



# Configuring Port Profiles

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## Port Profiles

Port profiles contain the properties and settings that you can use to configure virtual interfaces in Cisco UCS for VM-FEX. The port profiles are created and administered in Cisco UCS Manager. After a port profile is created, assigned to, and actively used by one or more clusters, any changes made to the networking properties of the port profile in Cisco UCS Manager are immediately applied to those clusters.

# Creating a Port Profile



**Note** In a VM-FEX for KVM system, the following conditions apply:

- The **Max Ports** field applies to the cluster; there is no distributed virtual switch (DVS).
- The **Host Network IO Performance** field has no effect.

## Procedure

- Step 1** In the **Navigation** pane, click the **VM** tab.
- Step 2** On the **VM** tab, expand the **All** node.
- Step 3** Right-click the **Port Profiles** node and choose **Create Port Profile**.
- Step 4** In the **Create Port Profile** dialog box, complete the following fields:

Name	Description
<b>Name</b> field	The user-defined name for the port profile.  This name can be between 1 and 31 ASCII alphanumeric characters. You cannot use spaces or any special characters other than - (hyphen), _ (underscore), and : (colon), and you cannot change this name after the object has been saved.
<b>Description</b> field	The user-defined description for the port profile.  Enter up to 256 characters. You can use any characters or spaces except ` (accent mark), \ (backslash), ^ (carat), " (double quote), = (equal sign), > (greater than), < (less than), or ' (single quote).
<b>QoS Policy</b> drop-down list	The quality of service policy associated with this port profile.
<b>Network Control Policy</b> drop-down list	The network control policy associated with this port profile.
<b>Max Ports</b> field	The maximum number of ports that can be associated with this port profile. The default is 64 ports.  The maximum number of ports that can be associated with a single distributed virtual switch (DVS) is 4096. If the DVS has only one associated port profile, that port profile can be configured with up to 4096 ports. However, if the DVS has more than one associated port profile, the total number of ports associated with all of those port profiles combined cannot exceed 4096.

Name	Description
<b>Host Network IO Performance</b> field	This can be one of the following: <ul style="list-style-type: none"> <li>• <b>None</b>—Traffic to and from a virtual machine passes through the DVS.</li> <li>• <b>High Performance</b>— Traffic to and from a virtual machine bypasses the DVS and hypervisor and travels directly between the virtual machines and a virtual interface card (VIC) adapter.</li> </ul>
<b>Pin Group</b> drop-down list	The pin group associated with this port profile.

**Step 5** In the **VLANs** area, complete the following fields:

Name	Description
<b>Select</b> column	Check the check box in this column for each VLAN that you want to use.
<b>Name</b> column	The name of the VLAN.
<b>Native VLAN</b> column	To designate one of the VLANs as the native VLAN, click the radio button in this column.

**Step 6** Click **OK**.

## Modifying the VLANs in a Port Profile

### Procedure

- Step 1** In the **Navigation** pane, click the **VM** tab.
- Step 2** On the **VM** tab, expand **All > Port Profiles**.
- Step 3** Right-click the port profile for which you want to modify the VLANs and choose **Modify VLANs**.
- Step 4** In the **Modify VLANs** dialog box, change one or more of the following:

Name	Description
<b>Select</b> column	Check the check box in this column for each VLAN that you want to use.
<b>Name</b> column	The name of the VLAN.

Name	Description
Native VLAN column	To designate one of the VLANs as the native VLAN, click the radio button in this column.
Create VLAN link	Click this link if you want to create a VLAN.

**Step 5** Click **OK**.

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## Changing the Native VLAN for a Port Profile

### Procedure

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- Step 1** In the **Navigation** pane, click the **VM** tab.
- Step 2** On the **VM** tab, expand **All > Port Profiles**.
- Step 3** Right-click the port profile for which you want to change the native VLAN and choose **Modify VLANs**.
- Step 4** In the **Modify VLANs** dialog box, do the following:
- In the **Native VLAN** column, click the radio button in the row for the VLAN that you want to become the native VLAN.
  - Click **OK**.
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## Adding a VLAN to a Port Profile

### Procedure

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- Step 1** In the **Navigation** pane, click the **VM** tab.
- Step 2** On the **VM** tab, expand **All > Port Profiles**.
- Step 3** Right-click the port profile to which you want to add a VLAN and choose **Modify VLANs**.
- Step 4** In the **Modify VLANs** dialog box, do the following:
- In the **Select** column, check the check box in the row for the VLAN that you want to add to the port profile.
  - (Optional) If you want this VLAN to be the native VLAN, click the radio button in the **Native VLAN** column.
  - Click **OK**.
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## Removing a VLAN from a Port Profile

You can remove a VLAN from a port profile or change the VLAN that you have assigned as the native VLAN.

