SnapCenter 4.8

# Cmdlet Reference Guide

For Windows

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# About PowerShell commands for SnapCenter Plug-ins Package for Windows

This command reference document is a compilation of all the PowerShell help pages for PowerShell cmdlets. It includes the cmdlets for both the SnapCenter Plug-in for Windows and the SnapCenter Plug-in for SQL Server.

The following are common tasks you might perform using PowerShell cmdlets:

- Create a storage virtual machine (SVM) connection and a credential
- Back up SQL Server databases
- Restore and recover SQL Server databases
- Clone SQL Server database backups

## Create a storage system connection and a credential using PowerShell cmdlets

You must create a storage virtual machine (SVM) connection and a credential before using PowerShell cmdlets to perform data protection operations.

### Before you begin

- You should have prepared the PowerShell environment to execute the PowerShell cmdlets.
- You should have the required permissions in the Infrastructure Admin role to create storage connections.
- You should ensure that the plug-in installations are not in progress.

  Host plug-in installations must not be in progress while adding a storage system connection because the host cache might not be updated and databases status might be displayed in the SnapCenter GUI as "Not available for backup" or "Not on NetApp storage".
- Storage system names should be unique.

  SnapCenter does not support multiple storage systems with the same name on different clusters. Each storage system that is supported by SnapCenter should have a unique name and a unique data LIF IP address.

### Steps

1. Initiate a PowerShell connection session by using the `Open-SmConnection` cmdlet.

   This example opens a PowerShell session:

   ```
   PS C:\> Open-SmStorageConnection
   ```

2. Create a new connection to the storage system by using the `Add-SmStorageConnection` cmdlet.

   This example creates a new storage system connection:

   ```
   PS C:\> Add-SmStorageConnection -Storage test_vs1 -Protocol Https
   -Timeout 60
   ```

3. Create a new credential by using the `Add-SmCredential` cmdlet.

   This example creates a new credential named FinanceAdmin with Windows credentials:

   ```
   PS C:> Add-SmCredential -Name FinanceAdmin -AuthMode Windows
   -Credential sddev\administrator
   ```

# Back up resources using PowerShell cmdlets

You can use the PowerShell cmdlets to backup SQL Server databases or Windows file systems. This would include backing up a SQL Server database or Windows file system includes establishing a connection with the SnapCenter Server, discovering the SQL Server database instances or Windows file systems, adding a policy, creating a backup resource group, backing up, and verifying the backup.

### Before you begin

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

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

   This example creates a new backup policy with a SQL backup type of FullBackup:

   ```
   PS C:\> Add-SmPolicy -PolicyName TESTPolicy
   -PluginPolicyType SCSQL -PolicyType Backup
   -SqlBackupType FullBackup -Verbose
   ```

   This example creates a new backup policy with a Windows file system backup type of CrashConsistent:

   ```
   PS C:\> Add-SmPolicy -PolicyName FileSystemBackupPolicy
   -PluginPolicyType SCW -PolicyType Backup
   -ScwBackupType CrashConsistent -Verbose
   ```
3. Discover host resources by using the `Get-SmResources` cmdlet.

   This example discovers the resources for the Microsoft SQL plug-in on the specified host:

   ```
   C:\PS>PS C:\> Get-SmResources -HostName vise-f6.sddev.mycompany.com
   -PluginCode SCSQL
   ```

   This example discovers the resources for Windows file systems on the specified host:

   ```
   C:\PS>PS C:\> Get-SmResources -HostName vise2-f6.sddev.mycompany.com
   -PluginCode SCW
   ```
4. Add a new resource group to SnapCenter by using the `Add-SmResourceGroup` cmdlet.

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

   ```
   PS C:\> Add-SmResourceGroup -ResourceGroupName AccountingResource
   -Resources @{"Host"="visef6.org.com";
   "Type"="SQL Database";"Names"="vise-f6\PayrollDatabase"}
   -Policies "BackupPolicy"
   ```

   This example creates a new Windows file system backup resource group with the specified policy and resources:

   ```
   PS C:\> Add-SmResourceGroup -ResourceGroupName EngineeringResource
   -PluginCode SCW -Resources @{"Host"="WIN-VOK20IKID5I";
   ```

```
"Type"="Windows Filesystem";"Names"="E:\"}
-Policies "EngineeringBackupPolicy"
```

5. Initiate a new Snapshot copy job by using the `New-SmBackup` cmdlet.

```
PS C:> New-SmBackup -ResourceGroupName PayrollDataset -Policy FinancePolicy
```

6. View the status of the backup job by using the `Get-SmBackupReport` cmdlet.

   This example displays a job summary report of all jobs that were run on the specified date:

```
PS C:\> Get-SmJobSummaryReport -Date ?1/27/2016?
```

# Restore and recover resources using PowerShell cmdlets

Restoring and recovering a SQL Server database or Windows file system includes initiating a connection session with the SnapCenter Server, listing the backups and retrieving backup information, and restoring a backup.

### Before you begin

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:

```
PS C:\> Get-SmBackup

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

2          Payroll Dataset_vise-f6_08...   8/4/2015
                                           11:23:17 AM
```

   This example displays detailed information about the backup Secondary_SCSPR0019366001_01-15-2015_06.49.08:

```
PS C:\> Get-SmBackupReport
-BackupName  Secondary_SCSPR0019366001_01-15-2015_06.49.08

BackedUpObjects : {TestDB1, TestDB2, TestDB3, TestDB4...}
FailedObjects : {}
BackupType : Full Backup
IsScheduled : False
SmBackupId : 52
SmJobId : 585
StartDateTime : 1/15/2015 6:49:07 AM
EndDateTime : 1/15/2015 6:49:21 AM
Duration : 00:00:13.8370000
CreatedDateTime : 1/15/2015 6:49:18 AM
Status  :  Completed
ProtectionGroupName : Secondary
SmProtectionGroupId : 5
PolicyName : Vault
SmPolicyId : 18
```

```
BackupName : Secondary_SCSPR0019366001_01-15-2015_06.49.08
VerificationStatus : NotVerified
```

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

```
C:\PS>PS C:\> Restore-SmBackup -PluginCode SCSQL
-AppObjectId 'vise-f6\PayrollDatabase'
-BackupName 'NetApp_PayrollDataset_Backup Policy_
             vise-f6_NetApp_08-07-2015_08.48.59.6962'
-RestoreWhenOnline

 Name                : Restore 'vise-f6\PayrollDatabase'
 Id                  : 199
 StartTime           : 8/7/2015 9:21:36 AM
 EndTime             :
 IsCancellable       : False
 IsRestartable       : False
 IsCompleted         : False
 IsVisible           : False
 IsScheduled         : False
 PercentageCompleted : 0
 Description         :
 Status              : Queued
 Owner               :
 Error               :
 Priority            : None
 Tasks               : {}
 ParentJobID         : 0
 EventId             : 0
```

```
Restore-SmBackup -PluginCode SCSQL -AppObjectId 'scspr0270378001\abc' -BackupName 'sc
spr0270378001_abc_scspr0270378001_07-25-2017_04.51.10.5795' -AlternatePath @{Source='D:
\data\abc.mdf';Destinatio
n='D:\data\bharathaewf123.mdf'},@{Source='D:\log\bharath_log.ldf';Destination='D:\log
\bharathaef_log123.ldf'} -SQLInstan
ceName 'scspr0273089004' -DatabaseName 'abc123adwqa1231' -ExistingFiles
```

## Clone backups using PowerShell cmdlets

The clone workflow includes planning, performing the clone operation, and monitoring the operation.

### Before you begin

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. List the backups that can be cloned by using the `Get-SmBackup` or `Get-SmResourceGroup` cmdlet.

   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     Full Backup
                                           11:02:32 AM

2          Payroll Dataset_vise-f6_08...   8/4/2015
                                           11:23:17 AM
```

This example displays information about a specified resource group, its resources, and associated policies:

```
PS C:\> Get-SmResourceGroup -ListResources -ListPolicies

Description :
CreationTime : 8/4/2015 3:44:05 PM
ModificationTime : 8/4/2015 3:44:05 PM
EnableEmail : False
EmailSMTPServer :
EmailFrom :
EmailTo :
EmailSubject :
EnableSysLog : False
ProtectionGroupType : Backup
EnableAsupOnFailure : False
Policies : {FinancePolicy}
HostResourceMaping : {}
Configuration : SMCoreContracts.SmCloneConfiguration
LastBackupStatus :
VerificationServer :
EmailBody :
EmailNotificationPreference : Never
VerificationServerInfo : SMCoreContracts.SmVerificationServerInfo
SchedulerSQLInstance :
CustomText :
CustomSnapshotFormat :
SearchResources : False
ByPassCredential : False
IsCustomSnapshot :
MaintenanceStatus : Production
PluginProtectionGroupTypes : {SMSQL}
Name : Payrolldataset
Type : Group
Id : 1
Host :
UserName :
Passphrase :
Deleted : False
Auth : SMCoreContracts.SmAuth
IsClone : False
CloneLevel : 0
ApplySnapvaultUpdate : False
ApplyRetention : False
RetentionCount : 0
RetentionDays : 0
ApplySnapMirrorUpdate : False
SnapVaultLabel :
MirrorVaultUpdateRetryCount : 7
AppPolicies : {}
Description : FinancePolicy
PreScriptPath :
PreScriptArguments :
PostScriptPath :
PostScriptArguments :
ScriptTimeOut : 60000
DateModified : 8/4/2015 3:43:30 PM
DateCreated : 8/4/2015 3:43:30 PM
Schedule : SMCoreContracts.SmSchedule
PolicyType : Backup
PluginPolicyType : SMSQL
Name : FinancePolicy
Type :
Id : 1
Host :
UserName :
Passphrase :
Deleted : False
```

```
Auth : SMCoreContracts.SmAuth
IsClone : False
CloneLevel : 0
clab-a13-13.sddev.lab.netapp.com
DatabaseGUID :
SQLInstance : clab-a13-13
DbStatus : AutoClosed
DbAccess : eUndefined
IsSystemDb : False
IsSimpleRecoveryMode : False
IsSelectable : True
SqlDbFileGroups : {}
SqlDbLogFiles : {}
AppFileStorageGroups : {}
LogDirectory :
AgName :
Version :
VolumeGroupIndex : -1
IsSecondary : False
Name : TEST
Type : SQL Database
Id : clab-a13-13\TEST
Host : clab-a13-13.sddev.mycompany.com
UserName :
Passphrase :
Deleted : False
Auth : SMCoreContracts.SmAuth
IsClone : False
```

3. Initiate a clone operation from an existing backup by using the `New-SmClone` cmdlet.

   This example creates a clone from a specified backup with all logs:

```
PS C:\> New-SmClone
-BackupName  payroll_dataset_vise-f3_08-05-2015_15.28.28.9774
-Resources @{"Host"="vise-f3.sddev.mycompany.com";
"Type"="SQL Database";"Names"="vise-f3\SQLExpress\payroll"}
-CloneToInstance vise-f3\sqlexpress -AutoAssignMountPoint
-Suffix _clonefrombackup
-LogRestoreType All -Policy clonefromprimary_ondemand

PS C:> New-SmBackup -ResourceGroupName PayrollDataset -Policy FinancePolicy
```

   This example creates a clone to a specified Microsoft SQL Server instance:

```
PS C:\> New-SmClone
-BackupName  "BackupDS1_NY-VM-SC-SQL_12-08-2015_09.00.24.8367"
-Resources @{"host"="ny-vm-sc-sql";"Type"="SQL Database";
"Names"="ny-vm-sc-sql\AdventureWorks2012_data"}
-AppPluginCode SMSQL -CloneToInstance "ny-vm-sc-sql"
-Suffix _CLPOSH -AutoAssignMountPoint
-AssignMountPointUnderPath "C:\SCMounts"
```

4. View the status of the clone job by using the `Get-SmCloneReport` cmdlet.

   This example displays a clone report for the specified job ID:

```
PS C:\> Get-SmCloneReport -JobId 186

SmCloneId : 1
SmJobId : 186
StartDateTime : 8/3/2015 2:43:02 PM
EndDateTime : 8/3/2015 2:44:08 PM
Duration : 00:01:06.6760000
Status : Completed
ProtectionGroupName : Draper
SmProtectionGroupId : 4
PolicyName : OnDemand_Clone
SmPolicyId : 4
```

```
BackupPolicyName : OnDemand_Full_Log
SmBackupPolicyId : 1
CloneHostName : SCSPR0054212005.mycompany.com
CloneHostId : 4
CloneName : Draper__clone  08-03-2015_14.43.53
SourceResources : {Don, Betty, Bobby, Sally}
ClonedResources : {Don_DRAPER, Betty_DRAPER, Bobby_DRAPER,
                   Sally_DRAPER}
```

# Add-SmCloneDataSet

Creates a new clone dataset.

# Syntax

```
Add-SmCloneDataSet [-DataSetName] <String> [[-Description] <String>] [-PluginCode]
<PluginCode> [[-Policies] <String>] [-CloneToInstance] <String> [-Resources]
<Hashtable[]> [[-Suffix] <String>] [[-SchedulerCredentialName] <String>] [[-
ArchivedLocators] <Hashtable[]>] [[-EnableEmail]] [-EmailPreference
<SmEmailNotificationPreference>] [[-CreateRemoteClone] <Boolean>] [-CustomSnapShotFomat
<String>] [-CustomText <String>] [<CommonParameters>]
```

# Detailed Description

Creates a new clone resource group and adds resources to it. Additionally, you can attach policies, set notification settings for Event Management System (EMS) logs, AutoSupport, and email notification. You can also specify clone options including clone server and instance, mount options, and attach a suffix to the clone database name. If you are cloning to a SnapMirror or SnapVault destination, specify the secondary location.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| DataSetName | Specifies the new clone dataset name. | true | true (ByPropertyName) | |
| Description | Provides an optional description of the resource group you are creating. | false | true (ByPropertyName) | |
| PluginCode | Specifies the plug-in code of the host for which you are creating a clone resource group. Valid values are SCSQL and SCO. | true | true (ByPropertyName) | |
| Policies | Specifies one or more polices you want to attach to the dataset. Multiple policies can be added as a comma-separated list. | false | true (ByPropertyName) | |
| CloneToInstance | Specifies the SQL Server instance that you want to clone to. All databases in the clone resource group are cloned to this instance. | true | true (ByPropertyName) | |
| Resources | Specifies the resources you want to add to the clone resource group. You must provide the resource information in a hashtable, and it must contain the resource name and type, as well as the host on which the resource is located. For example, ®{"Host"="localhost";"Type"="SQL Database";"Names"="Instance\Database"} Valid Type values are SQL Database and Oracle Database. You can include comma-separated values for Names. | true | true (ByPropertyName) | |
| Suffix | Provides a clone name suffix. All clones you create with one clone job are appended with the same suffix name. | false | true (ByPropertyName) | |
| SchedulerCredentialName | | false | true (ByPropertyName) | |
| ArchivedLocators | Specifies in a hashtable the secondary storage system details for each unique primary storage system resource in the resource group. For example: -ArchivedLocators | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | ®{Primary="my_vs1:my_vol_iscsi"; Secondary="my_vs1:my_vol_iscsi_SECONDARY"} | | | |
| EnableEmail | Specifies whether email notification is enabled. The value is either True or False. | false | false | False |
| EmailPreference | Specifies when you will receive email notifications. Possible values: Always, Never, OnError, OnErrorOrWarning. | false | false | |
| CreateRemoteClone | Specifies whether or not you are creating a remote clone. The value is either True or False. | false | false | |
| CustomSnapShotFomat | Specifies the custom Snapshot copy naming format. For example, -CustomSnapShotFomat '$CustomText$ResourceGroup$Policy$HostName' -CustomText NetApp | false | true (ByPropertyName) | |
| CustomText | Specifies the custom text in the custom Snapshot copy naming format. | false | true (ByPropertyName) | |
| EmailBody | Specifies the body of the email. | false | true (ByPropertyName) | |
| EmailFrom | Specifies the sender's email address. | true | true (ByPropertyName) | |
| EmailTo | Specifies the recipient's email address. | true | true (ByPropertyName) | |
| EmailSubject | Specifies the subject of the email. | true | true (ByPropertyName) | |
| EnableEmailAttachment | Specifies that you are adding an email attachment. | false | true (ByPropertyName) | |

# Examples

## Example 1: Creating a new clone dataset from the primary and adding resources

```
Add-SmCloneDataSet -DataSetName payrollclone_dataset -Description "Dataset for payroll
database" -Policies clonefromprimary_ondemand -Resources ®{"Host"="vise-
f3.sddev.mycompany.com";"Type"="SQLDatabases";"Names"="vise-f3\SQLExpress\payroll,vise-
f3\SQLExpress\finance"} -Suffix __clone -CloneToInstance vise-f3\sqlexpress -
AutoAssignMountPoint
```

```
This example syntax creates a new clone dataset from the primary and adds resources.
```

```
Description                 : Dataset for payroll database

CreationTime                : 8/5/2015 2:18:38 PM

ModificationTime            : 8/5/2015 2:18:38 PM

EnableEmail                 :

EmailSMTPServer             :

EmailFrom                   :

EmailTo                     :

EmailSubject                :
```

```
EnableSysLog                :

ProtectionGroupType         : Backup

EnableAsupOnFailure         :

Policies                    : {}

HostResourceMaping          : {}

Configuration               : SMCoreContracts.SmConfiguration

LastBackupStatus            :

VerificationServer          :

EmailBody                   :

EmailNotificationPreference :

VerificationServerInfo      : SMCoreContracts.SmVerificationServerInfo

SchedulerSQLInstance        :

CustomText                  :

CustomSnapshotFormat        :

SearchResources             : False

ByPassRunAs                 : False

IsCustomSnapshot            :

MaintenanceStatus           : Production

PluginProtectionGroupTypes  : {SMSQL}

Name                        : payrollclone_dataset

Type                        : Group

Id                          : 3

Host                        :

UserName                    :

Passphrase                  :

Deleted                     : False

Auth                        : SMCoreContracts.SmAuth

IsClone                     : False

CloneLevel                  : 0
```

## Example 2: Creating a new clone from a secondary clone

```
Add-SmCloneDataSet -DataSetName clone_mdml_ds_mirror -Policies
SMcln_full_logbkp_winsched -CloneToInstance "mva-m13-u25

          " -Resources ®{"Host"="mva-m13-u25";"Type"="SQL Database";"Names"="mva-m13-
u25\TEST"} -ArchivedLocators ®{Primary="rajr_vs1:rajr_vol_iscsi";Secondary=
```

```
          "rajr_vs1:rajr_vol_iscsi_SECONDARY"} -Suffix "_RAJR"
```

This example syntax creates a new clone from a secondary clone using the -ArchivedLocators parameter.

```
Description                 :

            CreationTime                : 5/20/2015 11:10:04 AM

            ModificationTime            : 5/20/2015 11:10:04 AM

            EnableEmail                 : False

            EmailSMTPServer             :

            EmailFrom                   :

            EmailTo                     :

            EmailSubject                :

            EnableSysLog                : False

            ProtectionGroupType         : Clone

            EnableAsupOnFailure         : False

            Policies                    : {SMcln_full_logbkp_winsched}

            HostResourceMaping          : {}

            Configuration               : SMCoreContracts.SmCloneConfiguration

            LastBackupStatus            :

            VerificationServer          :

            EmailBody                   :

            EmailNotificationPreference : Always

            VerificationServerInfo      :

            SchedulerSQLInstance        :

            CustomText                  :

            CustomSnapshotFormat        :

            SearchResources             : False

            ByPassRunAs                 : False

            IsCustomSnapshot            : False

            MaintenanceStatus           : Production

            Name                        : clone_mdml_ds_mirror

            Type                        : Group

            Id                          :

            Host                        :
```

```
UserName                    :

Passphrase                  :

Deleted                     : False

Auth                        : SMCoreContracts.SmAuth

IsClone                     : False

CloneLevel                  : 0
```

# Add-SmCloneJob

Creates a new clone job.

# Syntax

```
Add-SmCloneJob [-CloneJobName] <String> [-PluginCode] <PluginCode> [-CloneToInstance]
<String> [-CloneToHost] <String> [-Description <String>] [-ResourceGroupName <String>]
[-Resources <Hashtable[]>] [-EnableAsupOnFailure <Boolean>] [-EnableSysLog <Boolean>]
[-EnableEmail] [-EmailPreference <SmEmailNotificationPreference>] [<CommonParameters>]
```

# Detailed Description

Creates a new clone job for the resource group. You can do the following to the clone job: add resources, define specific schedule policy, attach policies, set notification settings for Event Management System (EMS) logs, AutoSupport, send Email notification, specify clone options including clone type and instance, mount options, attach a suffix to the clone job name. Specify the secondary location if you are cloning to a SnapMirror or SnapVault destination.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| CloneJobName | Specifies the name of the clone job. | true | true (ByPropertyName) | |
| PluginCode | Specifies the plug-in code of the host for which you are creating a clone job. Valid values are SCSQL and SCO. | true | true (ByPropertyName) | |
| CloneToInstance | Specifies the SQL Server instance that you want to clone to. All databases in the clone resource group are cloned to this instance. | true | true (ByPropertyName) | |
| CloneToHost | Specifies the host to which you are cloning. | true | true (ByPropertyName) | |
| Description | Provides an optional description of the clone job you are creating. | false | true (ByPropertyName) | |
| ResourceGroupName | Provides an optional description of the clone job you are creating. | false | true (ByPropertyName) | |
| Resources | Specifies the resources you want to add to the clone resource group. You must provide the resource information in a hashtable, and it must contain the resource name and type, as well as the host on which the resource is located. For example, ®{"Host"="localhost";"Type"="SQL Database";"Names"="Instance\Database"} Valid Type values are SQL Database and Oracle Database. You can include comma-separated values for Names. | false | true (ByPropertyName) | |
| EnableAsupOnFailure | Specifies whether to enable or disable AutoSupport on failure. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| EnableSysLog | Specifies whether to enable or disable sys log in the storage system. | false | true (ByPropertyName) | |
| EnableEmail | Specifies whether to enable or disable email notifications. | false | false | |
| EmailPreference | Specifies when you will receive email notifications. Possible values: Always, Never, OnError, OnErrorOrWarning. | false | false | |
| AutoAssignMountPoint | Specifies that the file system mount point is assigned automatically. | false | true (ByPropertyName) | |
| AssignMountPointUnderPath | Specifies that the file system mount point is created automatically under the specified mount path. | false | true (ByPropertyName) | |
| CloneType | | false | true (ByPropertyName) | |
| Suffix | Provides a clone job name suffix. The clone job you create is appended with the suffix name. | false | true (ByPropertyName) | |
| ArchivedLocators | Specifies the secondary storage system details for each of the unique primary storage system resource in the dataset. For example: -ArchivedLocators ®{Primary="my_vs1:my_vol_iscsi";Secondary="my_vs1:my_vol_iscsi_SECONDARY"} | false | true (ByPropertyName) | |
| CustomSnapShotFomat | Specifies the custom Snapshot copy naming format. For example, -CustomSnapShotFomat '$CustomText$ResourceGroup$Policy$HostName' -CustomText NetApp | false | true (ByPropertyName) | |
| CustomText | Specifies the custom text in the custom Snapshot copy naming format. | false | true (ByPropertyName) | |
| SchedulerCredentialName | | false | true (ByPropertyName) | |
| Schedules | Specifies in a hastable the schedule for the clone job, including the policy name and the schedule type. For example, -Schedules ®{"PolicyName"="BackupPolicy";"ScheduleType"="OneTime"} You can specify multiple schedules in a comma-separated list. | false | true (ByPropertyName) | |
| SchedulerType | Specifies the scheduler type. Possible values are Windows, SQL, and None. | false | true (ByPropertyName) | |
| SchedulerInstance | | false | true (ByPropertyName) | |
| DeleteCloneOnScheduleExpiry | Specifies that the clone be deleted when the scheduled expiration time is reached. | false | true (ByPropertyName) | |
| PreScriptCommand | Prescript file UNC path with proper privileges for scripts accessibility, (?\\\\server\\share\path\\file? for Universal Naming Convention (UNC) names). | false | true (ByPropertyName) | |
| PreScriptArguments | Specifies the prescript arguments. | false | true (ByPropertyName) | |
| PostScriptCommand | Postscript file UNC path with proper privileges for scripts accessibility, (?\\\\server\\share\path\\file? for Universal Naming Convention (UNC) names). | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PostScriptArguments | Specifies postscript arguments. | false | true (ByPropertyName) | |
| ScriptTimeOut | Specifies the number of seconds before a script times out. The default is 60 seconds. | false | true (ByPropertyName) | |
| EmailBody | Specifies the body of the email. | false | true (ByPropertyName) | |
| EmailFrom | Specifies the sender's email address. | true | true (ByPropertyName) | |
| EmailTo | Specifies the recipient's email address. | true | true (ByPropertyName) | |
| EmailSubject | Specifies the subject of the email. | true | true (ByPropertyName) | |
| EnableEmailAttachment | Specifies whether you are adding an email attachment. | false | true (ByPropertyName) | |

# Examples

## Example 1: Adding a new clone job

