



# Cisco IMC Supervisor Release Notes, Release 2.0

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## About Cisco IMC Supervisor

Cisco IMC Supervisor is a management system that allows you to manage rack-mount servers on a large scale. It allows you to create groups of rack-mount servers for monitoring and inventory purposes.

You can use Cisco IMC Supervisor to perform the following tasks:

- Logically grouping servers and viewing summary per group
- Collecting inventory for the managed servers
- Monitoring servers and groups
- Managing firmware including firmware download, upgrade, and activation
- Provide Northbound REST APIs to discover, monitor and manage servers and perform firmware upgrades programmatically.
- Managing standalone server actions including power control, LED control, log collection, KVM launch, and CIMC UI launch.
- Restricting access using Role Based Access Control (RBAC)
- Configuring email alerts
- Configuring server properties using policies and profiles
- Defining schedules to defer tasks such as firmware updates or server discovery
- Diagnosing server hardware issues using UCS Server Configuration Utility
- Cisco Smart Call Home provides proactive diagnostics, alerts, and remediation recommendations
- Managing Cisco UCS C3260 Dense Storage Rack Server
- Configuring the DNS server and other network settings through the Network Configuration policy
- Assigning physical drives to server through the Zoning policy
- Setting up multiple diagnostic images across different geographic locations
- Customizing email rules to include individual servers within a group

## Revision History

Release	Date	Description
2.0	March 18, 2016	Created Release Notes for Cisco IMC Supervisor, Release 2.0
2.0.0.1	July 05, 2016	Added information on upgrade, open and resolved bugs for Release 2.0.0.1.
2.0.0.2	August 11, 2016	Added information on changes made in the release in the New and Changed Features section, upgrade, and resolved bugs for release 2.0.0.2.
2.0	March 3, 2017	Added information on supported upgrade paths for release 1.1 to release 2.0.

## Minimum System Requirements

### Supported Server Models

- UCS C-220 M3 and M4
- UCS C-240 M3 and M4
- UCS C-460 M4
- UCS C-22 M3
- UCS C-24 M3
- UCS C-420 M3
- UCS E-160S M3
- UCS C3160
- UCS C3260
- UCS EN120E M2
- UCS EN120S M2
- UCS EN140N M2
- UCS E-140S M2
- UCS E-160D M2

- UCS E-180D M2
- UCS E-140S M1
- UCS E-140D M1
- UCS E-160D M1
- UCS E-140DP M1
- UCS E-160DP M1

**Important**

Cisco IMC Supervisor supports up to 1000 UCS C-Series and E-Series servers. For more information about scalability, see [Cisco IMC Supervisor Deployment and Scalability](#), on page 4.

**Minimum Firmware Versions**

Servers	Minimum Firmware Version
UCS C-series Servers	1.5(4)
UCS E-series Servers	2.3.1
UCS C3260 Servers	2.0(13e)

**Note**

Cisco IMC Supervisor version 2.1 does not support Cisco IMC version 3.0.

**Supported PCIe Cards**

- Cisco UCS VIC 1225
- Cisco UCS VIC 1225T
- Cisco UCS VIC 1227
- Cisco UCS VIC 1227T
- Cisco UCS VIC 1385
- Cisco UCS VIC 1387

**Supported Hypervisor versions**

- ESXi 5.1
- ESXi 5.5
- ESXi 6.0
- Windows 2008 R2 with Hyper-V Manager version 6.1.7

- Windows 2012 R2 with Hyper-V Manager version 6.3.9

### Minimum Hardware Requirements

The Cisco IMC Supervisor environment must meet at least the minimum system requirements listed in the following table.

Element	Minimum Supported Requirement
vCPU	4
Memory	12 GB
Hard Disk	100 GB
Minimum write speed for storage	10 MB/sec

## Cisco IMC Supervisor Deployment and Scalability

### Configuring Inframgr properties

- 1 Modify the following properties and values from the `/opt/infra/inframgr/service.properties` file:
  - `threadpool.maxthreads.inventory=50`
  - `cimc.inventory.max.thread.pool.size=100`
- 2 Go to Shell Admin and restart the services by stopping and starting the Cisco IMC Supervisor services.

