



WWN Pools

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WWN Pools

A World Wide Name (WWN) pool is a collection of WWNs for use by the Fibre Channel vHBAs in a Cisco UCS domain. You create separate pools for the following:

- WW node names assigned to the vHBA
- WW port names assigned to the vHBA
- Both WW node names and WW port names



Important

A WWN pool can include only WWNNs or WWPNS in the ranges from 20:00:00:00:00:00:00:00 to 20:FF:00:FF:FF:FF:FF:FF or from 50:00:00:00:00:00:00:00 to 5F:FF:00:FF:FF:FF:FF:FF. All other WWN ranges are reserved. When fibre channel traffic is sent through the Cisco UCS infrastructure, the source WWPNS is converted to a MAC address. You cannot use WWPNS pool which can translate to a source multicast MAC address. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNS in the SAN fabric, Cisco recommends using the following WWN prefix for all blocks in a pool: 20:00:00:25:B5:XX:XX:XX

If you use WWN pools in service profiles, you do not have to manually configure the WWNs that will be used by the server associated with the service profile. In a system that implements multi-tenancy, you can use a WWN pool to control the WWNs used by each organization.

You assign WWNs to pools in blocks.

WWNN Pools

A WWNN pool is a WWN pool that contains only WW node names. If you include a pool of WWNNs in a service profile, the associated server is assigned a WWNN from that pool.

WWPN Pools

A WWPN pool is a WWN pool that contains only WW port names. If you include a pool of WWPNs in a service profile, the port on each vHBA of the associated server is assigned a WWPN from that pool.

WWxN Pools

A WWxN pool is a WWN pool that contains both WW node names and WW port names. You can specify how many ports per node are created with WWxN pools. The pool size must be a multiple of *ports-per-node* + 1. For example, if you specify 7 ports per node, the pool size must be a multiple of 8. If you specify 63 ports per node, the pool size must be a multiple of 64.

You can use a WWxN pool whenever you select a WWNN or WWPN pool. The WWxN pool must be created before it can be assigned.

- For WWNN pools, the WWxN pool is displayed as an option in the **WWNN Assignment** drop-down list.
- For WWPN pools, choose **Derived** in the **WWPN Assignment** drop-down list.

Creating a WWNN Pool



Important

A WWN pool can include only WWNNs or WWPNs in the ranges from 20:00:00:00:00:00:00 to 20:FF:00:FF:FF:FF:FF or from 50:00:00:00:00:00:00 to 5F:FF:00:FF:FF:FF:FF. All other WWN ranges are reserved. When fibre channel traffic is sent through the Cisco UCS infrastructure, the source WWPN is converted to a MAC address. You cannot use WWPN pool which can translate to a source multicast MAC address. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNs in the SAN fabric, Cisco recommends using the following WWN prefix for all blocks in a pool: 20:00:00:25:B5:XX:XX:XX

Procedure

- Step 1** In the **Navigation** pane, click **SAN**.
- Step 2** In the **SAN** tab, expand **SAN > Pools**.
- Step 3** Expand the node for the organization where you want to create the pool.
If the system does not include multitenancy, expand the **root** node.
- Step 4** Right-click **WWNN Pools** and select **Create WWNN Pool**.
- Step 5** In the **Define Name and Description** dialog box of the **Create WWNN Pool** wizard, complete the following fields:

| Name | Description |
|------------|---|
| Name field | The name of the World Wide Node Name 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 is saved. |

| Name | Description |
|------------------------|---|
| Description field | A 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), or ' (single quote). |
| Assignment Order field | This can be one of the following: <ul style="list-style-type: none"> • Default—Cisco UCS Manager selects a random identity from the pool. • Sequential—Cisco UCS Manager selects the lowest available identity from the pool. |

Step 6 Click **Next**.

Step 7 In the **Add WWN Blocks** page of the **Create WWNN Pool** wizard, click **Add**.

Step 8 In the **Create WWN Block** dialog box, complete the following fields:

| Name | Description |
|------------|---|
| From field | The first WWN in the block. |
| Size field | The number of WWNs in the block. For WWxN pools, the pool size must be a multiple of <i>ports-per-node</i> + 1. For example, if there are 7 ports per node, the pool size must be a multiple of 8. If there are 63 ports per node, the pool size must be a multiple of 64. |

Step 9 Click **OK**.

