
# Multicast Configuration

The default for Multicast forwarding is disabled on the WLC5760 controller. You can enable support for (IPv4 or IPv6) multicast forwarding with this command:

```
(config)#wireless multicast
```

Internet Group Management Protocol (IGMP) Snooping must be enabled on the controller with this command:

```
(config)#ip igmp snooping
```

For IPv6, use this command:

```
(config)#ipv6 mld snooping
```

## WLC to AP Forwarding Mode

As soon as multicast is enabled, multicast traffic can be forwarded to the APs. The controller encapsulates the received multicast packet into CAPWAP and then sends this packet to each individual AP. This mode is called Multicast Unicast (MCUC). Alternatively, the controller can encapsulate the multicast packet into another multicast packet, sent once. This mode is more efficient, because only one packet is created on the controller. This mode is called Multicast Multicast (MCMC). To use this mode, you must configure a multicast group on your controller. Each AP connected to the controller subscribes to this multicast group, and can receive the multicast flow. You can enable MCMC and configure the multicast group with this command:

```
(config)#wireless multicast
(config)#ap capwap multicast 239.3.3.3
```

You can revert to the default MCUC mode with the no form in this command:

```
(config)#no ap capwap multicast
```

Just like the legacy solution, multicast groups are created on a VLAN basis. For example, if your WLAN is mapped to VLAN 100, and if a client requests multicast traffic from that WLAN, the controller creates a multicast group identifier (MGID) which maps the multicast source, the multicast address, and the VLAN - in this example, VLAN 100. This is true regardless of the client VLAN in the WLAN.

# Multicast VLAN Feature

This example creates two interfaces, and then an interface group maps the two VLANs together:

```
(config)#interface vlan 19
(config-if)#ip address 10.10.19.1 255.255.255.0
(config)#interface vlan 21
(config-if)#ip address 10.10.21.1 255.255.255.0
(config)#vlan group Group19to21 vlan-list 19,21
```

These commands create a WLAN, and map this WLAN to the VLAN group:

```
(config)#wlan open19 4 open19
(config-wlan)# client vlan Group19to21
(config-wlan)#
```

Use the IP Multicast VLAN command that maps multicast traffic to a specific VLAN:

```
(config-wlan)# ip multicast vlan 21
```

The controller uses the VLAN 21 interface to handle multicast traffic for that WLAN.

**Note** Once multicast forwarding is configured on the controller, you must also configure your infrastructure for multicast support.

**Note** WLC5760 uses IGMP v2. There is no option for the end user to change it.

# Broadcast Forwarding

Similar to multicast forwarding, broadcast forwarding is disabled by default (broadcast packets received by the controller are not forwarded to wireless clients). Broadcast forwarding is enabled on a per VLAN basis. You can enable broadcast forwarding for a specific VLAN with this general command:

```
(config)#wireless broadcast vlan 21
```

You can also enable broadcast forwarding for all VLANs, if you do not identify a specific VLAN:

```
(config)#wireless broadcast
```

Then, you can restrict the command by disabling broadcast forwarding for some VLANs:

```
(config)#no wireless broadcast vlan 20
```

## Configuration Verification

You can verify multicast in a number of ways. From the controller component, you can display the multicast status, ap multicast mode, and each VLAN's broadcast/non-ip multicast status:

```
#show wireless multicast
```

You can display all (S, G, and V) and the corresponding MGID value:

```
#show wireless multicast group summary
#show ip igmp snooping
# show ip igmp snooping wireless mgid
```

All of these commands are also available for IPv6 MLD monitoring. You must use the ipv6 keyword instead of ip, and mld instead of igmp:

```
show ipv6 mld snooping, show ipv6 mld snooping wireless mgid
```

You can also see all the multicast groups and their active interfaces:

```
#show ip igmp groups
```

In order to see which IGMP version is used and the port associated to the group, use this command:

```
#show ip igmp snooping groups
```