VIEW Certified Configuration Guide

Cambium Networks

AP’s XV2-2,XV3-8

721-1019-000 Rev B
September 2022

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Contents

Chapter 1: Introduction 4

Certified Product Summary 4
Known Limitations 5
Product Support 5

Chapter 2: Network Topology 6

Chapter 3: Setting Up Your Cloud Network 7

Login and AP Onboarding 7
Create an AP Group 8
Add APs to the AP group 9
QOS Settings 9

Chapter 4: Configure SSIDs 11

Define the SSIDs 11
Security Type *12*
No security 12
WPA2-PSK 12
Enterprise Securities 12
Advanced SSID settings *13*
Radio settings 14

Chapter 5: Firmware Upgrades 17

Appendix A: Spectralink References 18

Support Documents *18*

Chapter 1: Introduction

Spectralink's Voice Interoperability for Enterprise Wireless (VIEW) Certification Program is designed to ensure interoperability and high performance between Spectralink Wireless Telephones and wireless LAN (WLAN) infrastructure products. The Cambium products listed have been tested in the Spectralink lab and found to be interoperable as noted.

Certified Product Summary

Manufacturer:	Cambium Networks
Certified products:	APs XV2-2, XV3-8
AP Radio(s):	2.4 GHz (802.11b/g/n), 5 GHz (802.11a/n/ac)
Security:	None, WEP,WPA2-PSK, WPA2-Enterprise (PEAPv0/MSCHAPv2, and EAP-TLS) with OKC, 802.11r(FT-enabled)
QoS:	Wi-Fi Standard for Spectralink 84 series, Versity92/95/96
Network topology:	Bridged
Version approved:	6.4.2

Handset models tested:*	*Spectralink*			*Smartphone (Versity)*
Handset radio mode:	802.11b	802.11b/g	802.11bgn	802.11a, 802.11n & 802.11ac
Meets VIEW minimum call capacity per AP**	10	10	10	10

Handset models tested:	*Spectralink*			*Wireless Telephone (84-Series)*
Handset radio mode:	802.11b	802.11b/g	802.11bgn	802.11a, 802.11n
Meets VIEW minimum call capacity per AP**	8	8	8	10

*****Spectralink handset models and their OEM derivatives are verified compatible with the WLAN hardware and software identified in the table. Throughout the remainder of this document they will be referred to collectively as "Spectralink Wireless Telephones", "phones" or "handsets".

** Maximum calls tested per the VIEW Certification Test Plan. The certified product may actually support a higher number of maximum calls.

Known Limitations

- Ensure FT is set to enabled on the VQO app to gain 802.11r functionality on Versity devices.
- Use a dedicated SSID for Voice.
- Do not enable 802.11v as it may cause performance issues.

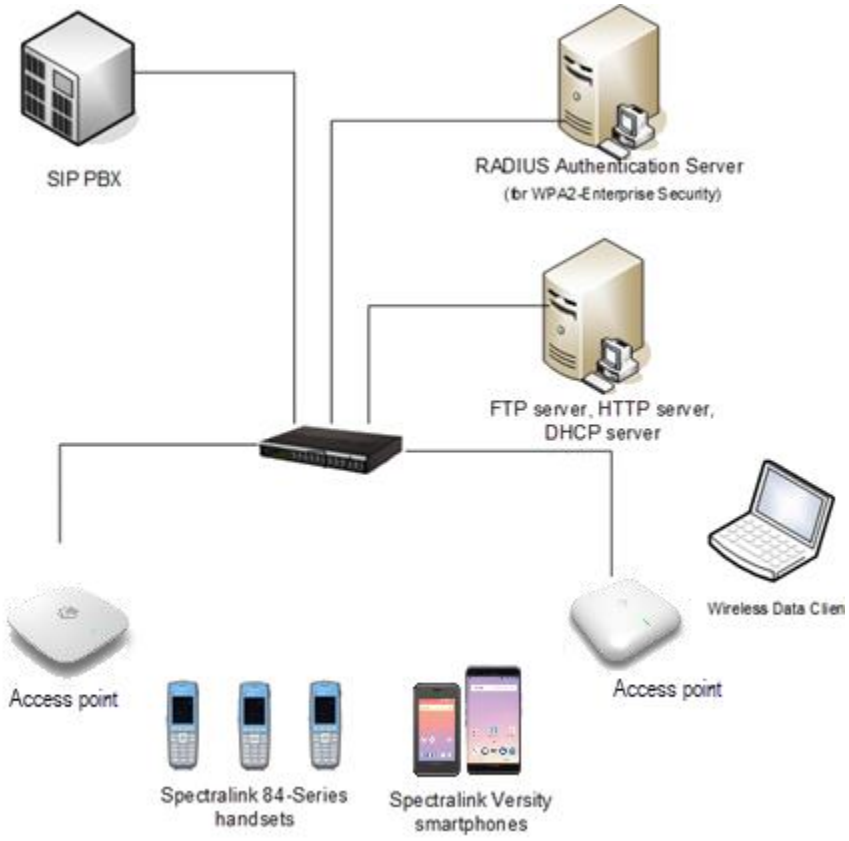
Product Support

Spectralink support can be reached at support.spectralink.com.