```
Add-SmCloneJob -CloneJobName TestCLM1  -PluginCode SCSQL -CloneToInstance
"CsmDevSuman\INST1" -CloneToHost host.example.com -Description 'testing clm'

          -Resources ®{"Host"="CsmDevSuman";"Type"="SQL
Database";"Names"="CsmDevSuman\INST1\TrialDB"} -Suffix "_Clone_July_12" -
AutoAssignMountPoint
```

## Example 2: Creating a clone job with hourly schedule policy

```
Add-SmCloneJob -Resources ®{"Host"="Cluster50176661";"Type"="SQL
Database";"Names"="SQL12050176661\CLUSINST1\Cluster50176661_MDML_4"} -CloneJobName
'CloneJob_08767' -PluginCode 'SCSQL' -CloneToInstance 'SQL12050176661\CLUSINST1' -
CloneToHost 'Cluster50176661' -autoassignmountpoint  -suffix '_Clone_08767' -
schedulertype 'Windows' -schedules ®{"ScheduleType"="Hourly";"StartTime"="05/30/2019
6:00 AM";"EndTime"="05/30/2019 8:57 AM";"RepeatTask_Every_Hour"="01:00"}
```

## Example 3: Creating a clone job with daily schedule policy

```
Add-SmCloneJob -Resources ®{"Host"="Cluster50176661";"Type"="SQL
Database";"Names"="SQL12050176661\CLUSINST1\Cluster50176661_MDSL_4"} -CloneJobName
'CloneJob_00970' -PluginCode 'SCSQL' -CloneToInstance 'SQL12050176661\CLUSINST1' -
CloneToHost 'Cluster50176661' -suffix '_Clone_00970' -archivedlocators
®{Primary="10.225.85.167:QA12050176661_1_MDSL_Data_Log_Vol";Secondary="C_84_173_CIT_SVM
_2:QA12050176661_1_MDSL_Data_Log_Vol_SV"} -schedulertype 'Windows' -
assignmountpointunderpath 'D:\MSSQL11.CLUSINST1\MSSQL\DATA\Clone10971' -schedules
```

```
®{"ScheduleType"="Daily";"StartTime"="05/30/2019 6:25 AM";"EndTime"="05/30/2019 9:22
AM";"daysInterval"="1"} -clonetype 1
```

## Example 4: Creating a clone job with weekly schedule policy

```
Add-SmCloneJob -Resources ®{"Host"="Cluster50176661";"Type"="SQL
Database";"Names"="SQL12050176661\CLUSINST1\Cluster50176661_MDML_4"} -CloneJobName
'CloneJob_54758' -PluginCode 'SCSQL' -CloneToInstance 'SQL12050176661\CLUSINST1' -
CloneToHost 'Cluster50176661' -autoassignmountpoint  -suffix '_Clone_54758' -
schedulertype 'Windows' -schedules ®{"ScheduleType"="Weekly";"StartTime"="05/30/2019
6:30 AM";"EndTime"="05/30/2019 9:27 AM";"DaysOfTheWeek"="Thursday,Saturday"}
```

## Example 5: Creating a clone job with monthly schedule policy

```
Add-SmCloneJob -Resources ®{"Host"="Cluster50176661";"Type"="SQL
Database";"Names"="SQL12050176661\CLUSINST1\Cluster50176661_MDML_4"} -CloneJobName
'CloneJob_02494' -PluginCode 'SCSQL' -CloneToInstance 'SQL12050176661\CLUSINST1' -
CloneToHost 'Cluster50176661' -suffix '_Clone_02494' -assignmountpointunderpath
'D:\MSSQL11.CLUSINST1\MSSQL\DATA\Clone10971' -schedulertype 'Windows' -schedules
®{"ScheduleType"="Monthly";"StartTime"="05/30/2019 6:40 AM";"EndTime"="05/30/2019 9:37
AM";"MonthsofTheYear"="May,June";"DaysoftheMonth"="30,4,25"}
```

# Add-SmCredential

Register the credential with SnapCenter Server.

# Syntax

```
Add-SmCredential -Name <String> [-Type <SmAuthMode>] [-SubscriptionId <String>] [-
ClientSecret <SecureString>] [-TenantId <String>] [-ClientId <String>] [-InstanceName
<String>] -Credential <PSCredential> [-EnableSudoPrevileges <Boolean>] [-Force]
[<CommonParameters>]
```

# Detailed Description

Register the credential with SnapCenter Server. The credentials can be for other plug-ins or for other NetApp cloud storage.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name of the Credential Account. | true | true (ByPropertyName) | |
| Type | Specifies the authentication mode. | false | true (ByPropertyName) | |
| SubscriptionId | Specifies the Azure NetApp subscription ID. | false | true (ByPropertyName) | |
| ClientSecret | Specifies the Azure NetApp client secret. | false | true (ByPropertyName) | |
| TenantId | Specifies the Azure NetApp tenant ID. | false | true (ByPropertyName) | |
| ClientId | Specifies the Azure NetApp client ID. | false | true (ByPropertyName) | |
| InstanceName | | false | true (ByPropertyName) | |
| Credential | | true | true (ByPropertyName) | |
| EnableSudoPrevileges | | false | true (ByPropertyName) | |
| Force | | false | true (ByPropertyName) | |

# Examples

## Example 1: Create Credential

```
Add-SmCredential -Name RunAs1 -Type Windows -Credential $cred
```

## Example 2: Create Azure Credential

```
Add-SmCredential -Name azure1 -Type AzureCredential -SubscriptionId 54967c34-6e2a-47fb-
v43b-0f679710037d -ClientSecret d7c7656b-a07a-4es5-b19e-12376bdef493 -TenantId
6r21f23a-98b9-46fb-9d50-720ef604h328j -ClientId 984d66aa-0faf-jh34-8ca9-05lgs95fc92b
```

```
Note: Add-SmCredential with AzureCredential requires the following mandatory parameters
SubscriptionId, ClientSecret, TenantId, and ClientId.
```

## Example 2: Create AIX Credential

```
Add-SmCredential -Name RunAs2 -CredentialType AIX -Credential $cred
```

# Add-SmDomain

Register a domain with SnapCenter server.

# Syntax

```
Add-SmDomain -Name <String> [-Protocol <String>] -FQDN <String> [-IPAddresses <String>]
[-DCHostNames <String>] [<CommonParameters>]
```

# Detailed Description

Register a trusted or untrusted domain with SnapCenter Server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | NETBIOS Name of the domain to be registered. The domain name must not contain special characters like forward slash (/), backslash (\), colon (:), asterisk (*), question mark (?), double quotation mark ("), left angle bracket (<), right angle bracket (>), and vertical bar (\|). ?The domain name must not begin with the special character dot (.). | true | true (ByPropertyName) | |
| Protocol | Protocol of the domain to be registered. By default the protocol value is LDAP. You can specify LDAPS to use the secured windows active directory communication. | false | true (ByPropertyName) | |
| FQDN | FQDN of the domain to be registered. Used for both LDAP and LDAPS protocol, when you provide the correct FQDN while adding or modifying the domain with LDAP protocol, the domain resolves and the IP address that you might have entered using the IPAddresses parameter is not stored. | true | true (ByPropertyName) | |
| IPAddresses | Domain IP Addresses of the disjoint domain to be registered. When you provide the correct FQDN while adding or modifying the domain, the domain resolves and the IP address is not stored. | false | true (ByPropertyName) | |
| DCHostNames | Domain host name of the disjoint or the same domain to be registered. For LDAPS protocol, DCHostNames is a mandatory parameter. The IP address should resolve and the user should not be permitted to manually provide the IP address. | false | true (ByPropertyName) | |

# Examples

## Example 1: Register a trusted domain with SnapCenter Server with LDAP Protocol.

```
Add-SmDomain -Name ad12 -FQDN ad12.test.netapp.com
```

```
Added the domain ad12.

            Id                              : 0

            Name                            : ad12

            DomainFQDN                      : ad12.test.netapp.com
```

```
            DCHostIPAddresses              :

            TrustedDomains                 :

            CreatedOn                      :

            ModifiedOn                     :

            Port                           : 389

            Protocol                       : LDAP

            DCHostNames                    :
```

## Example 2: Register an untrusted domain with SnapCenter Server with LDAP Protocol.

```
Add-SmDomain -Name ad16 -FQDN ad16.test.netapp.com -IPAddresses 192.160.0.44
```

```
Added the domain ad16.

            Id                             : 0

            Name                           : ad16

            DomainFQDN                     : ad16.test.netapp.com

            DCHostIPAddresses              : 192.160.0.44

            TrustedDomains                 :

            CreatedOn                      :

            ModifiedOn                     :

            Port                           : 389

            Protocol                       : LDAP

            DCHostNames                    :
```

## Example 3: Register a trusted domain with SnapCenter Server with LDAPS Protocol.

```
Add-SmDomain -Name ad19 -FQDN ad19.test.netapp.com -DCHostNames
WS9K19DC.ad19.test.netapp.com -Protocol LDAPS
```

```
Added the domain ad19.

            Id                             : 0

            Name                           : ad19

            DomainFQDN                     : ad19.test.netapp.com

            DCHostIPAddresses              :

            TrustedDomains                 :
```

```
CreatedOn                       :

ModifiedOn                      :

Port                            : 636

Protocol                        : LDAPS

DCHostNames                     : WS9K19DC.ad19.test.netapp.com
```

# Add-SmGroup

Adds an AD group or local group to SnapCenter.

# Syntax

```
Add-SmGroup [-Domain <String>] -Group <SmString> -RoleNames <SmString>
[<CommonParameters>]
```

# Detailed Description

Adds an Active Directory group or local group to SnapCenter.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Domain | The domain to which the group belongs to. Local group should skip this parameter. | false | true (ByPropertyName) | |
| Group | Single group or list of groups belonging to the same domain or local host. | true | true (ByPropertyName) | |
| RoleNames | Single or list of existing pre-canned or custom roles to which group should be added to. At least one role should be specified while adding the group. | true | true (ByPropertyName) | |

# Examples

## Example 1: Adding a single group

```
Add-SmGroup -Group group1 -RoleNames role1,role2 -Domain domain1
```

## Example 2: Adding multiple groups of same domain

```
Add-SmGroup -Group group1,group2 -RoleNames role1 -Domain domain1
```

## Example 3: Adding local group

```
Add-SmGroup -Group LocalGroup1 -RoleNames role1
```

# Add-SmGroupToRole

Adds a group to an existing role.

# Syntax

```
Add-SmGroupToRole -Group <SmString> -RoleName <String> [-Domain <String>]
[<CommonParameters>]
```

# Detailed Description

Adds a group to an existing role. A group is an active directory group that contains users, computers, and other groups. You can use groups to easily assign permissions to a set of users.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Group | Specifies the group you want to add to the role. | true | true (ByPropertyName) | |
| RoleName | Specifies the name of the role to which you want to add a group. | true | true (ByPropertyName) | |
| Domain | Specifies the domain to which the group belongs. | false | true (ByPropertyName) | |

# Examples

## Example 1: Adding a group to a role

```
Add-SmGroupToRole -RoleName SnapCenterAdmin -Domain sddev -Group "Domain Admins"
```

```
This example syntax adds the Domain Admins group to the SnapCenterAdmin role.
```

```
SnapCenterAdmin

            Domain Admins
```

# Add-SmHost

Registers a standalone host or cluster with SnapCenter.

# Syntax

```
Add-SmHost [-HostType] <SmOperatingSystemType> [-HostName] <String> [[-CredentialName]
<String>] [[-Port] <UInt16>] [[-DoNotAddClusterNodes]] [[-SkipPreinstallChecks]] [[-
Force]] [<CommonParameters>]
```

# Detailed Description

Registers a standalone host or cluster with SnapCenter. You must register hosts with SnapCenter. For example, SnapCenter must be registered before you can perform any data protection jobs. In addition, if no plug-ins are installed on the host you are adding, SnapCenter remotely deploys plug-ins, or upgrades the plug-ins as needed.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostType | Specifies the operating system of the host you are adding. Valid values are AIX, Windows, Linux, and vSphere. The default value is Windows. If you are managing a Windows VM containing RDM or VMDK storage, ensure that you add the vSphere host before creating a backup. | true | true (ByPropertyName) | |
| HostName | Specifies the name or IP of the cluster or standalone host you want to add. | true | true (ByPropertyName) | |
| CredentialName | Specifies the name of the account that is required to perform application-specific operations in SnapCenter. You can use a credential account to perform application-specific operations within SnapCenter, such as remotely installing plug-ins. Use the Add-SmCredential cmdlet to create a credential account. | false | true (ByPropertyName) | |
| Port | Specifies the port you want to use for SnapCenter to host agent communication. The default is 8145. Ensure that the firewall is open on both SnapCenter and the remote host to enable host agent communication. | false | true (ByPropertyName) | |
| DoNotAddClusterNodes | Specifies not to include all nodes in the cluster. If you set the parameter to True, then only the specified host is added. The default value is False, which means that when you provide a cluster name, all nodes in the cluster are added and managed by SnapCenter. | false | true (ByPropertyName) | False |
| SkipPreinstallChecks | Specifies that host registration prechecks will not be triggered. | false | true (ByPropertyName) | |
| Force | Switch to disable validation of the host signature. | false | true (ByPropertyName) | |

# Examples

### Example 1: Registering a host with SnapCenter

```
Add-SmHost -HostName C226030161613-1.srqatdom06.local -HostType Windows -
DoNotAddClusterNodes -CredentialName admin
```

This example syntax registers the specified Windows host with SnapCenter.

```
OsInfo                  : SMCoreContracts.SmOperatingSystemInfo

                          HostName               : C226030161613-1.srqatdom06.local

                          IP                     :
10.232.193.208,fd20:8b1e:b255:8029:19a0:6c5e:ae99:79e0

                          Description            :

                          HostId                 : 5

                          DomainName             : srqatdom06.local

                          Version                :

                          Port                   :

                          ClusterHost            : False

                          ClusterName            :

                          Members                : {}

                          HostStatus             : eHostUp

                          HostPluginInfos        : {}

                          ColoHost               : False

                          HostConfiguration      : SMCoreContracts.SmConfiguration

                          DiscoverPlugin         : False

                          HostUUID               :

                          HostBIOSID             :

                          HostMaintenanceStatus  : Production

                          IsNLBEnabled           : False

                          VerificationServers    :

                          HypervisorType         :

                          IsHypervisorConfigured : False

                          Preference             : 0

                          OverallStatus          :
SMCoreContracts.SmHostOverallStatusInfo

                          IsCatalogHost          : False

                          Name                   :

                          Type                   :

                          Id                     :
```

```
                    Host                    :
                    UserName                :
                    Passphrase              :
                    Deleted                 : False
                    Auth                    : SMCoreContracts.SmAuth
                    IsClone                 : False
                    CloneLevel              : 0
                    Hosts                   : {}
                    StorageName             :
                    ResourceGroupNames      :
                    PolicyNames             :
                    Key                     : 0
                    NsmObjectID             : 0
                    SizeOfSmObject          :
```

## Example 2: Registering a host where you deployed SnapCenter Plug-in for VMware vSphere OVA

```
Add-SmHost -HostType VSphere -HostName myHostname -CredentialName vmware_admin
```

This example syntax registers vSphere host with SnapCenter.

```
OsInfo                  : SMCoreContracts.SmOperatingSystemInfo
                    HostName                : myHostname
                    IP                      : 10.225.97.14
                    Description             :
                    HostId                  : 1
                    DomainName              :
                    Version                 :
                    Port                    :
                    ClusterHost             : False
                    ClusterName             :
                    Members                 : {}
```

```
                        HostStatus             : eHostUp

                        HostPluginInfos        : {}

                        ColoHost               : True

                        HostConfiguration      : SMCoreContracts.SmConfiguration

                        DiscoverPlugin         : False

                        HostUUID               :

                        HostBIOSID             :

                        HostMaintenanceStatus  : Production

                        IsNLBEnabled           : False

                        VerificationServers    :

                        HypervisorType         :

                        IsHypervisorConfigured : False

                        Preference             : 0

                        OverallStatus          :
SMCoreContracts.SmHostOverallStatusInfo

                        IsCatalogHost          : False

                        Name                   :

                        Type                   :

                        Id                     :

                        Host                   :

                        UserName               :

                        Passphrase             :

                        Deleted                : False

                        Auth                   : SMCoreContracts.SmAuth

                        IsClone                : False

                        CloneLevel             : 0

                        Hosts                  : {}

                        StorageName            :

                        ResourceGroupNames     :

                        PolicyNames            :

                        Key                    : 0

                        NsmObjectID            : 0

                        SizeOfSmObject         :
```

## Example 3: Registering an Exchange DAG with SnapCenter

```
Add-SmHost -HostName EXCH2016DAG -HostType Windows -CredentialName domain_admin -
Verbose
```

This example syntax registers the specified Exchange DAG with SnapCenter.

## Example 4: Registering an AIX host with SnapCenter

```
Add-SmHost -HostType AIX -HostName "aixhostname.fqdn.com" -CredentialName cred1
```

This example syntax registers the specified AIX host with SnapCenter.

```
OsInfo                 : SMCoreContracts.SmOperatingSystemInfo

HostName               : aixhostname.fqdn.com

IP                     : 10.1.0.10

Description            :

HostId                 : 79

DomainName             : fqdn.com

Version                :

Port                   :

ClusterHost            : False

ClusterName            :

Members                : {}

HostStatus             : eHostUp

HostPluginInfos        : {}

ColoHost               : True

HostConfiguration      : SMCoreContracts.SmConfiguration

DiscoverPlugin         : False

HostUUID               :

HostBIOSID             :

HostMaintenanceStatus  : Production

IsNLBEnabled           : False

VerificationServers    :

HypervisorType         :

IsHypervisorConfigured : False

Preference             : 0

OverallStatus          : SMCoreContracts.SmHostOverallStatusInfo
```

```
IsCatalogHost          : False

Name                   :

Type                   :

Id                     :

Host                   :

UserName               :

Passphrase             :

Deleted                : False

Auth                   : SMCoreContracts.SmAuth

IsClone                : False

CloneLevel             : 0

Hosts                  : {}

StorageName            :

ResourceGroupNames     :

PolicyNames            :

Key                    : 0

NsmObjectID            : 0

SizeOfSmObject         :
```

# Add-SmPermissionToRole

Adds one or more permissions to a specified role.

## Syntax

```
Add-SmPermissionToRole -RoleName <String> -Permissions <String> [<CommonParameters>]
```

## Detailed Description

Adds one or more permissions to a specified role. Use the format <SnapCenter Role Name>:<Permission Name> where the SnapCenter role name is Dataset, Policy, Backup, Host, Storage Connection, Clone, Provision, Dashboard, Restore, Reports, Discovery, Plugin Install/Uninstall, Migration, Mount, and Unmount, and the permission name is create, read, update, delete and allow. The following permissions have the Enabled attribute code: Install/Uninstall, Restore, Dashboard, Reports, and Discovery. For example, if you want to give Host create permissions, you would enter: Add-SmPermissionToRole -Permission Host:Create

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| RoleName | Specifies the name of the role to which you want to add permissions. | true | true (ByPropertyName) | |
| Permissions | Specifies one or more permissions you want to add to a role. Use the format <SnapCenter Role Name>:<Permission Name>. Permissions include: create, read, update, delete and allow. | true | true (ByPropertyName) | |

## Examples

### Example 1: Adding host read, update, and delete permissions to a role

```
Add-SmPermissionToRole -RoleName Admin -Permissions
("Host:read","Host:update","Host:delete")
```

```
This example syntax adds host read, update and delete permissions to the Admin role.
```

### Example 2: Adding host create permissions to a role

```
Add-SmPermissionToRole -RoleName SnapCenterAdmin -Permissions Host:create
```

```
This example syntax adds host create permissions to the SnapCenterAdmin role.
```

```
SnapCenterAdmin
```

```
            Host
```

## Example 3: Adding dataset create permissions to a role

```
Add-SmPermissionToRole -RoleName SnapCenterAdmin -Permissions DataSet:create
```

```
This example syntax adds dataset create permission to the SnapCenterAdmin role.


SnapCenterAdmin
            DataSet
```

# Add-SmPlugin

Installs or upgrades a plug-in on one or more hosts.

# Syntax

```
Add-SmPlugin [-HostNames] <String> [-PluginCodes] <UploadedPluginCode> [[-
PluginVersions] <Hashtable>] [[-SkipPreinstallChecks]] [[-Force]] [<CommonParameters>]
```

# Detailed Description

Installs or upgrades a plug-in on one or more hosts. You must use the Install-SmHostPackage cmdlet to install host plug-in packages and any specified plug-ins on a host before you can install or upgrade a SnapCenter plug-in using the Add-SmPlugin cmdlet.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostNames | Specifies the hosts on which you want to install or upgrade the plug-in. You can specify one host, or multiple, comma-separated host names. Host names must be entered using the format -HostNames ®("hostname") when installing to a single host, or -HostNames ®("hostname1", "hostname2") when installing to multiple hosts. You can specify the hostname using either the host FQDN or IP address. | true | true (ByPropertyName) | |
| PluginCodes | Specifies the plug-ins you want to install or upgrade. Valid values are SCSQL, SCO, SCE and hana. For custom plug-ins, the value is the custom plug-in name. For example "CustomPlugin1". | true | true (ByPropertyName) | |
| PluginVersions | Specifies in a hash table the custom plug-in name and the version to add to a host. The PluginVersions parameter uses the format -PluginVersions ®{"customplugin1" = "2.0"} | false | true (ByPropertyName) | |
| SkipPreinstallChecks | Specifies that installation prechecks will not be triggered. | false | true (ByPropertyName) | |
| Force | Internal switch. | false | true (ByPropertyName) | |

# Examples

## Example 1: Installing SnapCenter Plug-in for Microsoft SQL Server on a host

```
Add-SmPlugin -HostNames ®("mywinsrvr2012r2.mycompany.com") -PluginCodes SCSQL
```

```
This example syntax installs SnapCenter Plug-in for Microsoft SQL on the specified
host.
```

## Example 2: Installing SnapCenter Plug-in for Microsoft SQL Server on multiple hosts

```
Add-SmPlugin -HostNames ®("mywinsrvr2012r2.mycompany.com",
"my2winsrvr2012r2.mycompany.com") -PluginCodes SCSQL
```

This example syntax installs SnapCenter Plug-in for SQL Server on the two specified hosts.

## Example 3: Adding or upgrading a custom plugin

```
Add-SmPlugin -HostNames myhostname -PluginCodes CustomPlugin -PluginVersions
®{"CustomPlugin"="2.0"} -Verbose
```

This example syntax adds or upgrades the custom plug-in named "CustomPlugin", version 2.0 to a single host.

# Add-SmPolicy

Creates a new backup policy.

# Syntax