### Deployment Recommendations

Cisco IMC Supervisor recommends the following based on the scale of rack servers you manage:

Element	Small Deployment (1 - 250 rack servers)	Medium Deployment (251 - 500 rack servers)	Large Deployment (501 - 1000 rack servers)
vCPUs	4	4	8
CPU Reservation	10000 MHz	10000 MHz	10000 MHz
Cisco IMC Supervisor VM Memory Allocation	12 GB	16 GB	20 GB
Cisco IMC Supervisor VM Memory Reservation	12 GB	16 GB	20 GB
Inframgr Memory Allocation	6 GB	8 GB	10 GB

Element	Small Deployment (1 - 250 rack servers)	Medium Deployment (251 - 500 rack servers)	Large Deployment (501 - 1000 rack servers)
Mysql InnoDB BufferPool Config	1GB	2 GB	3 GB
Disk write Speed (Direct IO)	10 MB/sec	10 MB/sec	15 MB/sec

### Allocating Inframgr Memory

- 1 Go to `/opt/infra/inframgr/` and open the `run.sh` file using vi editor.
- 2 Navigate to `-Xms6144m -Xmx6144m` and replace it with `-Xms10240m -Xmx10240m`.  
Xms stands for minimum and Xmx stands for maximum. This is where `inframgr` memory is allocated. For example, if you are managing 1000 rack servers then `inframgr` memory allocation must be set to 10 GB.



#### Note

Inframgr memory allocation must be increased only if the memory allocated to the VM is increased. If not, this process may crash due to high load. Hence, increase memory for the IMCS VM using vCenter UI, reserve the whole memory, and then change this parameter.

- 3 Go to Shell Admin and restart the services by stopping and starting the Cisco IMC Supervisor services.

### Configuring Mysql Buffer Pool

InnoDB buffer pool is the internal memory used by the `mysqld` process inside the Cisco IMC Supervisor VM. You must increase the memory based on the load. To modify this pool size, perform the following procedure:

- 1 Go to `/etc/` and open the `my.cnf` file.
- 2 Navigate to the `innodb_buffer_pool_size` parameter.  
For example, if you are managing 1000 servers, then the value must be `innodb_buffer_pool_size=3072M`.
- 3 Go to Shell Admin and restart the services and database by stopping and starting the Cisco IMC Supervisor services and database.

### Determining Direct Disk Input/Output Speed

- 1 After Cisco IMC Supervisor VM is deployed, go to the command prompt and enter the `dd if=/dev/zero of=test.img bs=4096 count=256000 oflag=direct` command. The following output for example, is displayed:

```
[root@localhost ~]# dd if=/dev/zero of=test.img bs=4096 count=256000 oflag=direct
256000+0 records in
256000+0 records out
1048576000 bytes (1.0 GB) copied, 44.0809 s, 23.8 MB/s
```



#### Note

In the above example, 23.8 MB/s is the disk input/output speed.

## Migrating to Cisco IMC Supervisor 2.0

Cisco IMC Supervisor 2.0 is available only as an appliance. You cannot upgrade from version 1.0 or 1.1 of Cisco IMC Supervisor to version 2.0 using the regular upgrade process. You must first install the 2.0 version and then migrate all the data from an earlier installed appliance.

For more information about migrate paths and migrating, see *Cisco IMC Supervisor Installation Guide for VMware vSphere and Microsoft Hyper-V, Release 2.0*.



### Important

Cisco IMC Supervisor 2.0 OVF and VHD zip files are created using zip 3.x in CentOS 6.x. For Linux systems, you can extract the zip files with unzip 6.x or higher or with the latest version of the 7-Zip archiving tool. For Windows systems, you can extract the zip files with the native Extract All in Windows Explorer for Windows 10 and Windows Server 2012 R2 or with the latest versions of archiving tools such as 7-Zip or WinRAR.

## Upgrade Notes

The supported upgrade paths for Cisco IMC Supervisor patches are as follows:

- 1.1.0.0 > 2.0.0.0
- 1.1.0.1 > 2.0.0.0
- 1.1.0.2 > 2.0.0.0



### Note

For upgrading version 1.1.0.2 to version 2.0.0.0, navigate to `/opt/infra/migration` and add version 1.1.0.2 in the `migration-path-info.txt` file.

- 2.0 > 2.0.0.1
- 2.0 > 2.0.0.2
- 2.0 > 2.0.0.1 > 2.0.0.2
- 2.0.0.1 > 2.0.0.2



### Note

After you apply the 2.0.0.1 patch and restart the appliance, you must restart the database to upgrade to 2.0.0.2. If not, you will be unable to apply the patch.

For upgrading steps, see [Upgrading Cisco IMC Supervisor](#), on page 7.

### Before You Begin

- Download the Cisco IMC Supervisor Release <version> from <http://www.cisco.com>.

