Managing Rack Servers

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Viewing Rack Server Details

Perform this procedure when you want to view the details of a rack server.

Before You Begin

The server is already added as a rack account under a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Rack Servers**.

Step 4 Select a server from the list.

Step 5 From the **More Actions** drop-down list, choose **View Details** or double-click the sever from the list.

Note The **More Actions** drop-down list is visible only after you select a server from the list.

The following details are available for a rack mount server:

Tab	Description
Summary	Displays an overview of the rack server.
CPUs	Displays the details of the CPUs in the server.
Memory	Displays details of the memory cards used in the server.
PSUs	Displays details of the power supply units in the server.
PCI Adapters	Displays details of the PCI adapters in the server.
VIC Adapters	Displays details of the VIC adapters in the server.
Network Adapters	Displays details of the network adapters in the server.
Storage Adapters	Displays details of the storage adapters in the server.
FlexFlash Adapters	Displays details of the Cisco FlexFlash adapters in the server.
Communication	Displays all the communication protocols that are configured in the server.
Remote Presence	Displays information on vKVM, vMedia and Serial over LAN (SOL) for the server.
Faults	Displays the details of the faults logged in the server. • Severity • DN • Description • Code - Error code for the fault. • Created - Date and time the fault was logged. • Cause - Reason for the fault.

Tab	Description
Hardware Compatibility Report	Displays the status against the current software version or a target software version.
Users	Displays the list of users for the server.
Cisco IMC Log	Displays the details of the Cisco IMC logs for the server. You can also clear the Cisco IMC logs.
System Event Log	Displays the details of the server logs.
TPM	Displays information on the TPM inventory.
BIOS	Displays BIOS-related information of the server.
Fault History	Displays historical information on the faults that occurred on the server.
Tech Support	Provides an option to upload tech-support log files to a remote server or to a local server.
Host Images	Details of an image such as name, size, MD5 checksum, last modified time, and if the image is mapped are displayed. You can select an image and click Map Image,Unmap Image, and Delete Image to perform the various actions. **Note** Host image mapping is applicable only for E-series servers.
Associated Hardware Profiles	Displays the server profiles that are associated with the server.

Viewing Fault Details of a Rack Server

Perform this procedure when you want to view the fault details of a rack server.

Before You Begin

The server is added as a rack account within a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Faults**.

Step 4 Select a server from the list.

Step 5 Choose **View Details**.
The following details are available for a rack mount server:

Tab	Description
Explanation	Brief reason for the issue.
Recommendation	Steps to resolve the issue.

Step 6 Click **Close** to return to the previous screen.

Setting a Label for a Rack Server

Perform this procedure when you want to set label for a rack mount server.

Before You Begin

The server is already added as a rack account under a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Rack Servers**.

Step 4 Select the server from the list.

Step 5 From the **More Actions** drop-down list, choose **Set Label**.

Step 6 Enter a new label.

Step 7 Click **Submit**.

Managing Tags for a Rack-Mount Server

Tagging is used to assign a label to an object, such as a resource group or a rack server. Tags can be used to provide information such as rack locations, responsible support groups, purpose, or operating system. Perform this procedure to add tags or modify tags.

Before You Begin

The server is already added as a rack account under a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Rack Servers**.

Step 4 Select a server from the list

Step 5 From the **More Actions** drop-down list, choose **Manage Tags**.

Step 6 In the **Manage Tags** screen, click + to add an entry to the **Manage Tags** table.