```
Add-SmPolicy -PolicyName <String> -PolicyType <SmPolicyType> -PluginPolicyType
<PluginCode> [-Description <String>] [<CommonParameters>]
```

# Detailed Description

Creates a new backup policy. A policy is a set of rules governing backup jobs. A Policy includes backup type, verification schedules, and pre-script and post-script arguments.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PolicyName | Specifies the name of the policy you are adding. | true | true (ByPropertyName) | |
| PolicyType | Specifies the policy type. Valid value is Backup. | true | true (ByPropertyName) | |
| PluginPolicyType | Specifies the type of plug-in. You need to specify a plug-in type because policies are settings that are specific to one type of plug-in. For example, if you want to create a policy for resources contained in a SnapCenter Plug-in for Microsoft SQL Server dataset, the plug-in types are SCSQL and SCO. Available plug-in policy types include SCSQL, SCO, SCU, HANA, SCW, SCE. | true | true (ByPropertyName) | |
| Description | Provides an optional description of the policy you are adding. | false | true (ByPropertyName) | |
| UtmType | Type of up to the minute (UTM) retention settings to apply to log backups. Possible values are days and count. | false | true (ByPropertyName) | |
| UtmCount | Up to the minute (UTM) retention by count. | false | true (ByPropertyName) | |
| UtmDays | Up to the minute (UTM) retention by days. | false | true (ByPropertyName) | |
| SqlBackupType | SQL backup type. Possible values are LogBackup, FullBackup and FullBackupAndLogBackup. | true | true (ByPropertyName) | |
| DatabasesPerGroup | Maximum number of databases in a group. This is applicable only for full backup. | false | true (ByPropertyName) | |
| CopyOnlyBackup | Determines whether the full backup is a copy only backup. | false | true (ByPropertyName) | |
| AGBackupType | Availability Group backup type. Possible values are UsePreferredBackupReplica and UseSpecifiedBackupReplica. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| AGBackupReplicaType | Availability Group backup replica type. Possible values are Primary, Secondary and All. | false | true (ByPropertyName) | |
| AGBackupPriorityMinimum | Availability Group backup minimum priority. | false | true (ByPropertyName) | |
| AGBackupPriorityMaximum | Availability Group backup maximum priority. | false | true (ByPropertyName) | |
| CreateLogFolderSnapshot | Creates a Log folder Snapshot copy. | false | true (ByPropertyName) | |
| EnableLogFolderSnapshotRetention | Enables log folder Snapshot copy retention. | false | true (ByPropertyName) | |
| DeleteLogFolderSnapshotInExcess | | false | true (ByPropertyName) | |
| DeleteLogFolderSnapshotOlderThan | Deletes log folder Snapshot copies that are older than the specified number of days. | false | true (ByPropertyName) | |
| VerifyLogBackup | Enables log backup verification after backup. | false | true (ByPropertyName) | |
| DBCC_NOINDEX | DBCC options NOINDEX. | false | false | |
| DBCC_ALL_ERRORMSGS | DBCC options ALL_ERRORMSGS. | false | true (ByPropertyName) | |
| DBCC_NO_INFOMSGS | DBCC options NO_INFOMSGS. | false | true (ByPropertyName) | |
| DBCC_TABLOCK | DBCC options TABLOCK. | false | true (ByPropertyName) | |
| DBCC_PHYSICALONLY | DBCC options PHYSICALONLY. | false | true (ByPropertyName) | |
| UpdateSnapMirrorAfterbackup | Update SnapMirror copy after backup. This option is not applicable for SAP HANA policy of File-Based Backup type. | false | true (ByPropertyName) | |
| UpdateSnapVaultAfterbackup | Update SnapVault copy after backup. This option is not applicable for SAP HANA policy of File-Based Backup type. | false | true (ByPropertyName) | |
| MirrorVaultUpdateRetryCount | Number of retries to ensure SnapMirror or SnapVault update is triggered. | false | true (ByPropertyName) | |
| SnapVaultLabel | Label for SnapVault. | false | true (ByPropertyName) | |
| AllowSavedStateBackup | Allow saved state backup. | false | true (ByPropertyName) | |
| DeleteBackupInExcess | Delete backup in excess of specified days, it is applicable to only SnapCenter Plug-in for VMware vSphere, if it is used with other plug-ins it will be ignored. | false | true (ByPropertyName) | |
| DeleteBackupOlderThan | Delete backups older than specified days, it is applicable to only SnapCenter Plug-in for VMware vSphere, if it is used with other plug-ins it will be ignored. | false | true (ByPropertyName) | |
| PreScriptCommandVerification | Specifies the path of the prescript that should be run before the backup operation. | false | true (ByPropertyName) | |
| PreScriptArgumentsVerification | Specifies the prescript arguments. | false | true (ByPropertyName) | |
| PostScriptCommandVerification | Specifies the path of the postscript that should be run after the backup operation. | false | true (ByPropertyName) | |
| PostScriptArgumentsVerification | | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ScriptTimeOutVerification | | false | true (ByPropertyName) | |
| ScheduleType | The schedule type. Possible values are None, Hourly, Weekly, Daily, and Monthly. | false | true (ByPropertyName) | |
| RetentionSettings | Specifies in a hashtable the retention settings for the policy. | false | true (ByPropertyName) | |
| PreScriptCommand | Prescript file UNC path with proper privileges for scripts accessibility, (?\\\\server\\share\path\\file? for Universal Naming Convention (UNC) names). | false | true (ByPropertyName) | |
| PreScriptArguments | Specifies the prescript arguments. | false | true (ByPropertyName) | |
| PostScriptCommand | Postscript file UNC path with proper privileges for scripts accessibility, (?\\\\server\\share\path\\file? for Universal Naming Convention (UNC) names). | false | true (ByPropertyName) | |
| PostScriptArguments | Specifies postscript arguments. | false | true (ByPropertyName) | |
| ScriptTimeOut | Specifies script timeout value in seconds. | false | true (ByPropertyName) | |
| VerificationScheduleType | | false | true (ByPropertyName) | |
| DeleteCloneOnScheduleExpiry | Removes a clone during the last run of a scheduled job. If this parameter is not set, then the last run of a schedule also runs a clone life cycle and creates a cloned database. This parameter does not apply to jobs that are not scheduled or to one time job schedules. | false | true (ByPropertyName) | |
| BackupPolicyName | Specifies the backup policy name. | true | true (ByPropertyName) | |
| CloneType | Specifies the clone type. Possible values are Primary and Secondary. | false | true (ByPropertyName) | |
| VerifyOnSecondary | Specifies whether to verify on secondary or not. | false | false | |
| NumOfBackups | Number of backups to be verified. | false | false | |
| PluginParams | | false | true (ByPropertyName) | |
| DominoChangeInfoPath | | false | true (ByPropertyName) | |
| DominoDatabaseType | | false | true (ByPropertyName) | |
| DominoIniPath | | false | true (ByPropertyName) | |
| DominoRestoreFilePath | | false | true (ByPropertyName) | |
| DominoRestoreTime | | false | true (ByPropertyName) | |
| Lotus | | false | true (ByPropertyName) | |
| NotesExecDirectory | | false | true (ByPropertyName) | |
| DominoDisableReplication | | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| DominoIgnoreCorruptedDB | | false | true (ByPropertyName) | |
| DBMCliCmd | | false | true (ByPropertyName) | |
| HandleLogWriter | | false | true (ByPropertyName) | |
| MaxDBBGServerPrefix | | false | true (ByPropertyName) | |
| MaxDBUpdateHistLog | | false | true (ByPropertyName) | |
| SQLCliCmd | | false | true (ByPropertyName) | |
| XUserEnable | | false | true (ByPropertyName) | |
| DB2Cmd | | false | true (ByPropertyName) | |
| SybaseISQLCmd | | false | true (ByPropertyName) | |
| SybaseManifest | | false | true (ByPropertyName) | |
| SybaseManifestDelete | | false | true (ByPropertyName) | |
| SybaseManifestFormat | | false | true (ByPropertyName) | |
| SybaseTranDump | | false | true (ByPropertyName) | |
| SybaseTranDumpCompress | | false | true (ByPropertyName) | |
| SybaseTranDumpFormat | | false | true (ByPropertyName) | |
| BackupType | This is a SAP HANA database specific parameter. Specifies the type of SAP HANA backup. The possible values are FileBasedBackup and SnapshotBasedBackup. | true | true (ByPropertyName) | |
| OracleBackupType | Specifies the Oracle backup type. Backup types include Online, Offline mount, and Offline shutdown. | true | true (ByPropertyName) | |
| OracleBackupScope | This option is only valid when the backup type is Online. Backup scope values are Full, Data, and Log. | true | true (ByPropertyName) | |
| OracleSkipPDBSaveState | Enables you to skip PDB save state. This parameter is only available when you select Offline shutdown backup type. Values are True or False. | false | true (ByPropertyName) | |
| DeleteAllArchiveLogs | Prunes (deletes) all archive logs after Full or Log backups. | false | true (ByPropertyName) | |
| DeleteArchiveLogsOlderThan | Prunes (deletes) archive logs older than a specified number of days. This parameter supports the use decimals to enable you to specify a fraction of a day. For example, 2.5 represents 2 days and 12 hours, and 0.04 represents 1 hour. | false | true (ByPropertyName) | |
| DeleteArchiveLogFromAllDestination | This parameter enables pruning of archive logs on a specified destination. If the value is | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | True, archive logs are pruned on all destinations. If the option is False, archive logs are pruned only on backed up destinations. | | | |
| DeleteArchiveLogBackupInExcess | Deletes archive log backup in excess of the specified backup count. | false | true (ByPropertyName) | |
| DeleteAchiveLogBackupOlderThan | Deletes archive log backups that are older than the specified number of days. This parameter supports the use decimals to enable you to specify a fraction of a day. For example, 2.5 represents 2 days and 12 hours, and 0.04 represents 1 hour. | false | true (ByPropertyName) | |
| CatalogBackupWithOracleRMAN | Specifies that you want to catalog backup using Oracle Recovery Manager (RMAN). | false | true (ByPropertyName) | |
| ScwBackupType | The SnapCenter Plug-in for Windows backup type. Values are ApplicationConsistent, FilesystemConsistent and CrashConsistent. | true | true (ByPropertyName) | |
| SceBackupType | | true | true (ByPropertyName) | |
| UtmCounts | | false | true (ByPropertyName) | |
| BackupTruncatedTransactionLog | | false | true (ByPropertyName) | |
| BackupActiveCopies | | false | true (ByPropertyName) | |
| BackupCopiesOnServer | | false | true (ByPropertyName) | |

# Examples

## Example 1: Creating a new hourly policy with scheduler type as SQL

```
Add-SmPolicy -PolicyName TESTPolicy - PluginPolicyType SCSQL -PolicyType Backup -
SqlBackupType FullBackup -ScheduleType Hourly -Verbose ?SchedulerType SQL
```

```
This example syntax creates a new hourly policy with the SQL scheduler type.
```

## Example 2: Creating an Oracle policy that prunes all archive logs on all destinations, and deletes archive log backups in excess of 5

```
Add-SmPolicy -PolicyName 1 -PolicyType Backup -PluginPolicyType SCO -OracleBackupType
ONLINE -OracleBackupScope FULL -DeleteAllArchiveLogs $true -
DeleteArchiveLogFromAllDestination $true -DeleteArchiveLogBackupInExcess 5
```

```
This example syntax creates an Oracle policy that prunes all archive logs on all
destinations, and deletes archive log backups in excess of 5.
```

```
ApplySnapvaultUpdate        : False

            ApplyRetention              : False
```

```
RetentionCount              :
RetentionDays               :
ApplySnapMirrorUpdate       : False
SnapVaultLabel              :
MirrorVaultUpdateRetryCount : 3
AppPolicies                 : {}
Description                 :
PreScriptPath               :
PreScriptArguments          :
PostScriptPath              :
PostScriptArguments         :
ScriptTimeOut               : 60000
DateModified                : 10/5/2015 2:17:57 PM
DateCreated                 : 10/5/2015 2:17:57 PM
Schedule                    : SMCoreContracts.SmSchedule
PolicyType                  : Backup
PluginPolicyType            : SCO
Name                        : 1
Type                        :
Id                          : 99
Host                        :
UserName                    :
Passphrase                  :
Deleted                     : False
Auth                        : SMCoreContracts.SmAuth
IsClone                     : False
CloneLevel                  : 0
Hosts                       : {}


SmOracleBackupType             : ONLINE
SmOracleBackupScope            : FULL
SmOraclePDBSaveState           : True
PruneArchiveLog                : True
```

```
PruneArchiveLogType            : AllLogs

PruneArchiveLogOlderThanDays   :

PruneArchiveLogDestinationType : AllDestinations

DeleteArchiveLogBackup         : True

ArchiveLogBackupRetentionType  : CountBase

DeleteArchiveLogBackupCounts   : 5

DeleteArchiveLogBackupDays     :

Name                           :

Type                           :

Id                             :

Host                           :

UserName                       :

Passphrase                     :

Deleted                        : False

Auth                           : SMCoreContracts.SmAuth

IsClone                        : False

CloneLevel                     : 0

Hosts                          : {}
```

## Example 3: Creating a policy for custom plugin DB2 with daily schedule type

```
Add-SMPolicy -PolicyName 'DB2_DAILY_POLICY' -PolicyType 'Backup' -PluginPolicyType DB2-
retentionsettings ®{"BackupType"="DATA";"ScheduleType"="DAILY";"RetentionCount"='3'} -
description 'DB2 daily schedule policy' -scheduletype 'DAILY'
```

This example syntax creates a daily scheduled policy for custom plug-in DB2 with retention count 3

```
ApplyRetention              : True

ApplySnapMirrorUpdate       : False

ApplySnapvaultUpdate        : False

MirrorVaultUpdateRetryCount : 3

RetentionCount              : 3

RetentionDays               : 0

SnapVaultLabel              :

AppPolicies                 : {}

DateCreated                 : 8/22/2016 9:37:43 AM

DateModified                : 8/22/2016 9:37:43 AM
```

```
Description                 : DB2 daily schedule policy
PluginPolicyType            : DB2
PolicyType                  : Backup
PostScriptArguments         :
PostScriptPath              :
PreScriptArguments          :
PreScriptPath               :
Schedules                   : {}
Schedule                    : SMCoreContracts.SmSchedule
ScriptTimeOut               : 60
Name                        : DB2_DAILY_POLICY
Type                        :
Id                          : 18
Host                        :
UserName                    :
Passphrase                  :
Deleted                     : False
Auth                        : SMCoreContracts.SmAuth
IsClone                     : False
CloneLevel                  : 0
Hosts                       : {}

TaskName              :
Hosts                 : {}
StartTime             :
DaysoftheMonth        :
MonthsofTheYear       :
DaysInterval          : 0
DaysOfTheWeek         :
AllowDefaults         : False
ReplaceJobIfExist     : False
UserName              :
Password              :
```

```
SchedulerType         : Daily

RepeatTask_Every_Hour :

IntervalDuration      :

EndTime               :

LocalScheduler        :

AppType               :

AuthMode              :

SchedulerSQLInstance  : SMCoreContracts.SmObject

MonthlyFrequency      :

ScheduleID            : 0


PolicyId       : 18

PluginName     : DB2

PluginParams   : SMCoreContracts.SmKeyValueCollection

SmSCBackupType : DataBackup

Name           :

Type           :

Id             :

Host           :

UserName       :

Passphrase     :

Deleted        : False

Auth           : SMCoreContracts.SmAuth

IsClone        : False

CloneLevel     : 0

Hosts          : {}
```

## Example 4: Creating a new Windows backup policy

```
Add-SmPolicy -PolicyName scw_policy -PolicyType Backup -PluginPolicyType SCW -
ScwBackupType CrashConsistent
```

This example syntax creates a new Windows backup policy.

```
ApplySnapvaultUpdate         : False

ApplyRetention               : False
```

```
RetentionCount                :
RetentionDays                 :
ApplySnapMirrorUpdate         : False
SnapVaultLabel                :
MirrorVaultUpdateRetryCount   : 3
AppPolicies                   : {}
Description                   :
PreScriptPath                 :
PreScriptArguments            :
PostScriptPath                :
PostScriptArguments           :
ScriptTimeOut                 : 60
DateModified                  : 5/18/2016 6:36:24 PM
DateCreated                   : 5/18/2016 6:36:24 PM
Schedule                      : SMCoreContracts.SmSchedule
PolicyType                    : Backup
PluginPolicyType              : SDW
Name                          : scw_policy
Type                          :
Id                            : 1
Host                          :
UserName                      :
Passphrase                    :
Deleted                       : False
Auth                          : SMCoreContracts.SmAuth
IsClone                       : False
CloneLevel                    : 0
Hosts                         : {}

ScwBackupType : CrashConsistent
Name          :
Type          :
Id            :
```

```
Host          :

UserName      :

Passphrase    :

Deleted       : False

Auth          : SMCoreContracts.SmAuth

IsClone       : False

CloneLevel    : 0

Hosts         : {}
```

## Example 5: Creating a new backup policy for SnapCenter Plugin for SAP HANA backup of type FileBasedBackup

```
Add-SmPolicy -PolicyName newpol123 -PolicyType Backup -PluginPolicyType hana -
BackupType FileBasedBackup
```

This example syntax creates a new backup policy for SnapCenter Plug-in for SAP HANA with FileBasedBackup as the backup type.

```
ApplyRetention              : True

ApplySnapMirrorUpdate       : False

ApplySnapvaultUpdate        : False

MirrorVaultUpdateRetryCount : 0

RetentionCount              : 7

RetentionDays               : 0

SnapVaultLabel              :

AppPolicies                 : {}

DateCreated                 : 3/23/2017 10:14:31 PM

DateModified                : 3/23/2017 10:14:31 PM

Description                 :

PluginPolicyType            : hana

PolicyType                  : Backup

PostScriptArguments         :

PostScriptPath              :

PreScriptArguments          :

PreScriptPath               :

Schedules                   : {}
```

```
Schedule                    : SMCoreContracts.SmSchedule
ScriptTimeOut               : 60
Name                        : newpol123
Type                        :
Id                          : 39
Host                        :
UserName                    :
Passphrase                  :
Deleted                     : False
Auth                        : SMCoreContracts.SmAuth
IsClone                     : False
CloneLevel                  : 0
Hosts                       : {}
StorageName                 :
ResourceGroupNames          :
PolicyNames                 :
Key                         : 0
NsmObjectID                 : 0
Retention Settings
BackupType          : DATA
SchedulerType       : None
RetentionCount      : 7
RetentionDays       : 0
VerificationEnabled : False
NodeName            :
PolicyId           : 39
PluginName         : hana
PluginParams       : SMCoreContracts.SmKeyValueCollection
SmSCBackupType     : FileBasedBackup
Name               :
Type               :
Id                 :
Host               :
UserName           :
```

```
Passphrase         :

Deleted            : False

Auth               : SMCoreContracts.SmAuth

IsClone            : False

CloneLevel         : 0

Hosts              : {}

StorageName        :

ResourceGroupNames :

PolicyNames        :

Key                : 0

NsmObjectID        : 0
```

## Example 6: Creating a new backup policy for SnapCenter Plugin for SAP HANA backup of type SnapshotBasedBackup

```
Add-SmPolicy -PolicyName hana_snapshotbased -PolicyType Backup -PluginPolicyType hana -
BackupType SnapShotBasedBackup
```

This example syntax creates a new backup policy for SnapCenter Plug-in for SAP HANA with SnapshotBasedBackup as the backup type.

```
ApplyRetention              : True

ApplySnapMirrorUpdate       : False

ApplySnapvaultUpdate        : False

MirrorVaultUpdateRetryCount : 3

RetentionCount              : 7

RetentionDays               : 0

SnapVaultLabel              :

AppPolicies                 : {}

DateCreated                 : 3/23/2017 10:17:30 PM

DateModified                : 3/23/2017 10:17:30 PM

Description                 :

PluginPolicyType            : hana

PolicyType                  : Backup

PostScriptArguments         :

PostScriptPath              :
```

```
PreScriptArguments          :
PreScriptPath               :
Schedules                   : {}
Schedule                    : SMCoreContracts.SmSchedule
ScriptTimeOut               : 60
Name                        : hana_snapshotbased
Type                        :
Id                          : 41
Host                        :
UserName                    :
Passphrase                  :
Deleted                     : False
Auth                        : SMCoreContracts.SmAuth
IsClone                     : False
CloneLevel                  : 0
Hosts                       : {}
StorageName                 :
ResourceGroupNames          :
PolicyNames                 :
Key                         : 0
NsmObjectID                 : 0
Retention Settings
BackupType          : DATA
SchedulerType       : None
RetentionCount      : 7
RetentionDays       : 0
VerificationEnabled : False
NodeName            :
PolicyId           : 41
PluginName         : hana
PluginParams       : SMCoreContracts.SmKeyValueCollection
SmSCBackupType     : DataBackup
Name               :
Type               :
```

```
Id                  :

Host                :

UserName            :

Passphrase          :

Deleted             : False

Auth                : SMCoreContracts.SmAuth

IsClone             : False

CloneLevel          : 0

Hosts               : {}

StorageName         :

ResourceGroupNames  :

PolicyNames         :

Key                 : 0

NsmObjectID         : 0
```

## Example 7: Adding a policy with a retention based on number of days

```
Add-SMPolicy -PolicyName 'DB2_DAILY_POLICY' -PolicyType 'Backup' -PluginPolicyType DB2-

          retentionsettings
®{"BackupType"="DATA";"ScheduleType"="DAILY";"RetentionDays"='3'} -

          description 'DB2 daily schedule policy' -scheduletype 'DAILY'
```

# Add-SmProtectResource

Protects a resource so that it is available for backup, restore and clone.

# Syntax

```
Add-SmProtectResource [-ArchivedLocators <Hashtable[]>] -PluginCode <PluginCode> [-
EnableEmail] [-EmailPreference <SmEmailNotificationPreference>] [<CommonParameters>]
```

# Detailed Description

Protects a resource so that it is available for backup, restore and clone.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ArchivedLocators | Specifies in a hashtable the secondary storage system details for each unique primary storage system resource in the resource group. For example: -ArchivedLocators ®{Primary="my_vs1:my_vol_iscsi"; Secondary="my_vs1:my_vol_iscsi_SECONDARY"} | false | true (ByPropertyName) | |
| PluginCode | Specifies the plug-in code of the host for which you are creating a backup resource group. Valid values are SCSQL, SCW, and SCO. | true | true (ByPropertyName) | |
| EnableEmail | Specifies whether to enable or disable email. | false | false | |
| EmailPreference | Specifies when you will receive e-mail notifications. Possible values: Always, Never, OnError, OnErrorOrWarning. | false | false | |
| Resources | Specifies the resource you want to protect. You must provide the resource information in a key value format, and it must contain the resource name, type, and the host on which it is located. For example, -Resources ®{"Host"="host.example.com";"Type"="SQL Database";"Names"="NB-MVA-DEV054\newdb"} For Oracle Database, the format is -Resources ®{"Host"="host.example.com";"Oracle Database"="db"}. For Oracle Application Volume, the format is -Resources ®{"Host"="host.example.com";"Application Volume"="appVol"}. | true | true (ByPropertyName) | |
| Description | Provides an optional description of the resource to be protected. | false | true (ByPropertyName) | |
| Tag | Enables you to apply a unique tag to help identify the resources. For example, you can add the tag "HR" to multiple resource groups. You can later search for all resource groups with the "HR" tag. | false | true (ByPropertyName) | |
| Policies | Specifies the list of policies associated with the resource group. Multiple policies can be added as a comma-separated list. | false | true (ByPropertyName) | |
| SchedulerCredentialName | | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SchedulerInstance | Specifies the SQL Server Instance where the schedule is created and managed. This is mandatory if the policy has SQL scheduler enabled. | false | true (ByPropertyName) | |
| VerificationServers | Specifies the list of verification servers to be associated with the resource group. Multiple verification servers can be added as a comma-separated list. This parameter is only required when you want to verify backups for SnapCenter Plug-in for Microsoft SQL Server resource groups. | false | true (ByPropertyName) | |
| CustomSnapshotFormat | Specifies that you want to use a custom Snapshot copy naming format. By default, a timestamp is appended to the Snapshot copy name. Valid values for CustomSnapshotFormat are : $ResourceGroup, $Policy, $HostName, $ScheduleType, $CustomText | false | true (ByPropertyName) | |
| CustomText | Specifies the custom text in the custom Snapshot copy naming format. | false | true (ByPropertyName) | |
| DeleteBackupForDetachPolicies | | false | true (ByPropertyName) | |
| Schedules | Specifies the schedule parameters to be used in the resource group. Schedule parameters can include the policy name, schedule type, schedule start and end times. You can specify multiple schedules in a comma-separated list, for example: -Schedules ®{"PolicyName"="BackupPolicy";"ScheduleType"="OneTime"}, ®{"PolicyName"="BackupPolicy";"ScheduleType"="Hourly";"StartTime"=" 05/27/2016 6:13 PM";"EndTime"='05/27/2016 6:30 PM'"} | false | true (ByPropertyName) | |
| SchedulerType | Specifies the scheduler type. Possible values are Windows, SQL, None. | false | true (ByPropertyName) | |
| VerificationSchedules | Specifies the verification schedules you want to add to the resource. The verification schedule includes the following parameters: "VerificationType" which defines if and when verification is performed. The following values are available: VERIFY_SCHEDULED VERIFY_AFTER_BACKUP NONE "ScheduleType" represents the schedule type for the verification. "BackupScheduleType" represents the schedule type for the backup -VerificationServers "WIN-DVGQDI73QR6" needs to be provided in the above command if we are creating verification enabled resource group for SCSQL plugin. | false | true (ByPropertyName) | |
| BackupArchiveLogsAfterRecentMissingOne | This option is only valid for SCO plugin code. Specifies that you want to backup archive log files, which are created after the most recent missing archive log files and ignore the files created prior to it. If this option is not specified, then all archive log files except the missing archive log files are be backed up. | false | true (ByPropertyName) | |
| ExcludeArchiveLogPathsFromBackup | This option is only valid for SCO plugin code. Specifies the archive log destinations to be excluded from backup. Archive log files present in the specified destinations will be excluded during log backup. Multiple entries can be specified using comma separated list. For example: -ExcludeArchiveLogPathsFromBackup '/arch/logs/on/local/disk1, /arch/logs/on/local/disk2'. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ConsistencyGroupSnapshot | | false | true (ByPropertyName) | |
| ConsistencyGroupWaflSync | | false | true (ByPropertyName) | |
| ConsistencyGroupTimeOut | | false | true (ByPropertyName) | |
| SnapShotCreateCommand | | false | true (ByPropertyName) | |
| UseFileSystemConsistentSnapshot | | false | true (ByPropertyName) | |
| UseSnapcenterWithoutFileSystemConsistency | | false | true (ByPropertyName) | |
| PreAppQuiesceCmd | | false | true (ByPropertyName) | |
| PostAppQuiesceCmd | | false | true (ByPropertyName) | |
| AppQuiesceCmd | | false | true (ByPropertyName) | |
| AppUnQuiesceCmd | | false | true (ByPropertyName) | |
| PreAppUnQuiesceCmd | | false | true (ByPropertyName) | |
| PostAppUnQuiesceCmd | | false | true (ByPropertyName) | |
| PreExitCmd | | false | true (ByPropertyName) | |
| PreSnapshotCmd | | false | true (ByPropertyName) | |
| PostSnapshotCmd | | false | true (ByPropertyName) | |
| AppIgnoreError | | false | true (ByPropertyName) | |
| UseExternalSnapShot | | false | true (ByPropertyName) | |
| ExternalSnapshotRegex | | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ConfigParams | | false | true (ByPropertyName) | |

# Examples

## Example 1: Protecting a resource

