Upgrading Cisco UCS Central

This chapter includes the following sections:

Upgrading Cisco UCS Central from Release 1.1 to 1.2

You can upgrade Cisco UCS Central release 1.1 to 1.2 in either standalone or cluster mode. If you are already in a standalone mode installation, when you upgrade to release 1.2, you can also configure your environment in cluster mode. For upgrading a cluster setup, see Upgrading Cisco UCS Central in Cluster Mode, on page 3

Make sure your system meets the system requirements for Cisco UCS Central, release 1.2. See System Requirements.

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Important

- Cisco UCS Central, release 1.2 requires a minimum of 12GB RAM and 40 GB storage space. Make sure that the VM RAM meets this requirement and disk1 size is upgraded to 40 GB. Otherwise, the upgrade will fail.

- Use the ISO image for an upgrade Cisco UCS Central.

- After the upgrade, make sure to clear browser cache before logging into the Cisco UCS Central GUI.

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Caution Cisco UCS Central, release 1.2 supports Cisco UCS Manager, release 2.1(x), 2.2(x) and 3.0. You must first upgrade Cisco UCS Manager to one of the supported release versions before upgrading Cisco UCS Central. If you do not upgrade Cisco UCS Manager first, Cisco UCS Central generates version mismatch errors and any registered Cisco UCS domains stop receiving updates from Cisco UCS Central.

Supported Upgrade Path to Release 1.2

You can only upgrade Cisco UCS Central to release 1.2(1a) from any of the following two releases:

- From 1.1(1b) to 1.2(1a)

- From 1.1(2a) to 1.2(1a)

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Important

- Before upgrading Cisco UCS Central to 1.2 you must do the following:

  ◦ Make sure you have Cisco UCS Manager to 2.1(2) or newer. It is recommended to upgrade Cisco UCS Manager to the latest version to ensure complete feature support.

  ◦ Upgrade Cisco UCS Central 1.0 to one of supported Cisco UCS Central 1.1 patch release.

  ◦ Make sure to take a full state backup before starting the upgrade process.

- Only ISO upgrade is supported for upgrade from release 1.0 to 1.1. The ISO upgrade is preferred upgrade method for upgrade from release 1.1 to any newer releases.

- You can use backup and restore option to ensure that you can recreate the environment in case of any failure. Backup and restore is not recommended for upgrades. The following is the recommended best practice for back up and restore:

  ◦ Use full state backup for disaster recovery scenario, where the Cisco UCS Central VM is lost.

  ◦ Use configuration import for importing configuration from a backup file on an existing Cisco UCS Central VM.

  ◦ Full State backup does not backup firmware images downloaded in Cisco UCS Central. When deploying new Cisco UCS Central VM and restoring from a full state backup, make sure to download the firmware images again in Cisco UCS Central. After a full state restore, you must download the firmware images before acknowledging the Cisco UCS domains from suspend mode.

- The following options are NOT supported in 1.2(1a):

  ◦ Erase samdb config import.

  ◦ Upgrade from Cisco UCS Central releases 1.0 and 1.1(1a)

  ◦ Taking a full state back up from Cisco UCS Central release 1.0 or 1.1(1a) to restore Cisco UCS Central release 1.2.

  ◦ Taking a config export from Cisco UCS Central release 1.0 or 1.1(1a) to config import from Cisco UCS Central release 1.2.

  ◦ Downgrade from Cisco UCS Central release 1.2 to and Cisco UCS Central releases 1.0 or 1.1.

Upgrading Cisco UCS Central in Standalone Mode

This procedure upgrades the current running version of the RHEL kernel and all Cisco UCS Central components. It also retains all Cisco UCS Central data.

Before You Begin

You must have obtained the Cisco UCS Central, release 1.1 ISO image. See Obtaining the Cisco UCS Central Software from Cisco.com. We recommend that you backup your Cisco UCS Central data before you perform this procedure.

Procedure

Step 1 If necessary, reboot the VM and change the boot options to boot from CD ROM.

Step 2 Mount the Cisco UCS Central ISO image with the virtual CD/DVD drive.

