Service Profiles

This chapter includes the following sections:

Service Profiles that Override Server Identity

This type of service profile provides the maximum amount of flexibility and control. This profile allows you to override the identity values that are on the server at the time of association and use the resource pools and policies set up in Cisco UCS Manager to automate some administration tasks.

You can disassociate this service profile from one server, then associate it with another server. This re-association can be done either manually or through an automated server pool policy. The burned-in settings, such as UUID and MAC address on the new server are overwritten with the configuration in the service profile.

As a result, the change in the server is transparent to your network. You do not need to reconfigure any component or application on your network to begin using the new server.

This profile allows you to take advantage of and manage system resources through resource pools and policies, such as the following:

- Virtualized identity information, including pools of MAC addresses, WWN addresses, and UUIDs

- Ethernet and Fibre Channel adapter profile policies

- Firmware package policies

- Operating system boot order policies

Unless the service profile contains power management policies, a server pool qualification policy, or another policy that requires a specific hardware configuration, you can use the profile for any type of server in the Cisco UCS domain.

You can associate these service profiles with either a rack-mount server or a blade server. The ability to migrate the service profile depends upon whether you choose to restrict migration of the service profile.

Note If you choose not to restrict migration, Cisco UCS Manager does not perform any compatibility checks on the new server before migrating the existing service profile. If the hardware of both servers are not similar, the association might fail.

Service Profiles that Inherit Server Identity

This hardware-based service profile is the simplest to use and create. This profile uses the default values in the server and mimics the management of a rack-mounted server. It is tied to a specific server and cannot be moved or migrated to another server.

You do not need to create pools or configuration policies to use this service profile.

This service profile inherits and applies the identity and configuration information that is present at the time of association, such as the following:

- MAC addresses for the two NICs

- For a converged network adapter or a virtual interface card, the WWN addresses for the two HBAs

- BIOS versions

- Server UUID

Important The server identity and configuration information inherited through this service profile might not have the values burned into the server hardware at the manufacturer if those values were changed before this profile is associated with the server.

Guidelines and Recommendations for Service Profiles

In addition to any guidelines or recommendations that are specific to policies and pools included in service profiles and service profile templates, such as the local disk configuration policy, adhere to the following guidelines and recommendations that impact the ability to associate a service profile with a server:

Limit to the Number of vNICs that Can Be Configured on a Rack-Mount Server

You can configure up to 56 vNICs per supported adapter, such as the Cisco UCS P81E Virtual Interface Card (N2XX-ACPCI01), on any rack-mount server that is integrated with Cisco UCS Manager.

No Power Capping Support for Rack-Mount Servers

Power capping is not supported for rack servers. If you include a power control policy in a service profile that is associated with a rack-mount server, the policy is not implemented.

QoS Policy Guidelines for vNICs

You can only assign a QoS policy to a vNIC if the priority setting for that policy is not set to **fc**, which represents the Fibre Channel system class. You can configure the priority for the QoS policy with any other system class.

QoS Policy Guidelines for vHBAs

You can only assign a QoS policy to a vHBA if the priority setting for that policy is set to **fc**, which represents the Fibre Channel system class.

The Host Control setting for a QoS policy applies to vNICs only. It has no effect on a vHBA.

Inband Service Profiles

Configuring an Inband Service Profile

This procedure explains how to create an inband service profile.

Note   All Cisco UCS M3 and M4 servers configured in Cisco UCS Manager GUI with an out-of-band configuration using the server CIMC from the **Equipment** tab, will automatically get an inband network (VLAN) and IPv4/IPv6 configuration as specified in the inband profile. Removing the network or IP pool name from the inband profile configuration will delete the inband configuration from the server, if the server inband configuration was derived from the inband profile.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A # **scope eth-uplink**	Enters the Ethernet uplink configuration mode.
Step 2	UCS-A /eth-uplink # **scope inband-profile**	Enters the inband profile configuration mode.
Step 3	UCS-A /eth-uplink/inband-profile # **set net-group-name** *vlan-group-name*	Sets the network group name for the inband profile.
Step 4	UCS-A /eth-uplink/inband-profile # **set default-vlan-name** *vlan-name*	Sets the default VLAN for the inband profile.
Step 5	UCS-A /eth-uplink/inband-profile # **set default-pool-name** *pool-name*	Sets the IP pool for the inband profile.
Step 6	UCS-A /eth-uplink/inband-profile # **commit-buffer**	Commits the transaction to the system configuration.

The example below creates the inband service profile inband-profile, sets the network group name to inband-vlan-group, sets the default VLAN to Inband_VLAN, sets the IP pool to inband_default, and commits the transaction:

```
UCS-A #scope eth-uplink
UCS-A /eth-uplink # scope inband-profile
UCS-A /eth-uplink/inband-profile # set net-group-name inband-vlan-group
UCS-A /eth-uplink/inband-profile* # set default-vlan-name Inband_VLAN
UCS-A /eth-uplink/inband-profile* # set default-pool-name inband_default
UCS-A /eth-uplink/inband-profile* # commit-buffer
UCS-A /eth-uplink/inband-profile #
```

Configuring an Inband Management Service Profile

This procedure explains how to configure an inband management service profile.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** /	Enters the organization configuration mode.
Step 2	UCS-A /org # **create service-profile** *sp-name*	Creates the service profile specified and enters service profile configuration mode.
Step 3	UCS-A /org/service-profile # **create mgmt-iface** *in-band*	Creates the management interface specified and enters management interface configuration mode

	Command or Action	Purpose
Step 4	UCS-A /org/service-profile/mgmt-iface # **create mgmt-vlan**	Creates a management VLAN and enters the management VLAN configuration mode.
Step 5	UCS-A/org/service-profile/mgmt-iface/mgmt-vlan # set **network-name** *network-name*	Sets the management VLAN network name.
Step 6	UCS-A /org/service-profile/mgmt-iface/mgmt-vlan # **create ext-pooled-ip**	Creates an external IP pool and enters the IP pool configuration mode.
Step 7	UCS-A /org/service-profile/mgmt-iface/mgmt-vlan/ext-pooled-ip # **set name** *pool-name*	Sets the name of the external IPv4 pool.
Step 8	UCS-A /org/service-profile/mgmt-iface/mgmt-vlan/ext-pooled-ip # **exit**	Exits IPv4 pool configuration mode.
Step 9	UCS-A /org/service-profile/mgmt-iface/mgmt-vlan #**create ext-pooled-ip6**	Creates an external IPv6 pool and enters the IPv6 pool configuration mode.
Step 10	UCS-A /org/service-profile/mgmt-iface/mgmt-vlan/ext-pooled-ip6 # **set name** *pool-name*	Sets the name of the external IPv6 pool.
Step 11	UCS-A /org/service-profile/mgmt-iface/mgmt-vlan/ext-pooled-ip6 # **commit-buffer**	Commits the transaction to the system configuration.

The example below creates a service profile name inband_sp, configures a management interface named in-band, creates a management VLAN, sets the network name to Inband_VLAN, creates an external IPv4 pool and sets the name to inband_default, creates an external IP and an external IPv6 management pool, sets the name of both pools to inband_default, and commits the transaction:

```
UCS-A# scope org
UCS-A /org # create service-profile inband_sp
UCS-A /org/service-profile* # create mgmt-iface in-band
UCS-A /org/service-profile/mgmt-iface* # create mgmt-vlan
UCS-A /org/service-profile/mgmt-iface/mgmt-vlan* # set network-name Inband_VLAN
UCS-A /org/service-profile/mgmt-iface/mgmt-vlan* # create ext-pooled-ip
UCS-A /org/service-profile/mgmt-iface/mgmt-vlan/ext-pooled-ip* # set name inband_default
UCS-A /org/service-profile/mgmt-iface/mgmt-vlan/ext-pooled-ip* # exit
UCS-A /org/service-profile/mgmt-iface/mgmt-vlan* # create ext-pooled-ip6
UCS-A /org/service-profile/mgmt-iface/mgmt-vlan/ext-pooled-ip6* # set name inband_default
UCS-A /org/service-profile/mgmt-iface/mgmt-vlan/ext-pooled-ip6* # commit-buffer
UCS-A /org/service-profile/mgmt-iface/mgmt-vlan/ext-pooled-ip6 # exit
UCS-A /org/service-profile/mgmt-iface/mgmt-vlan # exit
UCS-A /org/service-profile/mgmt-iface # exit
```

What to Do Next

Associate the inband management interface service profile to a server.

Deleting the Inband Configuration from a Service Profile

This procedure explains how to delete the inband configuration from a service profile.

