



RELEASE NOTES  
cnPilot Home Router  
System Release 4.8



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# Supported Platforms

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The cnPilot Home Router family includes the following platforms:

- r201, r201P, r201W
- r200, r200P
- r190W, r190V
- r195W, r195P

For details on other supported platforms, refer

<https://www.cambiumnetworks.com/products/wifi/cnpilot-home-small-business/>

# Introduction

This document provides details on cnPilot Home Router's System Release 4.8. No new platform is added in this release. This System Release 4.8 focuses mainly on [new features](#) and multiple bug fixes.

The System Release 4.8 includes the features and functionalities from 4.7.5 and important bug fixes that are provided in [Resolved Issues](#) section (System Release 4.8).



## Note

The default settings for the cnPilot Home Router are:

- HTTP access is disabled. Only HTTPS is allowed.
- The web access from WAN interface is disabled from 4.3.3 release onwards for security reasons (only for r190, r200, and r201). In r195W, UI can be accessed via WAN by setting non-default admin credentials.
- SNMP access over WAN interface is disabled for security concerns and can be enabled based on the requirements.

**It is recommended to change the Administrator/Normal/Basic user and Read/Write community passwords before enabling any one of the above features.**

## Managing device using cnMaestro

cnPilot Home Routers can easily be managed/configured/updated using cnMaestro. The devices can be onboarded to your cloud account using the unique device serial number available on the back label of the unit or by using your Cambium ID and password. Devices can be pre-provisioned during the onboarding process.

Type	Serial Number	Device	MAC
cnPilot E400	W85F04337Z2W	e400-106	00:00:00:00:00:00
cnPilot E510	WBRM0253DXQ0	E510-vinod	00:00:00:00:00:00
cnPilot E400	W85C0951V1FN	101-dontouch	00:00:00:00:00:00
cnPilot E500	W85G4373DNL5	e500-123	00:00:00:00:00:00

**Note**

Devices running with Firmware version older than 4.3 must not be directly upgraded to the latest version to avoid device inaccessibility. First upgrade the Firmware version to 4.4.2-R2 (perform twice) and then upgrade from 4.4.2-R2 to the latest version.

Due to a newer flash memory layout used in 4.3 firmware, upgrades from older versions to 4.3 and beyond, need to be done twice. This is automatically detected and performed during the upgrades initiated from cnMaestro.

For more information on onboarding and upgrading the device using cnMaestro, refer **Onboarding Devices** chapter in [cnMaestro User Guide](#).

## Overview

The cnPilot Home Router with VoIP is a managed device (has the ability to act as a standalone router if required). In addition to Wi-Fi, this product provides high quality voice calls as well as the optional ability to power Cambium Networks backhaul products. For voice calls, the product is fully compatible with the SIP industry standard and interoperates with many other SIP devices and software on the market.

# Supported Features

The following table lists the major features that are supported in **cnPilot Home Router**:

Features	r190W	r190V	r195W	r200	r200P	r201W	r201	r201P	r195P
<b>KEY INTERFACES</b>									
WAN	1 x 10/100 RJ45		1 x GigE, RJ45 - 195	1 x 10/100 RJ45		1 x GigE, RJ45			
LAN	4 x 10/100Base T, RJ45	3 x 10/100Base T, RJ45	4 x GigE, RJ45	4 x 10/100BaseT, RJ45		4 x GigE, RJ45			
USB	X	X	X	1 USB 2.0 Host Port for shared storage		1 USB 2.0 Host Port for shared storage			
Wi-Fi	2x2 Single band 11n 2.4 GHz		2x2 Dual band 11ac 2.4 (11n) and 5 GHz (11ac)	2x2 Single band 11n 2.4 GHz		2x2 Dual band 11ac 2.4 (11n) and 5 GHz (11ac)			
Telephone Interfaces 2 FXS ports, RJ11	X	✓	X	✓		X	✓		
SSIDs 4 Per Radio	4		4+4	4		4+4			
Maximum Data Rate (Throughput)	300 Mbps		1.16 Gbps across 802.11ac (5 GHz and 802.11n (2.4 GHz)	300 Mbps		1.16 Gbps across 802.11ac (5 GHz and 802.11n (2.4 GHz)			
PoE OUT for PMP 450 and ePMP Subscriber Module	X	X	X	X	✓	X	X	✓	✓

Features	r190W	r190V	r195W	r200	r200 P	r201W	r201	r201P	r195P
IPv6	✓								
Factory Reset Button	✓								
WPS button device	X	X	✓	X	X	X	X	X	✓
LED Indicators: Power	✓								
WLAN	✓								
<b>NETWORK</b>									
Protocol DHCP/ PPPoE/ Static IP	✓					NA	✓		
PPTP/L2TP VPN	✓								
Dynamic DNS/DNS SRV (RFC 1706 and RFC 2782)	✓								
DMZ	✓								
NAT Traversal (Static NAT Route or by STUN)	✓								
DHCP Client and DHCP server	✓								
MAC address Clone	✓								
IP Conflict Detection	✓								
Route Mode Route/Bridge, customer configurable Support IEEE 802.1Q VLAN/802.1p Layer 3	✓								



