NetApp

Restore custom plug-in resources

SnapCenter Software 4.6

NetApp
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The restore and recovery workflow includes planning, performing the restore operations, and monitoring the operations.

About this task

The following workflow shows the sequence in which you must perform the restore operation:

You can also use PowerShell cmdlets manually or in scripts to perform backup, restore, and clone operations. For information about PowerShell cmdlets, use the SnapCenter cmdlet help or see the SnapCenter Software Cmdlet Reference Guide.

Restore a resource backup

You can use SnapCenter to restore resources. The capabilities of the restore operations depends upon the plug-in that you use.

What you will need

- You must have backed up the resource or resource groups.
- The SnapCenter administrator must have assigned you the storage virtual machines (SVMs) for both the source volumes and destination volumes if you are replicating Snapshot copies to a mirror or vault.
- You must have cancelled any backup operation that is currently in progress for the resource or resource group you want to restore.

About this task

The default restore operation only restores storage objects. Restore operations at the application level can only be performed if the custom plug-in provides that capability.

Steps

1. In the left navigation pane, click **Resources**, and then select the appropriate plug-in from the list.
2. In the Resources page, filter resources from the **View** drop-down list based on resource type.

    The resources are displayed along with information such as type, host or cluster name, associated

resource groups and policies, and status.

> ⓘ Although a backup might be for a resource group, when you restore, you must select the individual resources you want to restore.

If the resource is not protected, *Not protected* is displayed in the **Overall Status** column.

The status *Not protected* in the **Overall Status** column can mean either that the resource is not protected, or that the resource was backed up by a different user.

3. Select the resource or select a resource group and then select a resource in that group.

   The resource topology page is displayed.

4. From the **Manage Copies** view, select **Backups** either from the primary or secondary (mirrored or vaulted) storage systems.

5.
   In the Primary backup(s) table, select the backup that you want to restore from, and then click ↰ .

Primary Backup(s)			
search ▽			🗐 ↰ 🗑
Backup Name	⬇		**End Date**
rg1_scspr0191685001_01-05-2017_01.35.06.6463			1/5/2017 1:35:27 AM 🗓

6. In the Restore Scope page, select either **Complete Resource** or **File Level**.

   a. If you selected **Complete Resource**, the resource backup is restored.

      If the resource contains volumes or qtrees as Storage Footprint, then newer Snapshot copies on such volumes or qtrees are deleted and cannot be recovered. Also, if any other resource is hosted on same volumes or qtrees, then that resource is also deleted.

   b. If you selected **File Level**, then you can either select **All**, or select volumes or qtrees, and then enter the path related to the volumes or qtrees that are selected separated by commas.

      ▪ You can select multiple volumes and qtrees.

      ▪ If resource type is LUN, entire LUN is restored. You can select multiple LUNs.
        NOTE: If you select **All**, all the files on the volumes, qtrees, or LUNs are restored.

7. In the Recovery Type page, perform the following steps: select option to apply logs. Make sure your plugin supports All logs and Logs until restore type before selecting it.

If you want to…	Do this…
Restore all logs	Select **All logs**. Ensure that the plug-in supports **All logs**.
Restore all logs till the specified time	Select **Logs until**. Ensure that the plug-in supports **Logs until**.

If you want to…	Do this…
Restore the resource backup	Select **None**.

8. In the Pre ops page, enter pre restore and unmount commands to run before performing a restore job.

9. In the Post ops page, enter mount and post restore commands to run after performing a restore job.

10. In the Notification page, from the **Email preference** drop-down list, select the scenarios in which you want to send the emails.

    You must also specify the sender and receiver email addresses, and the subject of the email. SMTP must also be configured in the **Settings** > **Global Settings** page.

11. Review the summary, and then click **Finish**.

12. Monitor the operation progress by clicking **Monitor** > **Jobs**.

Restore resources using PowerShell cmdlets

Restoring a resource backup includes initiating a connection session with the SnapCenter Server, listing the backups and retrieving backup information, and restoring a backup.

You must have prepared the PowerShell environment to execute the PowerShell cmdlets.

Steps

1. Initiate a connection session with the SnapCenter Server for a specified user by using the Open-SmConnection cmdlet.

```
Open-smconnection  -SMSbaseurl  https:\\snapctr.demo.netapp.com:8146/
```

2. Retrieve the information about the one or more backups that you want to restore by using the Get-SmBackup and Get-SmBackupReport cmdlets.