Step 3 From the **Cisco UCS Central Installation** menu on the ISO image, choose **Upgrade Existing Cisco UCS Central**.

Step 4 After the upgrade is complete, unmount the Cisco UCS Central ISO image from the virtual CD/DVD drive.

Step 5 Reboot the Cisco UCS Central VM.

Upgrading Cisco UCS Central in Cluster Mode

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Important
- You must complete ISO upgrade on both the nodes in the cluster. You can perform the upgrade in any order on both nodes. The cluster setup is available only after both the nodes are running same release versions of Cisco UCS Central.

- Make sure to perform the following Step 1 through Step 5 on both Node A and Node B in the cluster.

Before You Begin

You must have obtained the Cisco UCS Central ISO image for this release. See Obtaining the Cisco UCS Central Software from Cisco.com. We recommend that you backup your Cisco UCS Central data before you perform this procedure. Make sure to retain the Shared storage connectivity.

Procedure

Step 1 Shutdown the UCS Central VM in Node A or B and change the boot options to boot from CD ROM.

Step 2 Power on and Mount the Cisco UCS Central ISO image with the virtual CD/DVD drive..

Step 3 From the **Cisco UCS Central Installation** menu on the ISO image, choose **Upgrade Existing Cisco UCS Central**.

Step 4 After the upgrade is complete, unmount the Cisco UCS Central ISO image from the virtual CD/DVD drive.

Step 5 Reboot the Cisco UCS Central VM.

Step 6 Repeat steps 1 through 6 in the other node.

Step 7 After upgrading both nodes, wait for the HA election to complete and check the cluster state on one of the nodes.
```
UCSC-A# show cluster state
Cluster Id: 0xYYYYYY
```

```
A: UP, PRIMARY
B: UP, SUBORDINATE
HA READY/HA NOT READY
```
Any one of the nodes will be selected as the primary and the other one would be the secondary.

Depending on the registration status and availability of Cisco UCS domains, the HA status would be remain similar to the state before the upgrade.

Note   In a cluster set up, when the RDM link goes down on the primary node, DMEs cannot write to the database. This causes a crash on the primary node and failover to the subordinate node. The subordinate node takes over as the primary node. The database is then mounted in read-write mode on the new primary node. Because the RDM link is down, **umount** fails on the old primary node. When the RDM link comes up, the database is mounted on the old primary (current subordinate) node in read-only mode.

As a workaround, you can restart **pmon** services on the current subordinate node or restart the node itself. Either of these processes will unmount the read-only partition and enable proper cleanup.

Converting Cisco UCS Central from Standalone to Cluster Mode

Before You Begin

We recommend that you backup your Cisco UCS Central data before you perform this procedure.

Upgrade Cisco UCS Central from 1.0 to 1.1 using the ISO image. See Upgrading Cisco UCS Central in Standalone Mode, on page 2

Procedure

Step 1   Shutdown the VM.
Step 2   Add shared storage device to the VM. See Adding and Setting up a Shared Storage on Hyper-V or Adding and Setting up a Shared Storage on VMware.
Step 3   Start the VM and wait for the VM to come up.
Step 4   Run the local management command to connect to local management.
   a)   Enter the central-lun **connect local-mgmt#** and press Enter.
   b)   Enter the command **UCS(local-mgmt)# enable cluster[Peer Node IP][Cluster Virtual IP]**and press Enter.
```
This command will enable cluster mode on this step.  You cannot change it back to
stand-alone.
All system services and database will also be restarted.
Are you sure you want to continue? (yes/no)
```
Step 5   At the enable cluster mode prompt, enter yes and press Enter to continue.
Step 6   When prompted to enter the Shared Storage Device, enter the number of the shared storage device and press Enter.
This VM becomes Node A of the cluster is made Forced Primary by default.

The system now transfers all data from the local disk to the shared disk, converting the system from standalone mode to cluster mode.

Step 7   Check cluster state. The node should display as elected primary.
You can add the Node B to the cluster. See Installing Cisco UCS Central on Node B

Caution   If the VM is rebooted before the Cisco UCS Central secondary node is installed, the database and services on the primary node will not be operational. Run **cluster force primary** command to recover the databases and services on the VM for the primary node.