Step 10 Click **Finish**.

What to do next

Include the WWNN pool in a service profile and template.

Adding a WWN Block to a WWNN Pool



Important

A WWN pool can include only WWNNs or WWPNS in the ranges from 20:00:00:00:00:00:00:00 to 20:FF:00:FF:FF:FF:FF:FF or from 50:00:00:00:00:00:00:00 to 5F:FF:00:FF:FF:FF:FF:FF. All other WWN ranges are reserved. When fibre channel traffic is sent through the Cisco UCS infrastructure, the source WWPNS is converted to a MAC address. You cannot use WWPNS pool which can translate to a source multicast MAC address. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNS in the SAN fabric, Cisco recommends using the following WWN prefix for all blocks in a pool: 20:00:00:25:B5:XX:XX:XX

Procedure

- Step 1** In the **Navigation** pane, click **SAN**.
- Step 2** In the **SAN** tab, expand **SAN > Pools > Organization_Name** .
- Step 3** Expand the **WWNN Pools** node.
- Step 4** Right-click the WWNN pool to which you want to add a WWN block and select **Create WWN Block**.
- Step 5** In the **Create WWN Block** dialog box, complete the following fields:

| Name | Description |
|------------|---|
| From field | The first WWN in the block. |
| Size field | The number of WWNs in the block. For WWxN pools, the pool size must be a multiple of <i>ports-per-node</i> + 1. For example, if there are 7 ports per node, the pool size must be a multiple of 8. If there are 63 ports per node, the pool size must be a multiple of 64. |

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

Deleting a WWN Block from a WWNN Pool

If you delete an address block from a pool, Cisco UCS Manager does not reallocate any addresses in that block that were assigned to vNICs or vHBAs. All assigned addresses from a deleted block 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** In the **Navigation** pane, click **SAN**.
- Step 2** In the **SAN** tab, expand **SAN > Pools > Organization_Name > WWNN Pools > WWNN_Pool_Name** .
- Step 3** Right-click the WWN block that you want to delete and select **Delete**.
- Step 4** If a confirmation dialog box displays, click **Yes**.
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Adding a WWNN Initiator to a WWNN Pool



Important

A WWN pool can include only WWNNs or WWPNS in the ranges from 20:00:00:00:00:00:00:00 to 20:FF:00:FF:FF:FF:FF:FF or from 50:00:00:00:00:00:00:00 to 5F:FF:00:FF:FF:FF:FF:FF. All other WWN ranges are reserved. When fibre channel traffic is sent through the Cisco UCS infrastructure, the source WWPNS is converted to a MAC address. You cannot use WWPNS pool which can translate to a source multicast MAC address. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNS in the SAN fabric, Cisco recommends using the following WWN prefix for all blocks in a pool: 20:00:00:25:B5:XX:XX:XX

Procedure

- Step 1** In the **Navigation** pane, click **SAN**.
- Step 2** In the **SAN** tab, expand **SAN > Pools > Organization_Name** .
- Step 3** Expand the **WWNN Pools** node.
- Step 4** Right-click the WWNN pool to which you want to add a WWNN initiator and select **Create WWNN Initiator**.
- Step 5** In the **Create WWNN Initiator** dialog box, complete the following fields:

| Name | Description |
|------------------------------|--|
| World Wide Name field | The WWN. |
| Name field | The name of the WWNN initiator. This name can be between 1 and 16 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 is saved. |
| Description field | A user-defined description of the WWNN initiator. Enter up to 256 characters. You can use any characters or spaces except ` (accent mark), \ (backslash), ^ (carat), " (double quote), = (equal sign), > (greater than), < (less than), or ' (single quote). |

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

Deleting a WWPNS Initiator from a WWPNS Pool

Procedure

- Step 1** In the **Navigation** pane, click **SAN**.
- Step 2** In the **SAN** tab, expand **SAN > Pools > Organization_Name** .
- Step 3** Expand the **WWPN Pools** node.

