



Backup Management

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Backup and Restore

Cisco UCS Central enables you to backup and restore Cisco UCS Central and the registered UCS domains. You can schedule a backup and restore policy. You can also perform an immediate on-demand backup of Cisco UCS Central, or a selected domain.

From the **Backup & Restore** page, you can schedule a full state backup for Cisco UCS Central and the registered Cisco UCS Domains. For Cisco UCS domains, you can also create the full state backup policy locally.

Scheduled backup policies are disabled by default. If you want to back up Cisco UCS Central or the registered UCS domains, enable the backup state for both. The backup process does not interrupt or impact any server or network traffic. You can perform a backup while the domain is up and running. The backup operation saves information from the management plane.

Cisco UCS Central restricts remotely configured policies to using the Cisco UCS Central repository for backups, which is internally mounted by Cisco UCS Manager.

When you schedule a regular backup, the backup repository can start accumulating data. To manage the backup archives, you can specify the maximum number of backup versions that are saved. Use policy specifications to indicate the number of backups to maintain for each Cisco UCS domain.



Note The maximum number does not impact the number of backup image files you can store on a remote location.

You can view the list of backups for each Cisco UCS domain from the Cisco UCS Central GUI and you can also delete saved or unused backup directories and configurations.



Important

- You must have a user account that includes the admin role to create and run backup and import operations.
 - You can delete backups only after a Cisco UCS domain (from which the backup has been taken) has been unregistered.
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Backup Image Files

You can save the database or configuration backup files in the following locations:

- **Local File System:** In a local file system.
- **Remote Location:** Remote locations using a protocol such as TFTP, FTP, SCP, or SFTP.



Important You must have Cisco UCS Manager, release 2.2(2x) and above, registered with Cisco UCS Central to specify a global backup policy with the option to store the image file in a remote location.

When you schedule the backup, you can also specify the maximum number of backup files that you want to save for either system.

Restoring Configuration

You can restore the full state backup for Cisco UCS Central during setup only. For more information, see the appropriate *Cisco UCS Central Installation and Upgrade Guide*.

For Cisco UCS Manager, you can restore the full state backup configuration from the fabric interconnect's console during initial configuration.

Considerations and Recommendations for Backup Operations

Before you create a backup operation, consider the following:

Backup Locations

The backup location is the destination or folder on the network where you want Cisco UCS Central to export the backup file. You can maintain only one backup operation for each location where you plan to save a backup file.

Potential to Overwrite Backup Files

If you rerun a backup operation without changing the filename, Cisco UCS Central overwrites the existing file on the server. To avoid overwriting existing backup files, change the filename in the backup operation or copy the existing file to another location.

Multiple Types of Backups

You can run and export more than one type of backup to the same location. Change the backup type before you rerun the backup operation. We recommend that you change the filename for easier identification and to avoid overwriting the existing backup file.

Scheduled Backups

You can create a backup operation in advance and leave the admin state disabled, until you are ready to run the backup. Cisco UCS Central does not run the backup operation, save, or export the configuration file until you set the admin state of the backup operation to enabled.

Incremental Backups

You cannot perform incremental backups.

Encryption of Full State Backups

Full state backups are encrypted so that passwords and other sensitive information are not exported as clear text.

Backups from Cisco UCS Manager

Port configurations that include global VLANs and VSANs are not restored when you do an all-config backup in Cisco UCS Manager. Reconfigure the ports from Cisco UCS Central.

Backup Types

You can perform one or more of the following types of backups in Cisco UCS Central:

- **Full-state**— You can specify full state backup only during installation. Full state backup is a binary file that includes a snapshot of the entire system. You can use the file generated from this backup to restore the system during disaster recovery. You cannot use this file for an import.



Note You can only use a full state backup file to restore a system that is running the same version as the system from which the backup file was exported.

- **Config-all**— All configuration back up is an XML file that includes all system and logical configuration settings. You cannot use this file for a system restore during installation.
- **Config-logical**— Logical configuration back up is an XML file that includes all logical configuration settings. These include service profiles, VLANs, VSANs, pools, policies, users, locales, LDAP, NTP, DNS authentication and administration settings. You can use the file generated from this backup to import these configuration settings. You cannot use this file for a full state system restore during installation.
- **Config-system**— System configuration back up is an XML file that includes statistics configuration and scheduler information. You can use the file generated from this backup to import these configuration settings. You cannot use this file for a full state system restore during installation.