Cambium Networks support can be reached at https://www.cambiumnetworks.com/support/.

Chapter 2: Network Topology

The following configuration was tested during VIEW certification.



Note: Example configuration shown

This is a modified diagram and not all components are shown for every system type.

Note: Radius server setup

The setup for a Radius server for Enterprise security is outside the scope of this document.

Chapter 3: Setting Up Your Cloud Network

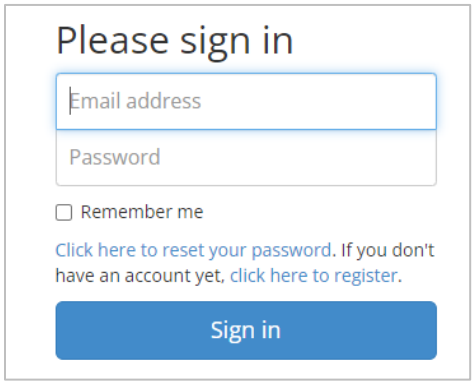
Initial network setup is performed when APs and/or support are purchased from Cambium. The dashboard is used to log in, network is created, and APs are added to the network.

Note: Use an incognito window

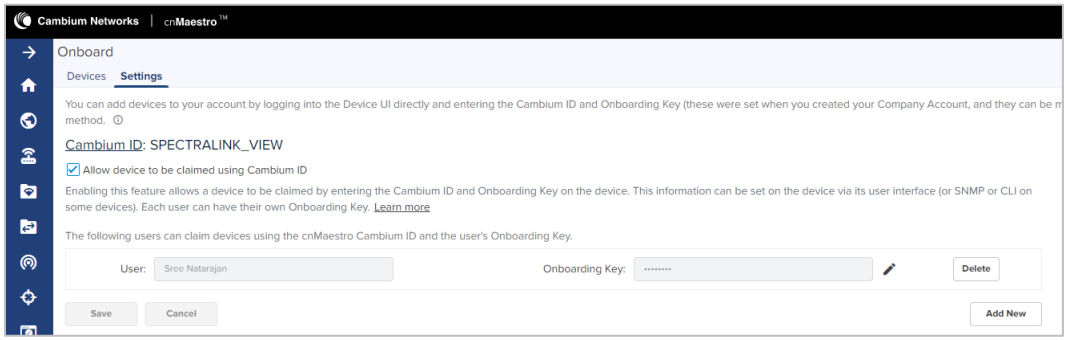
An “incognito window” must be used with some web browsers to avoid confusing field entry behavior. Click the browser “More” menu (3 vertical dots) and select “Use an incognito window”.

Login and AP Onboarding

1 Navigate to https://cloud.cambiumnetworks.com for an initial login.



2 Navigate to the **Onboard** option and under **Settings** and enter the Cambium ID and Onboarding Key for the User. Enable the option **‘Allow Device to be claimed by Cambium ID’**



3 Log into the AP to be onboarded and enter the **cnMaestro URL**, **Cambium ID** and **Onboarding Key**.

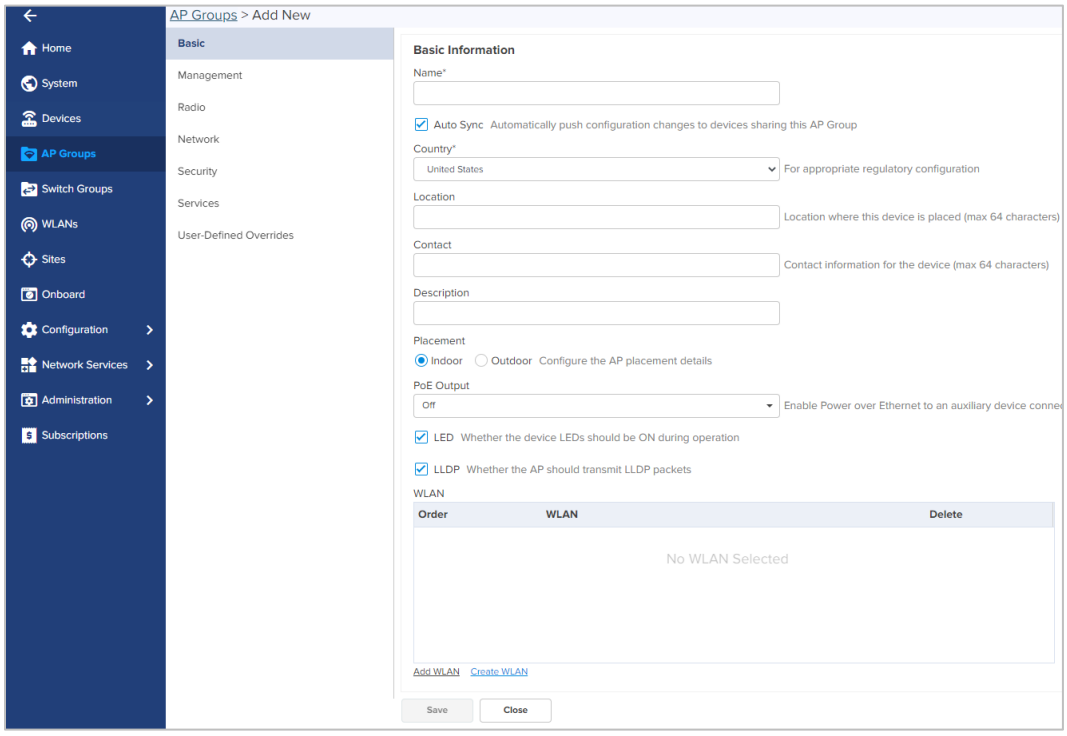


4 The **Onboarding Devices** will appear on cnMaestro after some time under **Onboard>Devices.** Approve the device by clicking the Approve button under Actions.

