



## Administration

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- [Rack-Mount Server Daily Operations, on page 1](#)
- [Monitoring From Virtual Machine, on page 1](#)
- [Monitoring From Cisco Integrated Management Controller, on page 2](#)
- [Monitoring From vSphere Client and vCenter, on page 2](#)
- [Server Health Monitoring From ESXi, on page 2](#)
- [Disk Management for Cisco UCS Rack-Mount Servers, on page 2](#)
- [Automatic Update Statistics, on page 3](#)
- [Related Documentation, on page 3](#)

## Rack-Mount Server Daily Operations

At this point the application is installed and in operation. Daily operations for applications are similar to an installation on a physical server, including:

- Application configuration and integration with other applications
- RTMT performance monitoring
- SNMP monitoring and alarms
- DRS backup and restore
- CDR collection
- Device, trunk, gateway configuration and monitoring

## Monitoring From Virtual Machine

Applications running in a VM have no ability to monitor the physical hardware. Any hardware monitoring must be done from the Cisco Integrated Management Controller, ESXi plugins, vCenter or by physical inspection (for flashing LEDs, and so on).

Monitoring of hardware is the customer's responsibility. It is assumed the customer is familiar with virtualized environments and knows how to manage hardware in these environments.

## Monitoring From Cisco Integrated Management Controller

The Cisco Integrated Management Controller (Cisco IMC) provides the following hardware monitoring:

- An overview of CPU, memory, and power supply health
- An overview of hardware inventory, including CPUs, Memory, Power Supplies, and Storage
- Monitoring of sensors for Power Supplies, Fans, Temperature, Voltage, and Current
- A system event log that contains BIOS and Sensor entries
- LSI MegaRAID controller information, which includes physical and virtual drive layout and Battery Backup Unit information from the Inventory > Storage tab. This information was usually accessible for earlier UCS servers only by installing the MegaRAID plugin from ESXi.

For additional details, go to <https://www.cisco.com/c/en/us/products/servers-unified-computing/index.html>.

## Monitoring From vSphere Client and vCenter

The vSphere Client provides the following monitoring:

- Hardware and system alarms defined under the Alarms tab in the vSphere Client when logged in to vCenter.
- VM resource usage under the Virtual Machines tab in the vSphere Client, as well as under the Performance tab for each VM.
- Host performance and resource usage under the Performance tab for the host.

For more information, go to <http://www.VMware.com>.

## Server Health Monitoring From ESXi

You can monitor server health from ESXi by logging into the ESXi console and inspecting system `/var/log/messages` for telltale entries.

## Disk Management for Cisco UCS Rack-Mount Servers

For details on the drive specifications for your Cisco UCS server, refer to *RAID Configuration*.

Disks are hot-swappable. This does not mean that you will be able to swap drives ad-hoc after a failure. A process exists to swap drives. When a drive fails, you need to follow these steps:



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**Note** If you have an M4 server, refer to [http://www.cisco.com/c/en/us/td/docs/unified\\_computing/ucs/c/hw/C240M4/install/C240M4.pdf](http://www.cisco.com/c/en/us/td/docs/unified_computing/ucs/c/hw/C240M4/install/C240M4.pdf).

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1. Reboot and enter the Preboot CLI.
2. Mark the defective drive for removal using `-PdPrpRmv -physdrv [<encl>:<slot>] -a0`.
3. Replace the drive.

The RAID array is rebuilt automatically when the replacement disk is inserted.



**Note** Although Preboot CLI is recommended, you can also perform this task through the LSI MegaRaid GUI, where you can swap drives out without having to power-cycle the server to get into the preboot CLI. However, this method requires you to procure a separate machine (Windows or Linux) on the same subnet as the ESXi host, installed with the LSI MegaRaid utility.

## Automatic Update Statistics

Communications Manager uses Automatic Update Statistics, an intelligent statistics update feature that monitors the changes made in the database tables and updates only tables that need statistic updates. This feature saves considerable bandwidth, especially on VMware deployments of Communications Manager. Automatic Update Statistics is the default indexing method.

For more information about database services, see the *Cisco Unified Serviceability Administration Guide*.

## Related Documentation

- **Cisco UCS documentation:** <http://www.cisco.com/go/ucs>
- **Cisco HyperFlex documentation:** [www.cisco.com/go/hyperflex](http://www.cisco.com/go/hyperflex)
- The official list of supported servers for Cisco Unified Communications Manager releases is available at the following URL: <http://www.cisco.com/go/virtualized-collaboration>
- Technical specifications of Cisco Unified Communications virtualized servers are available at the following URL: <http://www.cisco.com/go/virtualized-collaboration>
- TCP and UDP ports for vCenter Server, ESX hosts, and other management access for other network components are listed in article 1012382 at the following URL:  
<http://kb.vmware.com>
- The Cisco Unified Communications Virtualization docwiki, which discusses deployment of other Cisco Unified Communications products on virtualized servers, is available at the following URL:  
<http://www.cisco.com/go/virtualized-collaboration>

