

WLAN Interfaces

- Multicast VLAN, on page 1

Multicast VLAN

If VLAN groups are in use, we recommend that you enable multicast VLAN to limit multicast on the air to a single copy on a predefined multicast VLAN.

With VLAN select and VLAN pooling, there is a possibility that you might increase duplicate packets. With the VLAN select feature, every client listens to the multicast stream on a different VLAN. As a result, the controller creates different MGIDs for each multicast address and VLAN. Therefore, the upstream router sends one copy for each VLAN, which results, in the worst case, in as many copies as there are VLANs in the pool. Since the WLAN is still the same for all clients, multiple copies of the multicast packet are sent over the air. To suppress the duplication of a multicast stream on the wireless medium and between the controller and access points, you can use the multicast VLAN feature.

Multicast optimization enables you to create a multicast VLAN which you can use for multicast traffic. You can configure one of the VLANs of the WLAN as a multicast VLAN where multicast groups are registered. Clients are allowed to listen to a multicast stream on the multicast VLAN. The MGID is generated using mulicast VLAN and multicast IP addresses. If multiple clients on the VLAN pool of the same WLAN are listening to a single multicast IP address, a single MGID is generated. The controller makes sure that all multicast streams from the clients on this VLAN pool always go out on the multicast VLAN to ensure that the upstream router has one entry for all the VLANs of the VLAN pool. Only one multicast stream hits the VLAN pool even if the clients are on different VLANs. Therefore, the multicast packets that are sent out over the air is just one stream.

If the WLAN is anchored, then the interface mapping at the anchored side is used for client connections. For anchored guest WLANs, it is a best practice to use a *black hole* dynamic interface at the foreign controller. For more information, see https://www.cisco.com/c/en/us/td/docs/wireless/controller/technotes/8-6/b_Cisco_Wireless_LAN_Controller_Configuration_Best_Practices.html#concept_331FB2E819654D62BC998FF00BFA3FF3

This section contains the following subsections:

Configuring a Multicast VLAN (GUI)

Procedure

Step 1 Choose **WLANs** > **WLAN ID**. The WLAN > Edit page appears.

Step 2 In the **General** tab, select the **Multicast VLAN feature** check box to enable multicast VLAN for the WLAN.

The Multicast Interface drop-down list appears.

Step 3 Choose the VLAN from the Multicast Interface drop-down list.

Step 4 Click **Apply**.

Configuring a Multicast VLAN (CLI)

Use the **config wlan multicast interface** *wlan_id* **enable** *interface_name* command to configure the multicast VLAN feature.