- If you have configured the update settings, a notification bubble in the Cisco IMC Supervisor appliance notifies you that a patch is available and is automatically downloaded. For more information about configuring update settings, see *Automated Notifications on Patch Releases* in section [New and Changed Features in Release 2.0](#), on page 8.
- Place the software in the FTP or HTTP server that you plan to use to install the upgrade.
- If NFS mount is used for application storage, disable it before you apply a patch. If you do not, the upgrade will fail.
- Obtain access to a secure shell (SSH) application.

**Note**

We recommend that you take a snapshot of the VM before you begin the upgrade. If you do this, you do not need to back up the existing configuration database through an FTP server.

## Upgrading Cisco IMC Supervisor

The following procedure allows you to upgrade Cisco IMC Supervisor.

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- Step 1** Open your SSH application and enter the Cisco IMC Supervisor appliance IP address and port number.
- Step 2** Log in to Cisco IMC Supervisor with your credentials.
- Step 3** From the Cisco IMC Supervisor Shell Menu, choose **3) Stop Services**.
- Step 4** To verify that all services are stopped, choose **2) Display Services Status**.
- Step 5** (Optional) If desired, you can choose **7) Backup Database** to back up the Cisco IMC Supervisor database.
- Step 6** To upgrade, choose **16) Apply Patch**.
- Step 7** When prompted, enter the location of the patch. For example, `<transfer protocol type>: // username : password @ hostname | IP_address / software_location_and_name`
- Note** Supported transfer protocol types are FTP, HTTP, and Local File System path.
- Step 8** Wait for the download and installation to complete.
- Step 9** Choose **5) Stop Database** and then **6) Start the Database**.
- Step 10** When prompted, choose **4) Start Services** and complete the upgrade process.
- Note** The upgrade process is not complete or successful until the Cisco IMC Supervisor services have started, Cisco IMC Supervisor is available, the login screen is displayed, and the admin user can log in to Cisco IMC Supervisor. All services must be started before you attempt to perform other shelladmin procedures, such as apply additional patches, take a database backup, or restore a database from a backup.
- Step 11** When the upgrade is complete, choose **11) Show Version** in shelladmin to verify the current version of Cisco IMC Supervisor.
- Note** To view the status of services, choose **2) Display Services Status**.
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## New and Changed Features

This section provides an overview of the significant new and changed features in this release. This section does not provide an exhaustive list of all enhancements included in this release.

### Changes in Release 2.0.0.2

#### Resolution for Permission Issues After Applying Patch 2.0.0.1

After applying patch 2.0.0.1 on 2.0, some of the script files do not have proper permissions. You may face some issues such as services failing to restart, shelladmin menu options failing, and so on. This issue is now resolved with release 2.0.0.2. For more information, see defect ID [CSCva79802](#).

### New and Changed Features in Release 2.0

#### Support for Scheduling Tasks

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

#### Introduction of FlexFlash Policy

A FlexFlash policy allows you to configure and enable the SD cards on the FlexFlash controller.

#### Support for REST APIs

Cisco IMC Supervisor REST APIs allow an application to interact with Cisco IMC Supervisor programmatically. These APIs provide access to resources in Cisco IMC Supervisor.

#### Support for Smart Call Home

Cisco Smart Call Home is an automated support capability that provides continuous monitoring, proactive diagnostics, alerts, and remediation recommendations on select Cisco devices.

Cisco IMC Supervisor managed server tasks such as Group Rack Server Inventory, Rack Server Fault, and Health System are run at periodic intervals and send relevant information to the Smart Call Home backend. The backend processes this data and if issues are identified, it will automatically raise cases with the TAC for resolution of issues.

#### Running Server Diagnostics

Server diagnostics is available through UCS Server Configuration Utility (UCS-SCU). You can use the diagnostics tool to run tests on various server components to diagnose hardware issues with the server. A detailed analysis report is available for viewing and downloading after the diagnostic tests are completed.

#### Automated Notifications on Patch Releases

Cisco IMC Supervisor periodically (every 14 days) checks for any new patch releases that are made available on Cisco.com. If you have configured the settings, you will be notified if a new version is available. If a higher



version is available, the **Diagnostic System Messages** dialog box displays a message that a newer version of Cisco IMC Supervisor is found.

If you have not configured the update settings, you will find a notification bubble next to your login name on the top right corner. The **Diagnostic System Messages** dialog box displays a message that settings are not configured.

