

# Troubleshoot SSID Broadcast Issues on Catalyst 9800 Wireless LAN Controllers

## Contents

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[Introduction](#)

[Components Used](#)

[Overview](#)

[Common Causes for SSID Broadcast Failure](#)

[AP Operational Status Down Due To:](#)

[Tag/Profile Configuration Issues](#)

[Other Issues](#)

[AP Operational Status Down](#)

[Scenario 1: Country Code Not Configured Correctly](#)

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## Introduction

This document describes how to troubleshoot SSID broadcast issue on Cisco Catalyst 9800 Wireless LAN Controllers (WLC).

## Components Used

The information in this document is based on these software and hardware versions:

- Cisco Catalyst 9800 Series Wireless LAN Controller
- Software Release 17.15.4d & 26.1.1
- C9130AXI-D

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, ensure that you understand the potential impact of any command.

## Overview

If an SSID is not broadcasting from the AP, begin by checking the AP radio operational status. If the radio status is **UP** and the SSID is still not visible, validate whether the SSID is correctly pushed to the AP and verify its operational state at the AP level.

**On the AP, execute these commands:**

```
<#root>
```

```
#
```

```
show dot11 wlan
```

```
Radio Vap SSID State Auth Assoc Switching DHCP
0 0
```

**Power**

```
UP Central Central Central Local
0 1
```

**guestTest**

```
UP Central Central Central Local
0 2 DOWN Central Central Central Local
1 0
```

**Power**

```
UP Central Central Central Local
1 1
```

**guestTest**

```
UP Central Central Central Local
1 2 DOWN Central Central Central Local
2 0
```

**Power**

```
UP Central Central Central Local
2 1
```

**guestTest**

```
UP Central Central Central Local
2 2 DOWN Central Central Central Local
```

**For Flex APs:**

```
<#root>
```

```
#show flexconnect wlan
```

Flexconnect WLANs:  
Radio Vap SSID State Auth Assoc Switching  
0 0

#### Power

UP Central Local Central  
0 1

#### GuestTest

UP Central Local Central  
0 2 DOWN Central Local Central  
0 3 DOWN Central Local Central  
0 4 DOWN Central Local Central  
1 0

#### Power

UP Central Local Central  
1 1

#### GuestTest

UP Central Local Central  
1 2 DOWN Central Local Central  
1 3 DOWN Central Local Central  
1 4 DOWN Central Local Central

If the SSID is not displayed in the output, the issue could be related to misconfigured tags or profiles. Validate the tag and profile configuration first.

## Common Causes for SSID Broadcast Failure

The most common reasons for an SSID not broadcasting are:

### AP Operational Status Down Due To:

- Insufficient power
- Regulatory domain mismatch
- Country code not supported for the AP
- No regulatory domain support for Wi-Fi 7 APs
- Antenna not connected

## Tag/Profile Configuration Issues

- Policy profile configuration mismatch
- Misconfigured Tags
- AP is in Local mode but Local Switching is not enabled in the Policy Profile.
- VLAN missing in Flex Profile

## Other Issues

In some situations, even if the AP radio operational status is **UP** and there are no visible misconfigurations, the SSID can still not broadcast due to:

- Unsupported channels or channel widths on the client device
- AP not transmitting beacons

## AP Operational Status Down

### Scenario 1: Country Code Not Configured Correctly

Validate if the country code is correctly configured on the WLC for the respective country. It is necessary for the APs to broadcast the SSID. The country code dictates the regulatory domain, which defines the legal channels, bandwidth, and transmit power levels allowed in your specific region.

Without a defined country code, the AP cannot determine which frequencies it is legally permitted to use, so it keeps its radios disabled to ensure regulatory compliance.

### From GUI

Configuration > Wireless > Access Points > Country

Country

[Click here](#) for list of access point models and protocols supported per country and regulatory domain.

Selected Country
: IN

Regulatory Domain

802.11a/n/ac: [ Indoor: -DN^, Outdoor: -DN^ ]

802.11b/g/n: [ Indoor: -A^, Outdoor: -AN^ ]

802.11ax/6 GHz: [ Indoor: ]

Search

|                          | Country Code | Name                 |
|--------------------------|--------------|----------------------|
| <input type="checkbox"/> | AE           | United Arab Emirates |

Apply

If the intended country is not configured, select and add it from the available list.

## From CLI

<#root>

```
#show wireless country configured
```

## CLI Example :

```
#show wireless country configured
Configured Country.....      IN - India
Configured Country Codes
      IN - India                802.11a Indoor,Outdoor/ 802.11b Indoor,Outdoor/ 802.1
```

If the correct country is not configured, configure it as shown below:

```
#conf t
#wireless country <country code>
```

## Validate Country Code in AP Join Profile



**Note:** This configuration specifically applies to APs with -ROW regulatory domain.

For -ROW APs, configuring the country code in the AP Join Profile is mandatory to ensure compliance with local RF regulations.

From GUI

Navigate to:

Configuration > Tags & Profiles > AP Join > Select AP Join Profile > General > Country Code

Configuration > Tags & Profiles > AP Join

+ Add

×

 Delete

📄

 Clone

AP Join Profile Name

☐ powermode

☐ default-ap-profile

⏪

⏩

1

⏪

⏩

10

Edit AP Join Profile

General

Client

CAPWAP

AP

Management

Security

ICap

QoS

Geolocation

Name\*

default-ap-profile

Description

default ap profile

Country Code

IN

⚠️ ⓘ

Deployment Mode

Default

Time Zone

☒ Not Configured

☐ Use-Controller

☐ Delta from WLC

LED State

☒

OfficeExtend AP Configuration

Local Access

☒

Link Encryption

☒

Rogue Detection

☐

Provisioning SSID

☒

Antenna Monitoring

Antenna Monitoring

☐

**Tip:** If there is a country code mismatch, it can also be verified from:

WLC GUI > Wireless > Access Points

Configuration > Wireless > Access Points

▼ All Access Points

Total APs : 2

🔄

Misconfigured APs

Tag : 0

Country Code : 1

LSC Falback : 0

Select an Action

Multiple APs can be configured at once from [Bulk AP Provisioning](#) feature

| AP Name          | AP Model    | Slots | Admin Status | Up Time                        | IP Address     | Base Radio MAC | Ethernet MAC   | AP Mode | Power i Capabl |
|------------------|-------------|-------|--------------|--------------------------------|----------------|----------------|----------------|---------|----------------|
| APC4D6.6672.72E0 | CW9166D1-MR | 3     | ✔️           | 15 days 21 hrs 24 mins 15 secs | 10.77.92.193   | 6871.6135.c4a0 | c4d6.6672.72e0 | Flex    | Yes            |
| AP6849.92C4.BAB0 | CW9166I-ROW | 3     | ✔️           | 0 days 16 hrs 9 mins 31 secs   | 10.106.107.242 | e438.7e51.a480 | 6849.92c4.bab0 | Flex    | Yes            |