Create an AP Group

Create an AP group to organize the APs.

1 Navigate to **AP Groups>New**.



On the **New AP Group** screen:

2 Enter a name for the AP Group.

3 Enable **Auto Sync**.

4 Add **WLANs** to AP Group: Navigate to **Management**.

5 Enter **Administrator password.**

6 Click **Save**.

Add APs to the AP group

Now that the AP Group has been created, APs need to be added to the system.

1 Navigate to **AP Group>** (Select AP Group)> **APs**

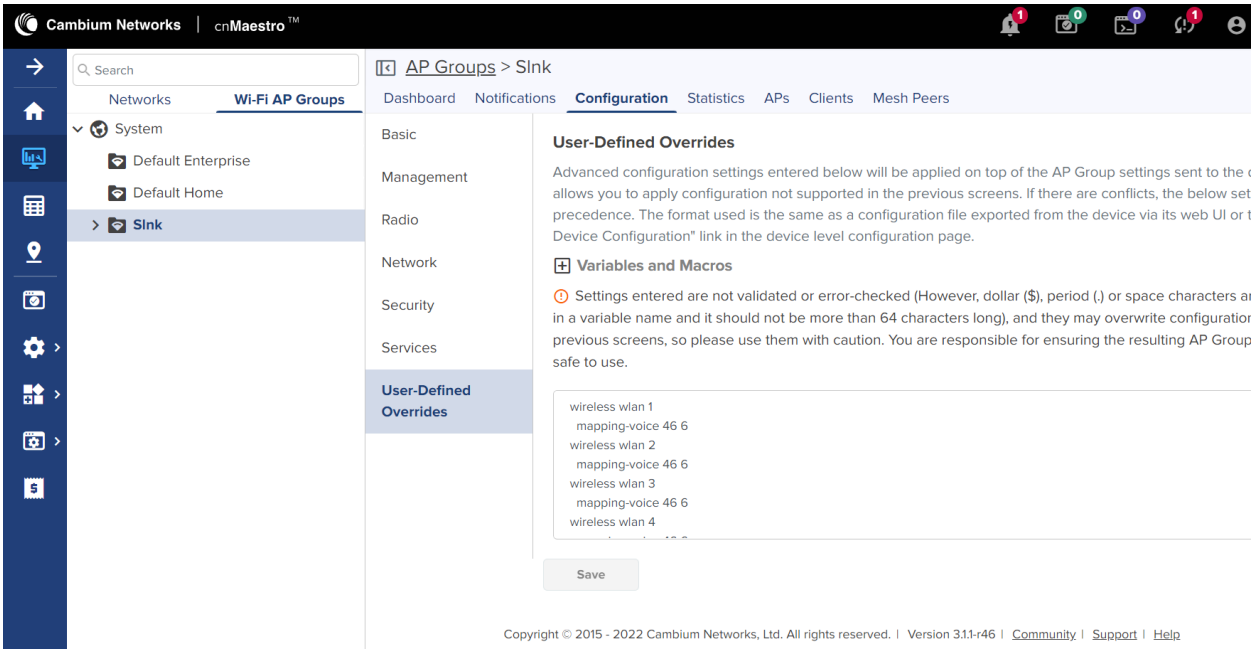
2 Select devices to be claimed to this AP Group.

3 Approve the device by clicking the **Approve** button under **Actions**.

QOS Settings

To prioritize Voice traffic over other traffic.

1 Navigate to **AP Groups>Configuration>User-Defined Overrides**.



On the **User-Defined Overrides** screen:

1 Under *Variables and Macros* enter the following as is:

```
wireless wlan 1
  mapping-voice 46 6
wireless wlan 2
  mapping-voice 46 6
wireless wlan 3
  mapping-voice 46 6
wireless wlan 4
  mapping-voice 46 6
```