   This example displays information about all available backups:

```
 C:\PS>PS C:\> Get-SmBackup

BackupId                        BackupName                        BackupTime
BackupType
-------                         ---------                         ----------
----------
  1               Payroll Dataset_vise-f6_08... 8/4/2015    11:02:32 AM
Full Backup
  2               Payroll Dataset_vise-f6_08... 8/4/2015    11:23:17 AM
```

   This example displays detailed information about the backup from January 29th 2015 to February 3rd, 2015:

```
PS C:\> Get-SmBackupReport -FromDateTime "1/29/2015" -ToDateTime
"2/3/2015"

    SmBackupId          : 113
    SmJobId             : 2032
    StartDateTime       : 2/2/2015 6:57:03 AM
    EndDateTime         : 2/2/2015 6:57:11 AM
    Duration            : 00:00:07.3060000
    CreatedDateTime     : 2/2/2015 6:57:23 AM
    Status              : Completed
    ProtectionGroupName : Clone
    SmProtectionGroupId : 34
    PolicyName          : Vault
    SmPolicyId          : 18
    BackupName          : Clone_SCSPR0019366001_02-02-2015_06.57.08
    VerificationStatus  : NotVerified

    SmBackupId          : 114
    SmJobId             : 2183
    StartDateTime       : 2/2/2015 1:02:41 PM
    EndDateTime         : 2/2/2015 1:02:38 PM
    Duration            : -00:00:03.2300000
    CreatedDateTime     : 2/2/2015 1:02:53 PM
    Status              : Completed
    ProtectionGroupName : Clone
    SmProtectionGroupId : 34
    PolicyName          : Vault
    SmPolicyId          : 18
    BackupName          : Clone_SCSPR0019366001_02-02-2015_13.02.45
    VerificationStatus  : NotVerified
```

3. Restore data from the backup by using the Restore-SmBackup cmdlet.

```
Restore-SmBackup -PluginCode 'DummyPlugin' -AppObjectId
'scc54.sccore.test.com\DummyPlugin\NTP\DB1' -BackupId 269
-Confirm:$false
output:
Name                 : Restore
'scc54.sccore.test.com\DummyPlugin\NTP\DB1'
Id                   : 2368
StartTime            : 10/4/2016 11:22:02 PM
EndTime              :
IsCancellable        : False
IsRestartable        : False
IsCompleted          : False
IsVisible            : True
IsScheduled          : False
PercentageCompleted  : 0
Description          :
Status               : Queued
Owner                :
Error                :
Priority             : None
Tasks                : {}
ParentJobID          : 0
EventId              : 0
JobTypeId            :
ApisJobKey           :
ObjectId             : 0
PluginCode           : NONE
PluginName           :
```

The information regarding the parameters that can be used with the cmdlet and their descriptions can be obtained by running *Get-Help command_name*. Alternatively, you can also refer to the SnapCenter Software Cmdlet Reference Guide.

Monitor custom plug-in resources restore operations

You can monitor the progress of different SnapCenter restore operations by using the Jobs page. You might want to check the progress of an operation to determine when it is complete or if there is an issue.

About this task

Post-restore states describe the conditions of the resource after a restore operation and any further restore actions that you can take.

The following icons appear on the Jobs page, and indicate the state of the operation:

- In progress

- ✔ Completed successfully
- ✖ Failed
- ⚠ Completed with warnings or could not start due to warnings
- ↺ Queued
- ⊘ Canceled

Steps

1. In the left navigation pane, click **Monitor**.

2. In the Monitor page, click **Jobs**.

3. In the Jobs page, perform the following steps:

   a. Click ▼ to filter the list so that only restore operations are listed.

   b. Specify the start and end dates.

   c. From the **Type** drop-down list, select **Restore**.

   d. From the **Status** drop-down list, select the restore status.

   e. Click **Apply** to view the operations that have been completed successfully.

4. Select the restore job, and then click **Details** to view the job details.

5. In the Job Details page, click **View logs**.

   The **View logs** button displays the detailed logs for the selected operation.

   > ⓘ After the volume based restore operation, the backup metadata is deleted from the SnapCenter repository but the backup catalog entries remain in SAP HANA catalog. Though the restore job status displays ✔ , you should click on job details to see the warning sign of some of the child tasks. Click on the warning sign and delete the indicated backup catalog entries.