



Cisco IMC Supervisor Release Notes, Release 2.1

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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 S3260 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
2.1	September 19, 2016	Created Release Notes for Cisco IMC Supervisor, Release 2.1
2.1(0.1)	December 01, 2016	Added information on upgrade, open and resolved bugs for Release 2.1(0.1)
2.1(0.1)	January 11, 2017	Added information on Cisco IMC 3.0.1 qualified with Cisco IMC Supervisor Release 2.1(0.1).
2.1(0.2)	April 28, 2017	Added information on upgrade and resolved bugs for Release 2.1(0.2)

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 2.1.01 supports Cisco IMC version 3.x but not Cisco IMC Supervisor version 2.1.

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
Mysql InnoDB BufferPool Config	1GB	2 GB	3 GB

Element	Small Deployment (1 - 250 rack servers)	Medium Deployment (251 - 500 rack servers)	Large Deployment (501 - 1000 rack servers)
Disk write Speed (Direct IO)	10 MB/sec	10 MB/sec	15 MB/sec

Allocating Inframgr Memory

- 1 Go to `/opt/infra/bin/` and open the `inframgr.env` file using vi editor.
- 2 Edit the values `MEMORY_MIN` and `MEMORY_MAX`.
For example, if you are managing 1000 rack servers then `inframgr` memory allocation must be set to 10 GB. Hence, the `MEMORY_MIN` and `MEMORY_MAX` must be set to 10240m.



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 Version 2.1 and Upgrading to Version 2.1(0.1) or 2.1(0.2)

Cisco IMC Supervisor 2.1(0.1) and 2.1(0.2) are available as patches. You can upgrade from version 2.1 to version 2.1(0.1) or 2.1(0.2) using the **Apply Patch** option in the Shell Admin menu. For information about upgrading, see [Upgrading Cisco IMC Supervisor, on page 7](#).

Cisco IMC Supervisor 2.1 is available as an appliance. You can upgrade from a 2.0 version to 2.1 using the **Apply Patch** option in the Shell Admin menu. For information about upgrading, see [Upgrading Cisco IMC Supervisor, on page 7](#).

You cannot upgrade from version 1.0 or 1.1 of Cisco IMC Supervisor to version 2.1. Any version prior to 2.0 must first be migrated to 2.0 and then upgraded to 2.1. For more information about migrate paths and migrating, see [Migrating Cisco IMC Supervisor, on page 6](#).



Important

Cisco IMC Supervisor 2.1 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.

Migrating Cisco IMC Supervisor

Follow the procedure given below to migrate Cisco IMC Supervisor versions prior to 2.0.

-
- Step 1** Set up the Cisco IMC Supervisor 2.0 appliance. For more information, see chapters Installing Cisco IMC Supervisor on VMware vSphere or Installing Cisco IMC Supervisor on Microsoft Hyper-V in the [Cisco IMC Supervisor Installation Guide for VMware vSphere and Microsoft Hyper-V, Release 2.1](#).
- Step 2** Login as root via the shelladmin console. Choose option 20.
Note The root password should not have any spaces.
- Step 3** Run `/opt/infra/migration/performMigration.sh`.
- Step 4** Point it to an existing appliance 1.1.x.x. All existing data will be imported.
Note The migration script will display an error if you point to a 1.0.0.x appliance.
- Step 5** Test the 2.0 appliance and validate the data.
- Step 6** Decommission the old 1.1.x.x appliance.
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Upgrade Notes

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

- 2.0 > 2.1

- 2.0.0.1 > 2.1
- 2.0.0.2 > 2.1
- 2.0 > 2.1(0.1)
- 2.0 > 2.1(0.2)
- 2.0.0.1 > 2.1(0.1)
- 2.0.0.1 > 2.1(0.2)
- 2.0.0.2 > 2.1(0.1)
- 2.0.0.2 > 2.1(0.2)
- 2.1.0.0 > 2.1(0.1)
- 2.1.0.0 > 2.1(0.2)
- 2.1(0.1) > 2.1(0.2)

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>.
- 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.

-
- 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. You can use the following examples:

- SFTP — `<filename.zip>`
 - Note** SFTP user needs to use secure protocols FTP or SCP.
- SCP — `<file path>/<filename.zip>`
- FTP (hostname) — `ftp://test:test123@test.cisco.com/opt/infra/external/uploads/imcs/<filename.zip>`
- FTP (IP address) — `ftp://test:test123@10.10.10/opt/infra/external/uploads/imcs/<filename.zip>`
- HTTP — `http://test.cisco.com/downloads/<filename.zip>`
- HTTPS — `https://test.cisco.com/downloads/<filename.zip>`
- Local File System — `file:///opt/infra/uploads/<filename.zip>`

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**.
 - After you upgrade Cisco IMC Supervisor and apply a policy or profile, you will be unable to view the list of existing rack accounts in the available servers. Once the patch upgrade is complete, go to **Administration > System > System Tasks > Rack Server Tasks**, select **Group Rack Server Inventory Task**, and click **Run Now**.

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 2.1(0.2)

Defect Fixes

This release includes defect fixes only, and no new features. For information on the defects fixed in this release, see [Resolved Bugs](#), on page 11.