Scheduling a Full State Backup for Cisco UCS Central

To watch a video on scheduling a backup, see [Video: Creating Scheduled Backup for UCS Central](#).

Before you begin

If you specify a remote location, make sure that location exists. Make sure to have the following information ready for saving a backup file in the remote location:

- Absolute remote path. For example, if the transfer protocol is SCP: `/home/user01/central`
- Host name or IP address for the remote server
- User name and password for the remote server

Procedure

- Step 1** In the **Actions** bar, type **Schedule Central Backup** and press **Enter**.
- Step 2** (Optional) In the **Central Backup** dialog box **Description** field, enter a description for this backup policy.
- Step 3** From the **Schedule** drop-down, choose a schedule for this backup:
- **One Time Schedules**—Backup occurs at the scheduled date and time only.
 - **Recurring Schedules**—Backup occurs at the scheduled frequency.
- Note** You must associate this full state backup with a pre-defined schedule. To create a schedule, see [Creating or Editing a Schedule](#).
- Step 4** In **Maximum No of Backup Files** field, specify the number of backup files you want to keep in the system. After the maximum number of backup files is reached, the oldest backup file is overwritten by the newest backup file.
- Step 5** (Optional) If you want to save the backup file in a remote location, in the **Remote Copy** field, click **Enabled**.
- Note** The remote absolute path is `/home/user01/central`.

Complete the following fields to add the remote location related information.

| Field Name | Description |
|---|--|
| Transfer Protocol | Choose the transfer protocol: <ul style="list-style-type: none"> • FTP • SFTP • TFTP • SCP |
| Absolute Remote Path | The absolute remote path. |
| Remote Server Host Name/IP Address | The IP address for the remote server. |
| User Name | The user name for the remote server. |
| Password | The password for the remote server. |

Scheduling a Full State Backup for Cisco UCS Domain

- You can create a full state backup for registered Cisco UCS domains only at the domain group level.
- To watch a video on scheduling a backup, see [Video: Creating Scheduled Backup for a UCS Domain](#).
- To setup a manual backup, provide the Absolute remote path in this format: `/path/filename.tgz`

- To setup a scheduled backup, provide the home folder path (/) without the filename. For SFTP, you must create the path and the required subfolders/directories in the SFTP server before you provide the home folder path. Exportation will fail if the folder is not setup in advance. For example, if you want to setup the home folder path of the SFTP server to *C:\sftp*, and if no other folder is present in the hierarchy, and if you provide the Absolute remote path as *C:\sftp\abc* the exportation will fail because no such directory would be present in the system.

Before you begin

If you specify a remote location, make sure that location exists. Make sure to have the following information ready for saving backup file in the remote location:

- Absolute remote path. For example if the transfer protocol is SCP: `scp://user@<ip>/x/y/z`
- Host name or IP address of the remote server
- Username and password for the remote server

Procedure

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- Step 1** In the **Actions** bar, type **Schedule Domain Backup**.
- Step 2** Select a **Domain Group** for which you want to schedule the full state backup.
This selection displays **Schedule** and **No of Backup Files** options.
- Step 3** From the **Schedule** drop-down, select a schedule for this backup.
- Step 4** In the **Maximum No of Backup Files** field, specify the number of backup files that you want to keep in the system.
- Step 5** (Optional) If you want to save the backup file in a remote location, in the **Remote Copy** field, click **Enabled**.
Complete the following fields to add the remote location-related information.

| Field Name | Description |
|---|--|
| Transfer Protocol | Choose the transfer protocol. it can be one of the following: <ul style="list-style-type: none"> • FTP • SFTP • TFTP • SCP |
| Absolute Remote Path | The absolute remote path. |
| Remote Server Host Name/IP Address | The IP address for the remote server. |
| User Name | The user name for the remote server. |

| Field Name | Description |
|------------|-------------------------------------|
| Password | The password for the remote server. |

Creating On-Demand Full State Backup

You can create a full state backup for Cisco UCS Central at any time, and save the file in both local and remote locations. However, for registered Cisco UCS domains, you can create a backup on a remote location only.

To watch a video on creating a on-demand backups, see [Video: Creating On-Demand Backup for UCS Central](#) or [Video: Creating On-Demand Backup for a UCS Domain](#).