Step 7 In the **Add Entry to Tag** screen, complete the required fields, including the following:

Field	Description
Tag Name	Select the tag name from the drop-down list and click **Submit** or create a new tag. **1** Click the + icon. **2** In the **Create Tag** window, do the following: **a** In the **Name** field, enter a descriptive name for the tag. **b** In the **Description** field, enter a description of the tag. **c** In the **Type** field, select String or Integer from the drop-down list. **d** In the **Possible Tag Values** field, enter a possible value for the tag. **e** Click **Next**. **f** Click the + icon to add a new category. **3** In the **Add Entry to Entities** window, from the **Category** drop-down list, choose the category. It can be one of the following: • **Physical_Compute** category creates tag entities for a Rack Server. • **Administration** category creates tag entities for users. **Note** You can also add tags for a chassis. For more information about adding tags for a chassis, see Adding Tags for Cisco UCS S3260 Rack Server. **4** Check the **Rack Servers** or **Chassis** check box. **5** Click **Submit**. **Note** The tags are displayed under the respective category according to the set taggable entities. **6** In the confirmation dialog box, click **OK**.
Tag Value	Select the tag value from the drop-down list.

Step 8 Click **Submit**.

Step 9 Select a tag in the **Manage Tags** screen and click Edit to edit a tag.

Step 10 Choose the Tag Name and Tag Value to modify the tags.

Step 11 Click **Submit**.

Adding Tags for a Rack-Mount Server

Tagging is used to assign a label to an object, such as a resource group or a rack server. Tags can be used to provide information such as rack locations, responsible support groups, purpose, or operating system. Perform this procedure to add tags to a rack mount server.

Before You Begin

The server is already added as a rack account under a rack group.

Note You can also select multiple rack servers.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Rack Servers**.

Step 4 Select a server from the list

Step 5 Click **Add Tags**.

Note The **Add Tags** option is visible only after you select a server from the list.

Step 6 In the **Add Tags** screen, complete the required fields, including the following:

Name	Description
Tag Name drop-down list	Choose a name from the drop-down list or you can create a new tag. Click the plus icon to create a new tag. See Managing Tags for a Rack-Mount Server, on page 5 to create tags.
Tag Value drop-down list	Choose a tag value from the drop-down list.

Step 7 Click **Submit**.

Setting Locator LED for a Rack Server

Perform this procedure when you want to set locator LED for a rack server.

Before You Begin

The server is already added as a rack account under a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Rack Servers**.

Step 4 Select a sever from the list.

Step 5 Click **Locator LED**.

Note The **Locator LED** option is visible only after you select a server from the list.

Step 6 From the **Turn the Locater LED for selected servers on/off** drop-down list, choose **ON** or **OFF**.

Step 7 Click **Submit**.

Performing a Power Cycle on a Rack Server

Perform this procedure when you want to power off and power on a rack mount server in one cycle.

Before You Begin

The server is added as a rack account within a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Rack Server**.

Step 4 Choose the server that you want to perform a power cycle.
You can select multiple servers.

Step 5 Click **Power Cycle**.

Step 6 In the **Server Power Cycle** page, click **Submit**.

Powering On a Rack Server

Procedure

Step 1 Choose **Physical** > **Compute**.
Step 2 On the **Compute** page, choose the account under **Pods**.
Step 3 Click **Rack Server**.
Step 4 Choose the server that you want to power on.
Step 5 Click **Power ON**.
Step 6 Click **Submit**.

Powering Off a Rack Server

Procedure

Step 1 Choose **Physical** > **Compute**.
Step 2 On the **Compute** page, choose the account under **Pods**.
Step 3 Click **Rack Server**.
Step 4 Choose the server that you want to power off.
Step 5 Click **Power OFF**.
Step 6 Click **Submit**.

Performing a Hard Reset on a Rack Server

Perform this procedure when you want to hard reset a rack server.

Before You Begin

The server is already added as an account within a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.
Step 2 On the **Compute** page, choose the account under **Pods**.
Step 3 Click **Rack Servers**.
Step 4 Select a sever from the list.
Step 5 Click **Hard Reset**.

Rebooting a Server

Perform this procedure when you want to reboot the BMC on a rack server.

Before You Begin

The server is already added as a rack account within a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.
Step 2 On the **Compute** page, choose the account under **Pods**.
Step 3 Click **Rack Server**.
Step 4 Choose the server that you want to reboot.
Step 5 Click **Reboot**.
Step 6 On the **Server Reboot BMC** page, click **Submit**.

