Cambium Networks™

RELEASE NOTES

cnPilot Enterprise Wi-Fi Access Points

System Release 4.2

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Contents

Introduction

This document provides information for Cambium Network's cnPilot Enterprise AP System Release 4.2.

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> **Note**
>
> Hostnames are only allowed to have the following characters 0-9/a-z/A-Z and hyphens. If a previously configured hostname had other characters, those characters will be replaced with hyphens.

Upgrade/downgrade guidelines

Section-1

Mandatory image extension verification to follow while upgrade/downgrade from **4.x to 4.x, 3.11.x to 4.x and vice versa**. This procedure is applicable on cnMaestro (On-Premise recommended version is 2.2.1-r36 and above) and standalone AP UI/CLI. This procedure will **not be applicable on cnMaestro-Cloud**, since image upgrade/downgrade is automatic for APs.

> **Note**
>
> This recommendation is applicable for all models of cnPilot APs**.**

Refer the below table and validate the **image extension** w.r.t the version before proceeding to upgrade/downgrade.

Version		Image extension
From	**To**	
4.x	4.x	CIMG
4.x	3.11.x	IMG
3.11.x	4.x	**IMG

> ****Note**
>
> For **cnPilot e410/e430/e510/e600 and e700** APs, refer additional instructions mentioned in before proceeding to upgrade/downgrade.

Section-2

Attention

To upgrade/downgrade from 3.11.x (3.11.4-r9 /3.11.3.1-r4/3.11.3-r7 etc.) to 4.x (4.0/4.1/4.2 and later subsequent images) and vice versa, mandatorily use 3.11.4.1-r3 and 4.1-r3 and above image versions. Ignoring this suggestion can lead to failure in loading the image and resulting in flashed partition (backup partition) getting corrupted. To recover the corrupted partition, user may have to contact Cambium Support team.

Perform the below steps to upgrade image from 3.11.4-r9 to 4.1.1-r3 and above:

1. First upgrade the AP from **3.11.4-r9** to **3.11.4.1-r3**

2. Then upgrade the AP from **3.11.4.1-r3** to **4.1.1-r3** and above

Perform the below steps to upgrade image from **4.1.1-r3** and above to **3.11.4-r9**:

1. First downgrade the AP from **4.1.1-r3** and above to **3.11.4.1-r3**

2. Then downgrade the AP from **3.11.4.1-r3** to **3.11.4-r9**

Note

This recommendation is only applicable for **cnPilot e410/e430/e510/e600 and e700**.

Supported platforms

The following list provides details on the supported platforms in this release of cnPilot Enterprise AP:

cnPilot Access Point	Indoor	Outdoor	802.11ac Wave 1	802.11ac Wave 2
e400	✓			
e410	✓			✓
e410b	✓			✓
e425H	✓			✓
e600	✓			✓
e430	✓			✓
e505		✓		✓
e510		✓		✓
e700		✓		✓
e500		✓	✓	
e501S		✓	✓	
e502S		✓	✓	

Note

Certain features may not be available on this product line and will be called out explicitly where not applicable.

System Release 4.2 Information

Introduction

System Release 4.2 adds support for hardware revision B of the popular e410 platform and provides additional bug fixes.

e410b

The Cambium Networks e410 is a market proven 802.11ac wave 2 access point with a proven track record across multiple vertical markets from education, hospitality, long term healthcare and small enterprise. The new hardware revision brings a modern, fresh design. The e410 is supported by the Cambium Networks Swift management app, by cnMaestro Cloud, or cnMaestro on-premises VM. The plenum-rated cnPilot e410b with 2×2 MU-MIMO packs a maximum transmit power of 25 dBm and channels up to 80 MHz wide on 5 GHz, offering more flexibility than ever for both coverage and capacity.