2 Click **Save**.

Chapter 4: Configure SSIDs

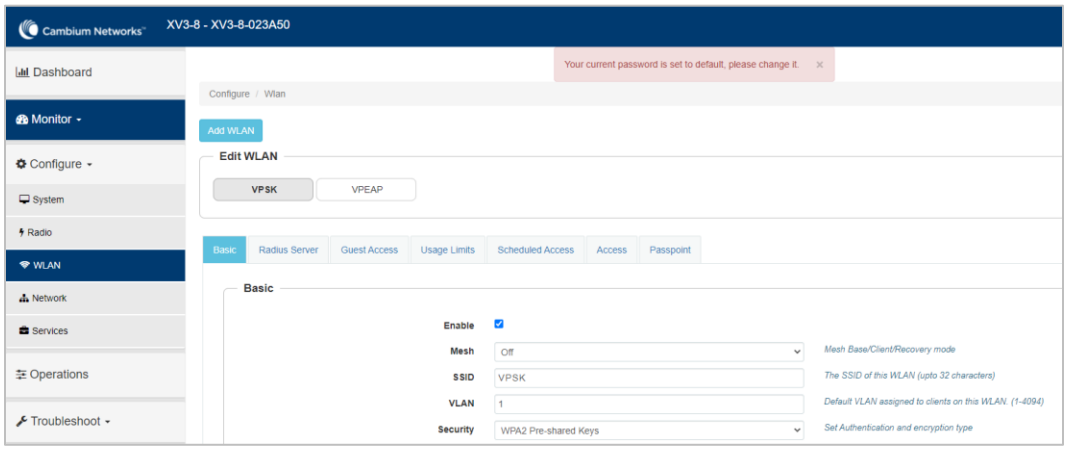
The wireless settings are configured by defining the SSID settings on the APs.

Define the SSIDs

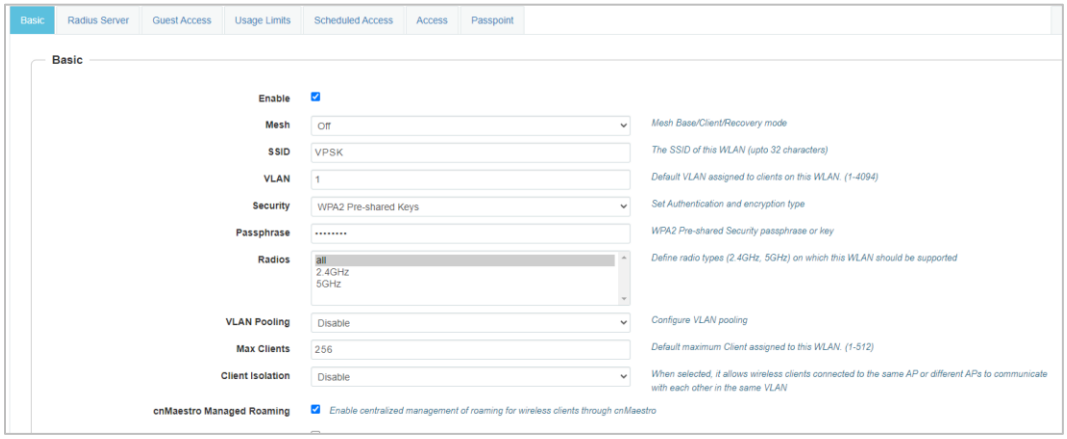
Note: Three enabled SSIDs per AP recommended

Best Practice is enabling a maximum of three SSIDs per AP.

1 Navigate to **Configure> WLAN** and click **Basic**.



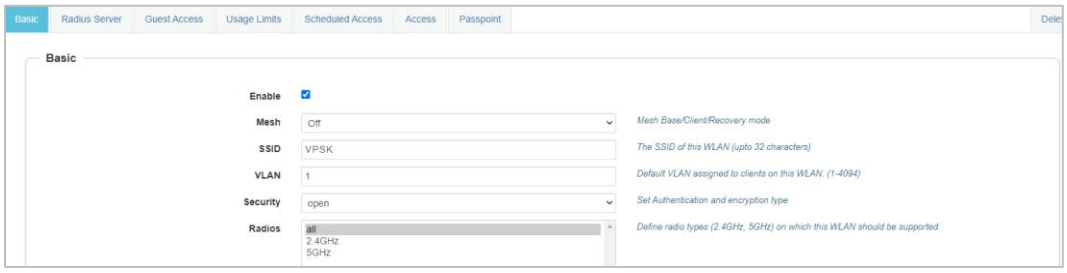
2 Enter the **SSID name, Security Type**. Select **both WiFi radio** options for broadcasting SSID.



Security Type

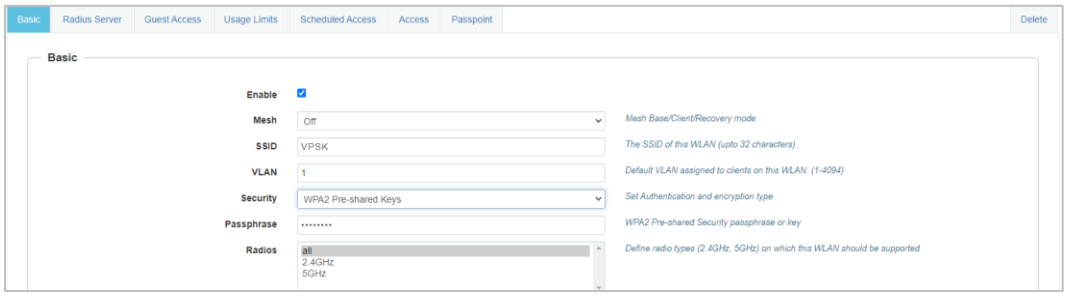
No security

- For no security, choose the **Open option**.



