



# Configuring Cisco UCS Server Pool Policies

---

This chapter contains the following sections:

- [Server Pool Policy Qualifications, page 1](#)
- [Server Pool Policy, page 5](#)

## Server Pool Policy Qualifications

This policy qualifies servers based on the inventory of a server conducted during the discovery process. The qualifications are individual rules that you configure in the policy to determine whether a server meets the selection criteria. For example, you can create a rule that specifies the minimum memory capacity for servers in a data center pool.

Qualifications are used in other policies to place servers, not just by the server pool policies. For example, if a server meets the criteria in a qualification policy, it can be added to one or more server pools or have a service profile automatically associated with it.

You can use the server pool policy qualifications to qualify servers according to the following criteria:

- Adapter type
- Chassis location
- Memory type and configuration
- Power group
- CPU cores, type, and configuration
- Storage configuration and capacity
- Server model

Depending upon the implementation, you might need to configure several policies with server pool policy qualifications including the following:

- Autoconfiguration policy
- Chassis discovery policy
- Server discovery policy

- Server inheritance policy
- Server pool policy

## Creating Server Pool Policy Qualifications

- 
- Step 1** On the menu bar, choose **Physical > Compute**.
- Step 2** In the left pane, expand the pod and then click the Cisco UCS Manager account.
- Step 3** In the right pane, click the **Organizations** tab.
- Step 4** Click the organization in which you want to create the policy and then click **View Details**.
- Step 5** Click the **Server Pool Policy Qualifications** tab.
- Step 6** Click **Add**.
- Step 7** In the **Create Server Pool Policy Qualifications** wizard, enter a name and description for the policy and click **Next**.
- Step 8** On the **Adapter Qualifications** page, do the following to add adapter qualifications to the policy or click **Next** if you do not want to add them:
- Check the **Add Adapter Qualifications** check box.
  - From the **Type** drop-down list, choose the type of adapter that you want to include in the policy.  
After you save the adapter qualification, this type cannot be changed.
  - In the **Model(RegEx)** field, enter a regular expression that the adapter PID must match.
  - In the **Maximum Capacity** field, enter the maximum capacity for the selected type.
  - Click **Next**.
- Step 9** On the **Chassis/Server Qualifications** page, do the following to add chassis and/or server qualifications to the policy or click **Next** if you do not want to add them:
- Check the **Add Chassis/Server Qualifications** check box.
  - From the **First Chassis ID** field, enter the first chassis ID from which server pools associated with this policy can draw.  
After you save the adapter qualification, this type cannot be changed.
  - In the **Number of Chassis** field, enter the total number of chassis to include in the pool, starting with the chassis identified in the **First Chassis ID** field.
  - In the **Server Qualification Ranges** field, enter the range of server locations that you want to use.  
If you want to enter more than one range, separate the ranges by commas. For example, enter 1:5,2:6.
  - Click **Next**.
- Example:**  
For example, if you want to use chassis 5, 6, 7, and 8, enter 5 in the **First Chassis ID** field and 4 in the **Number of Chassis** field. If you want to use only chassis 3, enter 3 in the **First Chassis ID** field and 1 in the **Number of Chassis** field.
- Step 10** On the **Memory Qualifications** page, do the following to add memory qualifications to the policy or click **Next** if you do not want to add them:
- Check the **Add Memory Qualifications** check box.
  - Complete the following fields:

Name	Description
<b>Clock</b> field	The minimum clock speed required, in megahertz.
<b>Min Cap</b> field	The minimum memory capacity required, in megabytes.
<b>Max Cap</b> field	The maximum memory capacity allowed, in megabytes.
<b>Width</b> field	The minimum width of the data bus.
<b>Latency</b> field	The maximum latency allowed, in nanoseconds.
<b>Units</b> field	The unit of measure to associate with the value in the Width field.

c) Click **Next**.