```
Add-SmProtectResource -PluginCode SCSQL  -Policies BackupPolicy -Resources
®{"Host"="host.example.com";"Type"="SQL Database";"Names"="NB-MVA-DEV054\newdb"} -
Description test -EnableAsupOnFailure -Schedules
®{"PolicyName"="p2";"ScheduleType"="Monthly";"daysOfTheMonth"="31";"monthsOfTheYear"="A
ugust,September";} -SchedulerRunAsName Administrator -SchedulerType Windows
```

This example syntax protects a resource.

## Example 2: Protecting a resource with hourly backup policy

```
Add-SmProtectResource -PluginCode SCSQL -Policies BackupPolicy

          -Resources ®{"Host"="host.example.com";"Type"="SQL Database";"Names"="NBMVA-
DEV054\newdb"} -Description test -EnableAsupOnFailure -schedules
®{"PolicyName"="BackupPolicy";"StartTime"="05/21/2019 7:54 PM";"EndTime"="05/21/2019
8:03 PM";"ScheduleType"="Hourly";"RepeatTask_Every_Hour"="03:00"} -SchedulerType
Windows
```

## Example 3: Protecting a resource with daily backup policy

```
Add-SmProtectResource -PluginCode SCSQL -Policies BackupPolicy

          -Resources ®{"Host"="host.example.com";"Type"="SQL Database";"Names"="NBMVA-
DEV054\newdb"} -Description test -EnableAsupOnFailure -schedules
®{"PolicyName"="BackupPolicy";"StartTime"="05/21/2019 8:09 PM";"EndTime"="05/21/2019
9:18 PM";"ScheduleType"="Daily";"daysInterval"="1"} -SchedulerType Windows
```

## Example 4: Protecting a resource with weekly backup policy

```
Add-SmProtectResource -PluginCode SCSQL -Policies BackupPolicy

          -Resources ®{"Host"="host.example.com";"Type"="SQL Database";"Names"="NBMVA-
DEV054\newdb"} -Description test -EnableAsupOnFailure -schedules
®{"PolicyName"="BackupPolicy";"StartTime"="05/21/2019 8:24 PM";"EndTime"="05/21/2019
8:41 PM";"ScheduleType"="Weekly";"DaysOfTheWeek"="Tuesday"} -SchedulerType Windows
```

## Example 5: Protecting a resource with monthly backup policy

```
Add-SmProtectResource -PluginCode SCSQL -Policies BackupPolicy
```

```
          -Resources ®{"Host"="host.example.com";"Type"="SQL Database";"Names"="NBMVA-
DEV054\newdb"} -Description test -EnableAsupOnFailure -schedules
®{"PolicyName"="BackupPolicy";"StartTime"="05/21/2019 8:51 PM";"EndTime"="05/21/2019
9:18
PM";"ScheduleType"="Monthly";"MonthsOfTheYear"="May,June";"daysOfTheMonth"="21,26,16"}
-SchedulerType Windows
```

## Example 6: Protecting a HANA resource

```
Add-SmProtectResource -PluginCode hana -Resources
®{"Host"="schana02.gdl.englab.netapp.com";"Uid"="MDC\R57"} -Policies "HANAPOLICY"
```

This example protects a resource.

```
            Tag                          :

            ByPassRunAs                  : False

            Configuration                : SMCoreContracts.SmConfiguration

            CreationTime                 : 02-Oct-19 21:47:16

            CustomSnapshotFormat         :

            CustomText                   :

            Description                  :

            EmailBody                    :

            EmailFrom                    :

            EmailNotificationPreference  :

            EmailSMTPServer              :

            EmailSubject                 :

            EmailTo                      :

            EnableAsupOnFailure          :

            EnableEmail                  :

            EnableSysLog                 :

            HostResourceMaping           : {}

            IsCustomSnapshot             :

            LastBackupStatus             :

            MaintenanceStatus            : Production

            ModificationTime             : 02-Oct-19 21:47:16

            PluginProtectionGroupTypes   : {hana}

            Policies                     : {}

            ProtectionGroupType          : Backup
```

```
SchedulerSQLInstance        :

SearchResources             : False

VerificationServer          :

VerificationServerInfo      : SMCoreContracts.SmVerificationServerInfo

Name                        : schana02_gdl_englab_netapp_com_hana_MDC_R57

Type                        : Group

Id                          : 2

Host                        :

UserName                    :

Passphrase                  :

Deleted                     : False

Auth                        : SMCoreContracts.SmAuth

IsClone                     : False

CloneLevel                  : 0

Hosts                       : {}

StorageName                 :

ResourceGroupNames          :

PolicyNames                 :

Key                         : 0

NsmObjectID                 : 0
```

## Example 7: Protecting an Oracle Application Volume resource

```
Add-SmProtectResource -PluginCode SCO -Resources
®{"Host"="R8092776CF4V1.HNK2.com";"Application Volume"="appVol"} -Policies
"appVolPolicy"
```

This example protects an Oracle application volume resource named appVol.

```
Description                 :

CreationTime                : 11/4/2021 4:41:46 AM

ModificationTime            : 11/4/2021 4:41:46 AM

EnableEmail                 :

EmailSMTPServer             :

EmailFrom                   :

EmailTo                     :

EmailSubject                :
```

```
                        EnableSysLog                :

                        ProtectionGroupType         : Backup

                        EnableAsupOnFailure         :

                        Policies                    : {}

                        HostResourceMaping          : {}

                        Configuration               : SMCoreContracts.SmConfiguration

                        LastBackupStatus            :

                        VerificationServer          :

                        EmailBody                   :

                        EmailNotificationPreference :

                        VerificationServerInfo      :
SMCoreContracts.SmVerificationServerInfo

                        SchedulerSQLInstance        :

                        CustomText                  :

                        CustomSnapshotFormat        :

                        SearchResources             : False

                        ByPassRunAs                 : False

                        IsCustomSnapshot            :

                        MaintenanceStatus           : Production

                        PluginProtectionGroupTypes  : {SCO}

                        Tag                         :

                        IsInternal                  : True

                        EnableEmailAttachment       :

                        VerificationSettings        : {}

                        BackupServers               : {}

                        EnableRecentSnapshotNaming  :

                        Name                        : R8092776CF4V1_HNK2_com_appVol

                        Type                        : Group

                        Id                          : 178

                        Host                        :

                        UserName                    :

                        Passphrase                  :

                        Deleted                     : False

                        Auth                        : SMCoreContracts.SmAuth
```

```
IsClone                     : False
CloneLevel                  : 0
Hosts                       : {}
StorageName                 :
ResourceGroupNames          :
PolicyNames                 :
Key                         : 0
NsmObjectID                 : 0
SizeOfSmObject              : SMCoreContracts.SmObjectSize
```

## Example 8: Protecting an Oracle Database resource

```
Add-SmProtectResource -PluginCode SCO -Resources
®{"Host"="R8092776CF4V1.HNK2.com";"Oracle Database"="DB16"} -Policies "dbPolicy"
```

This example protects an Oracle database resource named DB16.

```
Description                 :
CreationTime                : 11/4/2021 5:05:51 AM
ModificationTime            : 11/4/2021 5:05:51 AM
EnableEmail                 :
EmailSMTPServer             :
EmailFrom                   :
EmailTo                     :
EmailSubject                :
EnableSysLog                :
ProtectionGroupType         : Backup
EnableAsupOnFailure         :
Policies                    : {}
HostResourceMaping          : {}
Configuration               : SMCoreContracts.SmConfiguration
LastBackupStatus            :
VerificationServer          :
EmailBody                   :
EmailNotificationPreference :
```

```
                        VerificationServerInfo      :
SMCoreContracts.SmVerificationServerInfo

                        SchedulerSQLInstance        :

                        CustomText                  :

                        CustomSnapshotFormat        :

                        SearchResources             : False

                        ByPassRunAs                 : False

                        IsCustomSnapshot            :

                        MaintenanceStatus           : Production

                        PluginProtectionGroupTypes  : {SCO}

                        Tag                         :

                        IsInternal                  : True

                        EnableEmailAttachment       :

                        VerificationSettings        : {}

                        BackupServers               : {}

                        EnableRecentSnapshotNaming  :

                        Name                        : R8092776CF4V1_HNK2_com_DB16

                        Type                        : Group

                        Id                          : 179

                        Host                        :

                        UserName                    :

                        Passphrase                  :

                        Deleted                     : False

                        Auth                        : SMCoreContracts.SmAuth

                        IsClone                     : False

                        CloneLevel                  : 0

                        Hosts                       : {}

                        StorageName                 :

                        ResourceGroupNames          :

                        PolicyNames                 :

                        Key                         : 0

                        NsmObjectID                 : 0

                        SizeOfSmObject              : SMCoreContracts.SmObjectSize
```

# Add-SmReportSchedule

Creates a schedule to automatically trigger the reports based on the user privileges.

# Syntax

```
Add-SmReportSchedule [-Name] <String> [-Plugin] <PluginCode> [-ScheduleType] <String>
[[-DayOfTheWeek] <String>] [[-DayOfTheMonth] <String>] [-TriggerTime] <String> [-
DocumentType] <String> [[-FromEmail] <String>] [-Recipients] <String>
[<CommonParameters>]
```

# Detailed Description

Creates a report schedule, which generates daily, weekly, or monthly reports and sends it to the specified e-mail ids as per the user privileges.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specify the name to create a report schedule. A valid schedule name can only include alphabets, numbers, hyphens, and underscores. | true | true (ByPropertyName) | |
| Plugin | Specify the plug-in code to generate the report. For custom plug-ins, specify the custom plug-in name for example, hana, mysql. Specify 'all' to generate report for "All Plug-ins". | true | true (ByPropertyName) | |
| ScheduleType | Specify the schedule type. Valid values are 'daily', 'weekly', and 'monthly'. | true | true (ByPropertyName) | |
| DayOfTheWeek | Specify the day of the week to run the schedule. Valid values are 'monday', 'tuesday', 'wednesday', 'thursday', 'friday', 'saturday', 'sunday'. This field is applicable only for weekly schedule. | false | true (ByPropertyName) | |
| DayOfTheMonth | Specify the day (number) of the month to run the schedule. The value should be between 0 and 28. Enter zero to run the schedule for the last day of the month. This field is applicable only for monthly schedule. | false | true (ByPropertyName) | |
| TriggerTime | Specify the TriggerTime HH:MM in 24 Hours format. | true | true (ByPropertyName) | |
| DocumentType | Specify the format of the report in which report should be sent over e-mail. The valid formats are PDF and CSV. Add the comma separator if both the formats are needed. | true | true (ByPropertyName) | |
| FromEmail | Specify the e-mail address from which the report has to be sent. | false | true (ByPropertyName) | |
| Recipients | Specify the e-mail address to send the report. For multiple e-mail ID's, seperate them by comma. | true | true (ByPropertyName) | |

# Examples

### Example 1: Creating a daily report schedule.

```
Add-SmReportSchedule -Name schedule1 -Plugin SCO -ScheduleType daily  -TriggerTime 1:10
-DocumentType "PDF,CSV" -FromEmail user®domain.com -Recipients
"user1®domain.com,user2®domain.com"
```

This example creates a daily schedule. Pass ScheduleType as 'Daily' and enter the TriggerTime at which the report needs to be generated every day. The report will contain data for the last 24 hours.

## Example 2: Creating a weekly report schedule.

```
Add-SmReportSchedule -Name schedule1 -Plugin hana -ScheduleType weekly -DayOfTheWeek
sunday  -TriggerTime 1:10 -DocumentType PDF -FromEmail user®domain.com -Recipients
"user1®domain.com,user2®domain.com"
```

This example creates a weekly schedule for the custom plug-in. Pass the ScheduleType as 'Weekly', enter DayOfTheWeek and TriggerTime at which the schedule should run every week. The report will contain data for the last 7 days. For the 'Plugin' parameter, the custom plug-in name is specified instead of the plug-in code.

## Example 3: Creating a monthly report schedule.

```
Add-SmReportSchedule -Name schedule1 -Plugin all -ScheduleType monthly -DayOfTheMonth
11  -TriggerTime 1:10 -DocumentType CSV -FromEmail user®domain.com -Recipients
"user1®domain.com,user2®domain.com"
```

This example creates a monthly schedule. Pass ScheduleType as 'Monthly', enter DayOfTheMonth and TriggerTime to generate the report. If day of the month is selected as '06', the report will contain data from the last month 6th day to 6th day of the current month. If the day of the month is selected as 'Last Day', report will run on the last day of every month at the specified time. For 'Last Day', report will contain data from 1st of every month to the last day of the month.

# Add-SmResource

Creates a custom plug-in resource or an Oracle plug-in application volume resource to be protected.

# Syntax

```
Add-SmResource -HostName <String> -PluginCode <PluginCode> [-CredentialName <String>]
[<CommonParameters>]
```

# Detailed Description

Creates resource of a given ResourceType, where the resource types supported for a custom plug-in are specified as part of the plug-in description file or you can create an Oracle plug-in application volume resource. You can also use the cmdlet to associate storage of type Volume or Qtree or LUN with given resource. If required, you can also specify custom parameters specific to the resource along with a Run As account, which can be used by the plug-in to validate credentials to access the resource.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostName | The name of the SnapCenter Custom Plug-in or Oracle Plug-in host. | true | true (ByPropertyName) | |
| PluginCode | The name of the plug-in associated with the resource you are adding. Possible inputs include SCSQL, SCW, SCO, HANA and SCU. | true | true (ByPropertyName) | |
| CredentialName | | false | true (ByPropertyName) | |
| ResourceType | The type of application object. This parameter does not accept any special characters or spaces. For example, instance, database, or a SAP HANA SingleContainer or MultipleContainers. | true | true (ByPropertyName) | |
| ResourceName | The name of the application object. | true | true (ByPropertyName) | |
| StorageFootPrint | Specifies the storage footprint. You enter the storage footprint using the following format: -StorageFootPrint ®(®{"VolumeName"="Volume";"StorageSystem"="server"}, ®{"LunPath"="/vol/Volume/LunPath";"StorageSystem"="server"}, ®{"QtreeName"="qtree";"VolumeName"="volume";"StorageSystem"="server"}) | true | true (ByPropertyName) | |
| MountPoints | Specifies the mount point for the resource. | false | true (ByPropertyName) | |
| ResourceSettings | Specifies the custom resource parameters. You enter ResourceSettings in a hastable using key-value pairs. For example: -ResourceSettings ®{"Key1" = "Value1"; "Key2" = "Value2"} | false | true (ByPropertyName) | |
| DatabaseName | SAP HANA Database name. | true | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SID | This is a SAP HANA database specific parameter. A SAP HANA system is identified by a unique 3 letter system ID (SID). For example, ABC. | true | true (ByPropertyName) | |
| UserStoreKeys | Comma separated list of SAP HANA database UserStoreKeys. | true | true (ByPropertyName) | |
| FileBackupPath | Location of the SAP HANA node on which the SAP HANA File-Based Backup is saved. This is required when EnableFileBackup parameter is set to ?Y?. The path must start with a forward slash and it cannot contain * ? \ " < > \| characters. If the path is not provided, SAP HANA will use the default path configured on the system. For example, /hana/shared/{SID}/HDB {INSTANCE_ID}/backup/data. | false | true (ByPropertyName) | |
| FileBackupPrefix | Prefix added to the File-Based Backup name. This is required when EnableFileBackup parameter is set to ?Y?. Use only letters, numbers, and underscores for the prefix of File-Based Backup name. If prefix is not provided, default value will be used. | false | true (ByPropertyName) | |
| OSDBUser | | true | true (ByPropertyName) | |
| TenantDatabaseName | This is a SAP HANA database specific parameter. It is the name of the tenant database for SAP HANA MultiTenant Database Containers resource type. | false | true (ByPropertyName) | |
| TenantType | This is a SAP HANA database specific parameter. This specifies the tenant type of SAP HANA MultiTenant Database Containers. SingleTenant as tenant type is deprecated. | true | true (ByPropertyName) | MultiTenant |

# Examples

## Example 1: Adding a resource with a single storage volume

```
Add-SmResource -HostName 'host.example.com' -PluginCode 'DB2' -ResourceName DB1-
ResourceType Database -StorageFootPrint
(®{"VolumeName"="autoVol1";"StorageSystem"="vserver_scauto_primary"}) -Instance
db2inst3
```

```
This example syntax adds a Resource Type Database of Custom plug-in DB2. In this
example, the resource parent type is Instance, which is mandatory as indicated by the
plug-in descriptor file used during Upload-SmPluginPackage.
```

```
PluginName              : DB2

Uid                     : db2inst3\DB1

ParentUid               :

SmAppFiles              :

SmAppFileStorageGroups  : {}

PluginParams            : SMCoreContracts.SmKeyValueCollection

MountPaths              :

LastBackupDate          :

LastBackupStatus        :
```

```
IsProtected            : False

Name                   : DB1

Type                   : Database

Id                     : sccrheldb2.sccore.test.com\DB2\db2inst3\DB1

Host                   : sccrheldb2.sccore.test.com

UserName               :

Passphrase             :

Deleted                : False

Auth                   : SMCoreContracts.SmAuth

IsClone                : False

CloneLevel             : 0

Hosts                  :
```

## Example 2: Adding a resource with ResourceType instance containing multiple Storage Type LUNs

```
Add-SmResource -HostName 'host.example.com' -PluginCode 'DB2' -ResourceName db2inst1 -
ResourceType Instance -StorageFootPrint (®(
®{"VolumeName"="DB2_NONRECDB";"LunName"="DB2_NONRECDB";"StorageSystem"="vserver_scauto_
primary"},
®{"VolumeName"="DB2_NONREC1DB";"LunName"="DB2_NONREC1DB";"StorageSystem"="vserver_scaut
o_secondary"},
®{"VolumeName"="DB2_RECDB";"LunName"="DB2_RECDB";"StorageSystem"="vserver_scauto_primar
y"}))
```

This example syntax adds a resource with ResourceType for custom Plug-in DB2. ResourceType instance does not have parent Resource type.

The resource named db2inst1 is spread across 3 LUNs of different volumes of same storage system.

```
PluginName             : DB2

Uid                    : db2inst1

ParentUid              :

SmAppFiles             :

SmAppFileStorageGroups : {, , }

PluginParams           : SMCoreContracts.SmKeyValueCollection

MountPaths             :

LastBackupDate         :

LastBackupStatus       :
```

```
            IsProtected            : False

            Name                   : db2inst1

            Type                   : Instance

            Id                     : sccrheldb2.sccore.test.com\DB2\db2inst1

            Host                   : sccrheldb2.sccore.test.com

            UserName               :

            Passphrase             :

            Deleted                : False

            Auth                   : SMCoreContracts.SmAuth

            IsClone                : False

            CloneLevel             : 0

            Hosts                  :
```

## Example 3: Adding a resource with storage type qtree

```
Add-SmResource -HostName 'sccorelinux188.sccore.test.com' -PluginCode 'DB2' -
ResourceName DominoAutoDatabase -ResourceType Database -StorageFootPrint  (®{"QTREENAME
"="inventory_qtree";"VolumeName"="inventory_vol";"StorageSystem"="vserver_scauto_primar
y"}) -Instance INST
```

This example syntax adds a resource type of Database for custom plug-in DB2, hosting data on qtree.

Cmdlet Output: Successfully added the following resource

```
            PluginName             : DummyPlugin

            Uid                    : INST\DominoAutoDatabase

            ParentUid              :

            SmAppFiles             :

            SmAppFileStorageGroups : {}

            PluginParams           : SMCoreContracts.SmKeyValueCollection

            MountPaths             :

            LastBackupDate         :

            LastBackupStatus       :

            IsProtected            : False

            Name                   : DominoAutoDatabase

            Type                   : Database

            Id                     :
sccorelinux188.sccore.test.com\DummyPlugin\INST\DominoA
```

```
utoDatabase

Host                    : sccorelinux188.sccore.test.com

UserName                :

Passphrase              :

Deleted                 : False

Auth                    : SMCoreContracts.SmAuth

IsClone                 : False

CloneLevel              : 0

Hosts                   :
```

## Example 4: Adding a resource that includes a LUN inside a qtree

```
Add-SmResource -HostName "10.236.164.10" -PluginCode hana -ResourceType instance -
ResourceName mixedres -StorageFootPrint
®(®{"storagesystem"="10.232.206.5";"volumename"="dummyvol"},®{"storagesystem"="10.232.2
06.5";"volumename"="dummyvol2";"lunname"="luninsidevol"},®{"storagesystem"="10.232.206.
5";"volumename"="dummyvol3";"lunname"="qtreeforlun\luninsideqtree"},®{"storagesystem"="
10.232.206.5";"volumename"="dummyvol4";"qtreename"="qtreeinsidevol"})
```

This example adds a resource with custom plug-in resource type that includes a LUN inside a qtree.

```
PluginName              : hana

Uid                     : A12

ParentUid               :

SmAppFiles              :

SmAppFileStorageGroups : {, , }

PluginParams            : SMCoreContracts.SmKeyValueCollection

MountPaths              :

LastBackupDate          :

LastBackupStatus        :

IsProtected             : False

Name                    : mixedres

Type                    : Instance

Id                      : sccrheldb2.sccore.test.com\hana\A12

Host                    : sccrheldb2.sccore.test.com

UserName                :
```

```
            Passphrase              :

            Deleted                 : False

            Auth                    : SMCoreContracts.SmAuth

            IsClone                 : False

            CloneLevel              : 0

            Hosts                   :
```

## Example 5: Adding a SAP HANA database of SingleContainer type

```
Add-SmResource -HostName 'mva-s63.gdl.englab.netapp.com' -PluginCode 'hana' -SID 'H14'
-DatabaseName 'Manual_H14' -ResourceType SingleContainer -StorageFootPrint
(®{"VolumeName"="R808267D015V1_NFS_H14_SC_DATA_10_229_37_43";"StorageSystem"="10.232.20
6.133"}) -UserStoreKeys 'KEY01' -OSDBUser 'SYSTEM'
```

This example syntax adds the SingleContainer resource type with specific SID and database name.

```
Successfully added the following resource

PluginName              : hana

Uid                     : H14

ParentUid               :

SmAppFiles              :

SmAppFileStorageGroups  : {}

PluginParams            : SMCoreContracts.SmKeyValueCollection

MountPaths              :

pluginConfiguration     : SMCoreContracts.SmSCSAPHANAResourceParameters

AutoDiscovered          : False

IsSelectable            : True

IsAuthenticated         : False

IsProtected             : False

ReplicationEnabled      : False

LastBackupDate          :

LastBackupStatus        :

IsWindowsResource       : False

Name                    : Manual_H14

Type                    : SingleContainer

Id                      : mva-s63.gdl.englab.netapp.com\hana\H14
```

```
Host                    : mva-s63.gdl.englab.netapp.com

UserName                :

Passphrase              :

Deleted                 : False

Auth                    : SMCoreContracts.SmAuth

IsClone                 : False

CloneLevel              : 0

Hosts                   :

StorageName             :

ResourceGroupNames      :

PolicyNames             :

Key                     : 0

NsmObjectID             : 0

SizeOfSmObject          :
```

## Example 6: Adding a SAP HANA Multitenant Database Container resource type

```
Add-SmResource -HostName 'schana02.gdl.englab.netapp.com' -PluginCode 'hana' -
DatabaseName MDC -ResourceType MultipleContainers -StorageFootPrint (
®{"VolumeName"="hana_data2";"StorageSystem"="storage_admin_1"}) -sid 'MT1' -tenanttype
'MultiTenant' -userstorekeys 'USKMT1' -tenantdatabasename 'MT1' -osdbuser 'root'


This example adds a HANA MultiTenant Database Container resource with MultiTenant
tenant type. Tenant database names will be detected during backup operations.

WARNING: TenantDatabaseName parameter is now deprecated for MultiTenant database
resource, the parameter will be ignored and auto discovered internally.