- Step 4** Choose the WWPN pool from which you want to delete a WWPN initiator.
 - Step 5** In the **Work** pane, click the **Initiators** tab.
 - Step 6** Right-click the initiator that you want to delete and choose **Delete**.
 - Step 7** If a confirmation dialog box displays, click **Yes**.
-

Deleting a WWNN Pool

If you delete a pool, Cisco UCS Manager does not reallocate any addresses from that pool that were assigned to vNICs or vHBAs. 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** In the **Navigation** pane, click **SAN**.
 - Step 2** In the **SAN** tab, expand **SAN > Pools > Organization_Name**.
 - Step 3** Expand the **WWNN Pools** node.
 - Step 4** Right-click the WWNN pool you want to delete and select **Delete**.
 - Step 5** If a confirmation dialog box displays, click **Yes**.
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WWPN Pools

Creating a WWPN Pool



Important

A WWN pool can include only WWNNs or WWPNS in the ranges from 20:00:00:00:00:00:00 to 20:FF:00:FF:FF:FF:FF or from 50:00:00:00:00:00:00 to 5F:FF:00:FF:FF:FF:FF. All other WWN ranges are reserved. When fibre channel traffic is sent through the Cisco UCS infrastructure, the source WWPN is converted to a MAC address. You cannot use WWPN pool which can translate to a source multicast MAC address. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNS in the SAN fabric, Cisco recommends using the following WWN prefix for all blocks in a pool: 20:00:00:25:B5:XX:XX:XX

Procedure

- Step 1** In the **Navigation** pane, click **SAN**.

Step 2 In the **SAN** tab, expand **SAN > Pools**.

Step 3 Expand the node for the organization where you want to create the pool.

If the system does not include multitenancy, expand the **root** node.

Step 4 Right-click **WWPN Pools** and select **Create WWPN Pool**.

Step 5 In the **Define Name and Description** page of the **Create WWPN Pool** wizard, complete the following fields:

| Name | Description |
|------------------------|---|
| Name field | The name of the World Wide Port Name 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 is saved. |
| Description field | A 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), or ' (single quote). |
| Assignment Order field | This can be one of the following: <ul style="list-style-type: none"> • Default—Cisco UCS Manager selects a random identity from the pool. • Sequential—Cisco UCS Manager selects the lowest available identity from the pool. |

Step 6 Click **Next**.

Step 7 In the **Add WWN Blocks** page of the **Create WWPN Pool** wizard, click **Add**.

Step 8 In the **Create WWN Block** dialog box, complete the following fields:

| Name | Description |
|------------|---|
| From field | The first WWN in the block. |
| Size field | The number of WWNs in the block. For WWxN pools, the pool size must be a multiple of <i>ports-per-node</i> + 1. For example, if there are 7 ports per node, the pool size must be a multiple of 8. If there are 63 ports per node, the pool size must be a multiple of 64. |

Step 9 Click **OK**.

Step 10 Click **Finish**.

What to do next

Include the WWPN pool in a vHBA template.

Adding a WWN Block to a WWPN Pool



Important A WWN pool can include only WWNNs or WWPNs in the ranges from 20:00:00:00:00:00:00 to 20:FF:00:FF:FF:FF:FF or from 50:00:00:00:00:00:00 to 5F:FF:00:FF:FF:FF:FF. All other WWN ranges are reserved. When fibre channel traffic is sent through the Cisco UCS infrastructure, the source WWPN is converted to a MAC address. You cannot use WWPN pool which can translate to a source multicast MAC address. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNs in the SAN fabric, Cisco recommends using the following WWN prefix for all blocks in a pool: 20:00:00:25:B5:XX:XX:XX

Procedure

- Step 1** In the **Navigation** pane, click **SAN**.
- Step 2** In the **SAN** tab, expand **SAN > Pools > Organization_Name**.
- Step 3** Expand the **WWPN Pools** node.
- Step 4** Right-click the WWPN pool to which you want to add a WWN block and select **Create WWN Block**.
- Step 5** In the **Create WWN Block** dialog box, complete the following fields:

| Name | Description |
|-------------------|---|
| From field | The first WWN in the block. |
| Size field | The number of WWNs in the block. For WWxN pools, the pool size must be a multiple of <i>ports-per-node</i> + 1. For example, if there are 7 ports per node, the pool size must be a multiple of 8. If there are 63 ports per node, the pool size must be a multiple of 64. |

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

Deleting a WWN Block from a WWPN Pool

If you delete an address block from a pool, Cisco UCS Manager does not reallocate any addresses in that block that were assigned to vNICs or vHBAs. All assigned addresses from a deleted block 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** In the **Navigation** pane, click **SAN**.

