Backup and Restore

This chapter includes the following sections:

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 or you can 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 backup Cisco UCS Central or the registered UCS domains, you must 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.

Remotely configured policies are restricted to use 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.

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 you want to save either for 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. You need to change the backup type before you rerun the backup operation. We recommend that you change the filename for easier identification of the backup type 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 of Cisco UCS Manager or Cisco UCS Central.

Encryption of Full State Backups

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

Scheduling a Full State Backup for Cisco 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 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

Step 1 In the Task bar, type **Schedule Central Backup** and press Enter.
This launches the **Schedule Central Backup** dialog box.

Step 2 (Optional) In the **Description** field, enter a description for this backup policy.

Step 3 From the **Schedule** drop down, choose a schedule for this backup. This can be one of the following:

- One Time Schedules—The backup occurs at the scheduled date and time only.

- Recurring Schedules—The 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** filed, click **Enabled**.
Complete the following fields to add the remote location related information.

Name	Description
Transfer Protocol	Choose the transfer protocol. it can be one of the following: • FTP • SFTP • TFTP • SCP
Absolute Remote Path field	The absolute remote path.
Remote Server Host Name/IP Address field	The IP address for the remote server.
User Name field	The user name for the remote server.
Password field	The password for the remote server.

Scheduling a Full State Backup for Cisco UCS Domain

You can create full state back for registered Cisco UCS Domains only at the domain group level.

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

Step 1 Click **Domain Group** drop down option to select the domain group for which you want to schedule the full state backup. This selection displays **Schedule** and **No of Backup Files** options.

Step 2 From the **Schedule** drop down, choose a schedule for this backup. It can be one of the following:

• Simple – To create an one time occurrence or recurrence.

• Advanced – To create multiple one time occurrences or recurrences.

Note You must associate this full state backup with a pre defined schedule.

Step 3   In Maximum No of Backup Files field, specify the number of backup files you want to keep in the system.

Step 4   (Optional) If you want to save the backup file in a remote location, in the **Remote Copy** filed, click **Enabled**. Complete the following fields to add the remote location related information.

Name	Description
Transfer Protocol	Choose the transfer protocol. it can be one of the following: • FTP • SFTP • TFTP • SCP
Absolute Remote Path field	The absolute remote path.
Remote Server Host Name/IP Address field	The IP address for the remote server.
User Name field	The user name for the remote server.
Password field	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 back up on a remote location only.

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:
  `scp://user@ipaddress/x/y/backup_filename.tgz`

- Host name or IP address of the remote server

- Username and password for the remote server

Step 1   On the menu bar, click the **Operations** icon and select **Backup & Restore**.

Step 2   Click **UCS Central** or select a domain group.

Step 3   Click the **Backup** icon.
This launches the **Create Backup** dialog box.

Step 4   For a Cisco UCS Central full state backup, choose whether to enable or disable **Remote Copy**.

If you select **Disabled**, a local backup copy will be 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**.

The full state backup file is created and saved in the specified remote location. To view the backup state for Cisco UCS Domains, click the domain group name.

Note   The following error message appears 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, you can resubmit the configuration. On successful re-submission, a backup file is created in the backup repository.

Removing Full State Backup for Cisco UCS Domain

In addition to the procedure described below, full state backup can be disabled/deleted in the following scenarios:

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

- When you remove sub domain group policy, backup/export policy is deleted.

Step 1   On the menu bar, click the **Operations** icon and select **Backup & Restore**.

Step 2   Click the **Schedule** icon, and select **Remove Domain Backup Schedule**.
This launches the **Remove Domain Backup Schedule** dialog box.

Step 3   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**.

Removing Full State Backup for Cisco UCS Central

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

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

Step 1 On the menu bar, click the **Operations** icon and select **Backup & Restore**.

Step 2 Click the **Schedule** icon, and select **Remove Central Backup Schedule**.
This launches the **Remove Central Backup Schedule** dialog box.

Step 3 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**.

Viewing Backup files in Cisco UCS Central

Step 1 On the menu bar, choose **Backup & Restore**.

Step 2 Under **Domains**, select the Cisco UCS Central domain to enter the Cisco UCS Central scope.

Step 3 In the right side pane, view the list of all the Cisco UCS Central backup files. For each backup file, you can view the status, last backed up date, schedule, maximum number of files and the location for the remote copy.