            Successfully added the following resource


            PluginName              : hana

            Uid                     : MDC\MT1

            ParentUid               :

            SmAppFiles              :

            SmAppFileStorageGroups  : {}

            PluginParams            : SMCoreContracts.SmKeyValueCollection

            MountPaths              :

            pluginConfiguration     : SMCoreContracts.SmSCSAPHANAResourceParameters

            AutoDiscovered          : False

            IsSelectable            : True
```

```
IsAuthenticated        : False

LastBackupDate         :

LastBackupStatus       :

IsProtected            : False

IsWindowsResource      : False

Name                   : MDC

Type                   : MultipleContainers

Id                     : schana02.gdl.englab.netapp.com\hana\MDC\MT1

Host                   : schana02.gdl.englab.netapp.com

UserName               :

Passphrase             :

Deleted                : False

Auth                   : SMCoreContracts.SmAuth

IsClone                : False

CloneLevel             : 0

Hosts                  :

StorageName            :

ResourceGroupNames     :

PolicyNames            :

Key                    : 0

NsmObjectID            : 0

SizeOfSmObject         :
```

## Example 7: Adding an Oracle Application Volume Resource with a volume,lun and qtree

```
Add-SmResource -HostName 'R8092776CF4V1.HNK2.com' -PluginCode 'SCO' -ResourceName
appVol -StorageFootPrint
®(®{"VolumeName"="vol_test1";"StorageSystem"="10.232.206.165"},®{"VolumeName"="vol_test
2";"LunName"="lun_test1";"StorageSystem"="10.232.206.165"},®{"QtreeName"="qtree_test1";
"VolumeName"="vol_test3";"StorageSystem"="10.232.206.165"})
```

```
This example adds an Oracle Application Volume Resource which contains a volume, lun,
and qtree.
```

```
Uid                    : appVol

SmAppFileStorageGroups : {, , }

IsProtected            : False
```

```
LastBackupDate          :

LastBackupStatus        :

Name                    : appVol

Type                    : Application Volume

Id                      : R8092776CF4V1.HNK2.com\appVol

Host                    : R8092776CF4V1.HNK2.com

UserName                :

Passphrase              :

Deleted                 : False

Auth                    : SMCoreContracts.SmAuth

IsClone                 : False

CloneLevel              : 0

Hosts                   :

StorageName             :

ResourceGroupNames      :

PolicyNames             :

Key                     : 0

NsmObjectID             : 0

SizeOfSmObject          :
```

## Example 8: Adding an Oracle Application Volume Resource with a single lun

```
Add-SmResource -HostName 'R8092776CF4V1.HNK2.com' -PluginCode 'SCO' -ResourceName
appVolLun -StorageFootPrint
®{"VolumeName"="vol_test2";"LunName"="lun_test1";"StorageSystem"="10.232.206.165"}
```

This example adds an Oracle Application Volume Resource which contains a single lun

```
Uid                     : appVolLun

SmAppFileStorageGroups : {, , }

IsProtected             : False

LastBackupDate          :

LastBackupStatus        :

Name                    : appVolLun

Type                    : Application Volume

Id                      : R8092776CF4V1.HNK2.com\appVolLun

Host                    : R8092776CF4V1.HNK2.com
```

```
UserName                :
Passphrase              :
Deleted                 : False
Auth                    : SMCoreContracts.SmAuth
IsClone                 : False
CloneLevel              : 0
Hosts                   :
StorageName             :
ResourceGroupNames      :
PolicyNames             :
Key                     : 0
NsmObjectID             : 0
SizeOfSmObject          :
```

# Add-SmResourceGroup

Adds a resource group to SnapCenter.

# Syntax

```
Add-SmResourceGroup [-ArchivedLocators <Hashtable[]>] -ResourceGroupName <String> [-
BackupServers <SmBackupServer>] -PluginCode <PluginCode> [-EnableEmail] [-
EmailPreference <SmEmailNotificationPreference>] [-isInternal <Boolean>]
[<CommonParameters>]
```

# Detailed Description

Creates a new resource group. You can specify policies, schedules, verification schedules, and resources to be associated with the resource group.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ArchivedLocators | Specifies in a hashtable the secondary storage system details for each unique primary storage system resource in the resource group. For example: -ArchivedLocators ®{Primary="my_vs1:my_vol_iscsi"; Secondary="my_vs1:my_vol_iscsi_SECONDARY"} | false | true (ByPropertyName) | |
| ResourceGroupName | Specifies the name of the resource group that you want create. | true | true (ByPropertyName) | |
| BackupServers | | false | true (ByPropertyName) | |
| PluginCode | Specifies the plug-in code of the host for which you are creating a backup resource group. Valid values are SCSQL, SCW, and SCO. | true | true (ByPropertyName) | |
| EnableEmail | Specifies whether to enable or disable email. | false | false | |
| EmailPreference | Specifies when you will receive e-mail notifications. Possible values: Always, Never, OnError, OnErrorOrWarning. | false | false | |
| isInternal | | false | true (ByPropertyName) | |
| Resources | Specifies the list of resources to be associated with the resource group. You must provide the resource information in a hashtable, and it must contain the resource name and type, and the host on which it is located. For example, ®{"Host"="localhost";"Type"="SQL Database";"Names"="Instance\Database"} For instance-level backup ®{"Host"="localhost";"Type"="SQL Instance";"Names"="Instance"} For availability group backup ®{"Host"="localhost";"Type"="SQL Availability Group";"Names"="AG1"} For custom plug-in ®{"Host"="sccorelinux61.sccore.test.com";"Uid"="inst1\ | true | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | db1"} Valid Type values are: SQL Database, SQL Instance, SQL Availability Group. You can include comma-separated values for Names. For Oracle Database, the format is ®{"Host"="host.example.com";"Oracle Database"="db1,db2,.."}. For Oracle Application Volume, the format is ®{"Host"="host.example.com";"Application Volume"="appVol1,appVol2,.."}. | | | |
| Description | Specifies an optional description for the new resource group. | false | true (ByPropertyName) | |
| Tag | Enables you to apply a unique tag to help identify the resource group. | false | true (ByPropertyName) | |
| Policies | Specifies the list of policies associated with the resource group. Multiple policies can be added as a comma-separated list. | false | true (ByPropertyName) | |
| SchedulerCredentialName | | false | true (ByPropertyName) | |
| SchedulerInstance | Specifies the SQL Server Instance where the schedule is created and managed. This is mandatory if the policy has SQL scheduler enabled. | false | true (ByPropertyName) | |
| VerificationServers | Specifies the list of verification servers to be associated with the resource group. Multiple verification servers can be added as a comma-separated list. This parameter is only required when you want to verify backups for SnapCenter Plug-in for Microsoft SQL Server resource groups. | false | true (ByPropertyName) | |
| CustomSnapshotFormat | Specifies that you want to use a custom Snapshot copy naming format. By default, a timestamp is appended to the Snapshot copy name. Valid values for CustomSnapshotFormat are : $ResourceGroup, $Policy, $HostName, $ScheduleType, $CustomText | false | true (ByPropertyName) | |
| CustomText | Specifies the custom text in the custom Snapshot copy naming format. | false | true (ByPropertyName) | |
| DeleteBackupForDetachPolicies | | false | true (ByPropertyName) | |
| Schedules | Specifies the schedule parameters to be used in the resource group. Schedule parameters can include the policy name, schedule type, schedule start and end times. You can specify multiple schedules in a comma-separated list, for example: -Schedules ®{"PolicyName"="BackupPolicy";"ScheduleType"="One Time"}, ®{"PolicyName"="BackupPolicy";"ScheduleType"="Hourly";"StartTime"=" 05/27/2016 6:13 PM";"EndTime"="05/27/2016 6:30 PM"} | false | true (ByPropertyName) | |
| SchedulerType | Specifies the scheduler type. Possible values are Windows, SQL, None. | false | true (ByPropertyName) | |
| VerificationSchedules | Specifies the verification schedules you want to add to the resource. The verification schedule includes the following parameters: "VerificationType" which defines if and when verification is performed. The following values are available: VERIFY_SCHEDULED VERIFY_AFTER_BACKUP NONE "ScheduleType" | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | represents the schedule type for the verification. "BackupScheduleType" represents the schedule type for the backup -VerificationServers "WIN-DVGQDI73QR6" needs to be provided in the above command if we are creating verification enabled resource group for SCSQL plugin. | | | |
| BackupArchiveLogsAfterRecentMissingOne | This option is only valid for SCO plugin code. Specifies that you want to backup archive log files, which are created after the most recent missing archive log files and ignore the files created prior to it. If this option is not specified, then all archive log files except the missing archive log files are be backed up. | false | true (ByPropertyName) | |
| ExcludeArchiveLogPathsFromBackup | This option is only valid for SCO plugin code. Specifies the archive log destinations to be excluded from backup. Archive log files present in the specified destinations will be excluded during log backup. Multiple entries can be specified using comma separated list. For example: -ExcludeArchiveLogPathsFromBackup '/arch/logs/on/local/disk1, /arch/logs/on/local/disk2'. | false | true (ByPropertyName) | |
| ConsistencyGroupSnapshot | | false | true (ByPropertyName) | |
| ConsistencyGroupWaflSync | | false | true (ByPropertyName) | |
| ConsistencyGroupTimeOut | | false | true (ByPropertyName) | |
| SnapShotCreateCommand | | false | true (ByPropertyName) | |
| UseFileSystemConsistentSnapshot | Specifies that you want to use file system consistent Snapshot copy. | false | true (ByPropertyName) | |
| UseSnapcenterWithoutFileSystemConsistency | | false | true (ByPropertyName) | |
| PreAppQuiesceCmd | | false | true (ByPropertyName) | |
| PostAppQuiesceCmd | | false | true (ByPropertyName) | |
| AppQuiesceCmd | | false | true (ByPropertyName) | |
| AppUnQuiesceCmd | | false | true (ByPropertyName) | |
| PreAppUnQuiesceCmd | | false | true (ByPropertyName) | |
| PostAppUnQuiesceCmd | | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PreExitCmd | | false | true (ByPropertyName) | |
| PreSnapshotCmd | | false | true (ByPropertyName) | |
| PostSnapshotCmd | | false | true (ByPropertyName) | |
| AppIgnoreError | | false | true (ByPropertyName) | |
| UseExternalSnapShot | | false | true (ByPropertyName) | |
| ExternalSnapshotRegex | | false | true (ByPropertyName) | |
| ConfigParams | | false | true (ByPropertyName) | |
| EmailBody | Specifies the body of the email. | false | true (ByPropertyName) | |
| EmailFrom | Specifies the sender's email address. | true | true (ByPropertyName) | |
| EmailTo | Specifies the recipient's email address. | true | true (ByPropertyName) | |
| EmailSubject | Specifies the subject of the email. | true | true (ByPropertyName) | |
| EnableEmailAttachment | | false | true (ByPropertyName) | |

# Examples

## Example 1: Creating a new resource group

```
Add-SmResourceGroup -ResourceGroupName DS26 -PluginCode SMSQL -Policies BackupPolicy -
Resources ®{"Host"="host.example.com";"Type"="SQL Database";"Names"="NB-MVA-
DEV054\newdb"}

          -Description test -CustomSnapShotFomat abc -CustomText test -
SchedulerRunAsName admin

          -Schedules ®{"PolicyName"="BackupPolicy";"ScheduleType"="OneTime"},
®{"PolicyName"="BackupPolicy";"ScheduleType"="Hourly";"StartTime"=" 05/27/2016 6:13
PM";"EndTime"="'05/27/2016 6:30 PM'"}

          -SchedulerType Windows
```

This example syntax creates a new resource group.

## Example 2: Adding a resource group for custom plugin with consistency group Snapshot copy enabled

```
Add-SmResourceGroup -ResourceGroupName 'ResourceGroup_with_CG' -Resources
®(®{"Host"="sccorelinux61.sccore.test.com";"Uid"="inst1\db1"},®{"Host"="sccorelinux61.s
ccore.test.com";"Uid"="inst1\db2"}) -Policies primaryonly -consistencygroupsnapshot 1 -
usesnapcenterwithoutfilesystemconsistency  -plugincode 'DB2'
```

This example syntax creates a resource group of two DB2 databases with Consistency Group Snapshot copies enabled.

## Example 3: Creating a resource group with scheduled verification

```
Add-SmResourceGroup -ResourceGroupName DS26 -PluginCode SMSQL -Policies BackupPolicy -
Resources ®{"Host"="host.example.com";"Type"="SQL Database";"Names"="NB-MVA-
DEV054\newdb"} -Description test -CustomSnapShotFomat abc -CustomText test -
SchedulerRunAsName admin -Schedules
®{"PolicyName"="BackupPolicy";"ScheduleType"="OneTime"},
®{"PolicyName"="BackupPolicy";"ScheduleType"="Hourly";"StartTime"=" 05/27/2016 6:13
PM";"EndTime"="'05/27/2016 6:30 PM'"} -SchedulerType Windows -VerificationSchedules
®{"BackupScheduleType"="Hourly";"DeferredBackupCount"="1";"VerificationType"="VERIFY_SC
HEDULED";"VerifyOnSecondary"="true";"BackupPolicyName"="BackupPolicy";"ScheduleType"="W
eekly";"DaysOfTheWeek"="Monday";"StartTime"="20-Jul-16 6:42:12 PM";"EndTime"="25-Jul-16
6:42:12
PM"},®{"BackupScheduleType"="Daily";"DeferredBackupCount"="2";"VerificationType"="VERIF
Y_SCHEDULED";"VerifyOnSecondary"="false";"BackupPolicyName"="BackupPolicy";"ScheduleTyp
e"="Monthly";"StartTime"="20-Jul-16 6:42:12 PM";"EndTime"="25-Jul-16 6:42:12
PM";"MonthofTheYear"="March";"DaysoftheMonth"="15"} -ArchivedLocators
®{Primary="test_vserver:vol_ash_test";Secondary="test_vserver:test_vserver_vol_ash_test
_vault"}
```

This example syntax creates a new resource group with verification.

## Example 4: Creating a resource group with scheduled verification and verification after backup

```
Add-SmResourceGroup -ResourceGroupName RG27 -PluginCode SCO -Policies BackupPolicy -
Resources ®{"Host"="host.example.com";"Oracle Database"="newdb"} -Description test -
CustomSnapShotFomat abc -CustomText test -SchedulerRunAsName admin -Schedules
®{"PolicyName"="BackupPolicy";"ScheduleType"="Weekly";"DaysOfTheWeek"="Sunday"},
®{"PolicyName"="BackupPolicy";"ScheduleType"="Monthly";"StartTime"=" 05/27/2016 6:13
PM";"EndTime"="05/27/2016 6:30 PM";"MonthsofTheYear"="March";"DaysoftheMonth"="2"} -
SchedulerType Windows -VerificationSchedules
®{"BackupScheduleType"="Weekly";"DeferredBackupCount"="1";"VerificationType"="VERIFY_SC
HEDULED";"VerifyOnSecondary"="true";"BackupPolicyName"="BackupPolicy";"ScheduleType"="W
eekly";"DaysOfTheWeek"="Monday";"StartTime"="20-Jul-16 6:42:12 PM";"EndTime"="25-Jul-16
6:42:12
PM"},®{"BackupScheduleType"="Monthly";"DeferredBackupCount"="2";"VerificationType"="VER
IFY_AFTER_BACKUP";"VerifyOnSecondary"="false";"BackupPolicyName"="BackupPolicy"}
```

This example syntax creates a new resource group with scheduled verification and verification after backup.

## Example 5: Adding an Always On availability group

```
Add-SmResourceGroup -ResourceGroupName AG_Prod -Resources ®{"Host"="myag1";"Type"="SQL
Availability Group";"Names"="AG_Prod"} -PluginCode SMSQL -Policies "SQL Daily Full" -
Schedules ®{"PolicyName"="SQL Daily
Full";"ScheduleType"="Daily";"StartTime"="10/28/2017 6:13 PM";"EndTime"=""} -
schedulerType SQL -SchedulerInstance SQL1
```

This example syntax adds an Always On availability group named AG_Prod to a SnapCenter resource group.

## Example 6: Adding a resource group for HANA plugin

```
Add-SmResourceGroup -ResourceGroupName '43RG57' -Resources
®{"Host"="schana02.gdl.englab.netapp.com";"Uid"="MDC\R57"} -plugincode 'hana' -Policies
'HANAPOLICY'
```

This example adds a resource group for HANA plug-in.

```
            Tag                          :

            ByPassRunAs                  : False

            Configuration                : SMCoreContracts.SmConfiguration

            CreationTime                 : 02-Oct-19 21:38:06

            CustomSnapshotFormat         :

            CustomText                   :

            Description                  :

            EmailBody                    :

            EmailFrom                    :

            EmailNotificationPreference  :

            EmailSMTPServer              :

            EmailSubject                 :

            EmailTo                      :

            EnableAsupOnFailure          :

            EnableEmail                  :

            EnableSysLog                 :

            HostResourceMaping           : {}

            IsCustomSnapshot             :

            LastBackupStatus             :

            MaintenanceStatus            : Production

            ModificationTime             : 02-Oct-19 21:38:06
```

```
PluginProtectionGroupTypes  : {hana}

Policies                    : {}

ProtectionGroupType         : Backup

SchedulerSQLInstance        :

SearchResources             : False

VerificationServer          :

VerificationServerInfo      : SMCoreContracts.SmVerificationServerInfo

Name                        : 43RG57

Type                        : Group

Id                          : 1

Host                        :

UserName                    :

Passphrase                  :

Deleted                     : False

Auth                        : SMCoreContracts.SmAuth

IsClone                     : False

CloneLevel                  : 0

Hosts                       : {}

StorageName                 :

ResourceGroupNames          :

PolicyNames                 :

Key                         : 0

NsmObjectID                 : 0

SizeOfSmObject              :
```

## Example 6: Creating a resource group and attaching hourly backup policy

```
Add-SmResourceGroup -ResourceGroupName ResourceGroup1 -Description test -Resources
®{"Host"="C226030161613-1";"Type"="SQL Database";"Names"="C226030161613-
1\NAMEDINST1\C226030161613_1_SDML_1"} -Policies
Full_Backup_Log_Backup_Windows_Schedule_Policy_54615264 -schedulertype 'Windows' -
plugincode 'SCSQL' -schedules
®{"PolicyName"="Hourly_Full_log_Backup_Wtih_Ver_Policy_09959383";"StartTime"="05/21/201
9 7:54 PM";"EndTime"="05/21/2019 8:03
PM";"ScheduleType"="Hourly";"RepeatTask_Every_Hour"="03:00"}
```

## Example 7: Creating a resource group and attaching daily backup policy

```
Add-SmResourceGroup -ResourceGroupName ResourceGroup1 -Description 'Backup
ResourceGroup with Full and log backup policy with Daily SQL schedule' -Resources
®{"Host"="C226030161613-1";"Type"="SQL Database";"Names"="C226030161613-
1\NAMEDINST1\C226030161613_1_SDML_1"} -Policies
Full_Backup_Log_Backup_SQL_Schedule_Policy_54615264 -schedulerinstance 'C226030161613-
1\NAMEDINST1' -plugincode 'SCSQL' -schedulerrunasname 'DomainRunAs_54615264' -
schedulertype 'SQL' -schedules
®{"PolicyName"="Daily_Full_Log_Backup_With_Ver_Policy_09959383";"StartTime"="05/21/2019
8:09 PM";"EndTime"="05/21/2019 9:18 PM";"ScheduleType"="Daily";"daysInterval"="1"}
```

## Example 8: Creating a resource group and attaching weekly backup policy

```
Add-SmResourceGroup -ResourceGroupName ResourceGroup1 -Description 'Backup
ResourceGroup with Full and log backup policy with hourly windows schedule' -Resources
®{"Host"="C226030161613-1";"Type"="SQL Database";"Names"="C226030161613-
1\NAMEDINST1\C226030161613_1_SDML_1"} -Policies
Full_Backup_Log_Backup_Windows_Schedule_Policy_54615264 -schedulertype 'Windows' -
plugincode 'SCSQL' -schedules
®{"PolicyName"="Weekly_Full_Backup_With_Ver_Policy_09959383";"StartTime"="05/21/2019
8:24 PM";"EndTime"="05/21/2019 8:41
PM";"ScheduleType"="Weekly";"DaysOfTheWeek"="Tuesday"}
```

## Example 9: Creating a resource group and attaching monthly backup policy

```
Add-SmResourceGroup -ResourceGroupName ResourceGroup1 -Description 'Backup
ResourceGroup with Full and log backup policy with hourly windows schedule' -Resources
®{"Host"="C226030161613-1";"Type"="SQL Database";"Names"="C226030161613-
1\NAMEDINST1\C226030161613_1_SDML_1"} -Policies
Full_Backup_Log_Backup_Windows_Schedule_Policy_54615264 -schedulertype 'Windows' -
plugincode 'SCSQL' -schedules
®{"PolicyName"="Monthly_Full_Backup_With_Ver_Policy_09959383";"StartTime"="05/21/2019
8:51 PM";"EndTime"="05/21/2019 9:18
PM";"ScheduleType"="Monthly";"MonthsOfTheYear"="May,June";"daysOfTheMonth"="21,26,16"}
```

## Example 10: Creating a new resource group in SCE plugin

```
Add-SmResourceGroup -ResourceGroupName RGName -Description test -Policies BackupPolicy
-backupservers replicaServers -plugincode SCE -Resources
®{"Host"="host.example.com";"Type"="SnapCenter Plug-in for Microsoft Exchange
Server";"Names"="host.example.com4\newdb"}
```

## Example 11: Creating a new resource group for Oracle Plug-in

```
Add-SmResourceGroup -ResourceGroupName 'mixedRG' -Resources
®(®{"Host"="R809278EA03V1.HNK2.com";"Oracle
Database"="DB11,DB12"},®{"Host"="R8092776CF4V1.HNK2.com";"Application
Volume"="appVol1,appVol2"}) -plugincode 'SCO' -Policies 'testPolicy'
```

This example syntax creates a new resource group for Oracle Plug-in containing database and application volume resources.

## Example 12: Creating a new resource group for Oracle Plug-in

```
Add-SmResourceGroup -ResourceGroupName 'appVolRG' -Resources
®{"Host"="R8092776CF4V1.HNK2.com";"Application Volume"="appVol1,appVol2"} -plugincode
'SCO' -Policies 'testPolicy'
```

This example syntax creates a new resource group for Oracle Plug-in with only application volume resources.

# Add-SmResourceToUser

Adds resources to an existing user.

# Syntax

```
Add-SmResourceToUser -UserName <String> [-ResourceNames <String>] -ResourceType
<OperationAssignmentType> [-UserGroupObjectType <SmUserGroupObjectType>]
[<CommonParameters>]
```

# Detailed Description

Adds resources to an existing user. The resources can be a resource group, credential, host, policy, storage connection or plug-in.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| UserName | Name of the domain\user. | true | true (ByPropertyName) | |
| ResourceNames | Name of the resources to be assigned. You can use a comma to separate multiple resources. | false | true (ByPropertyName) | |
| ResourceType | The type of resource being added to the user. Possible values are Credential, StorageConnection, Policy, Plugin, Host, and ResourceGroup. | true | true (ByPropertyName) | |
| UserGroupObjectType | Specifies that the domain\username to which you are adding a resource is a group. | false | true (ByPropertyName) | |

# Examples

## Example 1: Adding a host resource to an user

```
Add-SmResourceToUser -UserName sddev\administrator -ResourceNames clab-a13-
13.sddev.mycompany.com -ResourceType Host
```

```
This example syntax assigns a host resource to the user.
```

## Example 2: Adding a resource group to an user

```
Add-SmResourceToUser -UserName sddev\administrator -ResourceNames FinanceResourceGroup
-ResourceType ResourceGroup
```

```
This example syntax assigns the FinanceResourceGroup resource group to the
sddev\administrator user.
```

## Example 3: Adding an credential to an user

```
Add-SmResourceToUser -UserName sddev\administrator -ResourceNames Cred_1 -ResourceType
Credential
```

This example syntax assigns the Cred_1 credential resource to the sddev\administrator user.

## Example 4: Adding a policy to an user

```
Add-SmResourceToUser -UserName sddev\administrator -ResourceNames testPol -ResourceType
Policy
```

This example syntax assigns the testPol policy resource to the sddev\administrator user.

## Example 5: Adding a storage connection to an user

```
Add-SmResourceToUser -UserName sddev\administrator -ResourceNames svm1 -ResourceType
StorageConnection
```

This example syntax assigns the svm1 storage connection resource to the sddev\administrator user.

## Example 6: Adding all the resources to an user

```
Add-SmResourceToUser -UserName sddev\administrator -ResourceType All
```

This example syntax assigns all the resources to the sddev\administrator user.

# Add-SmServer

Adds the SC server to the High Availability cluster

# Syntax

