Spectrum Expert Mode

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Information About Spectrum Expert Mode

The Cisco ® Spectrum Expert™ Wi-Fi integrates with the Cisco wireless network to deliver real-time spectrum intelligence for Wi-Fi networks. This solution detects, classifies, and locates sources of RF interference in the unlicensed 2.4-GHz and 5-GHz bands. With Cisco Spectrum Expert Wi-Fi the source of the interference can be determined allowing businesses to remove, move, shield, adjust, or replace the interference source. Organizations can troubleshoot their wireless networks to determine the root causes of interference problems and optimize network performance.

To achieve this, you need to configure the AP in the monitor mode to view all spectrum analysis for different channels in 2.4-GHz and 5-GHz bands. If you do not choose the monitor mode, you can view only the spectrum of the channels AP radio is actually using for serving clients. For example, if the AP is using channel 1 for 2.4-GHz and 40 for 5-GHz, only the data for channel 1 and 40 will be displayed in Cisco Spectrum expert.

This section provides information how to configure APs in Spectrum Expert Mode. Complete the corresponding sequence of tasks:

- Enable Monitor Mode (GUI)
- #unique_1646

Obtaining NSI Key

If you are using the controller GUI, follow these steps:

Procedure

Step 1 Choose **Configuration** > **Wireless** > **Access Points**.

Step 2 In the **Access Points** page, expand the **All Access Points** section and click the name of the AP to edit.

Step 3 Set the **Admin Status** field to **Enable** and from the **AP Mode** drop-down list.

Step 4 Choose **Monitor** from the **AP Mode** drop-down list.

Step 5 Click **NSI Key** from the **CleanAir** field to obtain the spectrum key value.

Step 6 Click **Update & Apply to Device** to reboot the access point. Once the AP reboot, obtain the spectrum key that will be used to access the AP through **Cisco Spectrum Expert**.

You can also obtain the NSI key from the AP using the following command.

```
AP Device# show cleanair status
CleanAir status slot 0:
   radioCfg=up radio0p=up/up shim=up nd=0
   2.4 band: specAdmin=1
     AQCfg=1:15 [177/180] IDRCfg=1:90 [14/18] rapid=0
     Dev/Sec: 02050ede3d08/000000000000  EDRRM=0:0
     SE Key 001F08f0a3af14aa00fdb086828820a3
.
.
.

CleanAir status slot 1:
   radioCfg=up radio0p=up/up shim=up nd=0
   2.4 band: specAdmin=1
     AQCfg=1:15 [177/180] IDRCfg=1:90 [14/18] rapid=0
     Dev/Sec: 02050ede3d08/000000000000  EDRRM=0:0
     SE Key 001F08f0a3af14aa00fdb086828820a3

.
.
.
```

Launching Cisco Spectrum Expert

Procedure

Step 1 Launch **Cisco Spectrum Expert**.

The **Connect to Server** page is displayed.

Step 2 From the **Connect to Sensor** dialog box, choose **Remote Sensor** and perform the following:

a) Enter the IP address of the map server.
b) Click the **a/n** radio button to choose the radio mode.
c) Copy and paste the **NSI key** in the **Key** text box.

Step 3 Click **OK**. After logging into the AP through the spectrum expert tool, the 2.4–GHz, 5–GHz, and short 2.4–GHz spectrum video screens are displayed.

For more information, see the Cisco Spectrum Expert User's Guide