Note   If an inband profile is configured in Cisco UCS Manager with a default VLAN name and a default pool name, the server CIMC will automatically get an inband configuration from the inband profile within one minute after deleting the configuration from the service profile.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** /	Enters the organization configuration mode.
Step 2	UCS-A/org # **scope service-profile** *blade1*	Enters the organization profile configuration mode.
Step 3	UCS-A/org/service-profile # **delete mgmt-iface***in-band*	Deletes the specified service profile.
Step 4	UCS-A/org/service-profile # **commit-buffer**	Commits the transaction to the system configuration.

The following example scopes to the service profile blade1, deletes the management interface in-band, and commits the transaction:

```
UCS-A# scope org
UCS-A /org # scope service-profile blade1
UCS-A /org/service-profile # delete mgmt-iface in-band
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile
```

Configuring Inband Management on the CIMC

This procedure explains how to configure inband management on a server CIMC to pooled IP.

Note   Setting the inband management IP address to a static IP address is similar to setting the inband management IP address to the pooled IP address. The example below creates a management interface on chassis 1, server 1 named in-band, sets the IPv4 and IPv6 states to static, and commits the transaction. This example also creates a management VLAN, creates an external static IPv4, brings up the IPv4, creates an external static IPv6, brings up the IPv6, and commits the transaction:

```
UCS-A# scope server 1/1
UCS-A /chassis/server # scope cimc
UCS-A /chassis/server/cimc # create mgmt-iface in-band
UCS-A /chassis/server/cimc/mgmt-iface* # set ipv4state static
UCS-A /chassis/server/cimc/mgmt-iface* # set ipv6state static
UCS-A /chassis/server/cimc/mgmt-iface* # commit-buffer
UCS-A /chassis/server/cimc/mgmt-iface # show detail

External Management Interface:
    Mode: In Band
    Ip V4 State: Static
    Ip V6 State: Static
    Is Derived from Inband Profile: No
UCS-A /chassis/server/cimc/mgmt-iface # set
  ipv4state  IpV4State
  ipv6state  IpV6State
  mode       Mode


UCS-A /chassis/server/cimc/mgmt-iface # create mgmt-vlan
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan* # create ext-static-ip
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip* # set addr x.x.x.1
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip* # set subnet 255.255.255.0
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip* # set default-gw x.x.x.254
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip* # commit-buffer
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip # up
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan # create ext-static-ip6
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip6* # set addr
xxxx:xxxx:xxxx:1::
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip6* # set default-gw
xxxx:xxxx:xxxx:1::0001
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip6* # set prefix 64
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip6* # commit-buffer
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip6 # up
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan # show detail expand

External Management Virtual LAN:
    Network Name:
    Id: 1

    External Management Static IP:
        IP Address: x.x.x.1
        Default Gateway: x.x.x.254
        Subnet: 255.255.255.0
        Primary DNS IP: 0.0.0.0
        Secondary DNS IP: 0.0.0.0

    External Management Static IPv6:
        IP Address: xxxx:xxxx:xxxx:1::
        Default Gateway: xxxx:xxxx:xxxx:1::0001
        Prefix: 64
        Primary DNS IP: ::
        Secondary DNS IP: ::
```

> **Note**
>
> Setting the inband management IP address to a static IP address is similar to setting the inband management IP address to the pooled IP address. The example below creates a management interface on chassis 1, server 1 named in-band, sets the IPv4 and IPv6 states to static, and commits the transaction. This example also creates a management VLAN, creates an external static IPv4, brings up the IPv4, creates an external static IPv6, brings up the IPv6, and commits the transaction:

```
UCS-A# scope server 1/1
UCS-A /chassis/server # scope cimc
UCS-A /chassis/server/cimc # create mgmt-iface in-band
UCS-A /chassis/server/cimc/mgmt-iface* # set ipv4state static
UCS-A /chassis/server/cimc/mgmt-iface* # set ipv6state static
UCS-A /chassis/server/cimc/mgmt-iface* # commit-buffer
UCS-A /chassis/server/cimc/mgmt-iface # show detail

External Management Interface:
    Mode: In Band
    Ip V4 State: Static
    Ip V6 State: Static
    Is Derived from Inband Profile: No
UCS-A /chassis/server/cimc/mgmt-iface # set
  ipv4state  IpV4State
  ipv6state  IpV6State
  mode       Mode


UCS-A /chassis/server/cimc/mgmt-iface # create mgmt-vlan
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan* # create ext-static-ip
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip* # set addr x.x.x.1
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip* # set subnet 255.255.255.0
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip* # set default-gw x.x.x.254
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip* # commit-buffer
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip # up
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan # create ext-static-ip6
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip6* # set addr
xxxx:xxxx:xxxx:1::
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip6* # set default-gw
xxxx:xxxx:xxxx:1::0001
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip6* # set prefix 64
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip6* # commit-buffer
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-static-ip6 # up
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan # show detail expand

External Management Virtual LAN:
    Network Name:
    Id: 1

    External Management Static IP:
        IP Address: x.x.x.1
        Default Gateway: x.x.x.254
        Subnet: 255.255.255.0
        Primary DNS IP: 0.0.0.0
        Secondary DNS IP: 0.0.0.0

    External Management Static IPv6:
        IP Address: xxxx:xxxx:xxxx:1::
        Default Gateway: xxxx:xxxx:xxxx:1::0001
        Prefix: 64
        Primary DNS IP: ::
        Secondary DNS IP: ::
```

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope server** *chassi-numserver-num*	Enters chassis server mode for the specified server.
Step 2	UCS-A /chassis/server # **scope cimc**	Enters the CIMC configuration mode.
Step 3	UCS-A /chassis/server /chassis/server/cimc # **create mgmt-iface***in-band*	Creates the management interface specified and enters management interface configuration mode.
Step 4	UCS-A /chassis/server/cimc/mgmt-iface* # **set ipv4state pooled**	Sets IPv4 state to pooled.
Step 5	UCS-A /chassis/server/cimc/mgmt-iface *# **set ipv6state pooled**	Sets IPv6 state to pooled.
Step 6	UCS-A /chassis/server/cimc/mgmt-iface* # **create mgmt-vlan**	Creates a management VLAN and enters the management VLAN configuration mode.
Step 7	UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan* # **set network-name** *network-name*	Sets the management VLAN network name.
Step 8	UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan* # **create ext-pooled-ip**	Creates an external IPv4 pool and enters the IPv4 pool configuration mode.
Step 9	UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-pooled-ip* # **set name** *pool-name*	Sets the name of the external IPv4 pool.
Step 10	UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-pooled-ip* # **exit**	Exits IPv4 pool configuration mode.
Step 11	UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan* #**create ext-pooled-ip6**	Creates an external IPv6 pool and enters the IPv6 pool configuration mode.
Step 12	UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-pooled-ip6* # **set name** *pool-name*	Sets the name of the external IPv6 pool.
Step 13	UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-pooled-ip6* # **commit-buffer**	Commits the transaction to the system configuration.

The example below creates a management interface on chassis 1, server 1 named in-band, sets the IPv4 and IPv6 states to pooled, creates a management VLAN, sets the network name to Inband, creates an external

IPv4 pool, sets the name to inband_default. Creates an external IPv6 pool, sets the name to inband_default, and commits the transaction:

```
UCS-A# scope server 1/1
UCS-A /chassis/server # scope cimc
UCS-A /chassis/server/cimc # create mgmt-iface in-band
UCS-A /chassis/server/cimc/mgmt-iface* # set ipv4state pooled
UCS-A /chassis/server/cimc/mgmt-iface* # set ipv6state pooled
UCS-A /chassis/server/cimc/mgmt-iface* # create mgmt-vlan
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan* # set network-name Inband
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan* # create ext-pooled-ip
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-pooled-ip* # set name Inband_default
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-pooled-ip* # exit
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan* # create ext-pooled-ip6
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-pooled-ip6* # set name Inband_default
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-pooled-ip6* # commit-buffer
UCS-A /chassis/server/cimc/mgmt-iface/mgmt-vlan/ext-pooled-ip6 #
```

Deleting the Inband Configuration from the CIMC

This procedure explains how to delete the inband configuration from a server CIMC.

Note   If an inband profile is configured in Cisco UCS Manager with a default VLAN name and a default pool name, the server CIMC will automatically get an inband configuration from the inband profile within one minute after deleting the configuration from the service profile.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope server** *chassi-numserver-num*	Enters chassis server mode for the specified server.
Step 2	UCS-A /chassis/server # **scope cimc**	Enters the CIMC configuration mode.
Step 3	UCS-A /chassis/server /chassis/server/cimc # **delete mgmt-iface***in-band*	Deletes the specified service profile.
Step 4	UCS-A /chassis/server /chassis/server/cimc # **commit-buffer**	Commits the transaction to the system configuration.

