802.11ax Per Virtual Access Point

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Information About 802.11ax Mode Per Virtual Access Point

Prior to Cisco IOS XE Bengaluru Release 17.4.1, the 802.11ax mode was configured per radio band. In this configuration, the 11ax mode was either enabled or disabled for all the virtual access points (AP) that were configured per radio, all at once. When 11ax was enabled per radio, the 11ac clients were not able to scan or connect to the SSID if the beacon had 11ax information elements. Client could not probe an access point (AP), if the beacon has 11ax IE.

Therefore, a 11ax configuration knob per virtual AP is introduced, from Cisco IOS XE Bengaluru Release 17.5.1. This knob is introduced under the WLAN profile. By default, the 11ax knob per VAP is now enabled on the controller.

Note   For 6-GHz radio, the 802.11ax parameters are taken from the multi BSSID profile tagged to the corresponding 6-GHz RF profile of the AP. So, the WLAN dot11ax parameters are overriden by multi BSSID profile parameters in the case of 6-GHz. There are no changes for 2.4 and 5-GHz band WLANs. They continue to use the WLAN parameters for 802.11ax.

Configuring 802.11ax Mode Per Virtual Access Point (GUI)

Procedure

Step 1   Choose **Configuration** > **Tags & Profiles** > **WLANs**.

Step 2   Click **Add**.
The **Add WLAN** window is displayed.

Step 3   Click the **Advanced** tab.

Step 4   In the **11ax** section, check the **Enable 11ax** check box to enable 802.11ax operation status on the WLAN.

> **Note**   When 11ax is disabled, beacons will not display 11ax IE, and all the 11ax features will be operationally disabled on the WLAN.

Step 5   Click **Apply to Device**.

Configuring 802.11ax Mode Per Virtual Access Point

Procedure

	Command or Action	Purpose
Step 1	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 2	**wlan** *wlan-profile-name* **Example:** `Device(config)# wlan wlan-profile`	Specifies the WLAN name and enters the WLAN configuration mode.
Step 3	**dot11ax** **Example:** `Device(config-wlan)# dot11ax`	Configures 802.11ax on a WLAN.
Step 4	**no dot11ax** **Example:** `Device(config-wlan)# no dot11ax`	Disables 802.11ax on the WLAN profile.

Verifying 802.11ax Mode Per Virtual Access Point

To display the status of the 11ax parameter, run the following command:

```
Device# show wlan id 6
WLAN Profile Name    : power
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Identifier                                : 6
Description                               :
Network Name (SSID)                       : power
Status                                    : Enabled
Broadcast SSID                            : Enabled
Advertise-Apname                          : Disabled
Universal AP Admin                        : Disabled
Max Associated Clients per WLAN           : 0
Max Associated Clients per AP per WLAN     : 0
Max Associated Clients per AP Radio per WLAN  : 200
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```

```
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802.11ac MU-MIMO                                 : Enabled
802.11ax parameters
     802.11ax Operation Status                   : Enabled
     OFDMA Downlink                              : Enabled
     OFDMA Uplink                                : Enabled
     MU-MIMO Downlink                            : Enabled
     MU-MIMO Uplink                              : Enabled
     BSS Target Wake Up Time                     : Enabled
     BSS Target Wake Up Time Broadcast Support   : Enabled
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```