Shutting Down a Rack Server

Perform this procedure when you want to shut down a rack server.

Before You Begin

The server is already added as a rack account under a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.
Step 2 On the **Compute** page, choose the account under **Pods**.
Step 3 Click **Rack Servers**.
Step 4 Select the sever from the list.
Step 5 Click **Shut Down**.
Step 6 In the confirmation dialog box, click **OK**.

Tagging Assets for a Rack Server

An asset tag is a user-defined label for a rack server. Using the **Asset Tag** option you can set a user-defined label for a rack server or for a chassis. For information on adding an asset tag to a chassis, see Tagging Assets for a Cisco UCS S3260 Server.

Important Asset tagging is supported on C-series and S-series servers that are running firmware versions of 3.0(1c) and above. For E-series and ENCS servers, asset tagging is supported on servers running firmware versions 3.2.1 and above.

Before You Begin

The server is added as a rack account under a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.
Step 2 On the **Compute** page, choose the account under **Pods**.
Step 3 Click **Rack Server**.
Step 4 Choose the server that you want to set a tag to.
Step 5 From the **More Actions** drop-down list, choose **Asset Tag**.
Step 6 In the **Set Asset Tag** page, enter the name of the asset tag in the **Asset Tag** field.
Step 7 Click **Submit**.

Launching the KVM Console for a Rack Server

Before You Begin

You must have Java Run-Time Environment (JRE) installed on your system.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Rack Server**.

Step 4 Choose the server for which you want to start the KVM console.

Step 5 From the **More Actions** drop-down list, click **KVM Console**.

Step 6 In the **Launch KVM Console** screen, click **Submit**.
Cisco UCS Director downloads the `kvm.jnlp` file to your system.

Step 7 Double-click the `kvm.jnlp` file in your Downloads folder.
The KVM Console opens in a separate window.

For more information about using the KVM Console, see the Cisco UCS C-Series Servers Integrated Management Controller Configuration Guides.

Launching the Cisco IMC GUI for a Rack Server

Perform this procedure when you want to launch the Cisco IMC GUI for a rack mount server.

Before You Begin

The server is already added as a rack account within a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Rack Servers**.

Step 4 Select the sever from the list.

Step 5 From the More Actions drop-down list, click **Launch GUI**.

Step 6 In the **Launch GUI** screen, click **Submit**.
The GUI for the server is launched in a separate browser.

Assign User Groups to a Rack Server

Perform this procedure when you want to assign a user group to the rack server.

Before You Begin

The server is added as a rack account within a rack group.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Rack Server**.

Step 4 Choose the server that you want to assign a user group to.

Step 5 From the **More Actions** drop-down list, choose **Assign Group**.

Step 6 In the **Assign User Group - Rack Server** screen, complete the required fields, including the following:

Field	Description
Assign to Users check box	Check this check box to allow resource assignment to users.
User list	Expand this list, and check the names of the users. **Note** This field is displayed only if you have checked the **Assign to Users** check box.
Group list	Expand this list to check the names of the groups. **Note** This field is displayed only if you have not checked the **Assign to Users** check box.
Label field	Enter any comments, if required.

Step 7 Click **Submit**.

What to Do Next

At a later point in time, if you want to remove this user group from the rack server, you can return to this page, select the server, and choose **Unassign Group**.

Viewing Smart Information for Solid State Drives

Before You Begin

The server is added as a Rack Account under a Rack Groups.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Rack Servers**.

Step 4 Select the sever from the list that contains the solid state drive (SSD).

Step 5 On the **Rack Server** page, choose **Storage Adapters**.

Step 6 Double-click the solid state drive, and choose **Controller Info**.
The following settings are available:

- **Enable Copyback on SMART**
- **Enable Copyback to SSD on SMART Error**

Step 7 Double-click the solid state drive, and choose **Physical Drives**.

