

Configure Wireless Converged Access 5760/3850/3650/4500Sup8E Chromecast

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Introduction

This document describes the expansion of [Chromecast Deployment Guide](#) for AireOS Wireless LAN Controller's (WLC's) in order to cover the Converged Access configuration example.

Prerequisites

Requirements

Cisco recommends that you have knowledge of New Generation Wireless Controllers (NGWC) Release 3.6.x or later.

It is expected that Switch Virtual Interfaces (SVIs) and DHCP pools/snooping are preconfigured as per best practices.

Components Used

This document is not restricted to specific software and hardware versions.

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Configuration

These are the mandatory configurations for chromecast support on NGWC.

Global Configuration

1. Enable Multicast Support
2. Enable IGMP Snooping
3. AP capwap multicast mode set to multicast-multicast

```
conf t

wireless multicast
ip igmp snooping
ip igmp snooping querier
ap capwap multicast <Multicast IP - 239.x.x.x>
```

Note: Do not use multicast-unicast for AP capwap multicast mode as a general [best practice](#).

Note: In order to verify igmp settings, run **show ip igmp groups** command.

Note: In order to verify wireless multicast details, run **show wireless multicast** and **show wireless multicast group summary** commands.

4. Tune data rates for optimal performance.

Sample data rate configuration for 2.4 Ghz:

```
ap dot11 24ghz rate RATE_1M disable
ap dot11 24ghz rate RATE_2M disable
ap dot11 24ghz rate RATE_5_5M disable
ap dot11 24ghz rate RATE_6M disable
ap dot11 24ghz rate RATE_9M disable
ap dot11 24ghz rate RATE_11M disable
ap dot11 24ghz rate RATE_12M mandatory
ap dot11 24ghz rate RATE_18M supported
ap dot11 24ghz rate RATE_24M supported
ap dot11 24ghz rate RATE_36M supported
ap dot11 24ghz rate RATE_48M supported
ap dot11 24ghz rate RATE_54M supported
```

Sample data rate configuration for 5 Ghz:

```
ap dot11 5ghz rate RATE_6M disable
ap dot11 5ghz rate RATE_9M disable
ap dot11 5ghz rate RATE_12M mandatory
ap dot11 5ghz rate RATE_18M supported
ap dot11 5ghz rate RATE_24M supported
ap dot11 5ghz rate RATE_36M supported
ap dot11 5ghz rate RATE_48M supported
ap dot11 5ghz rate RATE_54M supported
```

Note: This is just an example config and the data rates have to be tuned for optimal values on a per-environment basis.

Tip: If igmp snooping cannot be enabled, you can try using Broadcast forwarding: **wireless broadcast**. Alternatively, you can just forward the broadcasts to a specific VLAN **wireless broadcast vlan <VLAN ID>**

WLAN Configuration

Ensure that these requirements are met.

1. Disable peer-to-peer blocking action
2. Enable multicast vlan support

Here is a config example of wlan using external RADIUS authentication with mac-filter and aaa-override enabled:

```
aaa new-model
!
!
aaa group server radius ISE
  server name ISE
!
aaa authentication dot1x ISE group ISE

radius server ISE
  address ipv4 x.x.x.x auth-port 1645 acct-port 1646
  key XXXXX

dot1x system-auth-control

wlan Chromecast <WLAN ID> Chromecast
  aaa-override
  mac-filtering ISE
  client vlan <VLAN ID>
  no peer-blocking
  ip multicast vlan <vlanid> // If using vlan select feature//
  no security wpa
  no security wpa akm dot1x
  no security wpa wpa2
  no security wpa wpa2 ciphers aes
  security dot1x authentication-list ISE
  session-timeout 1800
  no shutdown
```

Note: Depending on your choice of wlan security, choose any from these [templates](#).

Verify

There is currently no verification procedure available for this configuration.

Troubleshoot

There is currently no specific troubleshooting information available for this configuration.