



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

SUMMARY STEPS

1. UCS-A# **scope system**
2. UCS-A /system # **scope vm-mgmt**
3. UCS-A /system/vm-mgmt # **scope profile-set**
4. UCS-A /system/vm-mgmt/profile-set # **create port-profile** *profile-name*
5. (Optional) UCS-A /system/vm-mgmt/profile-set/port-profile # **set descr** *description*
6. UCS-A /system/vm-mgmt/profile-set/port-profile # **set host-nwio-perf** {**high-performance** | **none**}
7. UCS-A /system/vm-mgmt/profile-set/port-profile # **set max-ports** *max-num*
8. UCS-A /system/vm-mgmt/profile-set/port-profile # **set nw-control-policy** *policy-name*
9. UCS-A /system/vm-mgmt/profile-set/port-profile # **set pin-group** *group-name*
10. UCS-A /system/vm-mgmt/profile-set/port-profile # **set qos-policy** *policy-name*
11. UCS-A /system/vm-mgmt/profile-set/port-profile # **commit-buffer**

DETAILED STEPS

	Command or Action	Purpose
Step 1	UCS-A# scope system	Enters system mode.
Step 2	UCS-A /system # scope vm-mgmt	Enters system VM management mode.
Step 3	UCS-A /system/vm-mgmt # scope profile-set	Enters system VM management profile set mode.
Step 4	UCS-A /system/vm-mgmt/profile-set # create port-profile <i>profile-name</i>	Creates the specified port profile and enters system VM management profile set port profile mode.
Step 5	UCS-A /system/vm-mgmt/profile-set/port-profile # set descr <i>description</i>	(Optional) Provides a description for the port profile. Note If your description includes spaces, special characters, or punctuation, you must begin and end your description with quotation marks. The quotation marks do not appear in the description field of any show command output.
Step 6	UCS-A /system/vm-mgmt/profile-set/port-profile # set host-nwio-perf { high-performance none }	You can choose one of the following options: <ul style="list-style-type: none"> • high-performance • none
Step 7	UCS-A /system/vm-mgmt/profile-set/port-profile # set max-ports <i>max-num</i>	Specifies the maximum number of ports that the port profile can use. The maximum number of ports that can be associated to a port profile is 4096. The default is 64 ports. If the DVS has more

	Command or Action	Purpose
		than one associated port profile, each port profile client can be set to use a maximum of 4096 ports.
Step 8	UCS-A /system/vm-mgmt/profile-set/port-profile # set nw-control-policy <i>policy-name</i>	Specifies the network control policy to use for the port profile.
Step 9	UCS-A /system/vm-mgmt/profile-set/port-profile # set pin-group <i>group-name</i>	Specifies the LAN pin group to use for the port profile.
Step 10	UCS-A /system/vm-mgmt/profile-set/port-profile # set qos-policy <i>policy-name</i>	Specifies the QoS policy to use for the port profile.
Step 11	UCS-A /system/vm-mgmt/profile-set/port-profile # commit-buffer	Commits the transaction.

The following example shows how to create and configure a port profile named MyProfile and commit the transaction:

What to Do Next

Add a port profile client to the port profile.

Deleting a Port Profile

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

SUMMARY STEPS

1. UCS-A# **scope system**
2. UCS-A /system # **scope vm-mgmt**
3. UCS-A /system/vm-mgmt # **scope profile-set**
4. UCS-A /system/vm-mgmt/profile-set # **delete port-profile** *profile-name*
5. UCS-A /system/vm-mgmt/profile-set # **commit-buffer**

DETAILED STEPS

	Command or Action	Purpose
Step 1	UCS-A# scope system	Enters system mode.
Step 2	UCS-A /system # scope vm-mgmt	Enters system VM management mode.
Step 3	UCS-A /system/vm-mgmt # scope profile-set	Enters system VM management profile set mode.
Step 4	UCS-A /system/vm-mgmt/profile-set # delete port-profile <i>profile-name</i>	Deletes the specified port profile and its associations.

	Command or Action	Purpose
Step 5	UCS-A /system/vm-mgmt/profile-set # commit-buffer	Commits the transaction. Cisco UCS Manager deletes the port profile and all associated port profile clients.