Features	r190W	r190V	r195W	r200	r200 P	r201W	r201	r201P	r195P
(DSCP) settings for SIP, RTP and Data									
Quality Of Service Support IEEE 802.1Q VLAN/802.1p Layer 3 (DSCP) settings for SIP, RTP and Data					✓				
<b>WIRELESS INTERFACES</b>									
Protocol	802.11 b/g/n	802.11 b/g/n	802.11 ac 2x2 b/g/n	802.11 b/g/n		802.11 b/g/n/ac			
Security WEP, WPA-PSK (TKIP), WPA-PSK (AES), WPA2-PSK (TKIP), WPA2-PSK					✓				
Others AP isolation, MBSSID AP isolation, WMM, MAC Filter, WDS, WPS					✓				
<b>CALL FEATURES</b>									
IP Signaling SIP V2 (RFC3261/3262/ 3263/3264)	X	✓	X	✓	✓	X	✓	✓	✓
Voice Codec	X	✓	X	✓	✓	X	✓	✓	✓

Features	r190W	r190V	r195W	r200	r200 P	r201W	r201	r201P	r195P
G.711 (A-law, Q - law), G.722, G.723, G.729, OPUS									
Fax Over IP Real Time FAX over IP via T.38	X	✓	X	✓	✓	X	✓	✓	✓
T.30 Fax with G.711	X	✓	X	✓	✓	X	✓	✓	✓
Voice Features Adaptive jitter buffer management	X	✓	X	✓	✓	X	✓	✓	✓
Voice Activity Detection	X	✓	X	✓	✓	X	✓	✓	✓
Comfort Noise Generation	X	✓	X	✓	✓	X	✓	✓	✓
Echo Cancellation	X	✓	X	✓	✓	X	✓	✓	✓
Call Features 3-way Conference	X	✓	X	✓	✓	X	✓	✓	✓
Call hold, Call forwarding, Call transfer, Call waiting	X	✓	X	✓	✓	X	✓	✓	✓
Speed dial, Hotline, Dial plan	X	✓	X	✓	✓	X	✓	✓	✓
Caller ID, Black list, Call log	X	✓	X	✓	✓	X	✓	✓	✓
<b>NETWORK MANAGEMENT</b>									

Features	r190W	r190V	r195W	r200	r200 P	r201W	r201	r201P	r195P
Integrated Management - cnMaestro Cloud Based Management	✓								
Configuration - Web GUI interface	✓								
Interactive Voice Response (IVR)	X	✓	X	✓	✓	X	✓	✓	✓
Auto Provisioning TFTP, HTTP	✓								
SNMP v2	✓								
TIME Sntp	✓								
ADMIN - Administrator and User	✓								
ALT MGMT TR069	✓								
SYSLOG Local, Remote	✓								
POWER SUPPLY									
AC/DC Adaptor	AC INPUT: 100 ~240V, 50-60 Hz  DC OUTPUT: 5V, 1A	AC INPUT: 100 ~240V, 50-60 Hz  DC OUTPUT: 12V, 2A	AC INPUT: 100 ~240V, 50-60 Hz  DC OUTPUT: 12V, 1A	AC INPUT: 100 ~240V, 50-60 Hz  DC OUTPUT: 12V, 3A	AC INPUT: 100 ~240V, 50-60 Hz  DC OUTPUT: 12V, 3A	AC INPUT: 100 ~240V, 50-60 Hz  DC OUTPUT: 12V, 2A	AC INPUT: 100 ~240V, 50-60 Hz  DC OUTPUT: 12V, 3A	AC INPUT: 100 ~240V, 50-60 Hz  DC OUTPUT: 12V, 3A	AC INPUT: 100 ~240V, 50-60 Hz  DC OUTPUT: 12V, 3A
ENVIRONMENTAL									

Features	r190W	r190V	r195W	r200	r200 P	r201W	r201	r201P	r195P
Operation Temp +5°C to +45°C 5°C to +45°C	✓								
Storage Temp -25°C to +85°C	✓								
Relative Humidity 10%-90% No Condensing	✓								
Weight	0.5KG	0.5KG	0.5KG	0.75 kg		0.8 kg			
DIMENSION (H x W x D)	180 mm x 110 mm x 30 mm			180 mm x 110 mm x 30 mm		175 mm x 155 mm x 35 mm			
REGULATORY									
EMC FCC part 15B Class B, ETSI EN 301 489-1, ETSI EN 301 489-17, EN61000-6-1, EN61000-6-3, CE, RoHS	✓								
Safety IEC 60950-1, UL 60950-1, EN 60950-1	✓								

# New features in System Release 4.8

This topic describes new features supported in each release of cnPilot Home Router.