The following example deletes the deletes the management interface named in-band from chassis1, server 1, and commits the transaction:

```
UCS-A# scope server 1/1
UCS-A /chassis/server # scope cimc
UCS-A /chassis/server/cimc # delete mgmt-iface in-band
UCS-A /chassis/server/cimc* # commit-buffer
UCS-A /chassis/server/cimc #
```

Initial and Existing Templates

With a service profile template, you can quickly create several service profiles with the same basic parameters, such as the number of vNICs and vHBAs, and with identity information drawn from the same pools.

Tip If you need only one service profile with similar values to an existing service profile, you can clone a service profile in the Cisco UCS Manager GUI.

For example, if you need several service profiles with similar values to configure servers to host database software, you can create a service profile template, either manually or from an existing service profile. You then use the template to create the service profiles.

Cisco UCS supports the following types of service profile templates:

Initial template

Service profiles created from an initial template inherit all the properties of the template. Service profiles created from an initial service profile template are bound to the template. However, changes to the initial template do not *automatically* propagate to the bound service profiles. If you want to propagate changes to bound service profiles, unbind and rebind the service profile to the initial template.

Updating template

Service profiles created from an updating template inherit all the properties of the template and remain connected to the template. Any changes to the template automatically update the service profiles created from the template.

Note Service profiles that are created from the initial template and normal service profiles fetch the lowest available IDs in the sequential pool when you pres**Reset**.

Service profiles created from updating template might attempt to retain the same ID when you press**Reset** even when lower IDs of sequential pool are free.

Creating a Service Profile Template

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** *org-name*	Enters the organization mode for the specified organization. To enter the root organization mode, enter / as the *org-name*.
Step 2	UCS-A /org # **create service-profile** *profile-name* {**initial-template** | **updating-template**}	Creates the specified service profile template and enters organization service profile mode.

	Command or Action	Purpose
		Enter a unique *profile-name* to identify this service profile template.
		This name can be between 2 and 32 alphanumeric characters. You cannot use spaces or any special characters other than - (hyphen), _ (underscore), : (colon), and . (period), and this name must be unique across all service profiles and service profile templates within the same organization.
Step 3	UCS-A /org/service-profile # **set bios-policy** *policy-name*	Associates the specified BIOS policy with the service profile.
Step 4	UCS-A /org/service-profile # **set boot-policy** *policy-name*	Associates the specified boot policy with the service profile.
Step 5	UCS-A /org/service-profile # **set descr** *description*	(Optional) Provides a description for the service profile. **Note** If your description includes spaces, special characters, or punctuation, you must begin and end your description with quotation marks. The quotation marks will not appear in the description field of any **show** command output.
Step 6	UCS-A /org/service-profile # **set dynamic-vnic-conn-policy** *policy-name*	Associates the specified dynamic vNIC connection policy with the service profile.

Step 7	UCS-A /org/service-profile # **set ext-mgmt-ip-state** {**none** | **pooled**}	Specifies how the management IP address will be assigned to the service profile.
		
		You can set the management IP address policy using the following options:
		
		    • None-- The service profile is not assigned an IP address.
		
		    • Pooled-- The service profile is assigned an IP address from the management IP pool.
		
		Note Setting the management IP address to static for a service profile template will result in an error.

Step 8	UCS-A /org/service-profile # **set host-fw-policy** *policy-name*	Associates the specified host firmware policy with the service profile.

Step 9	UCS-A /org/service-profile # **set identity** {**dynamic-uuid** {*uuid* | **derived**} | **dynamic-wwnn** {*wwnn* | **derived**} | **uuid-pool** *pool-name* | **wwnn-pool** *pool-name*}	Specifies how the server acquires a UUID or WWNN. You can do one of the following:
		
		    • Create a unique UUID in the form *nnnnnnnn-nnnn-nnnn-nnnnnnnnnnnn* .
		
		    • Derive the UUID from the one burned into the hardware at manufacture.

	Command or Action	Purpose
		• Use a UUID pool.
		• Create a unique WWNN in the form *hh* **:** *hh* **:** *hh* **:** *hh* **:** *hh* **:** *hh* **:** *hh* **:** *hh* .
		• Derive the WWNN from one burned into the hardware at manufacture.
		• Use a WWNN pool.
Step 10	UCS-A /org/service-profile # **set ipmi-access-profile** *profile-name*	Associates the specified IPMI access profile with the service profile.
Step 11	UCS-A /org/service-profile # **set lan-connectivity-policy-name** *policy-name*	Associates the specified LAN connectivity policy with the service profile. **Note** You cannot have a LAN connectivity policy and locally created vNICs in the same service profile. When you add a LAN connectivity policy to a service profile, any existing vNIC configuration is erased.
Step 12	UCS-A /org/service-profile # **set local-disk-policy** *policy-name*	Associates the specified local disk policy with the service profile.
Step 13	UCS-A /org/service-profile # **set maint-policy** *policy-name*	Associates the specified maintenance policy with the service profile.
Step 14	UCS-A /org/service-profile # **set mgmt-fw-policy** *policy-name*	Associates the specified management firmware policy with the service profile.
Step 15	UCS-A /org/service-profile # **set power-control-policy** *policy-name*	Associates the specified power control policy with the service profile.
Step 16	UCS-A /org/service-profile # **set san-connectivity-policy-name** *policy-name*	Associates the specified SAN connectivity policy with the service profile. **Note** You cannot have a SAN connectivity policy and locally created vHBAs in the same service profile. When you add a SAN connectivity policy to a service profile, any existing vHBA configuration is erased.
Step 17	UCS-A /org/service-profile # **set scrub-policy** *policy-name*	Associates the specified scrub policy with the service profile.
Step 18	UCS-A /org/service-profile # **set sol-policy** *policy-name*	Associates the specified serial over LAN policy with the service profile.
Step 19	UCS-A /org/service-profile # **set stats-policy** *policy-name*	Associates the specified statistics policy with the service profile.
Step 20	UCS-A /org/service-profile # **set user-label** *label-name*	Specifies the user label associated with the service profile.

	Command or Action	**Purpose**
Step 21	UCS-A /org/service-profile # **set vcon** {**1**	**2**} **selection** {**all**	**assigned-only**	**exclude-dynamic**	**exclude-unassigned**}	Specifies the selection preference for the specified vCon.
Step 22	UCS-A /org/service-profile # **set vcon-profile** *policy-name*	Associates the specified vNIC/vHBA placement profile with the service profile.
		Note You can either assign a vNIC/vHBA placement profile to the service profile, or set vCon selection preferences for the service profile, but you do not need to do both.
Step 23	UCS-A /org/service-profile # **commit-buffer**	Commits the transaction to the system configuration.

The following example shows how to create a service profile template and commit the transaction:

```
UCS-A# scope org /
UCS-A /org* # create service-profile ServTemp2 updating-template
UCS-A /org/service-profile* # set bios-policy biospol1
UCS-A /org/service-profile* # set boot-policy bootpol32
UCS-A /org/service-profile* # set  descr "This is a service profile example."
UCS-A /org/service-profile* # set dynamic-vnic-conn-policy mydynvnicconnpolicy
UCS-A /org/service-profile* # set ext-mgmt-ip-state pooled
UCS-A /org/service-profile* # set host-fw-policy ipmi-user987
UCS-A /org/service-profile* # set identity dynamic-uuid derived
UCS-A /org/service-profile* # set ipmi-access-profile ipmiProf16
UCS-A /org/service-profile* # set local-disk-policy localdiskpol33
UCS-A /org/service-profile* # set maint-policy maintpol4
UCS-A /org/service-profile* # set mgmt-fw-policy mgmtfwpol75
UCS-A /org/service-profile* # set power-control-policy powcontrpol13
UCS-A /org/service-profile* # set scrub-policy scrubpol55
UCS-A /org/service-profile* # set sol-policy solpol2
UCS-A /org/service-profile* # set stats-policy statspol4
UCS-A /org/service-profile* # set user-label mylabel
UCS-A /org/service-profile* # vcon-policy myvconnpolicy
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

What to Do Next

- (Optional) Configure a boot definition for the service profile. Use this option only if you have not associated a boot policy with the service profile.

- Create a service profile instance from the service profile template.

Creating a Service Profile Instance from a Service Profile Template

Before You Begin

Verify that there is a service profile template from which to create a service profile instance.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name* .
Step 2	UCS-A /org # **create service-profile** *profile-name* **instance**	Creates the specified service profile instance and enters organization service profile mode. Enter a unique *profile-name* to identify this service profile template. This name can be between 2 and 32 alphanumeric characters. You cannot use spaces or any special characters other than - (hyphen), _ (underscore), : (colon), and . (period), and this name must be unique across all service profiles and service profile templates within the same organization.
Step 3	UCS-A /org/service-profile # **set src-templ-name** *profile-name*	Specifies the source service profile template to apply to the service profile instance. All configuration settings from the service profile template will be applied to the service profile instance.
Step 4	UCS-A /org/service-profile # **commit-buffer**	Commits the transaction to the system configuration.

The following example creates a service profile instance named ServProf34, applies the service profile template named ServTemp2, and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # create service-profile ServProf34 instance
UCS-A /org/service-profile* # set src-templ-name ServTemp2
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

What to Do Next

Associate the service profile to a server, rack server, or server pool.

Unbinding a Service Profile from a Service Profile Template

To unbind a service profile from a service profile template, bind the service profile to an empty value (quotes without space).

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type **/** as the *org-name* .
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service profile.
Step 3	UCS-A /org/service-profile # **set src-templ-name ""**	Unbinds the service profile from the service profile template.
Step 4	UCS-A /org/service-profile* # **commit-buffer**	Commits the transaction to the system configuration.

The following example unbinds the service profile named ServiceProf1 and commits the transaction:

```
UCS-A# scope org
UCS-A /org # scope service-profile ServiceProf1
UCS-A /org/service-profile # set src-templ-name ""
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

Creating a Hardware-Based Service Profile

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type **/** as the *org-name* .
Step 2	UCS-A /org # **create service-profile** *profile-name* **instance**	Creates the specified service profile instance and enters organization service profile mode. Enter a unique *profile-name* to identify this service profile. This name can be between 2 and 32 alphanumeric characters. You cannot use spaces or any special characters other than - (hyphen), _ (underscore), : (colon), and . (period), and this name must be unique across all service profiles and service profile templates within the same organization.
Step 3	UCS-A /org/service-profile # **set bios-policy** *policy-name*	Associates the specified BIOS policy with the service profile.

	Command or Action	**Purpose**
Step 4	UCS-A /org/service-profile # **set boot-policy** *policy-name*	Associates the specified boot policy with the service profile.
Step 5	UCS-A /org/service-profile # **set descr** *description*	(Optional) Provides a description for the service profile. **Note** If your description includes spaces, special characters, or punctuation, you must begin and end your description with quotation marks. The quotation marks will not appear in the description field of any **show** command output.
Step 6	UCS-A /org/service-profile # **set dynamic-vnic-conn-policy** *policy-name*	Associates the specified dynamic vNIC connection policy with the service profile.
Step 7	UCS-A /org/service-profile # **set ext-mgmt-ip-state** {**none**	**pooled**	**static**}	Specifies how the management IP address will be assigned to the service profile. You can set the management IP address policy using the following options: • None-- The service profile is not assigned an IP address. • Pooled-- The service profile is assigned an IP address from the management IP pool. • Static-- The service profile is assigned the configured static IP address.
Step 8	UCS-A /org/service-profile # **set host-fw-policy** *ipmi-user-name*	Associates the specified host forwarding policy with the service profile.
Step 9	UCS-A /org/service-profile # **set identity** {**dynamic-uuid** {*uuid*	**derived**}	**dynamic-wwnn** {*wwnn*	**derived**}	**uuid-pool** *pool-name*	**wwnn-pool** *pool-name*}	Specifies how the server acquires a UUID or WWNN. You can do one of the following: • Create a unique UUID in the form *nnnnnnnn-nnnn-nnnn-nnnnnnnnnnnn*. • Derive the UUID from the one burned into the hardware at manufacture. • Use a UUID pool. • Create a unique WWNN in the form *hh* **:** *hh* **:** *hh* **:** *hh* **:** *hh* **:** *hh* **:** *hh* **:** *hh*. • Derive the WWNN from one burned into the hardware at manufacture. • Use a WWNN pool.

	Command or Action	Purpose
Step 10	UCS-A /org/service-profile # **set ipmi-access-profile** *profile-name*	Associates the specified IPMI access profile with the service profile.
Step 11	UCS-A /org/service-profile # **set local-disk-policy** *policy-name*	Associates the specified local disk policy with the service profile.
Step 12	UCS-A /org/service-profile # **set maint-policy** *policy-name*	Associates the specified maintenance policy with the service profile.
Step 13	UCS-A /org/service-profile # **set mgmt-fw-policy** *policy-name*	Associates the specified management forwarding policy with the service profile.
Step 14	UCS-A /org/service-profile # **set power-control-policy** *policy-name*	Associates the specified power control policy with the service profile.
Step 15	UCS-A /org/service-profile # **set scrub-policy** *policy-name*	Associates the specified scrub policy with the service profile.
Step 16	UCS-A /org/service-profile # **set sol-policy** *policy-name*	Associates the specified serial over LAN policy with the service profile.
Step 17	UCS-A /org/service-profile # **set stats-policy** *policy-name*	Associates the specified statistics policy with the service profile.
Step 18	UCS-A /org/service-profile # **set user-label** *label-name*	Specifies the user label associated with the service profile.
Step 19	UCS-A /org/service-profile # **set vcon** {**1** | **2**} **selection** {**all** | **assigned-only** | **exclude-dynamic** | **exclude-unassigned**}	Specifies the selection preference for the specified vCon.
Step 20	UCS-A /org/service-profile # **set vcon-policy** *policy-name*	Associates the specified vNIC/vHBA placement policy with the service profile. **Note** You can either assign a vNIC/vHBA placement profile to the service profile, or set vCon selection preferences for the service profile, but you do not need to do both.
Step 21	UCS-A /org/service-profile # **commit-buffer**	Commits the transaction to the system configuration.

The following example shows how to create a service profile instance and commit the transaction:

```
UCS-A# scope org /
UCS-A /org* # create service-profile ServInst90 instance
UCS-A /org/service-profile* # set bios-policy biospol1
UCS-A /org/service-profile* # set boot-policy bootpol32
UCS-A /org/service-profile* # set  descr "This is a service profile example."
UCS-A /org/service-profile* # set ext-mgmt-ip-state pooled
UCS-A /org/service-profile* # set host-fw-policy ipmi-user987
UCS-A /org/service-profile* # set identity dynamic-uuid derived
UCS-A /org/service-profile* # set ipmi-access-profile ipmiProf16
UCS-A /org/service-profile* # set local-disk-policy localdiskpol33
```

```
UCS-A /org/service-profile* # set maint-policy maintpol4
UCS-A /org/service-profile* # set mgmt-fw-policy mgmtfwpol75
UCS-A /org/service-profile* # set power-control-policy powcontrpol13
UCS-A /org/service-profile* # set scrub-policy scrubpol55
UCS-A /org/service-profile* # set sol-policy solpol2
UCS-A /org/service-profile* # set stats-policy statspol4
UCS-A /org/service-profile* # set user-label mylabel
UCS-A /org/service-profile* # vcon-policy myvconnpolicy
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

What to Do Next

- (Optional) Configure a boot definition for the service profile. Use this option only if you have not associated a boot policy with the service profile.

- Associate the service profile with a blade server, server pool, or rack server.

Configuring a vNIC for a Service Profile

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters the organization mode for the specified organization. To enter the root organization mode, enter / as the *org-name*.
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service profile.
Step 3	UCS-A /org/service-profile # **create vnic** *vnic-name* [**eth-if** *eth-if-name*] [**fabric** {**a**	**b**}]	Creates a vNIC for the specified service profile and enters organization service profile vNIC mode.
Step 4	UCS-A /org/service-profile/vnic # **set adapter-policy** *policy-name*	Specifies the adapter policy to use for the vNIC.
Step 5	UCS-A /org/service-profile/vnic # **set fabric** {**a**	**a-b**	**b**	**b-a**}	Specifies the fabric to use for the vNIC. If you did not specify the fabric when creating the vNIC template in Step 3, you have the option to specify it with this command. If you want this vNIC to be able to access the second fabric interconnect if the default one is unavailable, choose **a-b** (A is the primary) or **b-a** (B is the primary) .

	Command or Action	Purpose
		Note Do not enable fabric failover for the vNIC under the following circumstances:
		• If the Cisco UCS domain is running in Ethernet Switch Mode. vNIC fabric failover is not supported in that mode. If all Ethernet uplinks on one fabric interconnect fail, the vNICs do not fail over to the other.
		• If you plan to associate this vNIC to a server with an adapter that does not support fabric failover, such as the Cisco UCS 82598KR-CI 10-Gigabit Ethernet Adapter. If you do so, Cisco UCS Manager generates a configuration fault when you associate the service profile with the server.
Step 6	UCS-A /org/service-profile/vnic # **set identity** {**dynamic-mac** {*mac-addr*	**derived**}	**mac-pool** *mac-pool-name*}	Specifies the identity (MAC address) for the vNIC. You can set the identity using one of the following options:
		• Create a unique MAC address in the form *nn* **:** *nn* **:** *nn* **:** *nn* **:** *nn* **:** *nn* .
		• Derive the MAC address from one burned into the hardware at manufacture.
		• Assign a MAC address from a MAC pool.
Step 7	UCS-A /org/service-profile/vnic # **set mtu** *size-num*	The maximum transmission unit, or packet size, that this vNIC accepts.
		Enter an integer between 1500 and 9216.
		Note If the vNIC has an associated QoS policy, the MTU specified here must be equal to or less than the MTU specified in the associated QoS system class. If this MTU value exceeds the MTU value in the QoS system class, packets might get dropped during data transmission.
Step 8	UCS-A /org/service-profile/vnic # **set nw-control-policy** *policy-name*	The network control policy the vNIC should use.
Step 9	UCS-A /org/service-profile/vnic # **set order** {*order-num*	**unspecified**}	Specifies the relative order for the vNIC.
Step 10	UCS-A /org/service-profile/vnic # **set pin-group** *group-name*	The LAN pin group the vNIC should use.
Step 11	UCS-A /org/service-profile/vnic # **set qos-policy** *policy-name*	The quality of service policy the vNIC should use.
Step 12	UCS-A /org/service-profile/vnic # **set stats-policy** *policy-name*	The statistics collection policy the vNIC should use.

	Command or Action	Purpose
Step 13	UCS-A /org/service-profile/vnic # **set template-name** *policy-name*	Specifies the dynamic vNIC connectivity policy to use for the vNIC.
Step 14	UCS-A /org/service-profile/vnic # **set vcon {1	2	3	4	any}**	Assigns the vNIC to the specified vCon. Use the **any** keyword to have Cisco UCS Manager automatically assign the vNIC.
Step 15	UCS-A /org/service-profile/vnic # **commit-buffer**	Commits the transaction to the system configuration.

The following example configures a vNIC for a service profile and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # scope service-profile ServInst90
UCS-A /org/service-profile* # create vnic vnic3 fabric a
UCS-A /org/service-profile/vnic* # set adapter-policy AdaptPol2
UCS-A /org/service-profile/vnic* # set fabric a-b
UCS-A /org/service-profile/vnic* # set identity mac-pool MacPool3
UCS-A /org/service-profile/vnic* # set mtu 8900
UCS-A /org/service-profile/vnic* # set nw-control-policy ncp5
UCS-A /org/service-profile/vnic* # set order 0
UCS-A /org/service-profile/vnic* # set pin-group EthPinGroup12
UCS-A /org/service-profile/vnic* # set qos-policy QosPol5
UCS-A /org/service-profile/vnic* # set stats-policy StatsPol2
UCS-A /org/service-profile/vnic* # set template-name VnicConnPol3
UCS-A /org/service-profile/vnic* # set set vcon any
UCS-A /org/service-profile/vnic* # commit-buffer
UCS-A /org/service-profile/vnic #
```