WPA2-PSK

1. Select the **WPA2-Pre Shared Keys** from the dropdown menu.
2. Enter an ASCII passphrase in the **Passphrase** box. This same key must be entered in the password or passphrase fields on the phones.

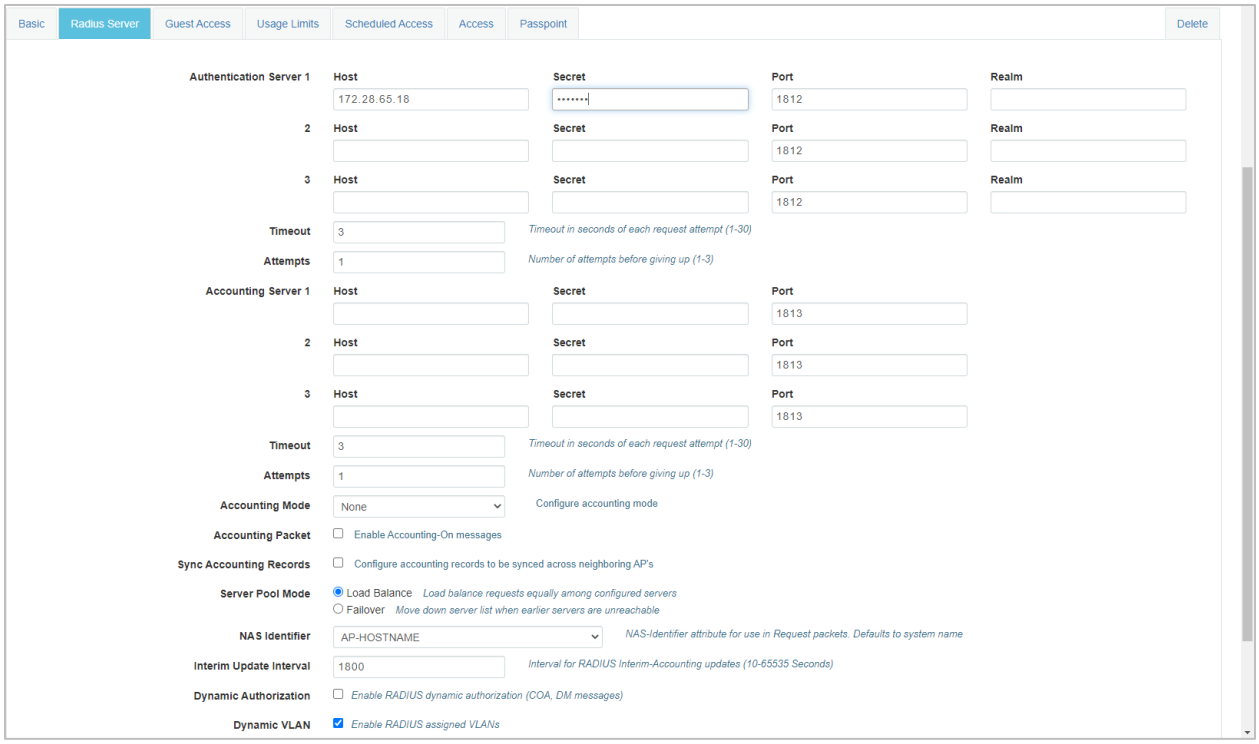


Enterprise Securities

Note: Radius server setup

The setup for a Radius server for Enterprise security is outside the scope of this document.

1. Choose **WPA2-Enterprise** option under **Security** and click **Save**.
2. Navigate to **Configure> WLAN> Radius Server** to enter AAA server information for Enterprise security.



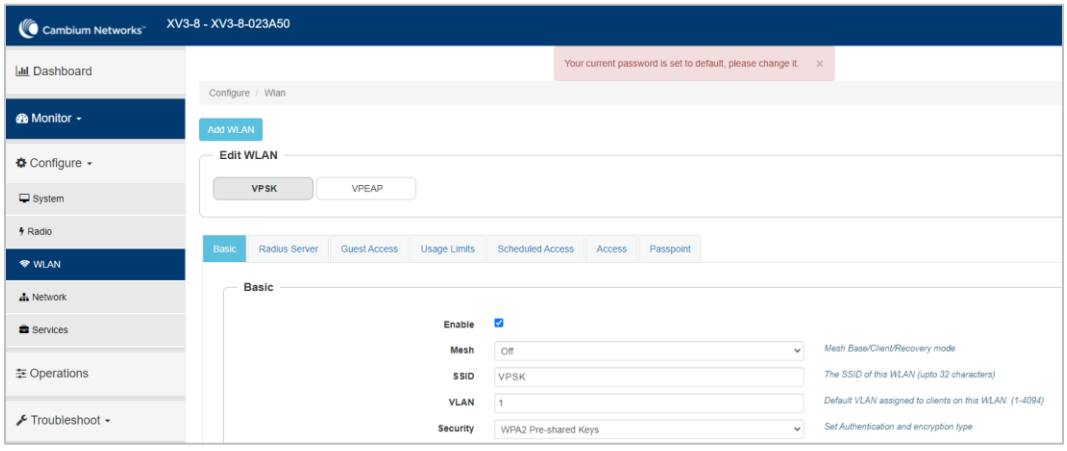
3 Enter the **Host** IP Address or DNS name, the **Port**, and the **Secret** entered on the Radius server.

