated team of specialists supporting planning, provisioning, optimization, training, and advisory support.

WHAT OUR CUSTOMERS SAY

"Cambium is the only vendor we found that can take care of Wi-Fi, switching, security, etc., in addition to PON fiber in one solution. Everything is managed by cnMaestro X, which streamlines the process of delivering our managed Wi-Fi service. Overall, the solution has been a gamechanger for us."

— Dale Vought, CTO, Discernity

"I had a 'wow' moment when I saw how fast the installation was and how easy it is to use the system."

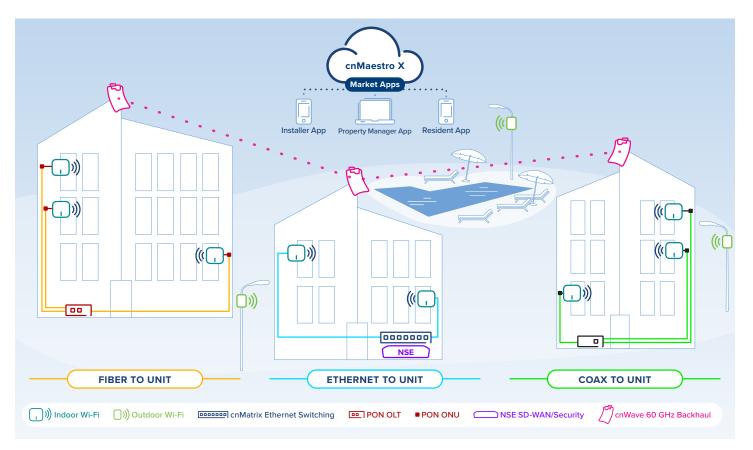
> - Michael Brown, Property Owner, Lenox Cove Apartments



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Cambium ONE Network Delivers a Complete MDU Managed Wi-Fi Solution



WHAT OUR CUSTOMERS SAY

"We have discovered through quite a few years of working with Cambium that not only is the equipment we choose consistently enterprise-grade quality, but the engineering and support provided has been exemplary."

> Bruce Weintraub, CEO and Founder, HealthSignals



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Challenge	Cambium Solution
Complex Wi-Fi Provisioning Workflows	cnMaestro X MarketApps provides an industry-first , unified web app solution to simplify managed Wi-Fi provisioning and onboarding for property managers and residents.
Scalability without Expensive Supporting Infrastructure	MarketApps integrates with Cambium's highly scalable pre-shared key (ePSK) solution to enable both large and small resident communities with unique passwords and separate VLANs for a private, secure experience without the expense of RADIUS -based authentication.
Seamless Property-Wide Connectivity	Deliver seamless, secure connectivity through a community-wide SSID using ePSKs , supporting roaming between private and public areas and across wireless, wired, and PON networks.
loT Device Management	Cambium's patent pending Personal Wi-Fi allows residents with IoT devices to customize their Wi-Fi by retaining their own network names (SSIDs) and passwords for easy move-in experience.
Poor Cell Coverage and Voice Call Quality	Cambium Wi-Fi APs can be configured to support Passpoint for cellular offload, with simple one-click settings to optimize Wi-Fi voice call quality .
Privacy and Traffic Isolation	ePSK assigns a unique virtual network to each resident, ensuring devices connect to a micro-segmented unit-specific network through all Cambium APs.
Interference Management	Cambium's Wi-Fi leverages auto-RF to dynamically optimize channels and power levels, even in highly dense deployments.
Optimizing Cost and Performance of Fiber	Cambium's Fiber XGS-PON/GPON solution delivers homogeneous network experiences at a low total cost of ownership (TCO) in the same cnMaestro X management platform as Wi-Fi, switching, and security.
Expensive Brownfield Upgrades	Cambium cnWave [™] 60 GHz and ePMP [™] solutions connect buildings cost effectively with non-trenching wireless connections. Ecosystem partners bring G.hn technology to leverage legacy in-building wiring without expensive upgrades.
Provisioning the Switch Network	Cambium's PBA and autoVLAN in cnMatrix [™] switches enable IT staff to easily provision the L2/L3 switch network out of the box and support ongoing moves/adds/changes.
Fast and Efficient Troubleshooting	Cambium's cnMaestro X provides AI-driven analytics with Assurance for advanced network troubleshooting and Assists that ensure best practices are followed.
Security and SD-WAN	Cambium's Network Service Edge (NSE) delivers SD-WAN, NAT, WAN balancing, IoT management, and DNS/DHCP services as part of an integrated ONE Network solution.



About Cambium Networks

Cambium Networks enables service providers, enterprises, industrial organizations, and governments to deliver exceptional digital experiences and device connectivity with compelling economics. Our ONE Network platform simplifies management of Cambium Networks' wired and wireless broadband and network edge technologies. Our customers can focus more resources on managing their business rather than the network. We make connectivity that just works.

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