Using internal DHCP server on Cisco Mobility Express

Starting Release 8.3.102.0, one can enable internal DHCP Server and create scopes for Access Points and WLANs. A total of 17 DHCP scopes are supported on Cisco Mobility Express. Using the internal DHCP server also enables Cisco Mobility Express to be used for performing Site Survey without the need of an external DHCP server.

Note Using a mix of Internal DHCP server and External DHCP server at the same time in a Mobility Express Deployment is not supported at this time.

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Creating a DHCP Scope

Internal DHCP server can be enabled and DHCP scope created during Day 0 from Setup Wizard as well as in Day 1 using the controller WebUI. Typically, one would create DHCP scopes in Day 1 if they want to associate the scopes with WLANs.

To create a scope and associate it to a WLAN using the controller WebUI, follow the procedure below:

Procedure

Step 1 Navigate to **Wireless Settings** > **DHCP Server** > **Add new Pool** . The **Add DHCP Pool** window will pop up.

Step 2 On the **Add DHCP Pool** window. Enter the following fields:

- Enter the **Pool Name** for the WLAN
- Enable the **Pool Status**
- Enter the **VLAN ID** for the WLAN
- Enter the **Lease Period** for the DHCP clients. Default is 1 Day
- Enter the **Network/Mask**

- Enter the **Start IP** for the DHCP pool
- Enter the End IP for the DHCP pool

  Note If the scope is for client devices connecting to the Centralized NAT, one must select **Mobility Express Controller** for **Default Gateway**

- Enter the Default Gateway for the DHCP pool
- Enter the **Gateway IP** for the DHCP pool
- Enter the **Domain Name** (Optional) for the DHCP pool
- For **Name Servers**, select User Defined if one needs to enter IP addresses of Name Servers or select OpenDNS in which case OpenDNS Name Server IP addresses are automatically populated

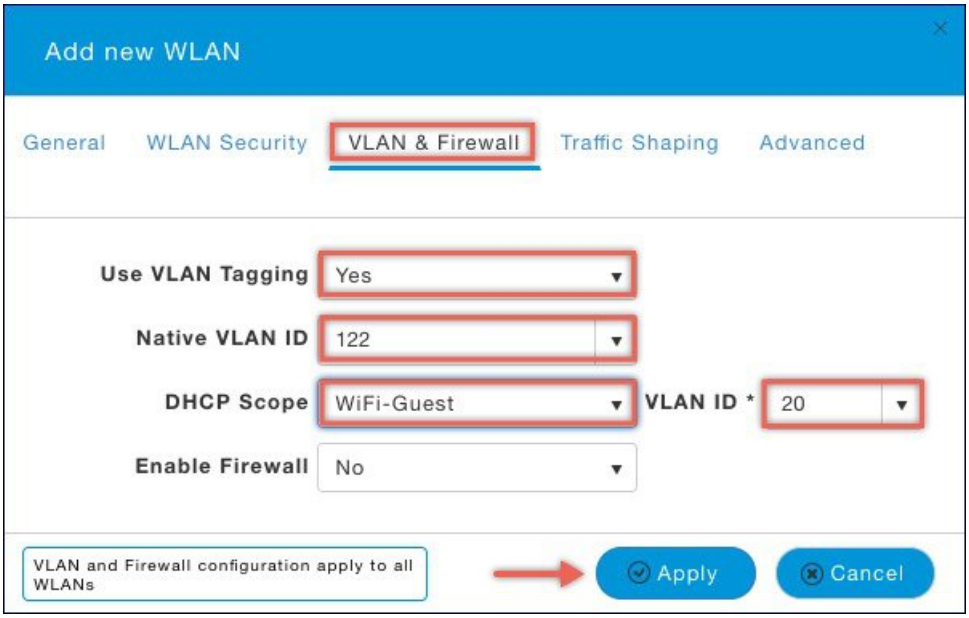
Step 3 Click **Appl**y.

Step 4 After creating the scope, it is time to assign the VLAN mapped to the DHCP scope to the WLAN. To assign a VLAN to WLAN, navigate to **Wireless Settings > WLANs** .

Step 5 If the WLAN does not exist, create a WLAN or if one does exist, edit the existing WLAN and click on the **VLAN and Firewall** tab.

Step 6 On the **VLAN and Firewall** tab, configure the following:

- Select **Network(Default)** for **Client IP Management** or **Mobility Express Controller** if this scope is for Centralized NAT'ed WLAN
- Select **Yes** to Use VLAN Tagging
- Enter the **Native VLAN ID**
- Select the **DHCP Scope** which was created previously for the WLAN. **VLAN ID** should be automatically populated after the DHCP scope is selected



Step 7 Click **Apply**.