4 Click **Save** to save the configuration.

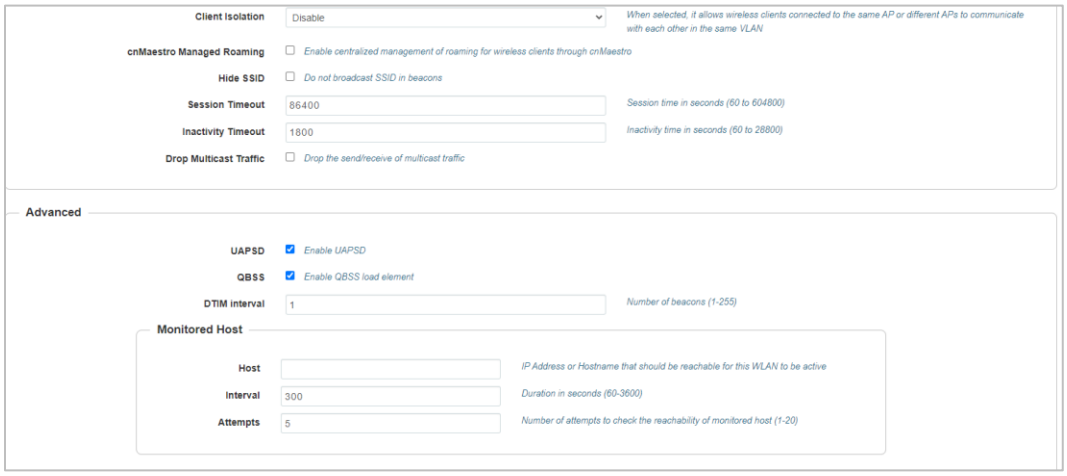
Advanced SSID settings

Advanced SSID settings can be applied to SSIDs of all Usage types.

1 Navigate to **Configure> WLAN> Basic** and scroll down.

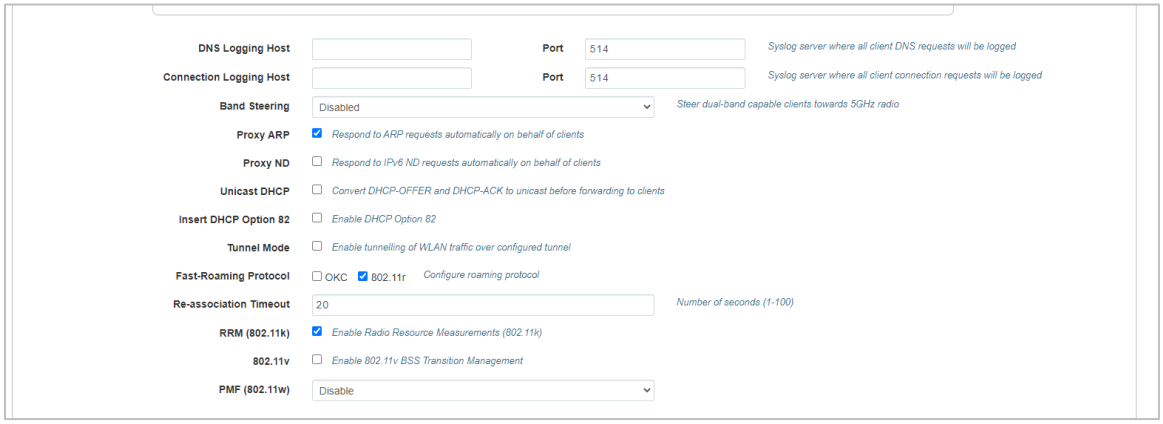


2 Set **Client Isolation** to **Disable**. Set **Session Timeout** to **86400** and Set **Inactivity Timeout** to **1800.**



3 Under the **Advanced** section**,** Enable **QBSS load element** and Enable **U-APSD**.

4 Set **DTIM Interval** to **1**.



5 **Enable Proxy ARP** and **Unicast DHCP**.

6 **Enable 802.11k** and **802.11r.**

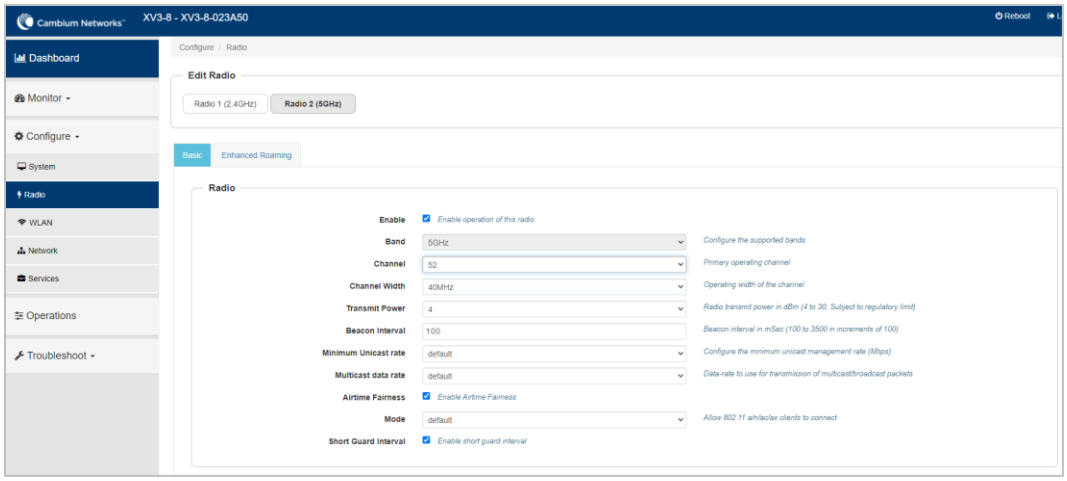
7 **Do not enable 802.11v.**

Radio settings

The radio settings for each AP must be set.