Creating vNIC Pairs on a Service Profile

Procedure

	Command or Action	Purpose
Step 1	UCS-A /org # **scope** *org-name* .	Enters the organization mode for the specified organization. To enter the root organization mode enter "org" as the org-name.
Step 2	UCS-A /org # **scope service-profile** *service profile name* .	Enters the name of the service profile where you want to create the vNIC pair.
Step 3	UCS-A /org # scope service-profile **create vnic** *eth0*.	Assigns a name to the vNIC for creating the redundancy pair.
Step 4	UCS-A /org/service-profile/vnic* # **set template-name***vNIC-primary* .	Specifies to use the Primary vNIC template that you can link to a Secondary vNIC template to create a vNIC pair at the service profile level.
Step 5	UCS-A /org/service-profile/vnic* # **exit** .	Exits the Primary vNIC template to use to create the vNIC pair.

	Command or Action	Purpose
		Note You can now create the peer vNIC to link to vNIC eth0. Ensure to commit the transaction after linking vNIC eth0 to vNIC eth1 to create the vNIC pair.
Step 6	UCS-A /org/service-profile # **create vnic** *eth1*.	Assigns a name to the vNIC for creating the peer vNIC to create the pair that you link to vNIC eth0.
Step 7	UCS-A /org/service-profile/vnic* **set template-name** *vNIC secondary* .	Specifies to use the Secondary vNIC template as the peer template to a Primary vNIC template to create a vNIC pair that you can use at the service profile level.
Step 8	UCS-A /org/service-profile/vnic* # **exit** .	Exits the Secondary vNIC template to use to create the vNIC pair.
Step 9	UCS-A /org/service-profile* # **commit-buffer** .	Commits the transaction to the system configuration.

The following example creates a vNIC redundancy pair from a service profile and commits the transaction:

```
UCS-A # scope org
UCS-A /org # scope service-profile test-sp
UCS-A /org/service-profile # create vNIC eth0
UCS-A /org/service-profile/vnic* # set template-name vNIC-primary
UCS-A /org/service-profile/vnic* # exit
UCS-A /org/service-profile* # create vNIC eth1
UCS-A /org/service-profile/vnic* # set template-name vNIC-secondary
UCS-A /org/service-profile/vnic* # exit
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

Configuring a vHBA for a Service Profile

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name*.
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service.
Step 3	UCS-A /org/service-profile # **create vhba** *vhba-name* [**fabric** {**a** | **b**}] [**fc-if** *fc-if-name*]	Creates a vHBA for the specified service profile and enters organization service profile vHBA mode.
Step 4	UCS-A /org/service-profile/vhba # **set adapter-policy** *policy-name*	Specifies the adapter policy to use for the vHBA.

	Command or Action	Purpose
Step 5	UCS-A /org/service-profile/vhba # **set admin-vcon** {**1** | **2** | **any**}	Assigns the vHBA to one or all virtual network interface connections.
Step 6	UCS-A /org/service-profile/vhba # **set identity** {**dynamic-wwpn** {*wwpn* | **derived**} | **wwpn-pool** *wwn-pool-name*}	Specifies the WWPN for the vHBA. You can set the storage identity using one of the following options: • Create a unique WWPN in the form *hh:hh:hh:hh:hh:hh:hh:hh*. You can specify a WWPN in the range from 20:00:00:00:00:00:00:00 to 20:FF:FF:FF:FF:FF:FF:FF or from 50:00:00:00:00:00:00:00 to 5F:FF:FF:FF:FF:FF:FF:FF. If you want the WWPN to be compatible with Cisco MDS Fibre Channel switches, use the WWPN template **20:00:00:25:B5:XX:XX:XX**. • Derive the WWPN from one burned into the hardware at manufacture. • Assign a WWPN from a WWN pool.
Step 7	UCS-A /org/service-profile/vhba # **set max-field-size** *size-num*	Specifies the maximum size of the Fibre Channel frame payload (in bytes) that the vHBA supports.
Step 8	UCS-A /org/service-profile/vhba # **set order** {*order-num* | **unspecified**}	Specifies the PCI scan order for the vHBA.
Step 9	UCS-A /org/service-profile/vhba # **set pers-bind** {**disabled** | **enabled**}	Disables or enables persistent binding to Fibre Channel targets.
Step 10	UCS-A /org/service-profile/vhba # **set pin-group** *group-name*	Specifies the SAN pin group to use for the vHBA.
Step 11	UCS-A /org/service-profile/vhba # **set qos-policy** *policy-name*	Specifies the QoS policy to use for the vHBA.
Step 12	UCS-A /org/service-profile/vhba # **set stats-policy** *policy-name*	Specifies the statistics threshold policy to use for the vHBA.
Step 13	UCS-A /org/service-profile/vhba # **set template-name** *policy-name*	Specifies the vHBA template to use for the vHBA.
Step 14	UCS-A /org/service-profile/vhba # **commit-buffer**	Commits the transaction to the system configuration.

The following example configures a vHBA for a service profile and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # scope service-profile ServInst90
UCS-A /org/service-profile* # create vhba vhba3 fabric b
```

```
UCS-A /org/service-profile/vhba* # set adapter-policy AdaptPol2
UCS-A /org/service-profile/vhba* # set admin-vcon any
UCS-A /org/service-profile/vhba* # set identity wwpn-pool SanPool7
UCS-A /org/service-profile/vhba* # set max-field-size 2112
UCS-A /org/service-profile/vhba* # set order 0
UCS-A /org/service-profile/vhba* # set pers-bind enabled
UCS-A /org/service-profile/vhba* # set pin-group FcPinGroup12
UCS-A /org/service-profile/vhba* # set qos-policy QosPol5
UCS-A /org/service-profile/vhba* # set stats-policy StatsPol2
UCS-A /org/service-profile/vhba* # set template-name SanConnPol3
UCS-A /org/service-profile/vhba* # commit-buffer
UCS-A /org/service-profile/vhba #
```

Creating vHBA Pairs on a Service Profile

Procedure

	Command or Action	Purpose
Step 1	UCS-A/ org # **scope org** *org-name* .	Enters the organization mode for the specified organization. To enter the root organization mode, enter / as the org-name.
Step 2	UCS-A/ org # **scope service-profile** *service profile name* .	Enters the name of the service profile where you want to create the vHBA pair.
Step 3	UCS-A/ org # service-profile **create vhba** *fc0*.	Assigns a name to the vHBA for creating the redundancy pair.
Step 4	UCS-A /org/service-profile # **set template-name** *vhba primary* .	Specifies to use the Primary vHBA template that you can link to a Secondary vHBA template to create a vHBA pair at the service profile level.
Step 5	UCS-A /org/service-profile # **exit** .	Exits the Primary vHBA template to use to create the vHBA pair.
		Note You can now create the peer vHBA to link to vHBA fc0. Ensure to commit the transaction after linking vHBA fc0 to vHBA fc1 to create the vHBA pair.
Step 6	UCS-A /org/service-profile # **create vhba** *fc1*.	Assigns a name to the vHBA for creating the peer vHBA to create the pair that you link to vHBA fc0.
Step 7	UCS-A/ org # service-profile **set template-name** *vhba secondary* .	Specifies to use the Secondary vHBA template as the peer template to a Primary vHBA template to create a vHBA pair that you can use at the service profile level.
Step 8	UCS-A/ # org service profile **commit-buffer** .	Commits the transaction to the system configuration.