### Support for Mapping LDAP Groups with User Roles

With this release of Cisco IMC Supervisor, you can now map LDAP groups to specific user roles.

All the new features are documented in the *Cisco IMC Supervisor Rack-Mount Servers Management Guide, Release 2.0*.

## New Documentation Deliverables in Release 2.0

The following are the new documentation deliverables available with Cisco IMC Supervisor, Release 2.0:

- Cisco IMC Supervisor Install Guide—A combined guide that discusses installing Cisco IMC Supervisor on VMware vSphere and Microsoft Hyper-V systems.
- Cisco IMC Supervisor API Getting Started Guide—This guide discusses REST APIs, installing and setting up the environment, samples, and use cases.
- Cisco IMC Supervisor REST API Cookbook—This guide is a collection of examples for using REST API, a server-side scripting solution for use with Cisco IMC Supervisor.

## Open and Resolved Bugs

The open and resolved bugs for this release are accessible through the [Cisco Bug Search Tool](#). This web-based tool provides you with access to the Cisco bug tracking system, which maintains information about bugs and vulnerabilities in this product and other Cisco hardware and software products.



### Note

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You must have a Cisco.com account to log in and access the Cisco Bug Search Tool. If you do not have one, you can [register for an account](#).

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For more information about the Cisco Bug Search Tool, see the [Bug Search Tool Help & FAQ](#).

## Open Bugs

All open bugs for this release are available in the [Cisco Bug Search Tool](#) through the following searches. The results of that search include workarounds for the open bugs, if any.

### Open Bugs in Release 2.0.0.1

You can find detailed information about all open bugs in Release 2.0.0.1 through the [open bug search for Release 2.0.0.1](#). This search uses the following parameters:

Field	Parameter
Product drop-down list	Choose <b>Series/Model</b> and enter Cisco IMC Supervisor 2.x.
Releases drop-down list	Choose <b>Affecting or Fixed in these Releases</b> and enter 2.0(0.1).
Filter	Choose <b>Open</b> from the <b>Status</b> drop-down list.

### Open Bugs in Release 2.0

You can find detailed information about all open bugs in Release 2.0 through the [open bug search for Release 2.0](#). This search uses the following parameters:

Field	Parameter
Product drop-down list	Choose <b>Series/Model</b> and enter Cisco IMC Supervisor 2.x.
Releases drop-down list	Choose <b>Affecting or Fixed in these Releases</b> and enter 2.0.
Filter	Choose <b>Open</b> from the <b>Status</b> drop-down list.

## Resolved Bugs

All resolved bugs for this release are available in the [Cisco Bug Search Tool](#) through the following searches.

### Resolved Bugs in Release 2.0.0.2

You can find detailed information about all fixed bugs in Release 2.0.0.2 through the [fixed bug search for Release 2.0.0.2](#). This search uses the following parameters:

Field	Parameter
Product drop-down list	Choose <b>Series/Model</b> and enter Cisco IMC Supervisor 2.x.
Releases drop-down list	Choose <b>Affecting or Fixed in these Releases</b> and enter 2.0(0.2).
Filter	Choose <b>Fixed</b> from the <b>Status</b> drop-down list.

### Resolved Bugs in Release 2.0.0.1

You can find detailed information about all fixed bugs in Release 2.0.0.1 through the [fixed bug search for Release 2.0.0.1](#). This search uses the following parameters:

Field	Parameter
Product drop-down list	Choose <b>Series/Model</b> and enter Cisco IMC Supervisor 2.x.
Releases drop-down list	Choose <b>Affecting or Fixed in these Releases</b> and enter 2.0(0.1).
Filter	Choose <b>Fixed</b> from the <b>Status</b> drop-down list.

### Resolved Bugs in Release 2.0

You can find detailed information about all fixed bugs in Release 2.0 through the [fixed bug search for Release 2.0](#). This search uses the following parameters:

Field	Parameter
Product drop-down list	Choose <b>Series/Model</b> and enter Cisco IMC Supervisor 2.x.
Releases drop-down list	Choose <b>Affecting or Fixed in these Releases</b> and enter 2.0.
Filter	Choose <b>Fixed</b> from the <b>Status</b> drop-down list.

## Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, using the Cisco Bug Search Tool (BST), submitting a service request, and gathering additional information, see [What's New in Cisco Product Documentation](#).

To receive new and revised Cisco technical content directly to your desktop, you can subscribe to the [What's New in Cisco Product Documentation RSS feed](#). RSS feeds are a free service.



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