```
Add-SmServer -Credential <PSCredential> [-ServerName <String>] -ServerIP <String> [-
CleanUpSecondaryServer <String>] [<CommonParameters>]
```

# Detailed Description

Adds the given SC server to the existing High Availability cluster as secondary node. SnapCenter repository data from primary server will be replicated to the secondary server for HA.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Credential | Provides domain user credentials for the user to setup High Availability cluster configuration. | true | true (ByPropertyName) | |
| ServerName | Secondary SC server name. | false | false | |
| ServerIP | Secondary SC server IP Address. | true | false | |
| CleanUpSecondaryServer | Specifies whether to cleanup secondary server. The value is either True or False. | false | false | |

# Examples

## Example 1: Adding SnapCenter Server to High Availability cluster

```
Add-SmServer -Credential sddev\administrator -ServerIP 10.225.231.149
```

```
This example Adds SnapCenter Server to High Availability cluster.
```

```
Name                : Adding SC Server 10.225.231.149 to High Availability cluster
            Id                  : 105
            StartTime           : 9/10/2019 4:11:38 AM
            EndTime             :
            IsCancellable       : False
            IsRestartable       : False
            IsCompleted         : False
            IsVisible           : True
            IsScheduled         : False
```

```
PercentageCompleted : 0

Description         :

Status              : Running

Owner               :

Error               :

Priority            : None

Tasks               : {}

ParentJobID         : 0

EventId             : 0

JobTypeId           : 38

ApisJobKey          :

ObjectId            : 0

PluginCode          : NONE

PluginName          : NONE

HostId              : 0

RoleId              :

JobIds              : {}


Monitor the progress of job 105 in the Job Monitor page or by running the
cmdlet: 'Get-SmJobSummaryReport -JobId 105'
```

# Add-SmServerCluster

Creates the High Availability cluster configuration on the SnapCenter Server.

# Syntax

```
Add-SmServerCluster -Credential <PSCredential> [-ClusterName <String>] -ClusterIP
<String> -PrimarySCServerIP <String> [<CommonParameters>]
```

# Detailed Description

Creates High Availability cluster configuration on the SnapCenter Server with the given cluster IP Address. Routing from the cluster URL to SC server(s) should be configured in the Load balancing tool. For the SC Server given IP Address will be included in the HA configuration, if the SC server has more than one IP Address then choose the one that you want to use for HA configuration and ensure the same IP Address is configured in the load balancing tool.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Credential | Provides domain user credentials for the user to setup High Availability cluster configuration. | true | true (ByPropertyName) | |
| ClusterName | F5 cluster name. | false | false | |
| ClusterIP | F5 Cluster IP Address. | true | false | |
| PrimarySCServerIP | Primary SC Server IP Address. | true | false | |

# Examples

### Example 1: Creating High Availability cluster configuration on the SnapCenter Server

```
Add-SmServerCluster -Credential sddev\administrator -ClusterIP 10.235.236.190 -
ClusterName f5pool -PrimarySCServerIP 10.235.236.193
```

```
This example creates the High Availability cluster configuration on the SnapCenter
Server.
```

```
Name                : Configure High Availability for SnapCenter Server

            Id                  : 21

            StartTime           : 9/3/2019 5:25:10 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False
```

```
IsVisible           : True

IsScheduled         : False

PercentageCompleted : 0

Description         :

Status              : Running

Owner               :

Error               :

Priority            : None

Tasks               : {}

ParentJobID         : 0

EventId             : 0

JobTypeId           : 38

ApisJobKey          :

ObjectId            : 0

PluginCode          : NONE

PluginName          : NONE

HostId              : 0

RoleId              :

JobIds              : {}
```

# Add-SmStorageConnection

Creates a new storage system connection.

# Syntax

```
Add-SmStorageConnection [-Storage] <String> [[-Port] <UInt16>] [-Protocol]
<ConnectProtocol> [[-Timeout] <Int32>] [-Credential] <PSCredential> [[-PreferredIP]
<String>] [[-DisableAsupOnFailure]] [[-DisableSysLog]] [-Type <StorageSystemType>] [-
PlatformType <String>] [-NetAppAccountName <String>] [-CredentialName <String>] [-
CredentialId <bigint(20)>] [-ResourceGroup <String>] [-IsSecondary]
[<CommonParameters>]
```

# Detailed Description

Creates a new storage system connection. You must create your storage system connection in advance of performing any provisioning or data protection jobs.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Storage | | true | true (ByPropertyName) | |
| Port | Specifies the port for the storage system connection. 80 is the default port for HTTP and 443 is the default port for HTTPS. | false | true (ByPropertyName) | |
| Protocol | Specifies the communication protocol you want to use to connect to the storage system. Valid values are: HTTP and HTTPS. | true | true (ByPropertyName) | |
| Timeout | Specifies the storage system connection timeout in seconds. The default timeout is 60 seconds. However, in a scaled environment, increasing the timeout to 300 seconds is recommended. | false | true (ByPropertyName) | 60 |
| Credential | Specifies the storage system credentials. You must have created valid storage system credentials in advance. | true | true (ByPropertyName) | |
| PreferredIP | Specifies the preferred IP address for the storage system management or data LIF IP address. | false | true (ByPropertyName) | |
| DisableAsupOnFailure | Disables Auto Support in case of any failure. | false | true (ByPropertyName) | |
| DisableSysLog | Disables system log. | false | true (ByPropertyName) | |
| Type | Specifies the type of storage being added. Valid value are DataOntap and AzureNetAppAccount. | false | true (ByPropertyName) | |
| NetAppAccountName | Specifies the Azure NetApp Account Name. | false | true (ByPropertyName) | |
| CredentialName | Specifies Azure NetApp Credential name. | false | true (ByPropertyName) | |
| CredentialId | Specifies Azure NetApp Credential ID. | false | true (ByPropertyName) | |
| ResourceGroup | Specifies resource group. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PlatformType | This optional parameter specifies the SVM platform type for licensing purposes. Possible values are Hardware and Software. Hardware indicates that you are using a FAS or All Flash FAS plaform. Software indicates that you are using ONTAP Cloud or ONTAP Select. If you specify Type as ONTAP SVM as the storage connection type, and you do not specify PlatformType, the default value is set to Hardware. | false | true (ByPropertyName) | |
| IsSecondary | | false | true (ByPropertyName) | |

# Examples

## Example 1: Creating a new storage system connection

```
Add-SmStorageConnection -SVM neeraj_vs1 -Protocol Https -Timeout 60


This example syntax creates a new storage system connection.


cmdlet Add-SmStorageConnection at command pipeline position 1

            Supply values for the following parameters:

            (Type !? for Help.)

            Credential

            UserName            :

            Password            :

            Port                : 443

            TransportType       : Https

            ModifyTime          : 1/1/0001 12:00:00 AM

            Mode                :

            OntapiMajorVersion  :

            OntapiMinorVersion  :

            Version             : NetApp Release 8.2.1RC2X9 Cluster-Mode: Mon Jan 13
09:30:32 PST 2014

            StorageSystemOSType : DataOntap

            Passphrase          :

            Id                  : 0

            Timeout             : 60

            Uuid                :

            OperationContext    :

            PreferredIpAddress  :
```

```
            Aliases             : {neeraj_vs1-mc, neeraj_vs1}

            SmIPAddresses       : {SMCoreContracts.SmIPAddress,
SMCoreContracts.SmIPAddress, SMCoreContracts.SmIPAddress,

            SMCoreContracts.SmIPAddress...}

            IPAddresses         : {172.17.124.165, 172.17.124.165, 172.17.124.165,
172.17.124.165...}

            Name                : test_vs1

            IsResolved          : True

            IsValid             : True

            Identity            : test_vs1
```

## Example 2: Creating a new Azure NetApp Account using credential name

```
Add-SmStorageConnection -Type AzureNetAppAccount -NetAppAccountName
"azureNetappAccount1" -CredentialName "AzureCred1" -ResourceGroup "azure_rg1"
```

This example syntax creates a new Azure NetApp Account using credential name.

## Example 3: Creating a new Azure NetApp Account using credential ID

```
Add-SmStorageConnection -Type AzureNetAppAccount -NetAppAccountName
"azureNetappAccount1" -CredentialId 1 -ResourceGroup "azure_rg1"
```

This example syntax creates a new Azure NetApp Account using credential ID.

# Add-SmUser

Adds AD users or local workgroup users to SnapCenter.

# Syntax

```
Add-SmUser -UserName <SmString> [-Domain <String>] -RoleNames <SmString>
[<CommonParameters>]
```

# Detailed Description

Adds Active Directory users or local workgroup users to SnapCenter.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| UserName | Single user or list of users belonging to the same domain or workgroup. | true | true (ByPropertyName) | |
| Domain | Domain to which the user belongs to. Workgroup users should skip this parameter. | false | true (ByPropertyName) | |
| RoleNames | Single or list of existing pre-canned or custom roles to which the user should be added to. At least one role should be specified while adding the user. | true | true (ByPropertyName) | |

# Examples

## Example 1: Adding a single user

```
Add-SmUser -UserName user1 -RoleNames role1,role2 -Domain domain1
```

## Example 2: Adding multiple users of the same domain

```
Add-SmUser -UserName user1,user2 -RoleNames role1 -Domain domain1
```

## Example 3: Adding workgroup user

```
Add-SmUser -UserName LocalUser1 -RoleNames role1
```

# Add-SmUserToRole

Adds a user to a role.

# Syntax

```
Add-SmUserToRole -UserName <SmString> -RoleName <String> [-Domain <String>]
[<CommonParameters>]
```

# Detailed Description

Adds a user to a role.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| UserName | Specifies the domain\user you want to add. | true | true (ByPropertyName) | |
| RoleName | Specifies the name of the role to which you want to add a user. | true | true (ByPropertyName) | |
| Domain | The domain to which the user belongs to. Workgroup users should skip this parameter. | false | true (ByPropertyName) | |

# Examples

## Example 1: Adding a user to a role

```
Add-SmUserToRole -UserName snapdrive -Domain sddev -RoleName SnapCenterAdmin
```

```
This example adds the specified user to the SnapCenter Admin role.
```

# Add-SmVerificationServer

Adds a verification server.

# Syntax

```
Add-SmVerificationServer -Name <String> [-HostName <String>] [-UseDriveLetter] -
MountPointPath <String> [-MaxJobCount <Int32>] [-CredentialName <String>] [-PluginCode
<PluginCode>] [-Description <String>] [<CommonParameters>]
```

# Detailed Description

Adds a verification server. A verification server is used in a SnapCenter Plug-in for Microsoft SQL Server environments to run an integrity check of the backups. It is a SQL Server instance, on which you run backup verification. Verification is a CPU intensive operation, so it is recommended that you set up a dedicated verification server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the SQL Server instance that you want to use as the verification server. | true | true (ByPropertyName) | |
| HostName | Specifies the host on which you want the verification server to be located. You can have more than one verification server located on the same host. | false | true (ByPropertyName) | |
| UseDriveLetter | Specifies that you want to use an available drive letter for mounting the Snapshot copy for verification. To perform backup verification, the Snapshot copy is mounted and then DBCC checkdb is run. If you do not specify UseDriveLetter, the Snapshot copy is mounted using a mount point path you specify. | false | true (ByPropertyName) | False |
| MountPointPath | Species the default mount point path you want to use to mount the Snapshot copy for verification. | true | true (ByPropertyName) | |
| MaxJobCount | Specifies the maximum number of verification jobs that can be run concurrently on the verification server. The default is 1 job. It is recommended that you increase this parameter with caution. The recommended maximum job count is 5. | false | true (ByPropertyName) | 1 |
| CredentialName | | false | true (ByPropertyName) | |
| PluginCode | Provides the SnapCenter plug-in code. For example, if you want to use the SnapCenter Plug-in for Microsoft SQL Server, the plug-in code is SCSQL. If you do not specify this parameter, MSFT_SQL is the default. | false | true (ByPropertyName) | |
| Description | Provides an optional description for the verification server you are setting up. | false | true (ByPropertyName) | |

# Examples

### Example 1: Adding a verification server

```
Add-SmVerificationServer -Name mva-s51/instance1 -HostName mva-s51 -UseDriveLetter -
MountPointPath c:\temp -MaxJobCount 1 -PluginCode SCSQL
```

This example syntax adds a verification server.

```
Name                     : mva-s51/instance1

HostName                 :

PlugIn                   :

UseDriveLetterIfAvail    : True

DefaultMountPointFolder  : c:\temp

MaxJobCount              : 1

Description              :

EndpointURI              :

PluginVersion            :
```

# Cancel-SmJob

Cancels backup, clone, and verification jobs, which are in queued state. This cmdlet also cancels the running SnapCenter Plug-in for SQL Server and SnapCenter Plug-in for Oracle backup jobs.

# Syntax

```
Cancel-SmJob -JobId <Int32> [-Force] [<CommonParameters>]
```

# Detailed Description

Enables you to cancel the queued backup, clone, and verification jobs, as well as the running restore and clone jobs for all plug-ins. You can also cancel the running SnapCenter Plug-in for SQL Server and SnapCenter Plug-in for Oracle backup jobs. This cmdlet does not cancel running backup jobs for SnapCenter Plug-in for Exchange, SnapCenter Plug-in for VMware vSphere, SnapCenter Plug-in for SAP HANA, or SnapCenter Custom Plug-ins. This cmdlet replaces the Cancel-SmQueuedJob cmdlet that was available in earlier versions of SnapCenter.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| JobId | Specifies the ID of the job you want to cancel. | true | false | |
| Force | This optional parameter cancels a hung job that is running or queued. | false | false | |

# Input Type

None

# Return Values

System.Object

# Examples

### Example 1: Canceling a Running/Queued job

```
Cancel-SmJob -JobId 231
```

```
This example syntax cancels the backup job which is either running or queued.
```

```
Cancel-SmJob

            Job 231 will be canceled. Do you want to continue?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y
```

## Example 2: Canceling a Running/Queued job with Force option

```
Cancel-SmJob -JobId 231 -Force
```

This example syntax cancels the backup job which is hung during canceling or running state.

```
Cancel-SmJob

            Job 231 will be canceled. Do you want to continue?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y
```

# Cancel-SmRestoreJob

Cancels the restore jobs, which are in queued state. This cmdlet also cancels the running SnapCenter Plug-in restore jobs.

# Syntax

```
Cancel-SmRestoreJob -JobId <Int32> [<CommonParameters>]
```

# Detailed Description

Enables you to cancel the queued restore jobs and the running restore jobs for all the plug-ins.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| JobId | | true | false | |

# Catalog-SmBackupWithOracleRMAN

Catalogs an Oracle backup.

# Syntax

```
Catalog-SmBackupWithOracleRMAN [-PluginCode] <PluginCode> [[-BackupId] <String>] [[-
BackupName] <String>] [-AppObjectId <String>] [-ArchivedLocators <Hashtable[]>] [-
LogArchivedLocators <Hashtable[]>] [<CommonParameters>]
```

# Detailed Description

Catalogs the Oracle Database backup in SnapCenter with Oracle Recovery Manager (RMAN).

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PluginCode | Specifies the plug-in code of the resource to be cataloged. | true | false | |
| BackupId | Specifies the id of backup that needs to be cataloged. | false | false | |
| BackupName | Specifies the name of backup that needs to be cataloged. | false | false | |
| AppObjectId | Specifies the ID of the application object. | false | true (ByPropertyName) | |
| ArchivedLocators | Specifies the secondary storage system details in a hashtable for each unique primary data storage system resource in the resource group. For example: -ArchivedLocators ®{Primary="my_vs1:my_data_vol";Secondary="my_vs1:my_data_vol_SECONDARY"} | false | true (ByPropertyName) | |
| LogArchivedLocators | Specifies the secondary storage system details in a hashtable for each unique primary log storage system resource in the resource group. For example: -LogArchivedLocators ®{Primary="my_vs1:my_log_vol";Secondary="my_vs1:my_log_vol_SECONDARY"} | false | true (ByPropertyName) | |

# Examples

## Example 1: Cataloging a SCO backup using backupId

```
Catalog-SmBackupWithOracleRMAN -PluginCode SCO -BackupId 7
```

```
This example syntax catalogs a SCO backup using backupId.
```

```
Name                : Cataloging Backup(s)
```

```
scspr1894465002_gdl_englab_netapp_com_TSPITRDB_scspr1894465002_08-06-
2020_01.13.03.7681_1
```

```
            Id                  : 42
```

```
StartTime           : 8/7/2020 1:40:18 AM

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           : 28

ApisJobKey          :

ObjectId            : 0

PluginCode          : SCO

PluginName          : SnapCenter Plug-in for Oracle Database

HostId              : 0

RoleId              :

JobIds              : {}
```

## Example 2: Cataloging a SCO backup using backupname

```
Catalog-SmBackupWithOracleRMAN -PluginCode SCO -BackupName
scspr1894465002_gdl_englab_netapp_com_TSPITRDB_scspr1894465002_08-06-
2020_04.13.23.4083_1
```

This example syntax catalogs a SCO backup using backupname.

```
Name                : Cataloging Backup(s)

scspr1894465002_gdl_englab_netapp_com_TSPITRDB_scspr1894465002_08-06-
2020_04.13.23.4083_1

            Id                  : 44
```

```
StartTime           : 8/7/2020 1:45:09 AM
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           : 28
ApisJobKey          :
ObjectId            : 0
PluginCode          : SCO
PluginName          : SnapCenter Plug-in for Oracle Database
HostId              : 0
RoleId              :
JobIds              : {}
```

## Example 3: Cataloging a SCO data backup from the secondary mirror location

```
Catalog-SmBackupWithOracleRMAN -PluginCode SCO -BackupName rg1_galaxy-vm134_08-08-
2020_15.11.16.3564_0 -ArchivedLocators
®{Primary="buck.gdl.englab.netapp.com:nasvol14";Secondary="squint:buck_nasvol14_mirror"
}
```

This example syntax catalogs a SCO data backup from the secondary mirror location.

```
Name                : Cataloging Backup(s)
                      rg1_galaxy-vm134_08-08-2020_15.11.16.3564_0
Id                  : 45
```

```
StartTime           : 8/7/2020 1:47:09 AM
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           : 28
ApisJobKey          :
ObjectId            : 0
PluginCode          : SCO
PluginName          : SnapCenter Plug-in for Oracle Database
HostId              : 0
RoleId              :
JobIds              : {}
```

## Example 4: Cataloging a SCO log backup from the secondary vault location

```
Catalog-SmBackupWithOracleRMAN -PluginCode SCO -BackupName rg1_galaxy-vm134_08-08-
2020_15.11.16.3564_1 -LogArchivedLocators
®{Primary="buck.gdl.englab.netapp.com:nasvol13";Secondary="squint:buck_nasvol13_vault"}
```

This example syntax catalogs a SCO log backup from the secondary vault location.

```
Name                : Cataloging Backup(s)
                      rg1_galaxy-vm134_08-08-2020_15.11.16.3564_1
Id                  : 46
```

```
            StartTime           : 8/7/2020 1:50:09 AM
            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           : 28
            ApisJobKey          :
            ObjectId            : 0
            PluginCode          : SCO
            PluginName          : SnapCenter Plug-in for Oracle Database
            HostId              : 0
            RoleId              :
            JobIds              : {}
```

## Example 5: Cataloging a SCO data backup for the desired database

```
Catalog-SmBackupWithOracleRMAN -PluginCode SCO -BackupName rg1_galaxy-vm134_08-08-
2020_15.11.16.3574_0 -AppObjectId 'galaxy-vm134.gdl.englab.netapp.com\DB14'
```

This example syntax catalogs a SCO backup for the desired database.

```
Name                : Cataloging Backup(s)
                                rg1_galaxy-vm134_08-08-2020_15.11.16.3574_0
            Id                  : 48
            StartTime           : 8/7/2020 1:55:09 AM
```

```
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           : 28
ApisJobKey          :
ObjectId            : 0
PluginCode          : SCO
PluginName          : SnapCenter Plug-in for Oracle Database
HostId              : 0
RoleId              :
JobIds              : {}
```

# Configure-SmDatabase

Configures database in SnapCenter.

# Syntax

```
Configure-SmDatabase -PluginCode <PluginCode> -ResourceId <String> -HDBSQLOSUser
<String> -HDBUserStoreKey <String> [<CommonParameters>]
```

# Detailed Description

Configure database settings in SnapCenter.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Examples

## Example: Configuring HANA resource

```
Configure-SmDatabase -PluginCode HANA -ResourceId "test" -HDBSQLOSUser "test" -
HDBUserStoreKey "test"
```

```
This example shows how to configure database credentials for HANA Database.
```

```
Successfully updated the database configuration details.
```

# Configure-SmOracleDatabase

Configures Oracle Database in SnapCenter. This includes configuring database authentication with port, ASM authentication with port and Oracle Recovery Manager (RMAN) catalog database. For Oracle RAC database, preferred nodes for backup operation can be configured.

# Syntax

```
Configure-SmOracleDatabase -AppObjectId <String> [-DatabaseCredentialName <String>] [-
AsmCredentialName <String>] [-OracleRmanCatalogTnsName <String>] [-
OracleRmanCatalogCredentialName <String>] [-ASMPort <Int32>] [-DatabasePort <Int32>] [-
OracleRACPreferredNodes <String>] [<CommonParameters>]
```

# Detailed Description

Configures Oracle Database in SnapCenter. This includes configuring database authentication with port, ASM authentication with port and Oracle Recovery Manager (RMAN) catalog database. For Oracle RAC database, preferred nodes for backup operation can be configured.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| AppObjectId | Specifies the application object identifier of an Oracle Database that needs to be configured. You need to specify the application object identifier format as 'host\database' for Oracle standalone database or 'clustername\database' for Oracle RAC database. | true | true (ByPropertyName) | |
| DatabaseCredentialName | | false | true (ByPropertyName) | |
| AsmCredentialName | | false | true (ByPropertyName) | |
| OracleRmanCatalogTnsName | Specifies the TNS name of Oracle Recovery Manager (RMAN) catalog database. | false | true (ByPropertyName) | |
| OracleRmanCatalogCredentialName | | false | true (ByPropertyName) | |
| ASMPort | Specifies the port where the Oracle ASM listener is running. Default: 1521 | false | true (ByPropertyName) | 1521 |
| DatabasePort | Specifies the port where the Oracle Database listener is running. Default: 1521 | false | true (ByPropertyName) | 1521 |
| OracleRACPreferredNodes | Specifies one or more Oracle RAC database preferred nodes you want to configure for backup operation. Oracle RAC Nodes must be specified in a comma separated values in the order of their preference. | false | true (ByPropertyName) | |

# Examples

### Example 1: Configure database credentials for Oracle Database.

```
Configure-SmOracleDatabase -AppObjectId host-name\STDDB -DatabaseRunAsName stddb_cred -
DatabasePort 1521
```

This example shows how to configure database credentials for Oracle Database.

## Example 2: Configure RAC preferred node settings for Oracle Database.

```
Configure-SmOracleDatabase -AppObjectId oracle-rac-cluster\RACDB -
OracleRACPreferredNodes rac-node1.netapp.com,rac-node3.netapp.com,rac-node2.netapp.com
```

This example shows how to configure RAC preferred node settings for Oracle Database.

# Copy-SmPolicy

Copies an existing policy.

# Syntax

```
Copy-SmPolicy -PolicyName <String> -NewPolicyName <String> [<CommonParameters>]
```

# Detailed Description

Copies an existing policy, its attributes including retention and replication settings, and its scheduler information.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PolicyName | Specifies the policy you want to copy. | true | true (ByPropertyName) | |
| NewPolicyName | Specifies the new policy name. | true | true (ByPropertyName) | |

# Examples

## Example 1: Creating a copy of a policy

```
Copy-SmPolicy -PolicyName FinancePolicy -NewPolicyName NewFinancePolicy
```

```
This example syntax creates a copy of the specified policy.

