



Configuring Server-Related Pools

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Configuring IP Pools

IP Pools

IP pools are a collection of IP addresses. You can use IP pools in Cisco UCS Central in one of the following ways:

- For external management of Cisco UCS Manager servers.
- For iSCSI boot initiators.
- For both external management and iSCSI boot initiators in Cisco UCS Manager.



Note

The IP pool must not contain any IP addresses that have been assigned as static IP addresses for a server or service profile.

A fault is raised if the same IP address is assigned to two different Cisco UCS domains. If you want to use the same IP addresses, you can use the **scope** property to specify whether the IP addresses in the block are public or private:

- **public**—The IP addresses in the block can be assigned to one and only one registered Cisco UCS domain.
- **private**—The IP addresses in the block can be assigned to multiple Cisco UCS domains.

Cisco UCS Central creates public IP pools by default.

Global IP pools should be used for similar geographic locations. If the IP addressing schemes are different, the same IP pool can not be used for those sites.

Creating an IP Pool

Procedure

- Step 1** On the menu bar, click **Network**.
- Step 2** In the **Network** tab, expand **Network > Pools > Root**.
If you want to create or access a pool in a sub-organization, expand **Sub-Organizations > Organization_Name**.
- Step 3** Right-click **IP Pools** and select **Create IP Pool**.
- Step 4** In the **General** tab of the **Create IP Pool** dialog box, fill in the following fields:

Name	Description
Name field	The name of the IP pool. This name can be between 1 and 32 alphanumeric characters. You cannot use spaces or any special characters other than - (hyphen), _ (underscore), : (colon), and . (period), and you cannot change this name after the object has been saved.
Description field	The user-defined description of the pool. Enter up to 256 characters. You can use any characters or spaces except ` (accent mark), \ (backslash), ^ (carat), " (double quote), = (equal sign), > (greater than), < (less than), and ' (single quote).

- Step 5** In the **IP Blocks** tab of the **Create IP Pool** dialog box, click **Create a Block of IP Addresses**.
- Step 6** In the **Create a Block of IP** dialog box, fill in the following fields:

Name	Description
From field	The first IP address in the block.
Size field	The number of IP addresses in the block.
Subnet field	The subnet mask associated with the IP addresses in the block.
Default Gateway field	The default gateway associated with the IP addresses in the block.
Primary DNS field	The primary DNS server that this block of IP addresses should access.
Secondary DNS field	The secondary DNS server that this block of IP addresses should access.

Name	Description
Scope drop-down list	<p>Whether the IP addresses in the block can be assigned to one or more Cisco UCS domains registered with Cisco UCS Central. This can be one of the following:</p> <ul style="list-style-type: none"> • public—The IP addresses in the block can be assigned to one and only one registered Cisco UCS domain. • private—The IP addresses in the block can be assigned to multiple registered Cisco UCS domains. <p>Note If any of the IP addresses in the block are already defined in one or more existing IP pools, Cisco UCS Central ignores the value in this field and sets the scope of all addresses in the block to the scope originally assigned to the existing IP addresses.</p>

Step 7 Click **OK**.

Step 8 Click **OK**.

Note If you plan to create another pool, wait at least 5 seconds.

What to Do Next

Include the IP pool in a service profile and/or template.

Deleting an IP Pool

If you delete a pool, Cisco UCS Central does not reallocate any addresses from that pool that have been assigned to vNICs or vHBAs in Cisco UCS Manager. All assigned addresses from a deleted pool remain with the vNIC or vHBA to which they are assigned until one of the following occurs:

- The associated service profiles are deleted.
- The vNIC or vHBA to which the address is assigned is deleted.
- The vNIC or vHBA is assigned to a different pool.

Procedure

Step 1 On the menu bar, click **Network**.

Step 2 In the **Network** tab, expand **Network > Pools > Root**.

If you want to create or access a pool in a sub-organization, expand **Sub-Organizations > Organization_Name**

Step 3 Expand the **IP Pools** node.

Step 4 Right-click the pool you want to delete and select **Delete**.

Note If you plan to delete another pool, wait at least 5 seconds.

Step 5 If Cisco UCS Central GUI displays a confirmation dialog box, click **Yes**.

Configuring IQN Pools

IQN Pools

An IQN pool is a collection of iSCSI Qualified Names (IQNs) for use as initiator identifiers by iSCSI vNICs in a Cisco UCS domain. IQN pools created in Cisco UCS Central can be shared between Cisco UCS domains.

IQN pool members are of the form *prefix:suffix:number*, where you can specify the prefix, suffix, and a block (range) of numbers.

An IQN pool can contain more than one IQN block, with different number ranges and different suffixes, but sharing the same prefix.

Creating an IQN Pool



Note In most cases, the maximum IQN size (prefix + suffix + additional characters) is 223 characters. When using the Cisco UCS NIC M51KR-B adapter, you must limit the IQN size to 128 characters.

Procedure

Step 1 On the menu bar, click **Storage**.

Step 2 In the **Storage** tab, expand **Storage > Pools > Root**.

If you want to create or access a pool in a sub-organization, expand **Sub-Organizations > Organization_Name**

Step 3 Right-click **IQN Pools** and select **Create IQN Pool**.