- Step 2** In the **SAN** tab, expand **SAN > Pools > Organization_Name > WWPN Pools > WWPN_Pool_Name** .
- Step 3** Right-click the WWN block that you want to delete and select **Delete**.
- Step 4** If a confirmation dialog box displays, click **Yes**.

Adding a WWPN Initiator to a WWPN Pool



Important

A WWN pool can include only WWNNs or WWPNs in the ranges from 20:00:00:00:00:00:00:00 to 20:FF:00:FF:FF:FF:FF:FF or from 50:00:00:00:00:00:00:00 to 5F:FF:00:FF:FF:FF:FF:FF. All other WWN ranges are reserved. When fibre channel traffic is sent through the Cisco UCS infrastructure, the source WWPN is converted to a MAC address. You cannot use WWPN pool which can translate to a source multicast MAC address. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNs in the SAN fabric, Cisco recommends using the following WWN prefix for all blocks in a pool: 20:00:00:25:B5:XX:XX:XX

Procedure

- Step 1** In the **Navigation** pane, click **SAN**.
- Step 2** In the **SAN** tab, expand **SAN > Pools > Organization_Name** .
- Step 3** Expand the **WWPN Pools** node.
- Step 4** Right-click the WWPN pool to which you want to add a WWPN initiator and select **Create WWPN Initiator**.
- Step 5** In the **Create WWPN Initiator** dialog box, complete the following fields:

| Name | Description |
|------------------------------|--|
| World Wide Name field | The WWN. |
| Name field | The name of the WWPN initiator. This name can be between 1 and 16 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 is saved. |
| Description field | A user-defined description of the WWPN initiator. Enter up to 256 characters. You can use any characters or spaces except ` (accent mark), \ (backslash), ^ (carat), " (double quote), = (equal sign), > (greater than), < (less than), or ' (single quote). |

- Step 6** If you want to add a SAN boot target, expand the **Boot Target** area and complete the following fields:

| Name | Description |
|-------------------------------|--|
| Boot Target WWPN field | The WWPN that corresponds to the location of the boot image. |
| Boot Target LUN field | The LUN that corresponds to the location of the boot image. |

Step 7 Click **OK**.

Deleting a WWPN Initiator from a WWPN Pool

Procedure

- Step 1** In the **Navigation** pane, click **SAN**.
- Step 2** In the **SAN** tab, expand **SAN > Pools > Organization_Name**.
- Step 3** Expand the **WWPN Pools** node.
- Step 4** Choose the WWPN pool from which you want to delete a WWPN initiator.
- Step 5** In the **Work** pane, click the **Initiators** tab.
- Step 6** Right-click the initiator that you want to delete and choose **Delete**.
- Step 7** If a confirmation dialog box displays, click **Yes**.
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Deleting a WWPN Pool

If you delete a pool, Cisco UCS Manager does not reallocate any addresses from that pool that were assigned to vNICs or vHBAs. 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** In the **Navigation** pane, click **SAN**.
- Step 2** In the **SAN** tab, expand **SAN > Pools > Organization_Name**.
- Step 3** Expand the **WWPN Pools** node.
- Step 4** Right-click the WWPN pool you want to delete and select **Delete**.
- Step 5** If a confirmation dialog box displays, click **Yes**.
-

WWxN Pools

Creating a WWxN Pool



Important

A WWN pool can include only WWNNs or WWPNS in the ranges from 20:00:00:00:00:00:00:00 to 20:FF:00:FF:FF:FF:FF:FF or from 50:00:00:00:00:00:00:00 to 5F:FF:00:FF:FF:FF:FF:FF. All other WWN ranges are reserved. When fibre channel traffic is sent through the Cisco UCS infrastructure, the source WWPNS is converted to a MAC address. You cannot use WWPNS pool which can translate to a source multicast MAC address. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNS in the SAN fabric, Cisco recommends using the following WWN prefix for all blocks in a pool: 20:00:00:25:B5:XX:XX:XX