Before you begin

Make sure you have the following information ready to save the on-demand backup file in a remote location:

- Absolute remote path. For example if the transfer protocol is SCP: `/home/test/central/file.tgz`
- Host name or IP address of the remote server
- Username and password for the remote server

Procedure

- Step 1** Click the **System Tools** icon and choose **Backup & Restore**.
- Step 2** In the UCS Central and Domains list, click **UCS Central** or select a domain group.
- Step 3** Click the **Backup** icon.
- Step 4** In the **Backup** dialog, choose whether to enable or disable **Remote Copy**.
If you select **Disabled**, a local backup copy is made, and you can proceed to step 6.
- Step 5** Select the **Transfer Protocol**, and entire the required remote location information.
- Step 6** Click **Create**.

Cisco UCS Central creates and saves the full state backup file in the specified remote location. To view the backup state for Cisco UCS domains, click the domain group name.



Note The following error message displays when Cisco UCS Central or Cisco UCS Manager on-demand full state backup fails:

End point timed out. Check for IP, password, space or access related issues.

To fix this error, resubmit the configuration. On successful resubmission, Cisco UCS Central creates a backup file in the backup repository.

Removing Full State Backup for Cisco UCS Domain

In addition to the procedure described below, you can disable or delete a full state backup in the following scenarios:

- When you remove a root domain group policy, backup/export policy is disabled.
- When you remove a subdomain group policy, backup/export policy is deleted.

Procedure

- Step 1** On the menu bar, click the **System Tools** icon and choose **Backup & Restore**.
- Step 2** In the Backup and Restore page, click the **Tools** icon and choose **Remove Domain Backup Schedule**.
- Step 3** In the **Domain Backup Schedule** dialog box, select the **Domain Group** from which you want to remove the backup.
- Step 4** Verify the information in the fields that display after the selection to make sure that this is the backup schedule that you want to remove.
- Step 5** Click **Remove**.
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Removing Full State Backup for Cisco UCS Central

In addition to the procedure described below, you can disable or delete a full state backup for Cisco UCS Central in the following scenario:

- When you remove a Cisco UCS Central policy, the backup/export policy is disabled.

Procedure

- Step 1** Click the **System Tools** icon and choose **Backup & Restore**.
- Step 2** In the Backup and Restore page, click the **Tools** icon, and choose **Remove Central Backup Schedule**.
- Step 3** In the **Central Backup Schedule** dialog box, verify the information in the fields that display to make sure that this is the backup schedule that you want to remove.
- Step 4** Click **Remove**.
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Viewing Backup Files in Cisco UCS Central

Procedure

- Step 1** Click the **System Tools** icon and choose **Backup & Restore**.
- Step 2** In the UCS Central and Domains list, choose UCS Central or a domain.

- Step 3** In the right side pane, view the list of backup files. For each backup file, you can view the status, schedule, maximum number of files and the location for the remote copy.
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Configuration Export and Import

From the Export & Import, you can schedule configuration backups for Cisco UCS Central and the registered Cisco UCS domains. You can schedule export or import policy or, perform an immediate on demand configuration export of Cisco UCS Central or a selected domain. For a Cisco UCS domain, on demand backups are stored remotely. If you schedule a backup, it can be stored locally or remotely.

Scheduled backup policies are disabled by default. If you want to backup Cisco UCS Central, or the registered Cisco UCS domains, you must enable the backup state for both. Backup process does not interrupt or impact any server or network traffic. You can perform a backup while the domain is up and running. The backup operation saves information from the management plane.

Cisco UCS Central restricts remotely configured policies to using the Cisco UCS Central repository for backups, which is internally mounted by Cisco UCS Manager.

When you schedule regular backup, the backup repository can start accumulating data. To manage the backup archives, you can specify the maximum number of backup versions that are saved. Use policy specifications to indicate the number of backups to maintain for each Cisco UCS domain.



Note The maximum number does not impact the number of backup image files you can store on a remote location.

You can view the list of backups for each Cisco UCS domain from the Cisco UCS Central GUI (See: [Viewing Backup Files in Cisco UCS Central, on page 7](#)), and you can also delete saved or unused backup directories and configurations.



Important

- You must have a user account that includes the admin role to create and run backup and import operations.
 - You can delete backups only after they unregister from their Cisco UCS domains.
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Backup Image Files

You can save the database or configuration backup files in the following locations:

- **Local:** In a local file system.
- **Remote Location:** Remote locations using any one of the following protocol: TFTP, FTP, SCP, or SFTP.