The following example creates a vHBA redundancy pair from a service profile and commits the transaction:

```
UCS-A/ # scope org
```

```
UCS-A /org # scope service-profile test-sp
UCS-A /org/service-profile # create vhba fc0
UCS-A /org/service-profile/vhba* # set template-name vhba-primary
UCS-A /org/service-profile/vhba* # exit
UCS-A /org/service-profile* # create vhba fc1
UCS-A /org/service-profile/vhba* # set template-name vhba-secondary
UCS-A /org/service-profile/vhba* # exit
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

Configuring a Local Disk for a Service Profile

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name*.
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service profile.
Step 3	UCS-A /org/service-profile # **create local-disk-config**	Creates a local disk configuration for the service profile and enters organization service profile local disk configuration mode.
Step 4	UCS-A /org/service-profile/local-disk-config # **set descr** *description*	(Optional) Provides a description for the local disk configuration.
Step 5	UCS-A /org/service-profile/local-disk-config # **set mode {any-configuration** | **no-local-storage** | **no-raid** | **raid-0-striped** | **raid-1-mirrored** | **raid-5-striped-parity** | **raid-6-striped-dual-parity** | **raid-10-mirrored-and-striped}**	Specifies the mode for the local disk.
Step 6	UCS-A /org/service-profile/local-disk-config # **create partition**	Creates a partition for the local disk and enters organization service profile local disk configuration partition mode.
Step 7	UCS-A /org/service-profile/local-disk-config/partition # **set descr** *description*	(Optional) Provides a description for the partition.
Step 8	UCS-A /org/service-profile/local-disk-config/partition # **set size {***size-num* | **unspecified}**	Specifies the partition size in MBytes.
Step 9	UCS-A /org/service-profile/local-disk-config/partition # **set type {ext2** | **ext3** | **fat32** | **none** | **ntfs** | **swap}**	Specifies the partition type.

	Command or Action	Purpose
Step 10	UCS-A /org/service-profile/local-disk-config/partition # **commit-buffer**	Commits the transaction to the system configuration.

The following example configures a local disk for a service profile and commits the transaction:

```
UCS-A# scope org /
UCS-A /org # scope service-profile ServInst90
UCS-A /org/service-profile # scope boot-definition
UCS-A /org/service-profile # create local-disk-config
UCS-A /org/service-profile/local-disk-config* # set mode raid-1-mirrored
UCS-A /org/service-profile/local-disk-config* # create partition
UCS-A /org/service-profile/local-disk-config/partition* # set size 1000000
UCS-A /org/service-profile/local-disk-config/partition* # set type ntfs
UCS-A /org/service-profile/local-disk-config/partition* # commit-buffer
UCS-A /org/service-profile/local-disk-config/partition #
```

Configuring Serial over LAN for a Service Profile

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type **/** as the *org-name* .
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service.
Step 3	UCS-A /org/service-profile # **create sol-config**	Creates a serial over LAN configuration for the service profile and enters organization service profile SoL configuration mode.
Step 4	UCS-A /org/service-profile/sol-config # {**disable**	**enable**}	Disables or enables the serial over LAN configuration for the service profile.
Step 5	UCS-A /org/service-profile/sol-config # **set descr** *description*	(Optional) Provides a description for the serial over LAN configuration.
Step 6	UCS-A /org/service-profile/sol-config # **set speed** {**115200**	**19200**	**38400**	**57600**	**9600**}	Specifies the serial baud rate.
Step 7	UCS-A /org/service-profile/sol-config # **commit-buffer**	Commits the transaction to the system configuration.

The following example configures serial over LAN for the service profile named ServInst90 and commits the transaction:

```
UCS-A# scope org /
UCS-A /org # scope service-profile ServInst90
UCS-A /org/service-profile # create sol-config
UCS-A /org/service-profile/sol-config* # enable
UCS-A /org/service-profile/sol-config* # set descr "Sets serial over LAN to 9600 baud."
UCS-A /org/service-profile/sol-config* # set speed 9600
UCS-A /org/service-profile/sol-config* # commit-buffer
UCS-A /org/service-profile/sol-config #
```

Service Profile Boot Definition Configuration

Configuring a Boot Definition for a Service Profile

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name* .
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the the specified service.
Step 3	UCS-A /org/service-profile # **create boot-definition**	Creates a boot definition for the service profile and enters organization service profile boot definition mode.
Step 4	UCS-A /org/service-profile/boot-definition # **set descr** *description*	(Optional) Provides a description for the boot definition.
Step 5	UCS-A /org/service-profile/boot-definition # **set reboot-on-update** {**no** | **yes**}	(Optional) Specifies whether to automatically reboot all servers that use this boot definition after changes are made to the boot order. By default, the reboot on update option is disabled.
Step 6	UCS-A /org/service-profile/boot-definition # **commit-buffer**	Commits the transaction to the system configuration.

The following example configures a boot definition for a service profile and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # scope service-profile ServInst90
UCS-A /org/service-profile* # create boot-definition
UCS-A /org/service-profile/boot-definition* # set descr "This boot definition reboots on
update."
UCS-A /org/service-profile/boot-definition* # set reboot-on-update yes
UCS-A /org/service-profile/boot-definition* # commit-buffer
UCS-A /org/service-profile/boot-definition #
```

What to Do Next

Configure one or more of the following boot options for the boot definition and set their boot order:

- **LAN Boot** —Boots from a centralized provisioning server. It is frequently used to install operating systems on a server from that server.

  If you choose the LAN Boot option, continue to Configuring a LAN Boot for a Service Profile Boot Definition , on page 28.

- **Storage Boot** — Boots from an operating system image on the SAN. You can specify a primary and a secondary SAN boot. If the primary boot fails, the server attempts to boot from the secondary.

  We recommend that you use a SAN boot, because it offers the most service profile mobility within the system. If you boot from the SAN, when you move a service profile from one server to another, the new server boots from exactly the same operating system image. Therefore, the new server appears to be exactly the same server to the network.

  If you choose the Storage Boot option, continue to Configuring a Storage Boot for a Service Profile Boot Definition , on page 29.

- **Virtual Media Boot** —Mimics the insertion of a physical CD into a server. It is typically used to manually install operating systems on a server.

  If you choose the Virtual Media boot option, continue to Configuring a Virtual Media Boot for a Service Profile Boot Definition , on page 31.

Configuring a LAN Boot for a Service Profile Boot Definition

Before You Begin

Configure a boot definition for a service profile.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name* .
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service profile.
Step 3	UCS-A /org/service-profile # **scope boot-definition**	Enters organization service profile boot definition mode.
Step 4	UCS-A /org/service-profile/boot-definition # **create lan**	Creates a LAN boot for the service profile boot definition and enters service profile boot definition LAN mode.
Step 5	UCS-A /org/service-profile/boot-definition/lan # **set order** {**1** | **2** | **3** | **4**}	Specifies the boot order for the LAN boot.

	Command or Action	**Purpose**
Step 6	UCS-A /org/service-profile/boot-definition/lan # **create path** {**primary** | **secondary**}	Creates a primary or secondary LAN boot path and enters service profile boot definition LAN path mode.
Step 7	UCS-A /org/service-profile/boot-definition/lan/path # **set vnic** *vnic-name*	Specifies the vNIC to use for the LAN image path.
Step 8	UCS-A /org/service-profile/boot-definition/lan/path # **commit-buffer**	Commits the transaction to the system configuration.

