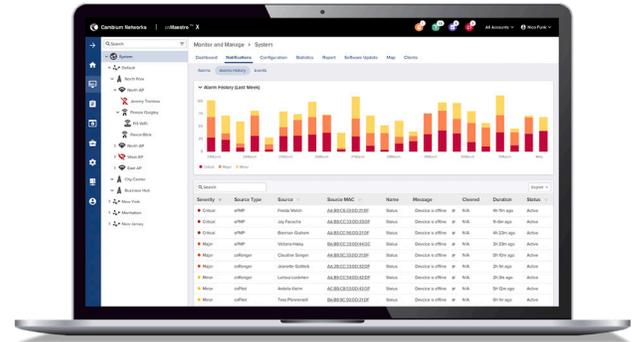


# cnMaestro™ Management System

## QUICK LOOK:

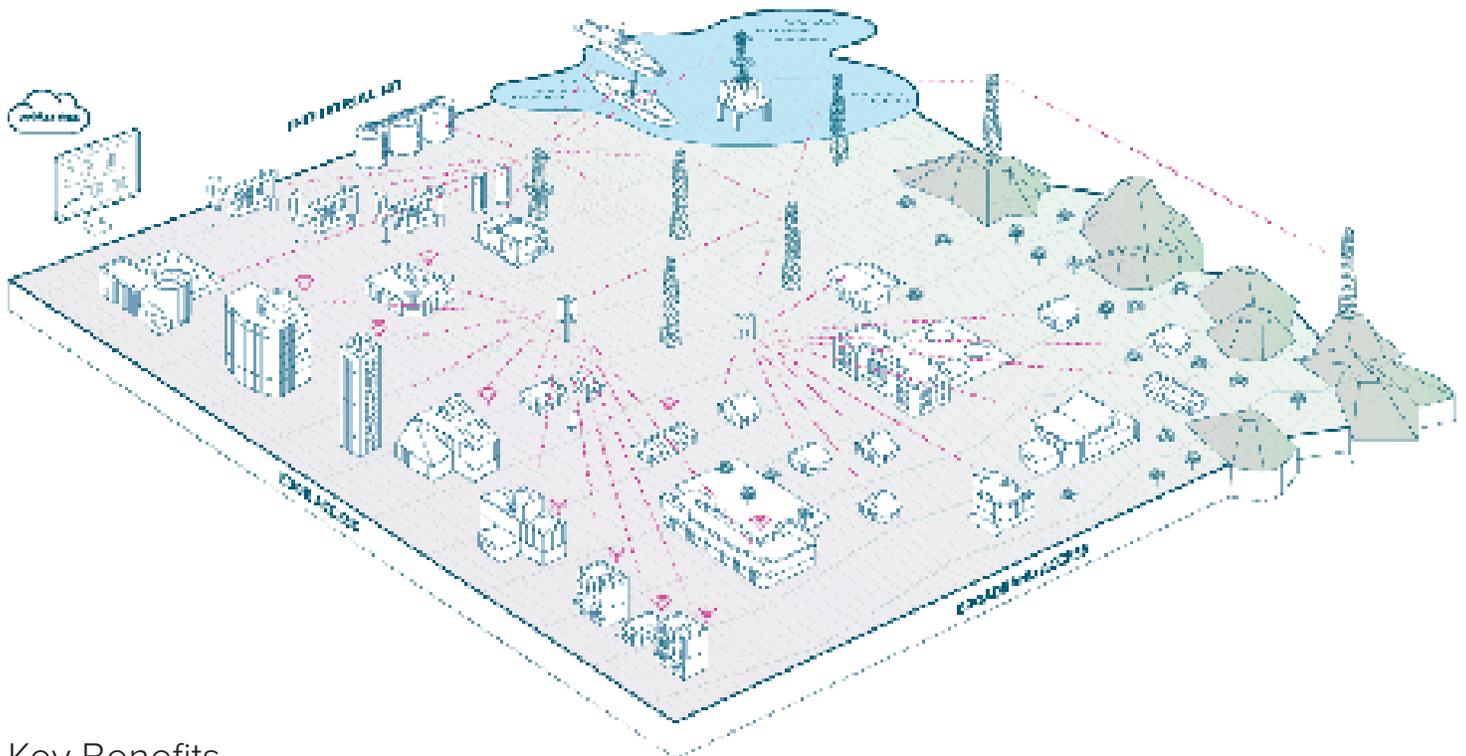
**cnMaestro** is a simple, yet sophisticated cloud-first next-generation network management solution for Cambium Networks wireless and wired solutions. cnMaestro offers elastic scalability and single-pane-of-glass management to deliver secure, end-to-end network and wireless lifecycle management with zero-touch provisioning, monitoring, and troubleshooting capabilities. It simplifies operations and ongoing maintenance. This license-free cloud option delivers a disruptive Total Cost of Ownership (TCO) for organizations of all sizes.