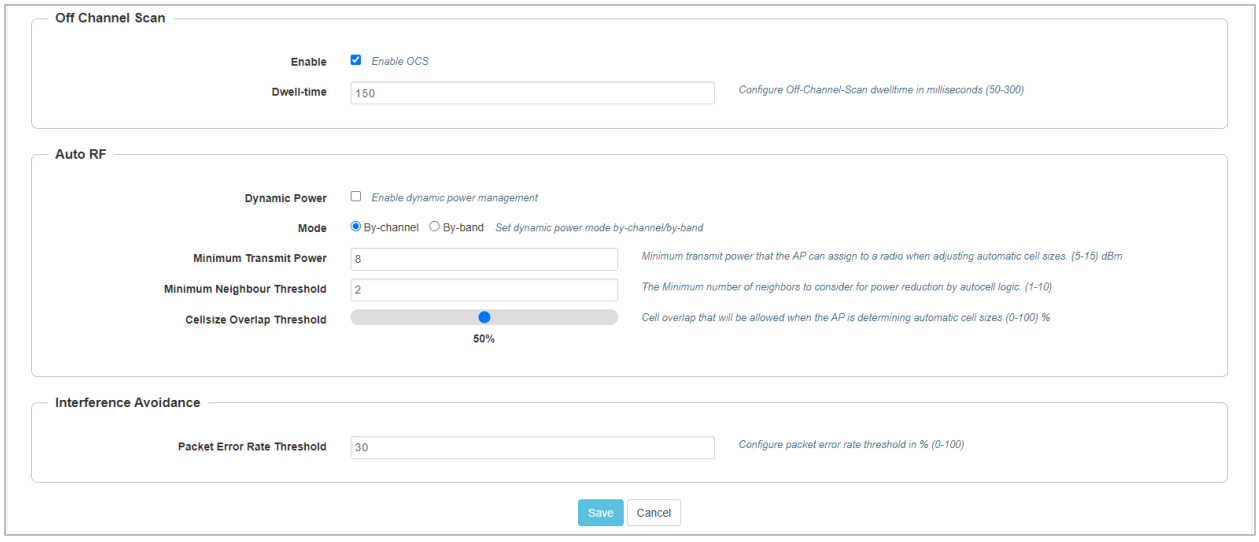
1 Navigate to **Configure> Radio.**

2 Edit the Radio to be configured.



3 Set **Channel, Channel Width and Transmit Power** according to your Wi-Fi design.

4 Enable **Airtime Fairness** and **Short Guard Interval**.



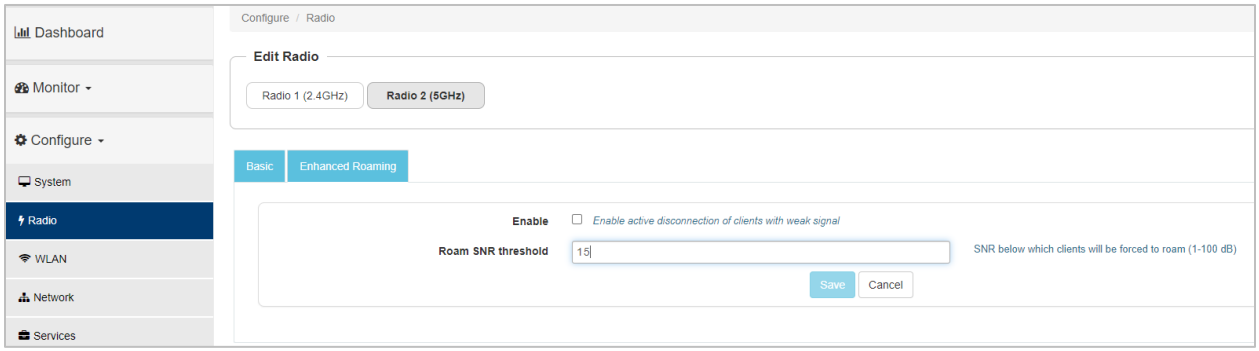
Note: Actual channel may be different than the manual channel setting

Due to radar or interference detection, the system may change the AP's channel.