Procedure

- Step 1** In the **Navigation** pane, click **SAN**.
- Step 2** In the **SAN** tab, expand **SAN > Pools**.
- Step 3** Expand the node for the organization where you want to create the pool.
If the system does not include multitenancy, expand the **root** node.
- Step 4** Right-click **WWxN Pools** and select **Create WWxN Pool**.
- Step 5** In the **Define Name and Description** page of the **Create WWxN Pool** wizard, complete the following fields:

| Name | Description |
|---------------------------------|---|
| Name field | The name of the World Wide Port Name 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 is saved. |
| Description field | A 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), or ' (single quote). |
| Max Ports per Node field | The maximum number of ports that can be assigned to each node name in this pool. You cannot change this value once the object has been saved. |

| Name | Description |
|------------------------|---|
| Assignment Order field | This can be one of the following: <ul style="list-style-type: none"> • Default—Cisco UCS Manager selects a random identity from the pool. • Sequential—Cisco UCS Manager selects the lowest available identity from the pool. |

Step 6

Click **Next**.

Step 7

In the **Add WWN Blocks** page of the **Create WWxN Pool** wizard, click **Add**.

Step 8

In the **Create WWN Block** dialog box, complete the following fields:

| Name | Description |
|------------|---|
| From field | The first WWN in the block. |
| Size field | The number of WWNs in the block. For WWxN pools, the pool size must be a multiple of <i>ports-per-node</i> + 1. For example, if there are 7 ports per node, the pool size must be a multiple of 8. If there are 63 ports per node, the pool size must be a multiple of 64. |

Step 9

Click **OK**.

Step 10

Click **Finish**.

What to do next

Include the WWxN pool in a service profile and template.

Adding a WWN Block to a WWxN Pool

**Important**

A WWN pool can include only WWNNs or WWPNS in the ranges from 20:00:00:00:00:00:00 to 20:FF:00:FF:FF:FF:FF or from 50:00:00:00:00:00:00 to 5F:FF:00:FF:FF:FF:FF. All other WWN ranges are reserved. When fibre channel traffic is sent through the Cisco UCS infrastructure, the source WWPNS is converted to a MAC address. You cannot use WWPNS pool which can translate to a source multicast MAC address. To ensure the uniqueness of the Cisco UCS WWNNs and WWPNS in the SAN fabric, Cisco recommends using the following WWN prefix for all blocks in a pool: 20:00:00:25:B5:XX:XX:XX

Procedure**Step 1**

In the **Navigation** pane, click **SAN**.

Step 2

In the **SAN** tab, expand **SAN > Pools > Organization_Name**.

Step 3

Expand the **WWxN Pools** node.

Step 4 Right-click the WWxN pool to which you want to add a WWN block and select **Create WWN Block**.

Step 5 In the **Create WWN Block** dialog box, complete the following fields:

| Name | Description |
|------------|---|
| From field | The first WWN in the block. |
| Size field | The number of WWNs in the block. For WWxN pools, the pool size must be a multiple of <i>ports-per-node</i> + 1. For example, if there are 7 ports per node, the pool size must be a multiple of 8. If there are 63 ports per node, the pool size must be a multiple of 64. |

Step 6 Click **OK**.

Deleting a WWN Block from a WWxN Pool

If you delete an address block from a pool, Cisco UCS Manager does not reallocate any addresses in that block that were assigned to vNICs or vHBAs. All assigned addresses from a deleted block 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 In the **Navigation** pane, click **SAN**.

Step 2 In the **SAN** tab, expand **SAN > Pools > Organization_Name > WWxN Pools > WWxN_Pool_Name**.

Step 3 Right-click the WWN block that you want to delete and select **Delete**.

Step 4 If a confirmation dialog box displays, click **Yes**.

Deleting a WWxN Pool

If you delete a pool, Cisco UCS Manager does not reallocate any addresses from that pool that were assigned to vNICs or vHBAs. 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** In the **Navigation** pane, click **SAN**.
- Step 2** In the **SAN** tab, expand **SAN > Pools > *Organization_Name*** .
- Step 3** Expand the **WWxN Pools** node.
- Step 4** Right-click the WWxN pool you want to delete and select **Delete**.
- Step 5** If a confirmation dialog box displays, click **Yes**.
-