Step 4 In the **General** tab of the **Create IQN Pool** dialog box, fill in the following fields:

Name	Description
Name field	<p>The name of the iSCSI Qualified Name (IQN) pool.</p> <p>This name can be between 1 and 32 alphanumeric characters. You cannot use spaces or any special characters other than - (hyphen), _ (underscore), : (colon), and . (period), and you cannot change this name after the object has been saved.</p>

Name	Description
Description field	The user-defined description of the pool. Enter up to 256 characters. You can use any characters or spaces except ` (accent mark), \ (backslash), ^ (carat), " (double quote), = (equal sign), > (greater than), < (less than), and ' (single quote).
Prefix field	The prefix for any IQN blocks created for this pool. Unless limited by the adapter card, the prefix can contain from 1 to 150 characters. You can use any letter or number, as well as the special characters . (period), : (colon), and - (hyphen). For example, you could use iqnl.alpha.com.

Step 5 In the **IQN Blocks** tab of the **Create IQN Pool** dialog box, click **Create a Block of IQN Suffixes**.

Step 6 In the **Create a Block of IQN** dialog box, fill in the following fields:

Name	Description
From field	The first iSCSI Qualified Name (IQN) suffix in the block.
Size field	The number of suffixes in the block.
Suffix field	The suffix for this block of IQNs. Enter from 1 to 64 characters. You can use any letter or number, as well as the special characters . (period), : (colon), and - (hyphen). For example, you could use alphadc-1.

Step 7 Click **OK**.

Step 8 Click **OK**.

Note If you plan to create another pool, wait at least 5 seconds.

What to Do Next

Include the IQN suffix pool in a service profile and/or template.

Deleting an IQN Pool

If you delete a pool, Cisco UCS Central does not reallocate any addresses from that pool that have been assigned to vNICs or vHBAs in Cisco UCS Manager. All assigned addresses from a deleted pool remain with the vNIC or vHBA to which they are assigned until one of the following occurs:

- The associated service profiles are deleted.
- The vNIC or vHBA to which the address is assigned is deleted.

- The vNIC or vHBA is assigned to a different pool.

Procedure

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- Step 1** On the menu bar, click **Storage**.
- Step 2** In the **Storage** tab, expand **Storage > Pools > Root**.
If you want to create or access a pool in a sub-organization, expand **Sub-Organizations > Organization_Name**
- Step 3** Expand the **IQN Pools** node.
- Step 4** Right-click the pool you want to delete and select **Delete**.
Note If you plan to delete another pool, wait at least 5 seconds.
- Step 5** If Cisco UCS Central GUI displays a confirmation dialog box, click **Yes**.
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Configuring UUID Suffix Pools

UUID Suffix Pools

A UUID suffix pool is a collection of SMBIOS UUIDs that are available to be assigned to servers. The first number of digits that constitute the prefix of the UUID are fixed. The remaining digits, the UUID suffix, are variable. A UUID suffix pool ensures that these variable values are unique for each server associated with a service profile which uses that particular pool to avoid conflicts.

If you use UUID suffix pools in service profiles, you do not have to manually configure the UUID of the server associated with the service profile. Assigning global UUID suffix pools from Cisco UCS Central to service profiles in Cisco UCS Central or Cisco UCS Manager allows them to be shared across Cisco UCS domains.

Creating a UUID Suffix Pool

Procedure

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- Step 1** On the menu bar, click **Servers**.
- Step 2** In the **Servers** tab, expand **Servers > Pools > Root**.
If you want to create or access a pool in a sub-organization, expand **Sub-Organizations > Organization_Name**
- Step 3** Right-click **UUID Suffix Pools** and select **Create UUID Suffix Pool**.
- Step 4** In the **General** tab of the **Create UUID Suffix Pool** dialog box, fill in the following fields:

Name	Description
Name field	The name of the UUID pool. This name can be between 1 and 32 alphanumeric characters. You cannot use spaces or any special characters other than - (hyphen), _ (underscore), : (colon), and . (period), and you cannot change this name after the object has been saved.
Description field	The user-defined description of the pool. Enter up to 256 characters. You can use any characters or spaces except ` (accent mark), \ (backslash), ^ (carat), " (double quote), = (equal sign), > (greater than), < (less than), and ' (single quote).
Prefix field	This can be one of the following: <ul style="list-style-type: none"> • Derived—Cisco UCS Central creates the suffix. • other—You specify the suffix. If you select this option, Cisco UCS Central GUI displays a text field where you can enter the UUID suffix, in the format XXXXXXXX-XXXX-XXXX.

Step 5 In the **UUID Blocks** tab of the **Create UUID Suffix Pool** dialog box, click **Create a Block of UUID Suffixes**.

Step 6 In the **Create a Block of UUID** dialog box, fill in the following fields:

Name	Description
From field	The first UUID suffix in the block.
Size field	The number of UUID suffixes in the block.

Step 7 Click **OK**.

Step 8 Click **OK**.

Note If you plan to create another pool, wait at least 5 seconds.

What to Do Next

Include the UUID suffix pool in a service profile and/or template.

Deleting a UUID Suffix Pool

If you delete a pool, Cisco UCS Central does not reallocate any addresses from that pool that have been assigned to vNICs or vHBAs in Cisco UCS Manager. All assigned addresses from a deleted pool remain with the vNIC or vHBA to which they are assigned until one of the following occurs:

- The associated service profiles are deleted.

- The vNIC or vHBA to which the address is assigned is deleted.
- The vNIC or vHBA is assigned to a different pool.

Procedure

- Step 1** On the menu bar, click **Servers**.
- Step 2** In the **Servers** tab, expand **Servers > Pools > Root**.
If you want to create or access a pool in a sub-organization, expand **Sub-Organizations > *Organization_Name***
- Step 3** Expand the **UUID Suffix Pools** node.
- Step 4** Right-click the pool you want to delete and select **Delete**.
Note If you plan to delete another pool, wait at least 5 seconds.
- Step 5** If Cisco UCS Central GUI displays a confirmation dialog box, click **Yes**.
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