### Procedure

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- Step 1** In the **Navigation** pane, click the **VM** tab.
  - Step 2** On the **VM** tab, expand **All > Port Profiles**.
  - Step 3** Right-click the port profile from which you want to remove a VLAN and choose **Modify VLANs**.
  - Step 4** In the **Modify VLANs** dialog box, do the following:
    - a) In the **Select** column, uncheck the check box in the row for the VLAN that you want to remove from the port profile.
    - b) (Optional) You can change the native VLAN to a different VLAN by clicking the radio button in the **Native VLAN** column for a different VLAN.
    - c) Click **OK**.
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## Deleting a Port Profile

You cannot delete a port profile if a VM is actively using that port profile.

### Procedure

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- Step 1** In the **Navigation** pane, click the **VM** tab.
  - Step 2** On the **VM** tab, expand **All > Port Profiles**.
  - Step 3** Right-click the port profile you want to delete and choose **Delete**.
  - Step 4** If the Cisco UCS Manager GUI displays a confirmation dialog box, click **Yes**.
  - Step 5** Click **OK**.  
Cisco UCS Manager deletes the port profile and all associated port profile clients.
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## Port Profile Clients

The port profile client determines the cluster or clusters to which a port profile is applied.

## Creating a Profile Client

You can create a profile client.

## Procedure

- Step 1** In the **Navigation** pane, click the **VM** tab.
- Step 2** On the **VM** tab, expand **All > Port Profiles**.
- Step 3** Right-click the port profile for which you want to create a profile client and choose **Create Profile Client**.
- Step 4** In the **Create Profile Client** dialog box, complete the following fields:

Name	Description
<b>Name</b> field	The user-defined name for the profile client.  This name can be between 1 and 16 ASCII alphanumeric characters. You cannot use spaces or any special characters other than - (hyphen), _ (underscore), and : (colon), and you cannot change this name after the object has been saved.
<b>Description</b> field	The user-defined description of the client.  Enter up to 256 characters. You can use any characters or spaces except ` (accent mark), \ (backslash), ^ (carat), " (double quote), = (equal sign), > (greater than), < (less than), or ' (single quote).
<b>Datacenter</b> drop-down list	Choose a datacenter from the drop-down list or choose <b>All</b> if this profile client applies to all datacenters.
<b>Folder</b> drop-down list	Choose a folder from the drop-down list or choose <b>All</b> if this profile client applies to all folders.
<b>Distributed Virtual Switch</b> drop-down list	Choose a virtual switch from the drop-down list or choose <b>All</b> if this profile client applies to all virtual switches.

- Step 5** Click **OK**.

## Modifying a Profile Client

You can modify a profile client.

### Procedure

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- Step 1** In the **Navigation** pane, click the **VM** tab.
  - Step 2** On the **VM** tab, expand **All > Port Profiles**.
  - Step 3** Click the port profile for which you want to modify the profile client.
  - Step 4** In the **Work** pane, click the **Profile Clients** tab.
  - Step 5** Right-click the profile client you want to modify and choose **Show Navigator**.
  - Step 6** In the Navigator for the profile client, change the values for one or more of the following fields:

Name	Description
<b>Name</b> field	The user-defined name for the profile client.
<b>Description</b> field	The user-defined description of the client. Enter up to 256 characters. You can use any characters or spaces except ` (accent mark), \ (backslash), ^ (carat), " (double quote), = (equal sign), > (greater than), < (less than), or ' (single quote).
<b>Datacenter</b> field	A regular expression used to select the appropriate datacenter.
<b>Folder</b> field	A regular expression used to select the appropriate datacenter folder.
<b>Distributed Virtual Switch</b> field	A regular expression used to select the appropriate virtual switch.

- Step 7** Click **OK**.
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## Deleting a Profile Client

You cannot delete a port profile client if a VM is actively using the port profile with which the client is associated.

### Procedure

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- Step 1** In the **Navigation** pane, click the **VM** tab.
  - Step 2** On the **VM** tab, expand **All > Port Profiles**.
  - Step 3** Click the port profile from which you want to delete a profile client.
  - Step 4** In the **Work** pane, click the **Profile Clients** tab.
  - Step 5** Right-click the profile client that you want to delete and choose **Delete**.
  - Step 6** If the Cisco UCS Manager GUI displays a confirmation dialog box, click **Yes**.
  - Step 7** Click **Save Changes**.
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