## Key Highlights

- Unified management platform via a single dashboard for Cambium's wireless and wired portfolio: Enterprise Wi-Fi, Switching, Fixed Wireless Broadband and Industrial IoT products.
- Zero-touch provisioning: Create, provision, monitor and manage the entire network of wireless and wired devices from a single dashboard login with key performance metrics, alarms and alerts. The cloud-first UI design is easy to learn and applies across the portfolio, helps network administrators simplify operations and allows them to deliver an optimal client experience.
- Deployment flexibility and TCO: Choice of public cloud, private cloud or on-premises deployment with best TCO. cnMaestro helps reduce operating cost and accelerate return on investment. Comprehensive Cloud and On-Premises management is included with the hardware.
- Tailored views for Enterprise, Managed Service Provider (MSP), Access and Backhaul and Industrial Internet View.

## cnMaestro™ Management System



### Key Benefits

**cnMaestro's** multi-site, multi-product cloud management spans long-range fixed wireless broadband, enterprise Ethernet, enterprise Wi-Fi and service provider residential Wi-Fi for the most comprehensive and powerful single-pane-of-glass system in the industry. Ideal for any service provider or enterprise network operator. The cnMaestro cloud dashboard can be tailored to the exact network need from managed service providers (MSPs), to fixed wireless service providers and enterprise networks. cnMaestro provides centralized visibility and control for Cambium Networks' wireless and wired products. Network administrators can quickly and easily deploy networks with minimal training. Whether small sites or large distributed networks with thousands of sites, cnMaestro makes deployment and operations easy.

cnMaestro architecture is built for scale and security at all levels. Devices connect to cnMaestro cloud using SSL-enabling deployments without changes to the firewall configuration. Cambium Intelligent edge architecture enables fault-tolerant networks where the network continues to operate even when the cloud is unreachable due to a WAN outage. cnMaestro management is included with the price of the wireless or wired device to manage a broadband-to-Ethernet and Wi-Fi network at no additional cost.

cnMaestro delivers everything you need from zero-touch provisioning to enterprise-grade automatic RF management for networks up to thousands of sites, and up to 10,000 managed devices from a single cnMaestro account. Experience the power, redundancy, resilience and simplicity of a cloud-first network management.

cnMaestro eliminates the need for Wi-Fi controllers, thereby reducing complexity and total cost of ownership while increasing reliability of the network. cnMaestro delivers the best TCO on-premises and in-cloud for Fixed Wireless Broadband, Enterprise Wi-Fi and Switching customers. Flexible deployment options allow customers to choose a model that fits their organizational needs: public cloud, private cloud or on-premises deployment.

cnMaestro provides a bird's eye view of the health of the network with insights on performance, connectivity and client experience. Administrators can quickly identify potential trouble spots and drill down from network-to-client level details. Automatic network monitoring and alerts allow for proactive management of the network. cnMaestro provides visibility into devices and users and while giving administrators the information needed to enforce

# cnMaestro™ Management System



Welcome, Nico Funk (Administrator) Cambium ID: CN0000640512

**Devices**

30 TOTAL    13 OFFLINE    10 ONBOARDING

**Alarms**

30 CRITICAL    13 MAJOR    10 MINOR

**Metrics**

Account Capacity: 6,000 (Managed, Onboarding)

Recommended Software: 20% (Low, Above, Recommended)

**rms**

- epoldo Terry: device is offline (3h 1m ago)
- racey Wolf: device is offline (3h 33m ago)
- bigayle Paucek: device is offline (3h 36m ago)
- mmet Ebert: device is offline (3h 3m ago)
- ulus Mills: device is offline (3h 4m ago)
- Jvah Muller: device is offline (3h 1m ago)
- ete Schmidt: device is offline (4h 22m ago)

**Accounts** 7

- 13
- 18
- 32
- 23
- 31
- 32
- 342
- 21
- 3
- 8
- Managed User: 32

**Device By Type**

- Wi-Fi: 11 (Enterprise), 9 (Home)
- ePMP: 4 (AP), 8 (SM)
- PMP: 32 (AP), 15 (SM)
- cnRanger: 2 (BBU), 22 (SM)
- PTP: 3
- cnMatrix: 12

**Connection Health (Total Vs Offline)**

Line graph showing health over 24 hours.