Changes in Release 2.1(0.1)

Qualification of Cisco IMC Release

Cisco IMC Supervisor 2.1(0.1) release is qualified with Cisco IMC release 3.0.1.

Defect Fixes

This release includes defect fixes only, and no new features. For information on the defects fixed in this release, see [Resolved Bugs](#), on page 11.

New and Changed Features in Release 2.1

Managing Cisco UCS C3260 Dense Storage Rack Server

The Cisco UCS C3260 Dense Storage Rack Server is designed to operate in a standalone environment and as part of the Cisco Unified Computing System with Cisco IMC Supervisor integration.

Cisco IMC Supervisor-Managed Dense Storage Rack Servers support some of the features that are supported by other C-Series Rack Servers that are managed through Cisco IMC Supervisor.

Enhancement to RAID Policy

Changes in the UI due to defect fixes in the RAID Policy such as **Set disks in JBOD state to Unconfigured Good** check box, **Configure Unused Disks** check box are introduced.

Introduction of Network Configuration Policy

Network Configuration policy allows you to configure the DNS Server and other network settings.

Enhancement to User Policy

Changes made in the UI to include enforcing strong password option on users you will create.

Introduction of Zoning Policy

Zoning policy allows you to assign physical drives to server.

Introduction of Ability to Specify Groups and Tags while Importing a Server from CSV

While configuring an Auto Discovery Profile, you can specify some fields in the csv file if you have chosen the **IP Address CSV File** option.

Support for Selecting Multiple KVMs and Editing

You can select a maximum of 5 servers to launch KVM console.

Support for Multiple Profiles for SCU Images

Cisco IMC Supervisor gives you the ability to have multiple diagnostic images set up across different geographic locations where the servers are present.

Enhancement to Accelerate Test Connection under Rack Servers

Test one or more rack account connections is now made easier and much faster.

Enhancement to Customize Email Rules

You can customize email rules to include individual servers within a group.

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**

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](#).

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 2.1(0.1)

You can find detailed information about all open bugs in Release 2.1(0.1) through the [open bug search for Release 2.1\(0.1\)](#). This search uses the following parameters:

Field	Parameter
Product drop-down list	Choose Series/Model and enter Cisco IMC Supervisor 2.x.
Releases drop-down list	Choose Affecting or Fixed in these Releases and enter 2.1(0.1).
Filter	Choose Open from the Status drop-down list.

Open Bugs in Release 2.1

You can find detailed information about all open bugs in Release 2.1 through the [open bug search for Release 2.1](#). This search uses the following parameters:

Field	Parameter
Product drop-down list	Choose Series/Model and enter Cisco IMC Supervisor 2.x.

Field	Parameter
Releases drop-down list	Choose Affecting or Fixed in these Releases and enter 2.1.
Filter	Choose Open from the Status 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 2.1(0.2)

You can find detailed information about all fixed bugs in Release 2.1(0.2) through the [fixed bug search for Release 2.1\(0.2\)](#). This search uses the following parameters:

Field	Parameter
Product drop-down list	Choose Series/Model and enter Cisco IMC Supervisor 2.x.
Releases drop-down list	Choose Affecting or Fixed in these Releases and enter 2.1(0.2).
Filter	Choose Fixed from the Status drop-down list.

Resolved Bugs in Release 2.1(0.1)

You can find detailed information about all fixed bugs in Release 2.1(0.1) through the [fixed bug search for Release 2.1\(0.1\)](#). This search uses the following parameters:

Field	Parameter
Product drop-down list	Choose Series/Model and enter Cisco IMC Supervisor 2.x.
Releases drop-down list	Choose Affecting or Fixed in these Releases and enter 2.1(0.1).
Filter	Choose Fixed from the Status drop-down list.

CSCvb71196 - Subscription Server Licenses Are Not Allowed on Top of a Perpetual Base License

CSCvb71196 is a fixed bug in Cisco IMC Supervisor, Release 2.1(0.1) that affects subscription server licenses, as follows:

Impact

Previously, if you had a Perpetual Server license installed on any version of Cisco IMC Supervisor prior to Cisco IMC Supervisor, version 2.1(0.1), after upgrading the Cisco IMC Supervisor appliance to version 2.1(0.1), you could not add a Subscription Server license on top of the existing Perpetual Server license.

With this fix, Cisco IMC Supervisor allows the addition of a Subscription Server license on top of a Perpetual Base license, but does not allow coexistence of a Perpetual Server license and a Subscription Server license.

If you want to add a new Subscription Server license, you must clean up all the licenses present in the system using the `dbLicClean.sh` script located in the `/opt/infra` directory. Then you can choose the path to either the Perpetual Server license or the Subscription Server license that you want to use.

Resolved Bugs in Release 2.1

You can find detailed information about all fixed bugs in Release 2.1 through the [fixed bug search for Release 2.1](#). This search uses the following parameters:

Field	Parameter
Product drop-down list	Choose Series/Model and enter Cisco IMC Supervisor 2.x.
Releases drop-down list	Choose Affecting or Fixed in these Releases and enter 2.1.
Filter	Choose Fixed from the Status 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.