The following example enters the service profile named ServInst90, creates a LAN boot for the service profile boot definition, sets the boot order to 2, creates a primary path, and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # scope service-profile ServInst90
UCS-A /org/service-profile* # scope boot-definition
UCS-A /org/service-profile/boot-definition* # create lan
UCS-A /org/service-profile/boot-definition/lan* # set order 2
UCS-A /org/service-profile/boot-definition/lan* # create path primary
UCS-A /org/service-profile/boot-definition/lan/path* # set vnic vnic3
UCS-A /org/service-profile/boot-definition/lan/path* # commit-buffer
UCS-A /org/service-profile/boot-definition/lan/path #
```

Configuring a Storage Boot for a Service Profile Boot Definition

Before You Begin

Configure a boot definition for a service profile.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name* .
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service.
Step 3	UCS-A /org/service-profile # **scope boot-definition**	Enters organization service profile boot definition mode.
Step 4	UCS-A /org/service-profile/boot-definition # **create storage**	Creates a storage boot for the service profile boot definition and enters service profile boot definition storage mode.

	Command or Action	**Purpose**
Step 5	UCS-A /org/service-profile/boot-definition/storage # **set order {1	2	3	4}**	Specifies the boot order for the storage boot.
Step 6	UCS-A /org/service-profile/boot-definition/storage # **create {local	san-image {primary	secondary}}**	Creates a local storage boot or a SAN image boot. If a SAN image boot is created, it enters service profile boot definition storage SAN image mode.
Step 7	UCS-A /org/service-profile/boot-definition/storage/san-image # **create path {primary	secondary}**	Creates a primary or secondary SAN image path and enters service profile boot definition storage SAN image path mode. When using the enhanced boot order on Cisco UCS M3 servers, or M4 servers, the boot order that you define is used. For standard boot mode using the terms "primary" or "secondary" do not imply a boot order. The effective order of boot devices within the same device class is determined by the PCIe bus scan order.
Step 8	UCS-A /org/service-profile/boot-definition/storage/san-image/path # **set lun** *lun-num*	Specifies the LUN used for the SAN image path.
Step 9	UCS-A /org/service-profile/boot-definition/storage/san-image/path # **set vhba** *vhba-name*	Specifies the vHBA used for the SAN image path.
Step 10	UCS-A /org/service-profile/boot-definition/storage/san-image/path # **set wwn** *wwn-num*	Specifies the WWN used for the SAN image path.
Step 11	UCS-A /org/service-profile/boot-definition/storage/san-image/path # **commit-buffer**	Commits the transaction to the system configuration.

The following example enters the service profile named ServInst90, creates a storage boot for the service profile boot definition, sets the boot order to 2, creates a primary path, and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # scope service-profile ServInst90
UCS-A /org/service-profile* # scope boot-definition
UCS-A /org/service-profile/boot-definition* # create storage
UCS-A /org/service-profile/boot-definition/storage* # create san-image primary
UCS-A /org/service-profile/boot-definition/storage* # set order 2
UCS-A /org/service-profile/boot-definition/storage/san-image* # create path primary
UCS-A /org/service-profile/boot-definition/storage/san-image/path* # set lun 27512
UCS-A /org/service-profile/boot-definition/storage/san-image/path* # set vhba vhba3
UCS-A /org/service-profile/boot-definition/storage/san-image/path* # set wwn
20:00:00:00:20:00:00:23
```

```
UCS-A /org/service-profile/boot-definition/storage/san-image/path* # commit-buffer
UCS-A /org/service-profile/boot-definition/storage/san-image/path #
```

Configuring a Virtual Media Boot for a Service Profile Boot Definition

Before You Begin

Configure a boot definition for a service profile.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name* .
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service.
Step 3	UCS-A /org/service-profile # **scope boot-definition**	Enters organization service profile boot definition mode.
Step 4	UCS-A /org/service-profile/boot-definition # **create virtual-media** {**read-only**	**read-write**}	Creates a read-only or read-write virtual media boot for the service profile boot definition and enters service profile boot definition virtual media mode.
Step 5	UCS-A /org/service-profile/boot-definition/virtual-media # **set order** {**1**	**2**	**3**	**4**}	Specifies the boot order for the virtual media boot.
Step 6	UCS-A /org/service-profile/boot-definition/virtual-media # **commit-buffer**	Commits the transaction to the system configuration.

The following example enters the service profile named ServInst90, creates a virtual media boot with read-only privileges for the service profile boot definition, sets the boot order to 3, and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # scope service-profile ServInst90
UCS-A /org/service-profile* # scope boot-definition
UCS-A /org/service-profile/boot-definition* # create virtual-media read-only
UCS-A /org/service-profile/boot-definition/virtual-media* # set order 3
UCS-A /org/service-profile/boot-definition/virtual-media* # commit-buffer
UCS-A /org/service-profile/boot-definition/virtual-media #
```

Deleting a Boot Definition for a Service Profile

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name*.
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the the specified service.
Step 3	UCS-A /org/service-profile # **delete boot-definition**	Deletes the boot definition for the service profile.
Step 4	UCS-A /org/service-profile # **commit-buffer**	Commits the transaction to the system configuration.

The following example deletes the boot definition for a service profile and commits the transaction:

```
UCS-A# scope org /
UCS-A /org # scope service-profile ServInst90
UCS-A /org/service-profile # delete boot-definition
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

Configuring Fibre Channel Zoning for a Service Profile

Configuring a vHBA Initiator Group with an Existing Storage Connection Policy

This procedure assumes that you want to use an existing global Fibre Channel storage connection policy. If you want to create a storage connection policy definition just for this service profile, see Configuring a vHBA Initiator Group with a local Storage Connection Policy Definition, on page 33.

For information about how to create a global Fibre Channel storage connection policy that is available to all service profiles, see Creating a Fibre Channel Storage Connection Policy.

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name* .
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service profile.

	Command or Action	Purpose
Step 3	UCS-A /org/service-profile # **create initiator-group** *group-name*	Creates the specified initiator group for Fibre Channel zoning and enters service profile initiator group mode.
Step 4	UCS-A /org/service-profile/initiator-group # **create initiator** *vhba-name*	Creates the specified vHBA initiator in the initiator group. If desired, repeat this step to add a second vHBA initiator to the group.
Step 5	UCS-A /org/service-profile/initiator-group # **set storage-connection-policy** *policy-name*	Associates the specified storage connection policy with the service profile.
Step 6	UCS-A /org/service-profile # **commit-buffer**	Commits the transaction to the system configuration.

The following example configures a vHBA initiator group named initGroupZone1 with two vHBA initiators for a service profile named ServInst90, includes an existing Fibre Channel storage connection policy, and commits the transaction:

```
UCS-A# scope org /
UCS-A /org # scope service-profile ServInst90
UCS-A /org/service-profile # create initiator-group initGroupZone1
UCS-A /org/service-profile/initiator-group* # create initiator vhba1
UCS-A /org/service-profile/initiator-group* # create initiator vhba2
UCS-A /org/service-profile/initiator-group* # set storage-connection-policy scpolicyZone1
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

Configuring a vHBA Initiator Group with a local Storage Connection Policy Definition

This procedure assumes that you want to create a local Fibre Channel storage connection policy for a service profile. If you want to use an existing storage connection policy, see Configuring a vHBA Initiator Group with an Existing Storage Connection Policy, on page 32.

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name* .

	Command or Action	Purpose
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service profile.
Step 3	UCS-A /org/service-profile # **create initiator-group** *group-name*	Creates the specified initiator group for Fibre Channel zoning and enters service profile initiator group mode.
Step 4	UCS-A /org/service-profile/initiator-group # **create initiator** *vhba-name*	Creates the specified vHBA initiator in the vHBA initiator group. If desired, repeat this step to add a second vHBA initiator to the group.
Step 5	UCS-A /org/service-profile/initiator-group # **create storage-connection-def** *policy-name*	Creates the specified storage connection policy definition and enters storage connection definition mode.
Step 6	UCS-A /org/service-profile/initiator-group/storage-connection-def # **create storage-target** *wwpn*	Creates a storage target endpoint with the specified WWPN, and enters storage target mode.
Step 7	UCS-A /org/service-profile/initiator-group/storage-connection-def/storage-target # **set target-path** {**a** | **b**}	Specifies which fabric interconnect is used for communications with the target endpoint.
Step 8	UCS-A /org/service-profile/initiator-group/storage-connection-def/storage-target # **set target-vsan** *vsan*	Specifies which VSAN is used for communications with the target endpoint.
Step 9	UCS-A /org/service-profile/initiator-group # **commit-buffer**	Commits the transaction to the system configuration.

The following example configures a vHBA initiator group named initGroupZone1 with two vHBA initiators for a service profile named ServInst90, configures a local storage connection policy definition named scPolicyZone1, and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # scope service-profile ServInst90
UCS-A /org/service-profile # create initiator-group initGroupZone1
UCS-A /org/service-profile/initiator-group* # create initiator vhba1
UCS-A /org/service-profile/initiator-group* # create initiator vhba2
UCS-A /org/service-profile/initiator-group* # create storage-connection-def scPolicyZone1
UCS-A /org/service-profile/initiator-group/storage-connection-def* # create storage-target
```

```
20:10:20:30:40:50:60:70
UCS-A /org/service-profile/initiator-group/storage-connection-def/storage-target* # set
target-path a
UCS-A /org/service-profile/initiator-group/storage-connection-def/storage-target* # set
target-vsan default
UCS-A /org/service-profile/initiator-group* # commit-buffer
UCS-A /org/service-profile/initiator-group #
```

Service Profiles and Service Profile Template Management

Associating a Service Profile with a Blade Server or Server Pool

Follow this procedure if you did not associate the service profile with a blade server or server pool when you created it, or to change the blade server or server pool with which a service profile is associated.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name* .
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service profile.
Step 3	UCS-A /org/service-profile # **associate** {**server** *chassis-id* / *slot-id* / **server-pool** *pool-name qualifier*} [**restrict-migration**]	Associates the service profile with a single server, or to the specified server pool with the specified server pool policy qualifications. Adding the optional **restrict-migration** keyword prevents the service profile from being migrated to another server.
Step 4	UCS-A /org/service-profile # **commit-buffer**	Commits the transaction to the system configuration.