The following example shows how to delete the port profile named MyProfile and commit the transaction:

```
UCS-A# scope system
UCS-A /system # scope vm-mgmt

UCS-A /system/vm-mgmt # scope profile-set
UCS-A /system/vm-mgmt/profile-set # delete port-profile MyProfile
UCS-A /system/vm-mgmt/profile-set* # commit-buffer
UCS-A /system/vm-mgmt/profile-set #
```

Adding a VLAN to a Port Profile

SUMMARY STEPS

1. UCS-A# **scope system**
2. UCS-A /system # **scope vm-mgmt**
3. UCS-A /system/vm-mgmt # **scope profile-set**
4. UCS-A /system/vm-mgmt/profile-set # **scope port-profile** *profile-name*
5. UCS-A /system/vm-mgmt/profile-set/port-profile # **create vlan** *vlan-name*
6. (Optional) UCS-A /system/vm-mgmt/profile-set/port-profile/vlan # **set default-net no**
7. UCS-A /system/vm-mgmt/profile-set/port-profile/vlan # **commit-buffer**

DETAILED STEPS

	Command or Action	Purpose
Step 1	UCS-A# scope system	Enters system mode.
Step 2	UCS-A /system # scope vm-mgmt	Enters system VM management mode.
Step 3	UCS-A /system/vm-mgmt # scope profile-set	Enters system VM management profile set mode.
Step 4	UCS-A /system/vm-mgmt/profile-set # scope port-profile <i>profile-name</i>	Enters system VM management profile set port profile mode for the specified port profile.
Step 5	UCS-A /system/vm-mgmt/profile-set/port-profile # create vlan <i>vlan-name</i>	Specifies a VLAN to use for the port profile. Note You can create multiple VLANs for guest VLAN trunking.

	Command or Action	Purpose
Step 6	UCS-A /system/vm-mgmt/profile-set/port-profile/vlan # set default-net no	(Optional) Sets the default-net VLAN as the native VLAN in UCS Manager.
Step 7	UCS-A /system/vm-mgmt/profile-set/port-profile/vlan # commit-buffer	Commits the transaction.

The following example shows how to add the VLAN named accounting to the port profile named MyProfile, set the VLAN as non-native, and commit the transaction:

```
UCS-A# scope system
UCS-A /system # scope vm-mgmt

UCS-A /system/vm-mgmt# scope profile-set
UCS-A /system/vm-mgmt/profile-set # scope port-profile MyProfile
UCS-A /system/vm-mgmt/profile-set/port-profile # create vlan accounting
UCS-A /system/vm-mgmt/profile-set/port-profile/vlan* # set default-net no
UCS-A /system/vm-mgmt/profile-set/port-profile/vlan* # commit-buffer
UCS-A /system/vm-mgmt/profile-set/port-profile/vlan #
```

Deleting a VLAN from a Port Profile

SUMMARY STEPS

1. UCS-A# **scope system**
2. UCS-A /system # **scope vm-mgmt**
3. UCS-A /system/vm-mgmt # **scope profile-set**
4. UCS-A /system/vm-mgmt/profile-set # **scope port-profile profile-name**
5. UCS-A /system/vm-mgmt/profile-set/port-profile # **delete vlan vlan-name**
6. UCS-A /system/vm-mgmt/profile-set/port-profile # **commit-buffer**

DETAILED STEPS

	Command or Action	Purpose
Step 1	UCS-A# scope system	Enters system mode.
Step 2	UCS-A /system # scope vm-mgmt	Enters system VM management mode.
Step 3	UCS-A /system/vm-mgmt # scope profile-set	Enters system VM management profile set mode.
Step 4	UCS-A /system/vm-mgmt/profile-set # scope port-profile profile-name	Enters system VM management profile set port profile mode for the specified port profile.
Step 5	UCS-A /system/vm-mgmt/profile-set/port-profile # delete vlan vlan-name	Deletes the specified VLAN from the port profile.

	Command or Action	Purpose
Step 6	UCS-A /system/vm-mgmt/profile-set/port-profile # commit-buffer	Commits the transaction.