Step 8 Double-click a physical drive, and choose **View Smart Information**.
The following information is displayed:

Field	Description
Power Cycle Count field	Number of power cycles that the drive went through from the time it was manufactured.
Power on Hours field	Total number of hours that the drive is in the 'Power On' mode.
Percentage Life Left field	The number of write cycles remaining in a solid state drive (SSD). For instance, if an SSD is capable of 100 write cycles during its life time, and it has completed 15 writes, then the percentage of life left in the drive is 85%. Each percentage range is represented in a different color. For instance, green for 75% to 100% and red for 1 to 25%. **Note** You can see a bar graph added for SSDs in SSD - Percentage Life Left from the **Controller Info** tab.
Wear Status in Days field	The number of days an SSD has gone through with the write cycles. SSD vendors provide a finite number of writes per day on the SSD, based on which, you can calculate the total number of years the SSD would continue to work.
Operating Temperature field	The current temperature of the drive at which the selected SSD operates at the time of selection.

Field	Description
PercentageReserved Consumed field	The total capacity (out of the percentage reserved for it) consumed by the SSD.
Time of Last Refresh field	Time period since the drive was last refreshed.

Step 9 Click **Close**.
On the **Storage Adapter** page, choose **Controller Info** to view the controller settings such as **Percentage Life Left**, **Enable Copy back on SMART**, and **Enable Copy back to SSD on SMART Error**.

What to Do Next

Controller Drive Security

Self-Encrypting Drives (SEDs) are used for encrypting data while writing it onto the drives and decrypting them before reading the data. This ensures that the data on the drives are secure. Cisco UCS Director supports enabling security at the controller, physical drive, and virtual drive level for this feature.

The controller level security has two options - Remote Key Management and Local Key Management. For Remote Key Management, the Security KeyId and the Security Key are retrieved from the KMIP server. In the case of Local Key Management, the Security KeyId and the Security Key are either provided by you or provided as a suggestion from the Ciso IMC server. These parameters are used to secure data on the drives.

The physical drive level security can have the SED drives in locked and foreign locked state. The locked state indicates that the drives have been locked with the security key of the controller in this server. The foreign locked state indicates that the drives are locked with the security key of another controller but the drives are placed in this controller. Unlocking the foreign locked drives require the security key of that controller. After inlocking the drive, you can perform any security related operations on the drive.

Viewing Controller Drive Security Information

Controller Driver Security information is displayed in the following tabs for a rack server:

- **Controller Info**
- **Physical Drives**
- **Virtual Drives**

Before You Begin

The M4 rack-mount server or the Cisco UCS S3260 storage server must have Self Encrypting Drives (SED) connected in it.

Procedure

Step 1 Choose **Physical** > **Compute**.

Step 2 On the **Compute** page, choose the account under **Pods**.

Step 3 Click **Rack Servers**.

Step 4 Select a sever from the list.

Step 5 From the **More Actions** drop-down list, choose **View Details**.

Step 6 On the **Rack Server** page, choose **Storage Adapters**.

Step 7 Select the adapter from the list and choose **View Details**.

Step 8 On the **Storage Adapters** page, choose **Controller Info**.
The following details are available for a SSD drive:

Tab	Description
Power Cycle Count field	Number of power cycles that the drive went through from the time it was manufactured.
Power on Hours field	Total number of hours that the drive is in the Power On mode.
Percentage Life Left field	The number of write cycles remaining in a solid state drive (SSD). For instance, if an SSD is capable of 100 write cycles during its life time, and it has completed 15 writes, then the percentage of life left in the drive is 85%. Each percentage range is represented in a different color. For instance, green for 75% to 100% and red for 1 to 25%. **Note** You can see a bar graph added for SSDs in SSD - Percentage Life Left under Controller Info.
Wear Status in Days field	The number of days an SSD has gone through with the write cycles. SSD vendors provide a finite number of writes per day on the SSD, based on which, you can calculate the total number of years the SSD would continue to work.
Operating Temperature field	The current temperature of the drive at which the selected SSD operates at the time of selection.
Percentage Reserved Consumed field	The total capacity (out of the percentage reserved for it) consumed by the SSD.
Time of Last Refresh field	Time period since the drive was last refreshed.