The following example associates the service profile named ServProf34 with the server in slot 4 of chassis 1 and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # scope service-profile ServProf34
UCS-A /org/service-profile* # associate server 1/4
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

Associating a Service Profile with a Rack Server

Follow this procedure if you did not associate the service profile with a rack server when you created it, or to change the rack server with which a service profile is associated.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name* .
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service profile.
Step 3	UCS-A /org/service-profile # **associate server** *serv-id* [**restrict-migration**]	Associates the service profile with the specified rack server. Adding the optional the restrict-migration command prevents the service profile from being migrated to another server.
Step 4	UCS-A /org/service-profile # **commit-buffer**	Commits the transaction to the system configuration.

The following example associates the service profile named ServProf34 with the rack server 1 and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # scope service-profile ServProf34
UCS-A /org/service-profile* # associate server 1
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

Disassociating a Service Profile from a Server or Server Pool

This procedure covers disassociating a service profile from a blade server, rack server, or server pool.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name*.
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service profile.
Step 3	UCS-A /org/service-profile # **disassociate**	Disassociates the service profile from the server or server pool.
Step 4	UCS-A /org/service-profile # **commit-buffer**	Commits the transaction to the system configuration.

The following example disassociates the service profile named ServProf34 from the server to which it was associated and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # scope service-profile ServProf34
UCS-A /org/service-profile # disassociate
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

Renaming a Service Profile

When you rename a service profile, the following occurs:

- Event logs and audit logs that reference the previous name for the service profile are retained under that name.

- A new audit record is created to log the rename operation.

- All records of faults against the service profile under its previous name are transferred to the new service profile name.

Note You cannot rename a service profile with pending changes.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** *org-name*	Enters organization mode for the specified organization. To enter the root organization mode, type / as the *org-name* .
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters organization service profile mode for the specified service.
Step 3	UCS-A /org/service-profile # **rename-to** *new-profile-name*	Renames the specified service profile. When you enter this command, you are warned that you may lose all uncommitted changes in the CLI session. Type y to confirm that you want to continue. This name can be between 2 and 32 alphanumeric characters. You cannot use spaces or any special characters other than - (hyphen), _ (underscore), : (colon), and . (period), and this name must be unique across all service profiles and service profile templates within the same organization.
Step 4	UCS-A /org/service-profile/ # **commit-buffer**	Commits the transaction to the system configuration.

This example shows how to change the name of a service profile from ServInst90 to ServZoned90 and commits the transaction:

```
UCS-A# scope org /
UCS-A /org* # scope service-profile ServInst90
```

```
UCS-A /org/service-profile* # rename-to ServZoned90
Rename is a standalone operation. You may lose any uncommitted changes in this CLI session.
Do you want to continue? (yes/no): y
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

Resetting the UUID Assigned to a Service Profile from a Pool in a Service Profile Template

If you change the UUID suffix pool assigned to an updating service profile template, Cisco UCS Manager does not change the UUID assigned to a service profile created with that template. If you want Cisco UCS Manager to assign a UUID from the newly assigned pool to the service profile, and therefore to the associated server, you must reset the UUID. You can only reset the UUID assigned to a service profile and its associated server under the following circumstances:

- The service profile was created from an updating service profile template and includes a UUID assigned from a UUID suffix pool.

- The UUID suffix pool name is specified in the service profile. For example, the pool name is not empty.

- The UUID value is not 0, and is therefore not derived from the server hardware.

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters the command mode for the organization for which you want to reset the UUID. If the system does not include multi-tenancy, type / as the *org-name* to enter the root organization.
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters the service profile that requires the UUID for the associated server to be reset to a different UUID suffix pool.
Step 3	UCS-A /org/service-profile # **set identity dynamic-uuid derived**	Specifies that the service profile will obtain a UUID dynamically from a pool.
Step 4	UCS-A /org/service-profile # **commit-buffer**	Commits the transaction to the system configuration.

This example resets the UUID of a service profile to a different UUID suffix pool:

```
UCS-A# scope org /
UCS-A /org # scope service-profile ServInst90
UCS-A /org/service-profile # set identity dynamic-uuid derived
UCS-A /org/service-profile* # commit-buffer
UCS-A /org/service-profile #
```

Resetting the MAC Address Assigned to a vNIC from a Pool in a Service Profile Template

If you change the MAC pool assigned to an updating service profile template, Cisco UCS Manager does not change the MAC address assigned to a service profile created with that template. If you want Cisco UCS Manager to assign a MAC address from the newly assigned pool to the service profile, and therefore to the associated server, you must reset the MAC address. You can only reset the MAC address assigned to a service profile and its associated server under the following circumstances:

- The service profile was created from an updating service profile template and includes a MAC address assigned from a MAC pool.

- The MAC pool name is specified in the service profile. For example, the pool name is not empty.

- The MAC address value is not 0, and is therefore not derived from the server hardware.

Procedure

	Command or Action	**Purpose**
Step 1	UCS-A# **scope org** *org-name*	Enters the command mode for the organization that contains the service profile for which you want to reset the MAC address. If the system does not include multi-tenancy, type **/** as the *org-name* to enter the root organization.
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters the command mode for the service profile that requires the MAC address of the associated server to be reset to a different MAC address.
Step 3	UCS-A /org/service-profile # **scope vnic** *vnic-name*	Enters the command mode for the vNIC for which you want to reset the MAC address.
Step 4	UCS-A /org/service-profile/vnic # **set identity dynamic-mac derived**	Specifies that the vNIC will obtain a MAC address dynamically from a pool.
Step 5	UCS-A /org/service-profile/vnic # **commit-buffer**	Commits the transaction to the system configuration.

This example resets the MAC address of a vNIC in a service profile:

```
UCS-A# scope org /
UCS-A /org # scope service-profile ServInst90
UCS-A /org/service-profile #  scope vnic dynamic-prot-001
UCS-A /org/service-profile/vnic # set identity dynamic-mac derived
UCS-A /org/service-profile/vnic* # commit-buffer
UCS-A /org/service-profile/vnic #
```

Resetting the WWPN Assigned to a vHBA from a Pool in a Service Profile Template

If you change the WWPN pool assigned to an updating service profile template, Cisco UCS Manager does not change the WWPN assigned to a service profile created with that template. If you want Cisco UCS Manager to assign a WWPN from the newly assigned pool to the service profile, and therefore to the associated server, you must reset the WWPN. You can only reset the WWPN assigned to a service profile and its associated server under the following circumstances:

- The service profile was created from an updating service profile template and includes a WWPN assigned from a WWPN pool.

- The WWPN pool name is specified in the service profile. For example, the pool name is not empty.

- The WWPN value is not 0, and is therefore not derived from the server hardware.

Procedure

	Command or Action	Purpose
Step 1	UCS-A# **scope org** *org-name*	Enters the command mode for the organization that contains the service profile for which you want to reset the WWPN. If the system does not include multi-tenancy, type / as the *org-name* to enter the root organization.
Step 2	UCS-A /org # **scope service-profile** *profile-name*	Enters the service profile of the vHBA for which you want to reset the WWPN.
Step 3	UCS-A /org/service-profile # **scope vhba** *vhba-name*	Enters the command mode for vHBA for which you want to reset the WWPN.
Step 4	UCS-A /org/service-profile/vhba # **set identity dynamic-wwpn derived**	Specifies that the vHBA will obtain a WWPN dynamically from a pool.
Step 5	UCS-A /org/service-profile/vhba # **commit-buffer**	Commits the transaction to the system configuration.

This example resets the WWPN of a vHBA in a service profile:

```
UCS-A# scope org /
UCS-A /org # scope service-profile ServInst90
UCS-A /org/service-profile #  scope vhba vhba3
UCS-A /org/service-profile/vhba # set identity dynamic-wwpn derived
UCS-A /org/service-profile/vhba* # commit-buffer
UCS-A /org/service-profile/vhba #
```