Building Mobility Tunnels on Catalyst 9800 Wireless Controllers

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Introduction

This document explains how to build a mobility tunnel with elastic Wireless LAN Controllers (9800 WLC).

Prerequisites

Requirements

Cisco recommends that you have knowledge of these topics:

- Command line Interface (CLI) or Graphic User Interface (GUI) access to the wireless controllers.

Components Used

- AireOS WLC version 8.8 MR1
- 9800 WLC v16.10

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.

**Mobility Tunnel Between Two 9800 WLCs**

**Network Diagram**

![Network Diagram](image)

**Note**: In case, your WLCs are in different subnets, you need to make sure that port UDP 16666 and 16667 is opened between them.

**Configurations**

If your 9800 WLCs are set in a HA pair it is mandatory to configure a mobility MAC address.

The default mobility group name is "default" but can customize to a desired value. Remember that you must configure the same Mobility Group Name on 9800 WLCs where roams between them is expected.

**GUI:**

Navigate to **Configuration > Wireless > Mobility > Global Configuration**

![GUI Configuration](image)

**CLI:**

- Accessibility features
- Language preferences
- Reading difficulties
- Text size adjustments
# config t
# wireless mobility mac-address <AAAA.BBBB.CCCC>
# wireless mobility group name <mobility-group-name>

Step 1. Collect mobility configuration of both 9800 WLCs.

For both 9800 WLCs, navigate to **Configuration > Wireless > Mobility > Global Configuration** and take note of its **Mobility Group Name** and **Mobility MAC Address**.

CLI:

```
#show wireless mobility summary

Mobility Summary

Wireless Management VLAN: 2601
Wireless Management IP Address: 172.16.0.21
Mobility Control Message DSCP Value: 48
Mobility Keepalive Interval/Count: 10/3
Mobility Group Name: mb-kcg
Mobility Multicast Ipv4 address: 0.0.0.0
Mobility Multicast Ipv6 address: ::
Mobility MAC Address: 001e.7a46.39ff
```

Step 2. Add peer configuration

Navigate to **Configuration > Wireless Mobility > Peer Configuration** and fill the peer controller information. Do the same for both 9800 WLCs.

GUI:
CLI:

```bash
# config t
# wireless mobility group member mac-address <peer-mac-address> ip <peer-ip-address> group <group-name> [ data-link-encryption ]
```

**Note**: Optionally you can enable Data Link Encryption.

### Mobility Tunnel Between AireOS WLC and Virtual 9800 WLC

#### Network Diagram

![Network Diagram](image)

#### AireOS WLC Configuration

If your 9800 WLCs are set in a HA pair, it is mandatory to configure a mobility MAC address.

The default mobility group name is "default" but can customize to a desired value. Remember that you must configure the same Mobility Group Name on 9800 WLCs where roams between them is expected.

#### GUI:

![GUI](image)
Navigate to **Configuration > Wireless > Mobility > Global Configuration**

**CLI:**

```
# config t
# wireless mobility mac-address <AAAA.BBBB.CCCC>
# wireless mobility group name <mobility-group-name>
```

**Step 1.** Collect 9800 WLC mobility information.

**GUI:**

Navigate to **Configuration > Wireless > Mobility > Global Configuration** and take note of **Mobility Group Name** and **Mobility MAC Address.**
CLI:

```bash
#show wireless mobility summary

Mobility Summary
Wireless Management VLAN: 2601
Wireless Management IP Address: 172.16.0.21
Mobility Control Message DSCP Value: 48
Mobility Keepalive Interval/Count: 10/3
Mobility Group Name: mb-kcg
Mobility Multicast Ipv4 address: 0.0.0.0
Mobility Multicast Ipv6 address: ::
Mobility MAC Address: 001e.7a46.39ff

Step 2. Collect the Hash value from the 9800 WLC

# show wireless management trustpoint

Trustpoint Name : ewlc-tp1
Certificate Info : Available
Certificate Type : SSC
Certificate Hash : 99459418731eb69f234058da4ebb10fddc9f939c
Private key Info : Available
FIPS suitability : Not Applicable

Step 3. Add the 9800 WLC information into the AireOS WLC.

GUI:

Navigate to CONTROLLER > Mobility Management > Mobility Groups > New.
Enter the values and click **Apply**.

**CLI:**

```
# show wireless management trustpoint
Trustpoint Name : ewlc-tp1
Certificate Info : Available
Certificate Type : SSC
Certificate Hash : 99459418731eb69f234058da4ebc10f0dc9f939c
Private key Info : Available
FIPS suitability : Not Applicable
```

9800 WLC Configuration

**Step 1.** Collect AireOS mobility information.

**GUI:**

Log in to AireOS GUI and navigate to **CONTROLLER > Mobility Management > Mobility Groups** and take note of MAC Address, IP Address and Group Name.
CLI:

```bash
# show wireless management trustpoint
Trustpoint Name : ewlc-tp1
Certificate Info : Available
Certificate Type : SSC
Certificate Hash : 99459418731eb69f234058da4eb10fddc9f939c
Private key Info : Available
FIPS suitability : Not Applicable
```

Step 2. Add the AireOS WLC information into the 9800 WLC

GUI:

Navigate to **Configuration > Wireless > Mobility > Peer Configuration > Add**

Enter the AireOS WLC information.