



Static IP Client Mobility

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Information About Static IP Client Mobility

At times, you may want to configure static IP addresses for wireless clients. When these wireless clients move about in a network, they might try associating with other controllers.

If the clients try to associate with a controller that does not support the same subnet as the static IP address, the clients fail to connect to the network. The controller inspects the ARP requests sent by the clients to determine if the clients are using static IP addresses or IP addresses that were previously assigned by DHCP. If the ARP requests contain IP addresses that do not exist on any of the controller's Switched Virtual Interfaces (SVIs), the clients are disconnected due to a "VLAN_FAIL" error, resulting in client traffic backhauled without explicit disconnection.

The disconnection due to VLAN mismatch is a change in functionality introduced in the 17.9.1 release.

Static IP clients with static IP addresses can be associated with other controllers in which the client's subnet is supported by tunneling the traffic to another controller in the same mobility group. This feature enables you to configure your WLAN so that the network is serviced even though the clients use static IP addresses.

Restrictions

- This feature is not supported on the Fabric and Cisco Catalyst 9800 Wireless Controller for Switch platforms.
- IPv6 is not supported.
- FlexConnect mode is not supported.
- WebAuth (LWA and CWA) is not supported.
- Supported only Open, Dot1x, and PSK authentication mechanisms.

- Supports only on the WLANs that are exclusive of the mobility anchor configuration. If the mobility anchor is already configured on a WLAN, and if static IP mobility is enabled, the feature is not supported.
- Supported only when all the peers are configured for the static IP mobility that is enabled.
- IRCM is not supported.

Configuring Static IP Client Mobility (GUI)

Procedure

-
- Step 1** Choose **Configuration > Tags & Profiles > Policy**.
 - Step 2** On the **Policy** page, click the policy profile name or click **Add** to create a new one.
 - Step 3** Click the **Mobility** tab.
 - Step 4** Set the **Static IP Mobility** field to **Enabled** state.
 - Step 5** Click **Update & Apply to Device**.
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Configuring Static IP Client Mobility (CLI)

Follow the procedure given below to configure static IP client mobility:

Before you begin

- Configure the SVI interface (L3 VLAN interface) to service the static IP client on at least one of the peer controllers in the network.
- For clients to join a controller, the VLAN (based on the VLAN number in the policy profile configuration) should be configured on the device.

Procedure

	Command or Action	Purpose
Step 1	configure terminal Example: Device# configure terminal	Enters global configuration mode.
Step 2	wireless profile policy <i>profile-policy-name</i> Example: Device(config)# wireless profile policy static-ip-policy	Configures a WLAN policy profile and enters wireless policy configuration mode.
Step 3	static-ip-mobility Example:	Enables static IP mobility.

	Command or Action	Purpose
	Device(config-wireless-policy)# static-ip-mobility	

Verifying Static IP Client Mobility

Use the following commands to verify the static IP client mobility configuration:

```
Device# show wireless profile policy detailed static-ip-policy
```

```

Policy Profile Name      : static-ip-policy
Description              :
Status                  : DISABLED
VLAN                    : 1
Wireless management interface VLAN      : 34
Passive Client          : DISABLED
ET-Analytics            : DISABLED
StaticIP Mobility       : DISABLED
WLAN Switching Policy
  Central Switching     : ENABLED
  Central Authentication : ENABLED
  Central DHCP          : DISABLED
  Flex NAT PAT          : DISABLED
  Central Assoc        : DISABLED
WLAN Flex Policy
  VLAN based Central Switching           : DISABLED
WLAN ACL
  IPv4 ACL                             : Not Configured
  IPv6 ACL                             : Not Configured
  Layer2 ACL                           : Not Configured
  Preauth urlfilter list                : Not Configured
  Postauth urlfilter list               : Not Configured
WLAN Timeout
  Session Timeout                       : 1800
  Idle Timeout                          : 300
  Idle Threshold                        : 0
WLAN Local Profiling
  Subscriber Policy Name                 : Not Configured
  RADIUS Profiling                      : DISABLED
  HTTP TLV caching                      : DISABLED
  DHCP TLV caching                      : DISABLED
WLAN Mobility
  Anchor                                : DISABLED
AVC VISIBILITY
  Disabled
Flow Monitor IPv4
  Flow Monitor Ingress Name             : Not Configured
  Flow Monitor Egress Name              : Not Configured
Flow Monitor IPv6
  Flow Monitor Ingress Name             : Not Configured
  Flow Monitor Egress Name              : Not Configured
NBAR Protocol Discovery                 : Disabled
Reanchoring                            : Disabled
Classmap name for Reanchoring
  Reanchoring Classmap Name             : Not Configured
QOS per SSID
  Ingress Service Name                  : Not Configured
  Egress Service Name                   : Not Configured
QOS per Client
  Ingress Service Name                  : Not Configured

```

```

Egress Service Name      : Not Configured
Umbrella information
Cisco Umbrella Parameter Map : Not Configured
Autoqos Mode             : None
Call Snooping            : Disabled
Fabric Profile
Profile Name              : Not Configured
Accounting list
Accounting List          : Not Configured
DHCP
required                  : DISABLED
server address            : 0.0.0.0
Opt82
DhcpOpt82Enable          : DISABLED
DhcpOpt82Ascii           : DISABLED
DhcpOpt82Rid             : DISABLED
APMAC                     : DISABLED
SSID                     : DISABLED
AP_ETHMAC                 : DISABLED
APNAME                   : DISABLED
POLICY TAG                : DISABLED
AP_LOCATION              : DISABLED
VLAN_ID                   : DISABLED
Exclusionlist Params
Exclusionlist             : ENABLED
Exclusion Timeout         : 60
AAA Policy Params
AAA Override              : DISABLED
NAC                       : DISABLED
AAA Policy name           : default-aaa-policy
WGB Policy Params
Broadcast Tagging        : DISABLED
Client VLAN              : DISABLED
Mobility Anchor List
IP Address                Priority
-----

```

```
Device# show run | section profile policy
```

```

wireless profile policy default-policy-profile
central switching
description "default policy profile"
static-ip-mobility
vlan 50
no shutdown

```