Important You must have Cisco UCS Manager, release 2.2(2x) in registered Cisco UCS domains to specify a global backup policy with the option to store the image file in a remote location. If you do not have Cisco UCS Manager release 2.2(2x) in the Cisco UCS domain, the global backup policy with remote backup does not work.

When you schedule the backup, you can also specify the maximum number of backup files you want to save for either system.

Importing Configuration Files

You can use the saved configuration from a backup repository to import and configure any of the managed Cisco UCS domains. Use the TFTP protocol to access the backup configurations.

Scheduling Configuration Export for Cisco UCS Central

To watch a video on using configuration export, see [Video: Creating UCS Central Configuration Export](#).

Before you begin

If you specify a remote location, make sure that location exists. Make sure to have the following information ready for saving backup file in the remote location:

- Absolute remote path. For example if the transfer protocol is SCP: `scp://user@<ip>/x/y/z`
- Host name or IP address of the remote server
- Username and password for the remote server

Procedure

- Step 1** On the menu bar, click the **System Tools** icon and choose **Export & Import**.
- Step 2** In the UCS Central and Domains list, click **UCS Central**.
- Step 3** Click the **Tools** icon and choose **Schedule Central Export**.
This launches the **Schedule Central Configuration Export** dialog box.
- Step 4** (Optional) In the **Description** field, enter a description for the this backup policy.
- Step 5** Click **Schedule** drop down to select a schedule for this backup.
- Note** You must associate this configuration backup with a pre-defined schedule.
- Step 6** In **Maximum No of Backup Files** field, specify the number of backup files you want to keep in the system.
- Step 7** (Optional) If you want to save the backup file in a remote location, in the **Remote Copy** field, click **Enabled** and enter the required remote location information.
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Scheduling Configuration Export for Cisco UCS Domains

You can create configuration backup for registered Cisco UCS domains only at the domain group level.

To watch a video on using configuration export, see [Video: Creating UCS Domain On-Demand Configuration Export](#)

Before you begin

If you specify a remote location, make sure that location exists. Make sure to have the following information ready for saving backup file in the remote location:

- Absolute remote path. For example if the transfer protocol is SCP: `scp://user@<ip>/x/y/z`
- Host name or IP address of the remote server
- Username and password for the remote server

Procedure

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- Step 1** Click the **System Tools** icon and choose **Export and Import**.
- Step 2** In the UCS Central and Domains list, click the **Tools** icon and choose **Schedule Domain Export**.
- Step 3** Select the domain group for which you want to schedule the configuration backup.
- Step 4** Click the **Schedule** drop-down to select a schedule for this backup.
- Note** You must associate this configuration backup with a pre-defined schedule.
- Step 5** In the **Maximum No of Backup Files** field, specify the number of backup files to keep in the system.
- Step 6** (Optional) If you want to save the backup file in a remote location, in the **Remote Copy** field, click **Enabled**.
Enter the remote location and related information in the displayed fields.
- Step 7** Click **Schedule**.
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Exporting UCS Central Configuration Backup

Before you begin

If you specify a remote location, make sure that location exists. Make sure to have the following information ready for saving the backup file in the remote location:

- Absolute remote path. For example if the transfer protocol is SCP: `scp://user@<ip>/x/y/z`
- Host name or IP address of the remote server
- Username and password for the remote server

Procedure

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- Step 1** Click the **System Tools** icon and choose **Export and Import**.
- Step 2** In the UCS Central and Domains list, click **UCS Central**.
- Step 3** Select the configuration backup file that you want to export.
- Step 4** Click the **Config Export** icon.
- Step 5** Required: If you want to save the backup file in a remote location, in the **Remote Copy** field, click **Enabled**.

If **Disabled** is selected, then the file will be saved locally.

- Step 6** For remote locations, choose a **Transfer Protocol**, and enter the required remote location information in the displayed fields.
- Step 7** Click **Export**.
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Exporting Configuration On-Demand Backup for Domains

You can create configuration backup for registered Cisco UCS Domains only at the domain group level.