5 For **Off Channel Scan** set **Dwell time**.

6 Set **Auto-RF** parameters according to your Wi-Fi design and click **Save**.

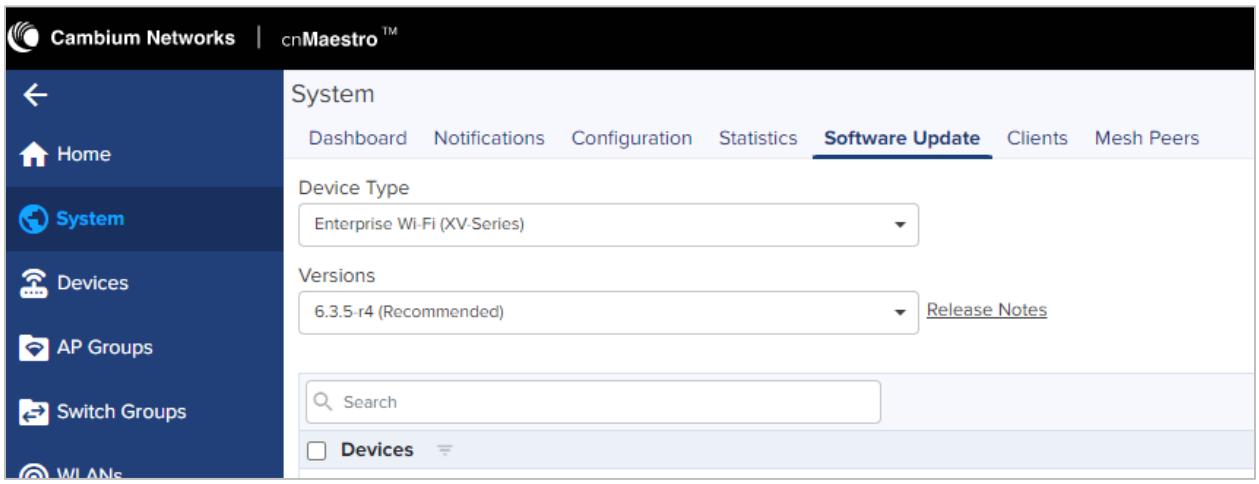
7 Set **Enhanced Roaming** to default value.


Dashboard
Monitor
Configure
System
Radio
WLAN
Network
Services
Configure / Radio
Edit Radio
Radio 1 (2.4GHz)
Radio 2 (5GHz)
Basic
Enhanced Roaming
Enable
Enable active disconnection of clients with weak signal
Roam SNR threshold
15
SNR below which clients will be forced to roam (1-100 dB)
Save
Cancel

Chapter 5: Firmware Upgrades

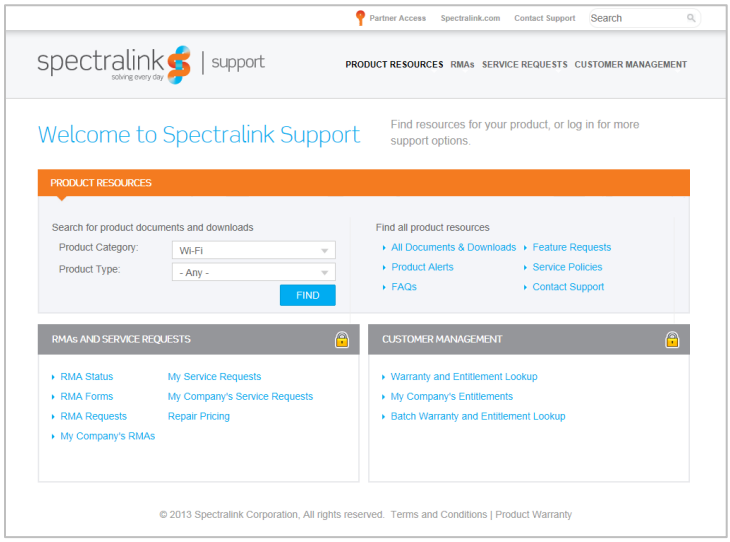
The administrative overhead of cnMaestro systems is minimized by centrally managing the software upgrade process.

1. Navigate to **System> Software Update.**
2. Select the **Device Type**, **Versions** and **Devices** for the upgrade and add the **software job** to perform the update.



Appendix A: Spectralink References

All Spectralink support documents are available at http://support.spectralink.com.



To go to a specific product page:

Select the Product Category and Product Type from the dropdown lists and then select the product from the next page. All resources for that particular product are displayed by default under the All tab. Documents, downloads and other resources are sorted by the date they were created so the most recently created resource is at the top of the list. You can further sort the list by the tabs across the top of the list to find exactly what you are looking for. Click the title to open the link.

Support Documents

AP Configuration Guides show you how to correctly configure access points and WLAN controllers (if applicable) and identify the optimal settings that support Spectralink 87-Series smartphones. The guides are available on the View Certified page on the Spectralink support site at http://support.spectralink.com/view.

Spectralink Versity software and support documents are available on the Spectralink support site at http://support.spectralink.com/versity.

Spectralink SAM software and support documents are available on the Spectralink support site at http://support.spectralink.com/sam.

Spectralink 84-Series system documents are available on the Spectralink support site at http://support.spectralink.com/products/wi-fi/spectralink-84-series-wireless-telephone.

Release Notes accompany every software release and provide the new and changed features and resolved issues in the latest version of the software. Please review these for the most current information about your software.

****END OF DOCUMENT****