            ApplySnapvaultUpdate        : False

            ApplyRetention              : False

            RetentionCount              : 0

            RetentionDays               : 0

            ApplySnapMirrorUpdate       : False

            SnapVaultLabel              :

            MirrorVaultUpdateRetryCount : 7

            AppPolicies                 : {}

            Description                 : FinancePolicy

            PreScriptPath               :

            PreScriptArguments          :

            PostScriptPath              :

            PostScriptArguments         :
```

```
ScriptTimeOut               : 60000

DateModified                : 8/4/2015 4:20:51 PM

DateCreated                 : 8/4/2015 4:20:51 PM

Schedule                    : SMCoreContracts.SmSchedule

PolicyType                  : Backup

PluginPolicyType            : SMSQL

Name                        : NewFinancePolicy

Type                        :

Id                          : 2

Host                        :

UserName                    :

Passphrase                  :

Deleted                     : False

Auth                        : SMCoreContracts.SmAuth

IsClone                     : False

CloneLevel                  : 0
```

## Example 2: Discovering SnapCenter for Windows plugin resources on a host

```
Get-SmResources -HostName localhost -PluginCode scw -Verbose
```

This example syntax discovers the resources for the SnapCenter for Windows plug-in on the specified  host.

# Copy-SmRole

Copies an existing role-based access control (RBAC) role.

# Syntax

```
Copy-SmRole -RoleName <String> -NewRoleName <String> [<CommonParameters>]
```

# Detailed Description

Copies an existing role-based access control (RBAC) role.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| RoleName | Specifies the name of the existing role. | true | true (ByPropertyName) | |
| NewRoleName | Specifies the name of the new role. | true | true (ByPropertyName) | |

# Examples

## Example 1: Copying and existing role

```
Copy-SmRole -RoleName 'App Backup and Clone Admin' -NewRoleName
app_backup_clone_admin_copy
```

```
This example syntax copies the existing role "App Backup and Clone Admin" to a new role
called app_backup_clone_admin_copy.
```

# Disable-SmDataCollectionEms

Disables EMS data collection.

# Syntax

```
Disable-SmDataCollectionEms [<CommonParameters>]
```

# Detailed Description

Disables EMS data collection. EMS data collection occurs weekly, by default. EMS data collection gathers information about Server and plug-in hosts, and available plug-ins.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Examples

### Example 1: Disabling EMS data collection

```
Disable-SmDataCollectionEms
```

```
This example syntax disables EMS data collection.
```

# Enable-SmDataCollectionEms

Enables EMS data collection.

# Syntax

```
Enable-SmDataCollectionEms [<CommonParameters>]
```

# Detailed Description

Enables EMS data collection. EMS data collection occurs weekly, by default. EMS data collection gathers information about Server and plug-in hosts, and available plug-ins.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Examples

### Example 1: Enabling EMS data collection

```
Enable-SmDataCollectionEms
```

```
This example syntax enables weekly EMS data collection.
```

# Enable-SmRepositoryHAConfig

Enables SnapCenter repository HA configuration.

# Syntax

```
Enable-SmRepositoryHAConfig [-SlaveNode] <String> [<CommonParameters>]
```

# Detailed Description

Enables SnapCenter repository HA configuration.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SlaveNode | Specifies the IP address of the slave node. This IP must not belong to the master node IP or IP of the machine where this cmdlet is running. | true | true (ByPropertyName) | |

# Examples

## Example 1: Enabling SnapCenter repository HA config

```
Enable-SmRepositoryHAConfig -SlaveNode "slave_node_ip_address"
```

```
This example syntax enables SnapCenter repository HA config. Slave node IP must not
belong to the master node IP or IP of the machine where this cmdlet is running. This
cmdlet must be executed on the Master (primary) node.
```

```
Enable-SmRepositoryHAConfig

            Are you sure you want to enable MySQL HA Configuration ?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):



            SnapCenter repository HA configuration is successfully configured.
```

# Get-SmAlert

Get details of the alert(s).

# Syntax

```
Get-SmAlert [-AlertId <String>] [-Severity <SmAlertSeverity>] [-Status <SmAlertStatus>]
[-EntityType <SmEntityType>] [-SearchText <String>] [<CommonParameters>]
```

# Detailed Description

Get details of the alerts. This information includes the alert name, description, recommendation, severity, status, entity, etc.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| AlertId | Specify the Id of the alert. | false | true (ByPropertyName) | |
| Severity | Specify the severity of the alert(s) needs to be filtered. ("Informational", "Warning", "Critical") | false | true (ByPropertyName) | |
| Status | Specify the status of the alert(s) needs to be filtered. ("New", "Resolved") | false | true (ByPropertyName) | |
| EntityType | Specify the entity type of the alert(s) needs to be filtered. ("SnapCenterServer", "Host", "StorageSystem") | false | true (ByPropertyName) | |
| SearchText | Specify the Alert Name or Entity Name needs to be filtered. | false | true (ByPropertyName) | |

# Examples

## Example 1: Get alert by Id

```
Get-SmAlert -AlertId 100
```

```
This example syntax retrieves the information of an alert.

            Id              : 100

            CreatedTime     : 12/5/2018 2:47:05 AM

            ModifiedTime    : 12/5/2018 2:47:05 AM

            Name            : Aggregate assignment check

            Status          : New

            Severity        : Warning

            Entity          : SMCoreContracts.ConfigCheck.SmEntity

            Description     : Aggr-list field is not set for the storage virtual machine
```

```
            Recommendation : To rectify this issue, see
https://kb.netapp.com/app/answers/answer_view/a_id/1070989/loc/en_US

            JobId          : 2345

            Source         : Server


            EntityType : Host

            EntityName : mtme.englab.netapp.com
```

## Example 2: Get all alerts

```
Get-SmAlert
```

This example syntax retrieves the information about all alerts.

```
            Id             : 100

            CreatedTime    : 12/5/2018 2:47:05 AM

            ModifiedTime   : 12/5/2018 2:47:05 AM

            Name           : Aggregate assignment check

            Status         : New

            Severity       : Warning

            Entity         : SMCoreContracts.ConfigCheck.SmEntity

            Description    : Aggr-list field is not set for the storage virtual machine

            Recommendation : To rectify this issue, see
https://kb.netapp.com/app/answers/answer_view/a_id/1070989/loc/en_US

            JobId          : 2345

            Source         : Server


            EntityType : Host

            EntityName : mtme.englab.netapp.com

            EntityId   : 1


            Id             : 101

            CreatedTime    : 12/5/2018 2:48:15 AM

            ModifiedTime   : 12/5/2018 2:48:15 AM

            Name           : IMT check - OS platform, version and patches for SCSQL
Server

            Status         : New
```

```
            Severity       : Critical

            Entity         : SMCoreContracts.ConfigCheck.SmEntity

            Description    : Unsupported version of SQL server instance is detected for
the host

            Recommendation : Please refer to NetApp Interoperability Matrix Tool for
supported versions

            JobId          : 3456

            Source         : Server


            EntityType : Host

            EntityName : mtme.englab.netapp.com

            EntityId   : 1


            Id             : 102

            CreatedTime    : 12/5/2018 2:57:23 AM

            ModifiedTime   : 12/5/2018 2:57:23 AM

            Name           : SVM duplicate Data LIF check

            Status         : New

            Severity       : Warning

            Entity         : SMCoreContracts.ConfigCheck.SmEntity

            Description    : Cluster Storage Virtual Machines have duplicate IP address

            Recommendation : You should ensure that ONTAP Cluster storage virtual
machine network interfaces have unique IP addresses assigned to them

            JobId          : 3678

            Source         : Server


            EntityType : SVM

            EntityName : mtme-win2k8r2x64-20.gdl.englab.netapp.com

            EntityId   : 1
```

## Example 3: Get all the alerts based on severity

```
Get-SmAlert -Severity "Critical"
```

This example syntax retrieves all the critical alerts.

```
            Id             : 101

            CreatedTime    : 12/5/2018 2:48:15 AM

            ModifiedTime   : 12/5/2018 2:48:15 AM

            Name           : IMT check - OS platform, version and patches for SCSQL
Server

            Status         : New

            Severity       : Critical

            Entity         : SMCoreContracts.ConfigCheck.SmEntity

            Description    : Unsupported version of SQL server instance is detected for
the host

            Recommendation : Please refer to NetApp Interoperability Matrix Tool for
supported versions

            JobId          : 3456

            Source         : Server


            EntityType : Host

            EntityName : mtme.englab.netapp.com

            EntityId   : 1
```

## Example 4: Get all the alerts based on status

```
Get-SmAlert -Status "New"
```

This example syntax retrieves all the new alerts.

```
            Id             : 101

            CreatedTime    : 12/5/2018 2:48:15 AM

            ModifiedTime   : 12/5/2018 2:48:15 AM

            Name           : IMT check - OS platform, version and patches for SCSQL
Server

            Status         : New

            Severity       : Critical

            Entity         : SMCoreContracts.ConfigCheck.SmEntity

            Description    : Unsupported version of SQL server instance is detected for
the host

            Recommendation : Please refer to NetApp Interoperability Matrix Tool for
supported versions

            JobId          : 3456

            Source         : Server
```

```
            EntityType : Host

            EntityName : mtme.englab.netapp.com

            EntityId   : 1
```

## Example 5: Get all the alerts based on entity

```
Get-SmAlert -EntityType "Host"
```

This example syntax retrieves all the Host related alerts.

```
            Id             : 101

            CreatedTime    : 12/5/2018 2:48:15 AM

            ModifiedTime   : 12/5/2018 2:48:15 AM

            Name           : IMT check - OS platform, version and patches for SCSQL
Server

            Status         : New

            Severity       : Critical

            Entity         : SMCoreContracts.ConfigCheck.SmEntity

            Description    : Unsupported version of SQL server instance is detected for
the host

            Recommendation : Please refer to NetApp Interoperability Matrix Tool for
supported versions

            JobId          : 3456

            Source         : Server


            EntityType : Host

            EntityName : mtme.englab.netapp.com

            EntityId   : 1
```

## Example 6: Get all the alerts based on entity name

```
Get-SmAlert -SearchText "mtme.englab"
```

This example syntax retrieves all the alerts whose entity name contains the text 'mtme.englab'.

```
            Id             : 101

            CreatedTime    : 12/5/2018 2:48:15 AM
```

```
            ModifiedTime   : 12/5/2018 2:48:15 AM

            Name           : IMT check - OS platform, version and patches for SCSQL
Server

            Status         : New

            Severity       : Critical

            Entity         : SMCoreContracts.ConfigCheck.SmEntity

            Description    : Unsupported version of SQL server instance is detected for
the host

            Recommendation : Please refer to NetApp Interoperability Matrix Tool for
supported versions

            JobId          : 3456

            Source         : Server


            EntityType : Host

            EntityName : mtme.englab.netapp.com

            EntityId   : 1
```

# Get-SmAssignedGroups

Gets a list off all groups assigned to a role.

# Syntax

```
Get-SmAssignedGroups -RoleName <String> [<CommonParameters>]
```

# Detailed Description

Gets a list off all groups assigned to a user.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| RoleName | Specifies the name of the role for which you want to find the assigned groups. | true | true (ByPropertyName) | |

# Examples

## Example 1: Getting groups assigned to a particular role

```
Get-SmAssignedGroups -RoleName SnapcenterAdmin

The example syntax gets the groups assigned to the SnapCenterAdmin role.

            Token               :
            TokenHashed         : {}
            TokenTime           : 8/3/2015 5:07:50 PM
            FullName            :
            Author              :
            Domain              : sddev
            Description         :
            TokenNeverExpires   : False
            IsAdmin             : False
            TenantAdmin         :
            IsNewUser           :
            UserGroupObjectType : Group
            RoleName            :
            RoleId              : 0
            Name                : administrators
```

```
Type                :
Id                  : 3
Host                :
UserName            :
Passphrase          :
Deleted             : False
Auth                : SMCoreContracts.SmAuth
IsClone             : False
CloneLevel          : 0
```

# Get-SmAssignedRoles

Gets the roles assigned to a specified user or Active Directory group.

# Syntax

```
Get-SmAssignedRoles -UserName <String> [-UserGroupObjectType <SmUserGroupObjectType>]
[<CommonParameters>]
```

# Detailed Description

Gets the roles assigned to a specified user or Active Directory group.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| UserName | Specifies the domain\username for the user about which you want to get role information. | true | true (ByPropertyName) | |
| UserGroupObjectType | Specifies that the domain\username for which you are requesting role information is a group. | false | true (ByPropertyName) | |

# Examples

## Example 1: Getting roles for a particular user

```
Get-SmAssignedRoles -UserName sddev\administrator
```

```
This example syntax gets the roles assigned to a user.

            Description : Overall administrator of SnapCenter system

            Name        : SnapCenterAdmin

            Type        : Administrator

            Id          : 1

            Host        :

            UserName    :

            Passphrase  :

            Deleted     : False

            Auth        : SMCoreContracts.SmAuth

            IsClone     : False

            CloneLevel  : 0
```

## Example 2: Getting roles assigned to a group

```
Get-SmAssignedRoles -UserName sddev\b-grp -UserGroupObjectType Group


Description :

            Name        : role1

            Type        :

            Id          : 20

            Host        :

            UserName    :

            Passphrase  :

            Deleted     : False

            Auth        : SMCoreContracts.SmAuth

            IsClone     : False

            CloneLevel  : 0

            Hosts       : {}
```

# Get-SmAssignedUsers

Gets the users assigned to a specified role.

# Syntax

```
Get-SmAssignedUsers -RoleName <String> [<CommonParameters>]
```

# Detailed Description

Gets the users assigned to a specified role.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| RoleName | Specifies the role name. | true | true (ByPropertyName) | |

# Examples

### Example 1: Gets users associated with a role

```
Get-SmAssignedUsers -RoleName SnapCenterAdmin
```

```
This example syntax gets the users associated with a role.

            Token               :

            TokenHashed         : {}

            TokenTime           : 8/3/2015 5:30:59 PM

            FullName            : sddev\administrator

            Author              :

            Domain              : sddev

            Description         :

            TokenNeverExpires   : False

            IsAdmin             : False

            TenantAdmin         :

            IsNewUser           :

            UserGroupObjectType : User

            RoleName            :

            RoleId              : 0

            Name                : administrator
```

```
Type                :
Id                  : 1
Host                :
UserName            :
Passphrase          :
Deleted             : False
Auth                : SMCoreContracts.SmAuth
IsClone             : False
CloneLevel          : 0
Token               :
TokenHashed         : {}
TokenTime           : 8/3/2015 5:30:59 PM
FullName            : sddev\snapdrive
Author              :
Domain              : sddev
Description         :
TokenNeverExpires   : False
IsAdmin             : False
TenantAdmin         :
IsNewUser           :
UserGroupObjectType : User
RoleName            :
RoleId              : 0
Name                : snapdrive
Type                :
Id                  : 2
Host                :
UserName            :
Passphrase          :
Deleted             : False
Auth                : SMCoreContracts.SmAuth
IsClone             : False
CloneLevel          : 0
```

# Get-SmAuditSettings

Retrieves Audit configurations and Syslog configurations

# Syntax

```
Get-SmAuditSettings [<CommonParameters>]
```

# Detailed Description

Retrieves below configurations: Audit log related configuration - Maximum File Size Maximum files to retain Audit Log file location Audit Log Checksum file location Disk Space Limit in Percentage, to raise alter after limit is reached Option to Enable Audit Integrity Check Schedule Syslog server related configuration - Option to Enable Syslog Server and update Syslog configuration Syslog Server Host Syslog Server Port Syslog Protocol Syslog Format

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Examples

### Example 1: Getting audit log and syslog server settings

```
Get-SmAuditSettings

This example gets audit log and Syslog server settings.

MaxFileSize : 50

MaxSizeRollBackups : 10

UniversalTime : False

AuditLogDirectory : C:\Program Files\NetApp\SnapCenter WebApp\audit

AuditChecksumLogDirectory : C:\Program Files\NetApp\SnapCenter WebApp\auditChecksum

DiskSpaceLimitPercentage : 80

EnableAuditIntegrityCheckSchedule : False

EnableSyslogServer : True

SyslogServerHost : 10.229.39.107

SyslogServerPort : 1468

SyslogProtocol : TCP

SyslogFormat : Rfc5424
```

## Example 2: Getting audit log settings and syslog server is disabled

```
Get-SmAuditSettings
```

This example gets audit log settings and Syslog server is disabled.

```
MaxFileSize : 50

MaxSizeRollBackups : 10

UniversalTime : False

AuditLogDirectory : C:\Program Files\NetApp\SnapCenter WebApp\audit

AuditChecksumLogDirectory : C:\Program Files\NetApp\SnapCenter WebApp\auditChecksum

DiskSpaceLimitPercentage : 80

EnableAuditIntegrityCheckSchedule : False

EnableSyslogServer : False
```

# Get-SmBackup

Gets information about one or more backups.

# Syntax

```
Get-SmBackup [-BackupName <String>] [-BackupId <String>] [-AppObjectName <String>] [-
AppObjectId <String>] [-Secondary] [-CloudProtected] [-Details] [<CommonParameters>]
```

# Detailed Description

Gets information about one or more backups. You can specify whether to include information about secondary backups.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| BackupName | Specifies the name of the backup about which you want to retrieve information. | false | true (ByPropertyName) | |
| BackupId | Specifies the ID of the backup about which you want to get information. | false | true (ByPropertyName) | |
| AppObjectName | Specifies the name of the application object. | false | true (ByPropertyName) | |
| AppObjectId | Specifies the ID of the application object. | false | true (ByPropertyName) | |
| Secondary | Specifies whether to list only the secondary backups. | false | true (ByPropertyName) | |
| CloudProtected | Specifies whether to list only the cloud backups. | false | true (ByPropertyName) | |
| Details | | false | true (ByPropertyName) | |

# Examples

## Example 1: Getting information about all backups

```
Get-SmBackup
```

```
This example syntax gets information about all available backups.
```

```
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
```

## Example 2: Getting information about secondary backups

```
Get-SmBackup -Secondary
```

This example syntax gets information about only secondary backups.

```
BackupId                      BackupName                    BackupTime
BackupType

            --------                    ----------                    ----------
----------

            1                           Payroll Dataset_vise-f6_08... 8/4/2015
11:02:32 AM
```

## Example 3: Getting a backup information for a specific backup name

```
Get-SmBackup -BackupName "Payroll Dataset_vise-f6_08-04-2015_11.02.10.3432"
```

This example syntax gets backup information for the specified backup name.

```
BackupId                      BackupName                    BackupTime
BackupType

            --------                    ----------                    ----------
----------

            1                           Payroll Dataset_vise-f6_08... 8/4/2015
11:02:32 AM
```

## Example 4: Getting backup information using the backup ID

```
Get-SmBackup -BackupId 1
```

This example syntax gets backup information using the specified backup ID.

```
BackupId                      BackupName                    BackupTime
BackupType

            --------                    ----------                    ----------
----------

            1                           Payroll Dataset_vise-f6_08... 8/4/2015
11:02:32 AM
```

## Example 5: Getting backup information using the resource ID

```
Get-SmBackup -AppObjectId vise-f6\PayrollDatabase
```

This example syntax gets backup information using the specified resource ID.

```
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
```

# Get-SmBackupReport

Gets reports about backup operations based on the options you specify.

## Syntax

```
Get-SmBackupReport [-FromDateTime <DateTime>] [-ToDateTime <DateTime>] [-Backup
<String>] [-Status <String>] [-Policy <String>] [-ResourceGroup <String>] [-Resource
<String>] [-HostName <String>] [-Plugin <PluginCode>] [<CommonParameters>]
```

```
Get-SmBackupReport [-BackupId] <Int64> [<CommonParameters>]
```

```
Get-SmBackupReport [-JobId] <Int64> [<CommonParameters>]
```

## Detailed Description

Gets reports about backup operations based on the options you specify. You can specify whether you want to get details about a specific backup or a summary of all backups performed using a SnapCenter instance. For any integer value provided for date, value is taken as 1/1/0001 12:00 AM.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| FromDateTime | Specifies that you want to get backup operations reports for backups run between a specified day and time. This option provides the start date and time. You can specify the date and time using any date and time format string. For example, "2/2/2015 8:52PM". If the cmdlet is run?from the remote computer, the output will be shown based on the SnapCenter Server time zone. | false | false | |
| ToDateTime | Specifies that you want to get backup operations reports for backups run between a specified day and time. This option provides the end date and time. You can specify the date and time using any date and time format string. For example, "2/2/2015 8:52PM". If the cmdlet is run?from the remote computer, the output will be shown based on the SnapCenter Server time zone. | false | false | |
| Backup | Specifies that you want to get a detailed backup report for the given backup. | false | true (ByPropertyName) | |
| Status | Specifies that you want information about backup jobs with a specified status. Valid values are: completed, failed, warning, and canceled. | false | true (ByPropertyName) | |
| Policy | Specifies that you want reports about backup jobs associated with a specified policy. | false | true (ByPropertyName) | |
| ResourceGroup | | false | true (ByPropertyName) | |
| Resource | Specifies the resource for which you want backup reports. | false | true (ByPropertyName) | |
| HostName | Specifies the name of the host on which the backup was taken. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| BackupId | ID of the backup for which to get a report. | true | true (ByPropertyName) | |
| JobId | ID of the backup job for which to get a report. | true | true (ByPropertyName) | |
| Plugin | Specify the plug-in code to generate the report. For custom plug-ins, specify the custom plug-in name for example, hana, mysql. | false | true (ByPropertyName) | |

# Examples

## Example 1: Getting a backup report for a date range

```
Get-SmBackupReport -FromDateTime "1/29/2015" -ToDateTime "2/3/2015"
```

```
This example syntax gets a report on backups from January 29th 2015 to February 3rd,
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

            PluginCode           : SCC

            PluginName           : hana

            PluginDisplayName    : SAP HANA

            JobHost              : R60618C4A79V1

            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

PluginCode           : SCO

PluginName           : Oracle Database

PluginDisplayName    : Oracle Database

JobHost              : R60618C4A79V1
```

## Example 2: Getting a backup report for a dataset and status type

```
Get-SmBackupReport -Status completed -Dataset Secondary
```

This example syntax gets a report on all backups for dataset "Secondary" that have the "Completed" status.

```
SmBackupId           : 24

SmJobId              : 310

StartDateTime        : 1/12/2015 8:50:49 AM

EndDateTime          : 1/12/2015 8:50:48 AM

Duration             : -00:00:00.6900000

CreatedDateTime      : 1/12/2015 8:51:05 AM

Status               : Completed

ProtectionGroupName  : Secondary

SmProtectionGroupId  : 5

PolicyName           : Vault

SmPolicyId           : 18

BackupName           : Secondary_SCSPR0019366001_01-12-2015_08.50.49

VerificationStatus   : NotVerified

PluginCode           : SCC

PluginName           : hana

PluginDisplayName    : SAP HANA
```

```
JobHost              : R60618C4A79V1
SmBackupId           : 52
SmJobId              : 585
StartDateTime        : 1/15/2015 6:49:07 AM
EndDateTime          : 1/15/2015 6:49:21 AM
Duration             : 00:00:13.8370000
CreatedDateTime      : 1/15/2015 6:49:18 AM
Status               : Completed
ProtectionGroupName  : Secondary
SmProtectionGroupId  : 5
PolicyName           : Vault
SmPolicyId           : 18
BackupName           : Secondary_SCSPR0019366001_01-15-2015_06.49.08
VerificationStatus   : NotVerified
PluginCode           : SCO
PluginName           : Oracle Database
PluginDisplayName    : Oracle Database
JobHost              : R60618C4A79V1
```

## Example 3: Getting a detailed backup report

```
Get-SmBackupReport -BackupName Secondary_SCSPR0019366001_01-15-2015_06.49.08
```

Get a detailed backup for the backup "Secondary_SCSPR0019366001_01-15-2015_06.49.08".