Before you begin

An on-demand back up is possible only for a remote location. For a local Cisco UCS domain on-demand backup is not supported. Make sure that you have the following information ready for saving the backup file in the remote location:

- Absolute remote path. For example if the transfer protocol is SCP: `scp://user@<ip>/x/y/z`
- Host name or IP address of the remote server
- Username and password for the remote server

Procedure

- Step 1** Click the **System Tools** icon and choose **Export and Import**.
- Step 2** In the UCS Central and Domains list, choose a domain.
- Step 3** Select the domain backup file that you want to export.
- Step 4** Click the **Config Export** icon.
- Step 5** Required: If you want to save the backup file in a remote location, in the **Remote Copy** field, click **Enabled**.
If **Disabled** is selected, then the file will be saved locally.
- Step 6** Required: Choose a **Transfer Protocol**, and enter the required remote location information in the displayed fields.
- Step 7** Click **Export**.
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Importing Configuration for Cisco UCS Central

You can import a configuration from another Cisco UCS Central, or an xml file you have exported to a local or remote location.

Procedure

- Step 1** Click the **System Tools** icon and choose **Export and Import**.
- Step 2** In the UCS Central and Domains list, choose UCS Central.

Step 3 Click the **Config Import** icon.

Step 4 In **Behavior on Configuration Import**, select one of the following options based on your requirements:

| Option | Description |
|----------------|---|
| Replace | For each object in the imported file, replaces the corresponding object in the current configuration. |
| Merge | Merges the configuration information in the imported file with the existing configuration information. If there is a conflict, the information in the current configuration is replaced with that in the imported configuration file. |

Step 5 In **Config File Location**, select the location from which you want to import the configuration into Cisco UCS Central:

- **UCS Central:** Select a configuration backup from the **Config File** drop down.
- **Local:** Browse to the local file location and select the file.
- **Remote:** Enter the remote server related information and file path.

Step 6 Click **Import**.

The following error message appears when Cisco UCS Central import fails:

End point timed out. Check for IP, password, space or access related issues.

To fix this error, you can resubmit the configuration. On successful re-submission, the import process will begin.

Importing Configuration for Cisco UCS Domain



Note If a Cisco UCS domain is in suspended state, has lost visibility, or lost connectivity, the import configuration feature is disabled.

Before you begin

Make sure that you have created config-all backup files using backup policies.

Procedure

Step 1 Click the **System Tools** icon and choose **Export and Import**.

Step 2 In the UCS Central and Domains list, click the domain where you want to import the backup.

Step 3 Click the **Config Import** icon.

Step 4 In **Behavior on Configuration Import**, select **Replace** or **Merge** based on your requirements.

| Option | Description |
|----------------|---|
| Replace | For each object in the imported file, replaces the corresponding object in the current configuration. |
| Merge | Merges the configuration information in the imported file with the existing configuration information. If there is a conflict, the information in the current configuration is replaced with that in the imported configuration file. |

- Step 5** In **Import From** drop-down, select the domain from which you want to import all configuration into this domain.
- Step 6** Click **Config File** drop-down to select the configuration file.
- Step 7** Click **Import**.

Removing Configuration Export Schedule for Cisco UCS Central

Procedure

- Step 1** Click the **System Tools** icon and choose **Export and Import**.
- Step 2** On the Config Export & Import page, click the **Tools** icon and choose **Remove Central Export Schedule**.
- Step 3** View the entries in the schedule.
- Note** There is only one schedule for Cisco UCS Central.
- Step 4** Click **Remove**.

Removing Configuration Export Schedule for Cisco UCS Domain

In addition to the procedure described below, full state backup for Cisco UCS Central can be disabled or deleted in the following scenarios:

- When you remove a subdomain group policy, the backup/export policy is deleted.
- When you remove either a central or root domain group policy, the backup/export policy is disabled.

Procedure

- Step 1** Click the **System Tools** icon and choose **Export and Import**.
- Step 2** On the Config Export & Import page, click the **Tools** icon and choose **Remove Domain Export Schedule**.
- Step 3** Select the domain group where you want to remove the configuration backup.
- Step 4** Select the schedule that you want to remove.

Step 5 Click **Remove**.

Viewing Backup Files in Cisco UCS Central

Procedure

- Step 1** Click the **System Tools** icon and choose **Backup & Restore**.
- Step 2** In the UCS Central and Domains list, choose UCS Central or a domain.
- Step 3** In the right side pane, view the list of backup files. For each backup file, you can view the status, schedule, maximum number of files and the location for the remote copy.
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