



Configuring Receiver Start of Packet Detection Threshold

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Information About Receiver Start of Packet Detection Threshold

Receiver Start of Packet Detection Threshold (Rx SOP) determines the Wi-Fi signal level in dBm at which an access point's radio demodulates and decodes a packet. As the Wi-Fi level increases, the radio sensitivity decreases and the receiver cell size becomes smaller. Reduction of the cell size affects the distribution of clients in the network.

Rx SOP is used to address clients with weak RF links, sticky clients, and client load balancing across access points. Rx SOP helps to optimize the network performance at high-density deployments such as stadiums and auditoriums where access points need to optimize the nearest and strongest clients.



Note

RXSOP configuration is not applicable to 3rd radio module pluggable on 3600 AP.

Related Topics

- [Configuring Rx SOP \(GUI\), on page 2](#)
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Restrictions for Rx SOP

- Rx SOP configurations are supported only on Cisco 1600, 2600, 2700, 3500, 3600, 3700, and 1550 series access points.

- The permitted range for the Rx SOP threshold for the 5-GHz band is -76 dBm to -80 dBm and for the 2.4-GHz is -79 dBm to -85 dBm.

Related Topics

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Configuring Rx SOP (GUI)

Step 1 Choose **Wireless > Advanced > Rx SOP Threshold** to configure the high, medium, and low Rx SOP threshold values for each 802.11 band. The table below shows the Rx SOP threshold values for high, medium and low levels for each 802.11 band.

Table 1: Rx SOP Thresholds

802.11 Band	High Threshold	Medium Threshold	Low Threshold
5 GHz	-76 dBm	-78 dBm	-80 dBm
2.4 GHz	-79 dBm	-82 dBm	-85 dBm

Step 2 Choose **Wireless > RF Profiles** to configure the Rx SOP threshold value for an RF profile. The RF profiles page is displayed.

- Click an RF profile to open the RF Profile > Edit page.
- In the **High Density** tab, choose the Rx SOP threshold value from the **Rx SOP Threshold** drop-down list.

What to Do Next

Verify information about Rx SOP thresholds for an 802.11 band by using the `show {802.11a | 802.11b} extended` command.

Related Topics

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Configuring RxSOP (CLI)

Step 1 Configure high, medium, or low Rx SOP threshold values for each 802.11 band by entering this command:

```
config {802.11a | 802.11b} rx-sop threshold {high | medium | low | auto} {ap ap_name | default}
```

You can configure the Rx SOP thresholds for an access point or on all access points in an 802.11 band.

Step 2 Configure high, medium, or low Rx SOP threshold values for an RF profile by entering this command:

```
config rf-profile rx-sop threshold {high | medium | low | auto} profile_name
```

Step 3 View information about Rx SOP thresholds for an 802.11 band by entering this command:

```
show {802.11a | 802.11b} extended
```

```
(Cisco Controller) > show 802.11a extended
Default 802.11a band Radio Extended Configurations:
  Beacon period: 100, range: 0 (AUTO);
  Multicast buffer: 0 (AUTO), rate: 0 (AUTO);
  RX SOP threshold: -76; CCA threshold: 0 (AUTO);
```

```
AP3600-XALE3 34:a8:4e:6a:7b:00
  Beacon period: 100, range: 0 (AUTO);
  Multicast buffer: 0 (AUTO), rate: 0 (AUTO);
  RX SOP threshold: -76; CCA threshold: 0 (AUTO);
```

```
AP54B4 3c:ce:73:6c:42:f0
  Beacon period: 100, range: 0 (AUTO);
  Multicast buffer: 0 (AUTO), rate: 0 (AUTO);
  RX SOP threshold: -76; CCA threshold: -80;
```

Related Topics

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