### Step 11

On the **CPU/Cores Qualifications** page, do the following to add CPU and/or cores qualifications to the policy or click **Next** if you do not want to add them:

- a) Check the **Add CPU/Cores Qualifications** check box.
- b) Complete the following fields:

Name	Description
<b>Processor Architecture</b> drop-down list	Choose the CPU architecture to which this policy applies.
<b>Min Number of Cores</b> field	The minimum number of CPU cores required. This integer can be between 1 and 65535.
<b>Max Number of Cores</b> field	The maximum number of CPU cores allowed. This integer can be between 1 and 65535.
<b>Min Number of Threads</b> field	The minimum number of CPU threads required. This integer can be between 1 and 65535 in the associated text field.
<b>Max Number of Threads</b> field	The maximum number of CPU threads allowed. This integer can be between 1 and 65535.
<b>CPU Speed</b> field	The minimum CPU speed required.
<b>Model(RegEx)</b> field	A regular expression that the processor PID must match.
<b>CPU Stepping</b> field	The minimum CPU version required.

c) Click **Next**.

**Step 12** On the **Storage Qualifications** page, do the following to add storage qualifications to the policy or click **Next** if you do not want to add them:

- a) Check the **Add Storage Qualifications** check box.
- b) Complete the following fields:

Name	Description
<b>Diskless</b> drop-down list	Choose whether the available storage must be diskless. This can be one of the following: <ul style="list-style-type: none"> <li>• <b>Unspecified</b>—Either storage type is acceptable.</li> <li>• <b>Yes</b>—The storage must be diskless.</li> <li>• <b>No</b>—The storage cannot be diskless.</li> </ul> If you choose <b>Yes</b> , no additional fields are displayed.
<b>Min Cap</b> field	The minimum storage capacity across all disks in the server, in megabytes.
<b>Max Cap</b> field	The maximum storage capacity allowed, in megabytes.
<b>Number of Blocks</b> field	The minimum number of blocks required.
<b>Per Disk Cap</b> field	The minimum storage capacity per disk required, in gigabytes.
<b>Block Size</b> field	The minimum block size required, in bytes.
<b>Units</b> field	The number of units.

c) Click **Next**.

**Step 13** On the **Power Group Qualifications** page, do the following to add power group qualifications to the policy or click **Next** if you do not want to add them:

- a) Check the **Add Power Group Qualifications** check box.
- b) From the **Power Group** drop-down list, choose the power group that you want to include in the policy.
- c) Click **Next**.

**Step 14** On the **Rack Qualifications** page, do the following to add rack-mount server qualifications to the policy or click **Next** if you do not want to add them:

- a) Check the **Add Rack Qualifications** check box.
- b) From the **First Slot ID** field, enter the first rack-mount server ID from which server pools associated with this policy can draw.  
After you save the adapter qualification, this type cannot be changed.
- c) In the **Number of Slots** field, enter the total number of rack-mount server slots to include in the pool, starting with the server slot identified in the **First Slot ID** field.

d) Click **Next**.

**Step 15** On the **Server Model Qualifications** page, do the following to add rack-mount server qualifications to the policy or click **Next** if you do not want to add them:

- a) Check the **Add Server Model Qualifications** check box.
- b) In the **Model(RegEx)** field, enter a regular expression that the server model PID must match.
- c) Click **Next**.

**Step 16** Click **Submit**.

## Server Pool Policy

This policy is invoked during the server discovery process. It determines what happens if server pool policy qualifications match a server to the target pool specified in the policy.

If a server qualifies for more than one pool and those pools have server pool policies, the server is added to all those pools.

## Creating a Server Pool Policy

### Before You Begin

This policy requires that one or more of the following resources already exist in the system:

- A minimum of one server pool.
- Server pool policy qualifications, if you choose to have servers automatically added to pools.

**Step 1** On the menu bar, choose **Physical > Compute**.

**Step 2** In the left pane, expand the pod and then click the Cisco UCS Manager account.

**Step 3** In the right pane, click the **Organizations** tab.

**Step 4** Click the organization in which you want to create the policy and then click **View Details**.

**Step 5** Click the **Server Pool Policies** tab.

**Step 6** Click **Add**.

**Step 7** In the **Create Server Pool Policy** dialog box, complete the following fields:

Name	Description
Name field	A unique name for the policy.
Description field	A description for the policy.
Target Pool drop-down list	Choose a server pool to associate with the policy.

Name	Description
Qualification drop-down list	Choose a server pool qualification policy to associate with the policy.

**Step 8** Click **Submit**.

---