**Top Networks**

NAME	TOTAL	OFFLINE	DEVICES BY TYPE	ALARMS
Edyth Robel	56	5		
Leon Ryan	81	8		
Ayana Jenkins	24	3		
Edgardo Rosenbaum	34	2		
Joanie Pfannerstill	13	5		

**Top Wi-Fi APs by Throughput**

NAME	CLIENTS	THROUGHPUT
Edyth Robel	56	
Leon Ryan	81	
Ayana Jenkins	24	
Edgardo Rosenbaum	34	
Joanie Pfannerstill	13	

**Top Point-to-Multipoint APs**

NAME	TYPE	SMS	THROUGHPUT
Vanessa Wehner	PMP	56	
Oren Eritsch	PMP	81	
Aniyah Nitzsche	ePMP	24	

**Top Busy APs**

NAME	BUSY INDEX
Gilda Nikolaus	
Lydia Gutmann	
Carlotta Gibson	
Keven Fell	

**Subscriptions**

TIER	AVAILABLE	USED	EXPIRING SOON	EXPIRED
Tier 1	0	6,000	100	100
Tier 2	1,000	3,000	-	100
Tier 3	1,000	2,000	-	100

policies and optimize performance. Remote support capability is integrated into the architecture, along with powerful help desk tools to debug remote issues without going onsite. Troubleshooting tools such as ping, traceroute, throughput, and live packet captures are included, dramatically reducing resolution times and enabling remote troubleshooting.

cnMaestro supports custom network hierarchy which enables easy configuration, monitoring and debugging at network nodes, reducing operational costs. This specially becomes critical for large networks or small distributed networks with small on-site IT staff.

cnMaestro provides Enterprise, MSP, Access and Backhaul and Industrial Internet views.

**MSP-Ready Platform:** MSPs can differentiate their brand to address specific sub-markets in their service area. The multi-tier customization gives the MSP tenant cloud tools to create an additional layer of guest portal customization – all managed from the cloud. MSP views consolidate the MSP tenant statistics, while allowing the MSP to drill down and support a tenant directly, without impacting data from other tenants or end users on the system.

Access and Backhaul view provide visualization and control of devices from tower-to-edge. This includes PTP and PMP devices.