Step 9 On the **Storage Adapter** page, choose **Physical Drives**.
Details such as the controller name, physical drive number, status, health, serial number, firmware, FDE capable, FDE enabled, Secured, Locked, Foreign Locked and so on are displayed.

Step 10 On the **Storage Adapter** page, choose **Virtual Drives**.
Details such as the virtual drive number, name, status, health, size, RAID level, Boot drive, FDE capable, FDE enabled and so on are displayed.

Step 11 Click the rack server name on the top right corner of the page to return to the page listing the rack servers.

Managing System Tasks for Rack Servers

System tasks are available for single node and multi node systems. For more information about how to manage system tasks, including the system task policy, see the Cisco UCS Director Administration Guide.

Procedure

Step 1 Choose **Administration** > **System**.

Step 2 On the **System** page, click **System Tasks**.

Step 3 To access the system tasks you can use for rack servers, expand the following folders:

- **Rack Server Tasks—**System tasks that are specific to rack servers, such as monitoring and inventory tasks.
- **General—**System tasks that are available for all implementations, such as data purge, data aggregation, and deleted account clean-up tasks.

Step 4 After you choose a rack server task in the table, you can perform one or more of the following actions:

Name	Description
Manage Task	In the **Manage Task** screen, complete the required fields, including the following: **1** From the **Task Execution** drop-down list, choose **Enable** or **Disable**. **2** From the **System Task Policy** drop-down list, choose **default-system-task-policy** or **local-run-policy**. **3** To set the frequency at which the task needs to be executed, choose the number of hours from the **Hours** drop-down list and number of minutes from the **Minutes** drop-down list. **4** Click .

Step 5 Click **Submit**.

Managing Schedules for Rack Servers

Overview of Managing Schedules

Defining a schedule allows you to defer certain tasks to occur at a different time. For example, tasks such as firmware updates, server discovery, or applying policies and profiles, can be scheduled to run at a pre-defined time or at a pre-defined interval. You could schedule tasks during off-peak hours where the workloads on servers are low.

Creating Schedules

Perform this procedure when you want to create a new schedule.

Procedure

Step 1 Choose **Policies** > **Physical Infrastructure Policies** > **Rack Server**.

Step 2 On the **Rack Server** page, click **Schedules**.

Step 3 Click **Add**.

Step 4 In the **Create Schedule** screen, complete the required fields, including the following:

Field	Description
Schedule Name field	Enter a name for the schedule task.
Enable Schedule check box	Check this check box to enable a schedule. By enabling or disabling a schedule (using the **Enable** or **Disable** options), you can enable or disable the tasks associated with the schedule from running.
Scheduler Type drop-down list	Select a one time schedule or recurring schedule frequency. If you choose a **One Time** schedule, select the date, time, and AM or PM radio buttons. **Note** The schedule time is based on the time on the appliance. However, the time zone is of the local client browser. If you choose a **Recurring** schedule, select the days (0 to 30 days), hours and minutes from the drop-down lists.

Field	Description
Schedule Time field	Specify a date using the calendar, and specify a time using the drop-down list. This field is visible only if you selected **One Time** option in the **Scheduler Type** drop-down list.
Days drop-down list	Select the number of days on which this task must be scheduled for.
Hours drop-down list	Select the number of hours.
Minutes drop-down list	Select the number of minutes.

Step 5 Click **Submit**.

What to Do Next

- You can select an existing schedule and modify, delete, or view scheduled tasks. **View Scheduled Tasks** displays a report which allows you to view the status of the upgrade firmware, auto discovery, apply policy and profile tasks you associated with the schedule while Upgrading Firmware, Auto Discovering Servers.
- You can select one or more tasks associated with the schedule and disassociate them from the schedule using the **Remove Scheduled Tasks** option.