The following is the new feature in this release:

- [EZ UI Co-branding](#)

## EZ UI Co-branding

The user can add the customized new logo next to Cambium Networks logo in the EZ-UI page. To upload customized logo under **EZ UI Logo Upload**, browse and select the logo, and then click **Upload**. [Figure 1](#) describes the uploading of the new logo. To revert back to the default logo setting, select **Disable** in the **EZ UI Upload Setting**. To customize the EZ UI, download **EZ-UI cambium co-brand.css** file from [Cambium Networks Support](#) site and modify as required.

The screenshot shows a web interface for configuring EZ UI settings. It is titled "EZ UI setting" and contains four main sections, each with a title and a dropdown menu:

- EZ UI setting**: The dropdown menu is set to "Enable".
- EZ UI co-brand logo**: The dropdown menu is set to "Enable".
- co-brand logo upload**: This section includes a "Local File" label, a "Choose file" button, and the text "No file chosen". Below these are "Upload" and "Delete" buttons. A red message "not uploaded" is displayed.
- co-brand css upload**: This section includes a "Local File" label, a "Choose file" button, and the text "No file chosen". Below these are "Upload" and "Delete" buttons. A red message "not uploaded" is displayed.

Figure 1: EZ UI Co-branding

## Firmware versions

Table 1 describes cnPilot Home Router models and the corresponding firmware versions for the System Release 4.8:

Table 1: Firmware versions

Models	Firmware versions
r190V/r190W	4.8-R15

Models	Firmware versions
r200/r200P	4.8-R15
r201/r201P/r201W	4.8-R15
r195W/r195P	4.8-R15

# Resolved Issues, Known Issues, and Limitations

This section lists the **Resolved issues**, **Known issues**, and **Limitations** in this release of cnPilot Home Router.

- [Resolved issues](#)
- [Known issues](#)
- [Limitations](#)

## Resolved issues

This section lists the resolved issues in this release of cnPilot Home Router.

Tracking ID	Product	Description
RBN-546	r190, r200	IPv6 address was not renewed when PPPoE renegotiated or reinitiated (IPv4 was working).
RBN-1037	r195	PPPoE server did not get response for two echo request from r201, and sent PADT.
RBN-1193	r195	When the raspberry client connected to LAN port, wrong information was displayed for LAN host and wireless host.
RBN-1331	r195	LAN and wireless clients were not getting IPv6 addresses.
RBN-1351	r190, r195, r200	An option has been added to change or co-brand the EZ UI interface.
RBN-1378	r190, r195, r200	The LAN DHCP server was active even after disabling it and rebooting.
RBN-1386	r190, r195, r200	RouterLimits has been replaced with Bark for Parental Control.
RBN-1398	r190, r195, r200	Warning has been added on top of the UI to change the factory default values for SNMP community.
RBN-1406	r195P	10-digit dialling was not working and local dialling (7 digits) was working as expected.  Enabling G.711U codec and disabling OPUS codec resolves this issue.
RBN-1429	r190, r195, r200, r201	The default URL to access EZ UI is changed to www.mywifiap.com.
RBN-1434	r195	After a successful configuration update, the configuration sync status indicated the Configuration failed: Device configuration does not match target state.

## Known issues

This section lists the known issues in this release of cnPilot Home Router.

Tracking ID	Product	Description/Workaround
RBN-462	All	<b>Description:</b> Format of content in storage disk is not working. <b>Workaround:</b> None.
RBN-696	All	<b>Description:</b> QoS with PPPoE provides half of the configured speed. <b>Workaround:</b> None.
RBN-1116	All	<b>Description:</b> Whitespaces cannot be used in the hostname field in imported configuration or cnMaestro templates. <b>Workaround:</b> None.
RBN-1141	All	<b>Description:</b> cnMaestro is not displaying the wired clients even if they are connected and functional. <b>Workaround:</b> None.
RBN-1194	r195W	<b>Description:</b> r190W is showing offline. <b>Workaround:</b> None.
RBN-1352	r195P	<b>Description:</b> Wireless log is flooding with the connection and disconnection of the Pi client. <b>Workaround:</b> None.
RBN-1399	All	<b>Description:</b> Routing using OTHER WAN interface type is not working. <b>Workaround:</b> None.
RBN-1400	r195P	<b>Description:</b> In r195P, the router does not send DHCP renew request occasionally. <b>Workaround:</b> None.
RBN-1437	r190, r195	<b>Description:</b> For source or destination rules, QoS per client or stream throughput is half of the configured rate limit. <b>Workaround:</b> None.



## Limitations

This section provides information on the limitations of cnPilot Home Router.

Tracking ID	Description
RBN-899	To upgrade the cnPilot Home Router devices running firmware version older than 4.3 to 4.5-R7, users must follow two-step upgrade procedure to avoid device inaccessibility.
RBN-1334	No control for PoE on r195P.
RBN-1336	L2TP VPN with IPsec is not supported on cnPilot Home Router.
RBN-1384	Maximum throughput measurement of TR143 speed test limits to 100 Mbps in each direction.
RBN-1428	Watchdog reboots the device if the /tmp folder flash space is full on triggering firmware upgrades.

# Cambium Networks

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