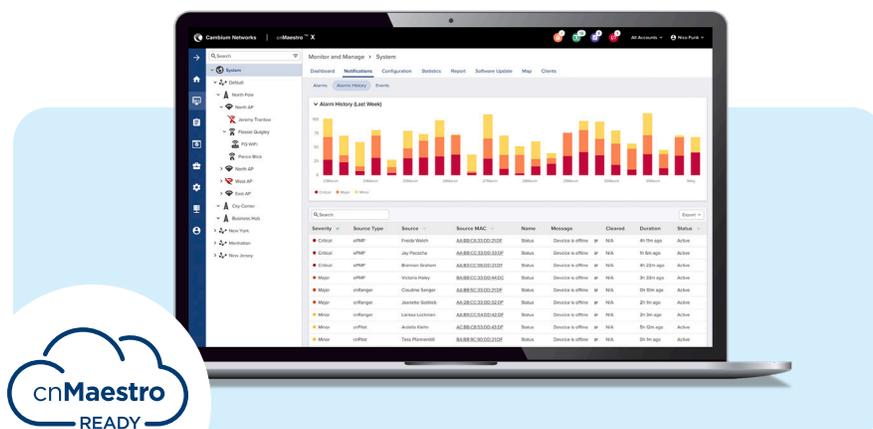
## cnMaestro™ Management System

### Management System Details

<b>Deployment</b>	<p>Cloud-Hosted Web Portal</p> <p>Customer-Hosted VMware OVA</p> <p>Amazon Marketplace AMI</p>
<b>Visualization</b>	<p>Full Visibility Across Network</p> <p>Supports cnRanger™, cnReach™, cnMatrix™, cnPilot-R™, Enterprise Wi-Fi, ePMP™, Machfu, PMP and PTP devices</p> <p>Multiple Product Views</p> <ul style="list-style-type: none"> <li>• Access and Backhaul View</li> <li>• Enterprise Wireless View</li> <li>• Industrial Internet View</li> </ul> <p>Hierarchical Device Tree</p> <p>PMP/ePMP Sector Display</p>
<b>Configuration and Monitoring</b>	<p>Managed Service Provider Accounts</p> <p>High Availability (1+1) for On-Premise</p> <p>Redundant Cloud Services</p> <p>Multi-Region Cloud</p> <p>Scheduled System Backup</p> <p>Configuration Lock</p> <p>Automatic Bulk Software Update</p> <p>Dedicated Device Dashboards</p> <p>Statistics and Trending</p> <p>Email Alerts, Webhooks, Syslog</p>
<b>Managed Service Provider</b>	<p>Branded Services</p> <p>Regional User Databases (Allows one to specify a regional manager who has access to a subset of Tenants)</p> <p>Tenant View (Ability to easily assume the UI of each Tenant)</p> <p>Cross Account Visualization</p>
<b>Data and Reporting</b>	<p>Statistics Reports Exported in CSV</p> <p>RESTful Monitoring/Provisioning API</p> <p>Export UI Tables in CSV or PDFtes</p>
<b>Administration</b>	<p>Role-Based Access</p> <p>Audit Logs</p> <p>RADIUS, TACACS+, LDAP, AD Login</p>

<b>Onboarding and Provisioning</b>	<p>Zero-Touch Onboarding</p> <p>Template Configuration</p> <p>Object Configuration (cnPilot and cnMatrix)</p> <p>Automatically Claim PMP SMs Associated with AP</p>
<b>Network Services</b>	<p>Branded Guest Access Portal</p> <p>Social Login and SMS Authentication</p> <p>Access Vouchers</p> <p>PayPal Payment Gateway</p> <p>GRE Tunneling</p>
<b>Management</b>	<p>Simplified Enterprise View</p> <p>AP Group and WLAN Configuration</p> <p>Site Support for Collocated APs</p>
<b>Troubleshooting and Forensics</b>	<p>Tower-to-Edge Presentation</p> <p>Technical Support Dump</p> <p>Rogue AP Detection</p> <p>Wi-Fi Packet Capture</p> <p>ePMP/PMP Link Test</p>
<b>Security</b>	<p>Communication Over SSL</p> <p>No Inbound Internet Access</p> <p>Data Termination for L2GRE</p> <p>Disaster Recovery</p>
<b>On-Premises Scaling (8 vCPU with 16 GB RAM)</b>	<p><b>Total number of devices supported:</b> 10,000 (cnRanger, cnReach, cnMatrix, cnPilot, ePMP, PMP and PTP)</p> <p><b>Number of wireless clients supported:</b> 150,000</p> <p><b>Number of WLAN and AP Groups supported:</b> Unlimited</p> <p><b>Number of templates supported for cnMatrix, cnPilot R, ePMP and PMP devices:</b> Unlimited</p> <p><b>Number of Guest Portals:</b> 4</p> <p><b>Max number of concurrent sessions:</b> 1,000</p> <p><b>Max number of login events:</b> 2,000 event records for 7 days</p> <p><b>Number of ePSK supported:</b> 300</p> <p><b>Maximum number of tenants and users:</b> 10 each</p>

# cnMaestro™ Management System



**GET STARTED at**  
**[cloud.cambiumnetworks.com](https://cloud.cambiumnetworks.com)**

## ABOUT CAMBIUM NETWORKS

Cambium Networks empowers millions of people with wireless connectivity worldwide. Its wireless portfolio is used by commercial and government network operators as well as broadband service providers to connect people, places and things. With a single network architecture spanning fixed wireless and Wi-Fi, Cambium Networks enables operators to achieve maximum performance with minimal spectrum. End-to-end cloud management transforms networks into dynamic environments that evolve to meet changing needs with minimal physical human intervention. Cambium Networks empowers a growing ecosystem of partners who design and deliver gigabit wireless solutions that just work.

[cambiumnetworks.com](https://cambiumnetworks.com)

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