

Disabling IP Learning in Local Mode

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Information About Disabling IP Learning in Local Mode

In Local mode central switching scenarios, multiple clients may have an allocated or registered IP address. If the controller detects more than one client attempting to use the same IP address, it will discard one of the clients as an IP Theft event, potentially resulting in client exclusion.

The Disabling IP learning in Local mode feature utilizes the **no ip mac-binding** command to ensure that device tracking is not done for clients, thus preventing the IP Theft error.

To allow downstream broadcast ARP traffic to reach the wireless client in the VLAN, you should enable ARP broadcast and disable IP MAC binding. The controller replicates this traffic packet to all the APs belonging to the controller when Multicast over Multicast (MOM) is disabled.

To avoid this replication, you will need to enable the MOM.



Note

This feature is applicable only for IPv4 addresses.

Restrictions for Disabling IP Learning in Local Mode

- The **wireless client ip deauthenticate** command works by referring to the IP table binding entries directly. It does not work for client whose IPs are not learnt.
- The L3 web authentication and other L3 policies are not supported.
- When IP Source Guard (IPSG) is enabled and multiple binding information is sent with the same IP and preference level (such as DHCP, ARP, and so on) to CPP, the CPP starts to ignore the later bindings after the first binding creation. Hence, you should not configure IPSG and disable IP MAC binding together. If IPSG and **no ip mac-binding** are configured together then IPSG does not work.

Disabling IP Learning in Local Mode (CLI)

Procedure

	Command or Action	Purpose
Step 1	configure terminal	Enters global configuration mode.
	Example:	
	Device# configure terminal	
Step 2	wireless profile policy profile-policy-name	Configures the wireless profile policy.
	Example:	
	<pre>Device(config)# wireless profile policy test-profile-policy</pre>	
Step 3	shutdown	Disables the wireless policy profile.
	Example:	Note Disabling policy profile results in
	Device(config-wireless-policy)# shutdown	associated AP and client to rejoin.
Step 4	no ip mac-binding	Disables IP learning in Local mode.
	Example:	
	Device(config-wireless-policy)# no ip mac-binding	
Step 5	no shutdown	Enables the wireless policy profile.
	Example:	
	Device(config-wireless-policy)# no shutdown	
Step 6	exit	Returns to privileged EXEC mode.
	Example:	
	Device(config-wireless-policy)# exit	
Step 7	vlan configuration vlan-id	Configures a VLAN and enters VLAN
	Example:	configuration mode.
	Device(config-vlan-config)# vlan configuration 20	Note To allow downstream broadcast ARP traffic to reach the wireless client in the VLAN, you should enable ARP broadcast and disable IP MAC binding.
Step 8	arp broadcast	Enables ARP broadcast on VLAN.
	Example:	
	Device(config-vlan-config)# arp broadcast	

	Command or Action	Purpose
Step 9	end	Returns to privileged EXEC mode.
	Example:	
	Device(config-vlan-config)# end	

Verifying MAC Entries from Database

To verify the MAC details from database, use the following command:

Device# show wireless device-tracking database mac
MAC VLAN IF-HDL IP

6c96.cff2.889a 64 0x90000008 9.9.64.175

Verifying ARP Broadcast

To verify the ARP broadcast, use the following command:

Device# show platform software arp broadcast Arp broadcast is enabled on vlans: 20,50

Verifying ARP Broadcast