



# **Back up databases using PowerShell cmdlets**

## **SnapCenter Software**

Nirupama Sriram, Archana, Soumik Das  
June 14, 2021

This PDF was generated from [https://docs.netapp.com/us-en/snapcenter/protect-hana/task\\_back\\_up\\_databases\\_using\\_powershell\\_cmdlets\\_sap\\_hana.html](https://docs.netapp.com/us-en/snapcenter/protect-hana/task_back_up_databases_using_powershell_cmdlets_sap_hana.html) on June 18, 2021. Always check docs.netapp.com for the latest.

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# Back up databases using PowerShell cmdlets

Backing up a database includes establishing a connection with the SnapCenter Server, adding resources, adding a policy, creating a backup resource group, and backing up.

## What you will need

- You must have prepared the PowerShell environment to execute the PowerShell cmdlets.
- You must have added the storage system connection and created a credential.

## 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\
```

The username and password prompt is displayed.

2. Add resources by using the Add-SmResources cmdlet.

This example shows how to add a SAP HANA database of SingleContainer type:

```
C:\PS> Add-SmResource -HostName '10.232.204.42' -PluginCode 'HANA'  
-DatabaseName H10 -ResourceType SingleContainer -StorageFootPrint  
(@{"VolumeName"="HanaData10";"StorageSystem"="vserver_scauto_primary"})  
-SID 'H10' -filebackuppath '/tmp/HanaFileLog' -userstorekeys 'HS10'  
-osdbuser 'h10adm' -filebackupprefix 'H10_'
```

This example shows how to add a SAP HANA database of MultipleContainers type:

```
C:\PS> Add-SmResource -HostName 'vp-hana2.gdl.englab.netapp.com'  
-PluginCode 'HANA' -DatabaseName MDC_MT -ResourceType MultipleContainers  
-StorageFootPrint  
(@{"VolumeName"="VP_HANA2_data";"StorageSystem"="buck.gdl.englab.netapp.  
com"}) -sid 'A12' -userstorekeys 'A12KEY' -TenantType 'MultiTenant'
```

This example shows how to create a non-data volume resource:

```
C:\PS> Add-SmResource -HostName 'SNAPCENTERN42.sscore.test.com'  
-PluginCode 'hana' -ResourceName NonDataVolume -ResourceType  
NonDataVolume -StorageFootPrint  
(@{"VolumeName"="ng_pvol";"StorageSystem"="vserver_scauto_primary"})  
-sid 'S10'
```

### 3. Create a backup policy by using the Add-SmPolicy cmdlet.

This example creates a backup policy for a Snapshot copy-based backup:

```
C:\PS> Add-SmPolicy -PolicyName hana_snapshotbased -PolicyType Backup  
-PluginPolicyType hana -BackupType SnapShotBasedBackup
```

This example creates a backup policy for a File-Based backup:

```
C:\PS> Add-SmPolicy -PolicyName hana_Filebased -PolicyType Backup  
-PluginPolicyType hana -BackupType FileBasedBackup
```

### 4. Protect the resource or add a new resource group to SnapCenter by using the Add-SmResourceGroup cmdlet.

This example protects a single container resource:

```
C:\PS> Add-SmProtectResource -PluginCode HANA -Policies  
hana_snapshotbased,hana_Filebased  
-Resources @{"Host"="host.example.com";"UID"="SID"} -Description test  
-usesnapcenterwithoutfilesystemconsistency
```

This example protects a multiple containers resource:

```
C:\PS> Add-SmProtectResource -PluginCode HANA -Policies  
hana_snapshotbased,hana_Filebased  
-Resources @{"Host"="host.example.com";"UID"="MDC\SID"} -Description  
test -usesnapcenterwithoutfilesystemconsistency
```

This example creates a new resource group with the specified policy and resources:

```
C:\PS> Add-SmResourceGroup -ResourceGroupName  
'ResourceGroup_with_SingleContainer_MultipleContainers_Resources'  
-Resources  
@(@{"Host"="sccorelinux61.sscore.test.com";"Uid"="SID"},@{"Host"="sccore  
linux62.sscore.test.com";"Uid"="MDC\SID"})  
-Policies hana_snapshotbased,hana_Filebased  
-usesnapcenterwithoutfilesystemconsistency -plugincode 'HANA'
```

This example creates a non-data volume resource group:

```
C:\PS> Add-SmResourceGroup -ResourceGroupName
'Mixed_RG_backup_when_Remove_Backup_throguh_BackupName_windows'
-Resources
@(@{"Host"="SNAPCENTERN42.sscore.test.com";"Uid"="H11";"PluginName"="hana"},@{"Host"="SNAPCENTERN42.sscore.test.com";"Uid"="MDC\H31";"PluginName"="hana"},@{"Host"="SNAPCENTERN42.sscore.test.com";"Uid"="NonDataVolume\S10\NonDataVolume";"PluginName"="hana"}) -Policies hanaprimary
```

5. Initiate a new backup job by using the New-SmBackup cmdlet.

This example shows how to backup a resource group:

```
C:\PS> New-SMBackup -ResourceGroupName
'ResourceGroup_with_SingleContainer_MultipleContainers_Resources'
-Policy hana_snapshotbased
```

This example backs up a protected resource:

```
C:\PS> New-SMBackup -Resources
@{"Host"="10.232.204.42";"Uid"="MDC\SID";"PluginName"="hana"} -Policy
hana_Filebased
```

6. Monitor the job status (running, completed, or failed) by using the Get-smJobSummaryReport cmdlet.

```
PS C:\> Get-smJobSummaryReport -JobID 123
```

7. Monitor the backup job details like backup ID, backup name to perform restore or clone operation by using the Get-SmBackupReport cmdlet.

```

PS C:\> Get-SmBackupReport -JobId 351
Output:
BackedUpObjects           : {DB1}
FailedObjects             : {}
IsScheduled               : False
HasMetadata               : False
SmBackupId                : 269
SmJobId                   : 2361
StartDateTime             : 10/4/2016 11:20:45 PM
EndDateTime               : 10/4/2016 11:21:32 PM
Duration                  : 00:00:46.2536470
CreatedDateTime           : 10/4/2016 11:21:09 PM
Status                    : Completed
ProtectionGroupName       : Verify_ASUP_Message_windows
SmProtectionGroupId       : 211
PolicyName                : test2
SmPolicyId                : 20
BackupName                : Verify_ASUP_Message_windows_scc54_10-04-
2016_23.20.46.2758
VerificationStatus        : NotVerified
VerificationStatuses      :
SmJobError                :
BackupType                : SCC_BACKUP
CatalogingStatus          : NotApplicable
CatalogingStatuses        :
ReportDataCreatedDateTime :

```

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](#).

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