Fixed issues (System Release 4.2)

This section lists the issues fixed in this release of cnPilot Enterprise AP:

Tracking	Product	Description
FLCN-9611	e500	With WPA2-Enterprise authentication, accounting packets were carrying incorrect username.
FLCN-9494	All	Configuration push failed from cnMaestro due to "Device timed out while waiting for update".
FLCN-8197	e410, e430 and e500	Fixed additional device and radio stability issues like device offline, radio off, factory default and client disconnection.

Known issues (System Release 4.2)

This section lists the known issues in this release of cnPilot Enterprise AP:

Tracking	Product	Description / Workaround
FLCN-9748	All	802.1x authentcation is not working when PMF set to mandatory. **Workaround:** None
FLCN-9641	All	If PPPoE interface is mapped to VLAN other than 1 it may lose connectivity to the rest of the network. **Workaround:** Set gateway precedence to PPPoE interface
FLCN-9552	e410/e410b/e510/ e430/e600/e700	GRE tunnel is not carrying VLAN 1 traffic from Ethernet interface. **Workaround:** None
FLCN-9534	All	Session-timeout update from CoA is not taking effect for non guest access WLAN profiles. **Workaround:** None
FLCN-9505	e410/e410b/e510/ e430/e600/e700/ e505/e425	L2TPv2 tunnel does not carry WLAN traffic if WLAN is mapped to VLAN 1. **Workaround:** Map WLAN to VLAN other than 1

Limitations (System Release 4.2)

This section lists the limitations in this release of cnPilot Enterprise AP:

Tracking	Product	Description / Workaround
FLCN-9584	e410b	Recommended minimum transmit power is as below: • 2.4GHz: 9dBm • 5GHz: 12dBm
FLCN-9580	e425/e505	Autopilot feature is not supported.

Appendix

Supported list of Wi-Fi features

The following table lists the features that are supported in cnPilot Enterprise AP.

Supported Features	Descriptions
Controller modes	- Autonomous controller-less operations (E.g.: roaming) - Cloud managed - On-premise virtualized controller
Secure WLAN	- WPA-TKIP, WPA2 AES, 802.1x 802.11w (Protected Management Frames)
Passpoint 2.0	
Management Modes	- cnMaestro cloud managed - cnMasetro on-premises VM controller Managed - Autopilot (AP as controller) - Stand-alone with AP GUI (HTTP(s)), CLI (Telnet/SSH)
Authentication	Secure web page, Radius based 802.1x including EAP-SIM/AKA, EAP-PEAP, EAP-TTLS, and EAP-TLS MAC authentication (local database or external RADIUS server).
Accounting	Supports RADIUS based accounting to multiple AAAs.
Scheduled SSID	Turn SSID ON/OFF on a daily/weekly/time of day basis.
VLAN	- Dynamic VLAN assignment from Radius server. - VLAN per SSID per user, VLAN load balancing
Data Limiting	Dynamic rate limiting of client traffic per SSID & per client.
Subscriber QoS	WMM
IP Protocols	- IPv4 - IPv6
Client Isolation	- Local - Network-wide
Controller-Less Fast Roaming	- Yes. 802.11r, opportunistic key caching supports enhanced roaming - Disconnect for sticky clients
Auto-RF	- Channel change based on channel utilization - Channel change based on noise floor - Channel change based on Packet Error Rate

Supported Features	Descriptions
DHCP Server	
Firewall	DoS protection
ACL	L2, L3 or DNS based access control
Band Steering	
Airtime Fairness	
Tunneling	- L2TP - L2GRE - Layer 2 GRE - GRE over UDP - Cambium GRE - PPPoE
MAC Authentication Bypass	
Tools	- Packet Capture - Wireless Sniffer - IP Connectivity - Wi-Fi Analyzer - Tech Support (Logs)
Services	- LDAP - NAT Logging - Location API - BLE - Neighbor APs - Speed Test - DHCP Option 82
Certifications	FCC, ETSI, CE EN 60601-1-2 (Medical EMC) UL2043 Plenum rated

Specifications

Refer the Specification Sheets listed on the Cambium Networks website for the most up to date specifications: https://www.cambiumnetworks.com/resources/.

Cambium Networks

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