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

Contents

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 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.