The following example shows how to delete the VLAN named accounting from the port profile named MyProfile and commit the transaction:

```
UCS-A# scope system
UCS-A /system # scope vm-mgmt

UCS-A /system/vm-mgmt# scope profile-set
UCS-A /system/vm-mgmt/profile-set # scope port-profile MyProfile
UCS-A /system/vm-mgmt/profile-set/port-profile # delete vlan accounting
UCS-A /system/vm-mgmt/profile-set/port-profile* # commit-buffer
UCS-A /system/vm-mgmt/profile-set/port-profile #
```

Port Profile Clients

Adding a Port Profile Client to a Port Profile

SUMMARY STEPS

1. UCS-A# **scope system**
2. UCS-A /system # **scope vm-mgmt**
3. UCS-A /system/vm-mgmt # **scope profile-set**
4. UCS-A /system/vm-mgmt/profile-set # **scope port-profile** *profile-name*
5. UCS-A /system/vm-mgmt/profile-set/port-profile # **create client** *client-name*
6. (Optional) UCS-A /system/vm-mgmt/profile-set/port-profile/client # **set descr** *description*
7. (Optional) UCS-A /system/vm-mgmt/profile-set/port-profile/client # *name*
8. UCS-A /system/vm-mgmt/profile-set/port-profile/client # **commit-buffer**

DETAILED STEPS

	Command or Action	Purpose
Step 1	UCS-A# scope system	Enters system mode.
Step 2	UCS-A /system # scope vm-mgmt	Enters system VM management mode.
Step 3	UCS-A /system/vm-mgmt # scope profile-set	Enters system VM management profile set mode.
Step 4	UCS-A /system/vm-mgmt/profile-set # scope port-profile <i>profile-name</i>	Enters system VM management profile set port profile mode for the specified port profile.

	Command or Action	Purpose
Step 5	UCS-A /system/vm-mgmt/profile-set/port-profile # create client <i>client-name</i>	Creates the specified port profile client and enters system VM management profile set port profile client mode.
Step 6	UCS-A /system/vm-mgmt/profile-set/port-profile/client # set descr <i>description</i>	(Optional) Provides a description for the port profile client. Note If your description includes spaces, special characters, or punctuation, you must begin and end your description with quotation marks. The quotation marks do not appear in the description field of any show command output.
Step 7	UCS-A /system/vm-mgmt/profile-set/port-profile/client # <i>name</i>	(Optional) Specifies the to which the port profile is applied.
Step 8	UCS-A /system/vm-mgmt/profile-set/port-profile/client # commit-buffer	Commits the transaction.

Deleting a Port Profile Client from a Port Profile

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

SUMMARY STEPS

1. UCS-A# **scope system**
2. UCS-A /system # **scope vm-mgmt**
3. UCS-A /system/vm-mgmt # **scope profile-set**
4. UCS-A /system/vm-mgmt/profile-set # **scope port-profile** *profile-name*
5. UCS-A /system/vm-mgmt/profile-set/port-profile # **delete client** *client-name*
6. UCS-A /system/vm-mgmt/profile-set/port-profile # **commit-buffer**

DETAILED STEPS

	Command or Action	Purpose
Step 1	UCS-A# scope system	Enters system mode.
Step 2	UCS-A /system # scope vm-mgmt	Enters system VM management mode.
Step 3	UCS-A /system/vm-mgmt # scope profile-set	Enters system VM management profile set mode.

	Command or Action	Purpose
Step 4	UCS-A /system/vm-mgmt/profile-set # scope port-profile <i>profile-name</i>	Enters system VM management profile set port profile mode for the specified port profile.
Step 5	UCS-A /system/vm-mgmt/profile-set/port-profile # delete client <i>client-name</i>	Deletes the specified port profile client.
Step 6	UCS-A /system/vm-mgmt/profile-set/port-profile # commit-buffer	Commits the transaction.

The following example shows how to delete the port profile client named OtherClient from the port profile named MyProfile and commit the transaction:

```
UCS-A# scope system
UCS-A /system # scope vm-mgmt

UCS-A /system/vm-mgmt# scope profile-set
UCS-A /system/vm-mgmt/profile-set # scope port-profile MyProfile
UCS-A /system/vm-mgmt/profile-set/port-profile # delete client OtherClient
UCS-A /system/vm-mgmt/profile-set/port-profile* # commit-buffer
UCS-A /system/vm-mgmt/profile-set/port-profile #
```