```
BackedUpObjects      : {TestDB1, TestDB2, TestDB3, TestDB4...}
FailedObjects        : {}
BackupType           : Full Backup
IsScheduled          : False
SmBackupId           : 52
SmJobId              : 585
StartDateTime        : 1/15/2015 6:49:07 AM
EndDateTime          : 1/15/2015 6:49:21 AM
Duration             : 00:00:13.8370000
CreatedDateTime      : 1/15/2015 6:49:18 AM
```

```
Status                : Completed

ProtectionGroupName   : Secondary

SmProtectionGroupId   : 5

PolicyName            : Vault

SmPolicyId            : 18

BackupName            : Secondary_SCSPR0019366001_01-15-2015_06.49.08

VerificationStatus    : NotVerified

PluginCode            : SCO

PluginName            : Oracle Database

PluginDisplayName     : Oracle Database

JobHost               : R60618C4A79V1
```

# Get-SmBackupsForPointInTimeRecovery

Get all the backups required to be mounted or cataloged for point in time recovery operation.

# Syntax

```
Get-SmBackupsForPointInTimeRecovery -AppObjectId <appObject Id> -PluginCode
<plugincode> [-BackupId <String>] [-BackupName <String>] [-OracleUntilScn <Int64>] [-
OracleUntilTime <'yyyy-MM-dd HH:mi:ss'>] [-Archive <Hashtable[]>] [-DisplayInGroups] [-
OnlyBackupsForMount] [-OnlyBackupsForCatalog] [<CommonParameters>]
```

# Detailed Description

The backups of a tablespace, pluggable database, or tablespace in pluggable database should be cataloged and mounted to perform point in time recovery. This command lists the backups required to be mounted or cataloged based on scn or date and time.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| AppObjectId | Specifies the application object identifier about which you want to get information. Specify the application object identifier format as 'host\database' for Oracle standalone database or 'clustername\database' for Oracle RAC database. | true | false | |
| PluginCode | Specifies the plugincode. | true | false | |
| BackupId | Specifies the ID of the backup about which you want to get information. | false | false | |
| BackupName | Specifies the name of the backup about which you want to retrieve information. | false | true (ByPropertyName) | |
| OracleUntilScn | Specifies the SCN till which you want to get backups to recover. | false | true (ByPropertyName) | |
| OracleUntilTime | Specifies the date and time till which you want to get backups to recover. You must specify the date and time in the 'yyyy-MM-dd HH:mm:ss' format. For example: '2020-06-29 20:30:00' | false | true (ByPropertyName) | |
| Archive | Specifies the secondary (SnapVault or SnapMirror) storage location details (destination volume) for each unique primary storage (source volume). For example: -Archive ®{Primary="oracle_vs1:db1_data_vol";Secondary="my_vs1:my_vol_iscsi_SECONDARY"}, ®{Primary="oracle_vs2:db1_log_vol";Secondary="oracle_vs2_mirror:db1_data_log_mirror"} | false | true (ByPropertyName) | |
| DisplayInGroups | Set this flag to get the result in groups of mounted or not mounted and cataloged or non cataloged backups. | false | true (ByPropertyName) | |
| OnlyBackupsForMount | Set this flag to get the result in groups of only mounted or not-mounted backups. | false | true (ByPropertyName) | |
| OnlyBackupsForCatalog | Set this flag to get the result in groups of only cataloged or non-cataloged backups. | false | true (ByPropertyName) | |

# Examples

## Example 1: Getting backups for Point In Time Recovery Until SCN

```
Get-SmBackupsForPointInTimeRecovery -AppObjectId "linux7-6.gdl.englab.netapp.com\lvm12"
-BackupId 5 -PluginCode SCO -OracleUntilScn 2693464
```

```
This example syntax gets backups for Point In Time Recovery Until SCN 2693464.
```

```
BackupId         : 5

            BackupName       : linux7-6_gdl_englab_netapp_com_lvm12_linux7-6_08-05-
2020_05.21.11.0188_0

            BackupType       : Oracle Database Data Backup

            MountStatus      :

            CatalogingStatus : NotCataloged
```

## Example 2: Getting backups for Point In Time Recovery Until Time

```
Get-SmBackupsForPointInTimeRecovery -AppObjectId "linux7-6.gdl.englab.netapp.com\lvm12"
-PluginCode SCO -BackupId 5 -OracleUntilTime "2020-08-05 05:24:40" -
OnlyBackupsForCatalog
```

```
This example syntax gets backups for Point In Time Recovery Until time "2020-08-05
05:24:40"
```

```
BackupId         : 5

            BackupName       : linux7-6_gdl_englab_netapp_com_lvm12_linux7-6_08-05-
2020_05.21.11.0188_0

            BackupType       : Oracle Database Data Backup

            MountStatus      :

            CatalogingStatus : NotCataloged


            BackupId         : 7

            BackupName       : linux7-6_gdl_englab_netapp_com_lvm12_linux7-6_08-05-
2020_05.21.11.0188_1

            BackupType       : Oracle Database Log Backup

            MountStatus      :

            CatalogingStatus : NotCataloged


            BackupId         : 9
```

```
            BackupName       : linux7-6_gdl_englab_netapp_com_lvm12_linux7-6_08-05-
2020_05.21.11.7922_0

            BackupType       : Oracle Database Data Backup

            MountStatus      :

            CatalogingStatus : NotCataloged



            BackupId         : 11

            BackupName       : linux7-6_gdl_englab_netapp_com_lvm12_linux7-6_08-05-
2020_05.21.11.7922_1

            BackupType       : Oracle Database Log Backup

            MountStatus      :

            CatalogingStatus : NotCataloged
```

## Example 3: Getting backups for PITR using secondary locators and Until SCN

```
Get-SmBackupsForPointInTimeRecovery -PluginCode SCO -AppObjectId "linux7-
6.gdl.englab.netapp.com\lvm12" -BackupId 5 -Archive ®{Primary="svm1-scc2554-263-
264:R706221F756V1_NFS_DB_DB1_DATA";Secondary="hnkn_sec:R706221F756V1_NFS_DB_DB1_DATA_1_
dst"},®{Primary="svm1-scc2554-263-
264:R706221F756V1_NFS_DB_DB1_REDO";Secondary="hnkn_sec:R706221F756V1_NFS_DB_DB1_REDO_ds
t"},®{Primary="svm1-scc2554-263-
264:R706221F756V1_NFS_DB_DB1_LOG";Secondary="hnkn_sec:R706221F756V1_NFS_DB_DB1_LOG_1_ds
t"} -OracleUntilScn 2188355
```

This example syntax gets backups for Point In Time Recovery using secondary locators and Until SCN 2693464.

```
BackupId         : 5

            BackupName       : linux7-6_gdl_englab_netapp_com_lvm12_linux7-6_08-05-
2020_05.21.11.0188_0

            BackupType       : Oracle Database Data Backup

            MountStatus      :

            CatalogingStatus : NotCataloged
```

# Get-SmCertificateSettings

Displays the certificate status for the SnapCenter Server or a SnapCenter plug-in host.

# Syntax

```
Get-SmCertificateSettings [-Server] [<CommonParameters>]
```

```
Get-SmCertificateSettings [-Host] [-HostName] <String> [<CommonParameters>]
```

# Detailed Description

Displays the certificate status for the SnapCenter Server or a SnapCenter plug-in host.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Server | Displays the certificate status for the server on which SnapCenter is installed. | true | false | |
| Host | Displays the certificate status for the Snapcenter host. | true | false | |
| HostName | Specifies the name of the host only when the Host parameter is specified. | true | false | |

# Examples

## Example 1: Displays certificate settings for server

```
Get-SmCertificateSettings -Server
```

```
This example syntax displays certificate settings for server.
```

```
True
```

## Example 2: Displays certificate settings for Host

```
Get-SmCertificateSettings -Host -HostName R71104B320CV1.mva.gdl.englab.netapp.com
```

```
This example syntax displays certificate settings for host.
```

```
HostName            : R71104B320CV1.mva.gdl.englab.netapp.com
                        CAEnabled           : True
                        CAStatus            : Connection is broken.
```

```
                        CAIssues           : Host:
R71104B320CV1.mva.gdl.englab.netapp.com. Reason: Trusted chain certificates are missing
for the

                                                                    certificate
'R71104B320CV1.mva.gdl.englab.netapp.com'.  Check if intermediate and root CA
certificates

                                                                    exist in the trusted
root store.

                        Name               :

                        Type               :

                        Id                 :

                        Host               :

                        UserName           :

                        Passphrase         :

                        Deleted            : False

                        Auth               : SMCoreContracts.SmAuth

                        IsClone            : False

                        CloneLevel         : 0

                        Hosts              : {}

                        StorageName        :

                        ResourceGroupNames :

                        PolicyNames        :

                        Key                : 0

                        NsmObjectID        : 0

                        SizeOfSmObject     : SMCoreContracts.SmObjectSize
```

# Get-SmClone

Gets information about existing clones.

# Syntax

```
Get-SmClone [-CloneName <String>] [-CloneId <String>] [-Dataset <String>] [-BackupName
<String>] [-BackupId <String>] [-AppObjectName <String>] [-AppPluginCode <PluginCode>]
[-ListStorageFootprint <SwitchParameter>] [<CommonParameters>]
```

# Detailed Description

Gets information about existing clones. You can also search existing clones based on clone name, clone ID, application object, and backup ID.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| CloneName | Specifies that you want informtion about a single clone. | false | true (ByPropertyName) | |
| CloneId | Provides a clone ID for the clone about which you want information. You can get the clone ID by running Get-SmClone without any input, and then use the clone ID to retrieve more detailed information about the specified clone. | false | true (ByPropertyName) | |
| Dataset | Retrieves information based on dataset name. | false | true (ByPropertyName) | |
| BackupName | Retrieves information based on backup name. | false | true (ByPropertyName) | |
| BackupId | Retrieves information based on a specified backup ID. Get the backup ID by running Get-SmBackup without parameters. | false | true (ByPropertyName) | |
| AppObjectName | Retrieves information based on database name. | false | true (ByPropertyName) | |
| AppPluginCode | Specifies the application plug-in type of the resource. Possible values are SCSQL and SCO. | false | false | |
| ListStorageFootprint | List the storage footprint information such as storage resource name, type, and junction path in case of volume. This parameter is applicable to SCC plug-in. | false | false | |

# Examples

## Example 1: Retrieving information about all clones

```
Get-SmClone
```

```
This example syntax retrieves information about all clones.

            CloneName       : cds__clone__06-18-2015_13.51.03
```

```
CloneStartTime : 6/18/2015 1:50:57 PM
CloneEndTime   : 6/18/2015 1:51:03 PM
Databases      : {SourceDB = test,CloneDB = testabcdefg}

CloneId        : 4
CloneName      : payrollclone_dataset__clone__08-05-2015_14.41.11
CloneStartTime : 8/5/2015 2:40:41 PM
CloneEndTime   : 8/5/2015 2:41:11 PM
Databases      : {SourceDB = payroll,CloneDB = payroll__clone}
```

## Example 2: Retrieving information for a clone dataset

```
Get-SmClone -Dataset payrollclone_dataset
```

This example syntax retrieves information for the specified clone dataset.

```
CloneId        : 4
CloneName      : payrollclone_dataset__clone__08-05-2015_14.41.11
CloneStartTime : 8/5/2015 2:40:41 PM
CloneEndTime   : 8/5/2015 2:41:11 PM
Databases      : {SourceDB = payroll,CloneDB = payroll__clone}
```

## Example 3: Retrieving clone information for a backup

```
Get-SmClone -BackupName cds_vise-f4_06-18-2015_13.50.52.1978
```

This example syntax retrieves the clone information for the specified backup.

```
CloneId        : 3
CloneName      : cds__clone__06-18-2015_13.51.03
CloneStartTime : 6/18/2015 1:50:57 PM
CloneEndTime   : 6/18/2015 1:51:03 PM
Databases      : {SourceDB = test,CloneDB = testabcdefg}
```

## Example 4: Getting clone information for a database

```
Get-SmClone -AppObjectName vise-f3\sqlexpress\payroll
```

This example syntax retrieves information for the specified database.

```
CloneId        : 4
CloneName      : payrollclone_dataset__clone__08-05-2015_14.41.11
CloneStartTime : 8/5/2015 2:40:41 PM
CloneEndTime   : 8/5/2015 2:41:11 PM
Databases      : {SourceDB = payroll,CloneDB = payroll__clone}
```

## Example 5: Retrieving clone information using a backup ID

```
Get-SmClone -BackupId 7
```

This example syntax retrieves clone information using the specified backup ID.

```
CloneId        : 4
CloneName      : payrollclone_dataset__clone__08-05-2015_14.41.11
CloneStartTime : 8/5/2015 2:40:41 PM
CloneEndTime   : 8/5/2015 2:41:11 PM
Databases      : {SourceDB = payroll,CloneDB = payroll__clone}
```

## Example 6: Retrieving clone information along with storage footprint for hana plug-in resources

```
Get-SmClone -ListStorageFootprint
```

This example syntax retrieves clone information along with storage footprint for hana plug-in resources.

```
CloneId          : 38
CloneName        : scspr0965644001.gdl.englab.netapp.com_hana_MDC_H14
CloneStartTime   : 11/15/2019 4:15:41 AM
CloneEndTime     : 11/15/2019 4:19:17 AM
Resources        : Source = H14, Clone = H14
StorageFootPrint : StorageResourceType : SDStorageDir, StorageResource :
buck.gdl.englab.netapp.com:/vol/NFS_H14_MDCMT_DATA_10_234_131_2291115190001059572,
JunctionPath : /Scb461b683-f1cb-4350-a1a1-0f0d29b62d3f


CloneId          : 39
CloneName        : scspr0965644001.gdl.englab.netapp.com_hana_H14
```

```
            CloneStartTime   : 11/15/2019 5:39:06 AM

            CloneEndTime     : 11/15/2019 5:40:06 AM

            Resources        : Source = H14, Clone = H14

            StorageFootPrint : StorageResourceType : SDStorageLunPath, StorageResource
:
buck:/vol/SAN_H14_SC_DATA_10_234_176_1201115190121551593/SAN_H14_SC_DATA_10_234_176_120
```

# Get-SmCloneJob

Gets information about existing clone jobs.

# Syntax

```
Get-SmCloneJob [-PluginCode] <PluginCode> [[-ResourceGroupName] <String>] [[-Resource]
<Hashtable[]>] [<CommonParameters>]
```

# Detailed Description

Gets and displays information about existing clone jobs based on the plug-in code and the resource group.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PluginCode | | true | true (ByPropertyName) | |
| ResourceGroupName | | false | false | |
| Resource | | false | false | |

# Examples

### Example 1: Getting information about the existing clone jobs running at the resource group level.

```
Get-SmCloneJob -ResourceGroupName RG1 -PluginCode SCSQL
```

```
This example syntax retrieves information about the existing clone jobs running at the
resource group level.
```

```
CloneJobName                              ResourceGroupName
ResourceName

------------                              -----------------                       -------
-----

CLMJob                                    RG1
```

### Example 2: Getting information about the existing clone jobs running at the resource level.

```
Get-SmCloneJob -Resource ®{"Host"="R708202074BV1.hnk2.com"; "Type"="SQL
Database";"Names"="R708202074BV1\SQL2019\MDML_DB1"} -PluginCode SCSQL
```

```
This example syntax gets information about the existing clone jobs running at the
resource level.
```

```
CloneJobName                              ResourceGroupName
ResourceName

------------                              -----------------                       -------
-----

cl2
R708202074BV1\SQL2019\MDML_DB1
```

# Get-SmCloneReport

Get reports about clone operations based on the options you specify.

# Syntax

```
Get-SmCloneReport [-FromDateTime <DateTime>] [-ToDateTime <DateTime>] [-ResourceGroup
<String>] [-Resource <String>] [-Status <String>] [-HostName <String>] [-Plugin
<PluginCode>] [<CommonParameters>]
```

```
Get-SmCloneReport [-JobId] <Int64> [<CommonParameters>]
```

# Detailed Description

Get reports about clone operations based on the options you specify. For any integer value provided for date, value is taken as 1/1/0001 12:00 AM.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| FromDateTime | Specifies that you want to get clone operations reports for clones run between a specified day and time. This options provides the start date and time. You can specify the date and time using the local date and time format string. For example, "2/5/2015 8:17AM". If the cmdlet is run?from the remote computer, the output will be shown based on the SnapCenter Server time zone. | false | false | |
| ToDateTime | Specifies that you want to get clone operations reports for clones run between a specified day and time. This option provides the end date and time. You can specify the date and time using the local date and time format string. For example "2/5/2015 9:56AM". If the cmdlet is run?from the remote computer, the output will be shown based on the SnapCenter Server time zone. | false | false | |
| ResourceGroup | | false | false | |
| Resource | Specifies the resource for which you want clone reports. | false | false | |
| Status | Specifies that you want information about clone jobs with the specified status. Valid values are: completed, failed, warning, and canceled. | false | false | |
| HostName | Specifies the name of the host on which the clone resides. | false | false | |
| Plugin | Specify the plug-in code to generate the report. For custom plug-ins, specify the custom plug-in name for example, hana, mysql. | false | false | |
| JobId | ID of the clone job for which to get a report. | true | false | |

# Examples

## Example 1: Getting a clone report for a date range

```
Get-SmCloneReport -FromDateTime "7/31/2015" -HostName SCSPR0054212005.mycompany.com
```

```
This command syntax gets a report for all clones after July 31st, 2015 on the given
host.
```

```
            SmCloneId           : 1

            SmJobId             : 186

            StartDateTime       : 8/3/2015 2:43:02 PM

            EndDateTime         : 8/3/2015 2:44:08 PM

            Duration            : 00:01:06.6760000

            Status              : Completed

            ProtectionGroupName : Draper

            SmProtectionGroupId : 4

            PolicyName          : OnDemand_Clone

            SmPolicyId          : 4

            BackupPolicyName    : OnDemand_Full_Log

            SmBackupPolicyId    : 1

            CloneHostName       : SCSPR0054212005.mycompany.com

            CloneHostId         : 4

            CloneName           : Draper__clone__08-03-2015_14.43.53

            SourceResources     : {Don, Betty, Bobby, Sally}

            ClonedResources     : {Don_DRAPER, Betty_DRAPER, Bobby_DRAPER,
Sally_DRAPER}

            SmJobError          :

            PluginCode          : SCO

            PluginName          : Oracle Database

            PluginDisplayName   : Oracle Database
```

## Example 2: Getting a clone report for a clone job

```
Get-SmCloneReport -JobId 186
```

This command syntax gets a clone report for the given job ID.

```
            SmCloneId           : 1

            SmJobId             : 186

            StartDateTime       : 8/3/2015 2:43:02 PM

            EndDateTime         : 8/3/2015 2:44:08 PM

            Duration            : 00:01:06.6760000

            Status              : Completed

            ProtectionGroupName : Draper
```

```
            SmProtectionGroupId : 4

            PolicyName          : OnDemand_Clone

            SmPolicyId          : 4

            BackupPolicyName    : OnDemand_Full_Log

            SmBackupPolicyId    : 1

            CloneHostName       : SCSPR0054212005.mycompany.com

            CloneHostId         : 4

            CloneName           : Draper__clone__08-03-2015_14.43.53

            SourceResources     : {Don, Betty, Bobby, Sally}

            ClonedResources     : {Don_DRAPER, Betty_DRAPER, Bobby_DRAPER,
Sally_DRAPER}

            SmJobError          :

            PluginCode          : SCO

            PluginName          : Oracle Database

            PluginDisplayName   : Oracle Database
```

# Get-SmCompatibilityFile

Obtains the latest version of the compatibility file from the NetApp Support Site.

# Syntax

```
Get-SmCompatibilityFile [[-Auth] <String>] [<CommonParameters>]
```

# Detailed Description

Obtains the latest version of the compatibility file from the NetApp Support Site. The compatibility file contains information about the latest supported SnapCenter and plug-in versions. SnapCenter uses this information to identify when component upgrades are available.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Auth | Specifies the authorization token. This is used for executing this cmdlet in scheduled jobs. | false | false | |

# Examples

### Example 1: Gets the latest compatibility file

```
Get-SmCompatibilityFile
```

```
This example syntax retrieves the latest compatibility file from the NetApp Support
Site, and displays the version of the compatibility file now deployed on your system.
```

```
Compatibility file version: 1.0.8
```

# Get-SmConfigSettings

Displays the configuration settings for the SnapCenter Server host or a SnapCenter plug-in host.

# Syntax

```
Get-SmConfigSettings [-Server] -Key <String> [<CommonParameters>]
```

```
Get-SmConfigSettings [-Agent] [-HostName] <String> -Key <String> [<CommonParameters>]
```

```
Get-SmConfigSettings [-Plugin] [-HostName] <String> [-PluginCode] <PluginCode> -Key
<String> [<CommonParameters>]
```

# Detailed Description

Displays the configuration settings for the SnapCenter Server host or a SnapCenter plug-in host.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Server | Displays the configuration values for the server on which SnapCenter is installed. | true | false | |
| Key | Specifies the configuration key information you want to display. You can specify a specific key name or specify All to display all configuration information. You can specify multiple keys in to double quotation with Comma (like : "RESTTimeout,MaxVerificationJobPerServer"). | true | false | |
| Agent | Displays the configuration values for the SMCore agent. | true | false | |
| HostName | Specifies the name or IP address of the host, only when the Agent or Plugin parameters are specified. | true | false | |
| Plugin | Displays the configuration information of the plug-in host. | true | false | |
| PluginCode | Specifies which plug-in configuration you want to display. Valid values are SCSQL and SCO. | true | false | |

# Examples

## Example 1: Getting configuration settings on a custom plugin host

```
Get-SmConfigSettings -Agent -HostName SNAPCENTER113.sccore.test.com -Key all
```

```
This example syntax gets all configuration settings on custom plug-in host.

Key: PLUGIN_OPERATION_TIMEOUT_IN_MSEC                    Value: 3600000
Details: Plug-in API operation Timeout

            Key: SERVER_API_TIMEOUT_IN_SEC                           Value: 180
Details: Web Service API Timeout
```

```
            Key: ALLOWED_CMDS                                        Value: *;
Details: Allowed Host OS Commands
```

## Example 2: Getting configuration value for a specific custom plugin configuration parameter

```
Get-SmConfigSettings -Agent -HostName SNAPCENTER113.sccore.test.com -Key ALLOWED_CMDS
```

This example syntax gets the configuration parameter value for the key ALLOWED_CMDS settting on the custom plug-in host.

```
Key: ALLOWED_CMDS                            Value: mount *; unmount *;
Details: Allowed Host OS Commands

            PS C:\Users\administrator.SCCORE>
```

## Example 3: Getting a single configuration value for the SnapCenter Server

```
Get-SmConfigSettings -Server -Key WindowsRemoteInstallProcessTimeout
```

This example syntax displays the configuration value for a single SnapCenter Server key.

```
Key: WindowsRemoteInstallProcessTimeout                 Value: 900
Details: Windows remote install/uninstall process wait time (in seconds).
```

## Example 4: Getting a more than one configuration values for the SnapCenter Server

```
Get-SmConfigSettings -Server -Key "RESTTimeout,MaxVerificationJobPerServer"
```

This example syntax displays the configuration value for a single SnapCenter Server key.

```
Key: RESTTimeout                                        Value: 10800000
Details: REST Timeout for SnapManager proxy (in milliseconds).


            Key: MaxVerificationJobPerServer                         Value: 20
Details: Maximum verification job that can be run per server.
```

## Example 5: Getting all configuration settings on a plugin host including custom port

```
Get-SmConfigSettings -Agent 10.236.172.64 -Key all
```

This example syntax displays all the configuration settings for a plug-in host, including the custom SMcore port.

Key: SMSServerURL Value: https://WINDOWS-D38M60U.englab.netapp.com:8146 Details: SMS server url.

Key: SMSServer Value: localhost
Details: SMS server.

Key: VSCProtocol Value: https
Details: VSC protocol.

Key: RESTTimeout Value: 10800000
Details: REST Timeout for SMCore proxy (in milliseconds).

Key: RESTConnectionLimit Value: 1500
Details: The maximum number of concurrent connections allowed on REST endpoi

nt.

Key: ServicesBaseAddress Value: https://localhost:8152 Details: Service base address.

Key: SnapCenterServerVersion Value: 1.0.0.0
Details: SnapCenter server version.

Key: PSDirectory Value: WindowsPowerShell\v1.0\Modules\SnapCenter\log Details: PS directory.

Key: smcoreport Value: 8152
Details: SMCore port.

# Get-SmCredential

Gets credentials of the plug-ins that are registered with the SnapCenter Server.

# Syntax

```
Get-SmCredential [-Name <String>] [<CommonParameters>]
```

# Detailed Description

Gets and displays the credential information of all the plug-ins that are registered with the SnapCenter Server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | | false | true (ByPropertyName) | |

# Examples

## Example 1: Get all Credentials

```
Get-SmCredential
```

## Example 2: Get particular Credential

```
Get-SmCredential -Name RunAs1
```

## Example 3: Get particular Azure NetApp Credential

```
Get-SmCredential -Name RunAsAzure1

Output of above Get-SmCredential command:

Id             : 3

RunAsName      : RunAsAzure1

OwnerId        : 1

AuthMode       : AzureCredential

SubscriptionId : sub

ClientSecret   :

TenantId       : ten

ClientId       : cl
```

# Get-SmDataCollectionEmsSchedule

Retrieves the EMS data collection schedule.

## Syntax

```
Get-SmDataCollectionEmsSchedule [<CommonParameters>]
```

## Detailed Description

Retrieves the EMS data collection schedule. By default, EMS data collection occurs every seven days, starting one week from your installation date. You can also configure EMS data collection.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

## Examples

### Example 1: Getting the EMS data collection schedule

```
Get-SmDataCollectionEmsSchedule
```

```
This example syntax retrieves your EMS data collection schedule
```

```
StartTime
DaysInterval

            ---------
------------

            "08/27/2015 2:00 AM"

            7
```

# Get-SmDataCollectionEmsStatus

Retrieves the EMS data collection status.

# Syntax

```
Get-SmDataCollectionEmsStatus [<CommonParameters>]
```

# Detailed Description

Retrieves the EMS data collection status. Getting the status information shows whether you have enabled or disabled your EMS data collection.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Examples

### Example 1: Getting EMS data collection status

```
Get-SmDataCollectionEmsStatus
```

```
This example syntax retrieves your EMS data collection status.
```

```
Enabled
            -------
            True
```

# Get-SmDataCollectionEmsTarget

Gets information about the EMS data collection target.

## Syntax

```
Get-SmDataCollectionEmsTarget [<CommonParameters>]
```

## Detailed Description

Gets information about the EMS data collection target. The EMS data collection target is the storage system to which you want to send the EMS messages.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

## Examples

### Example 1: Getting the EMS data collection target storage system

```
Get-SmDataCollectionEmsTarget

This example syntax retrieves the EMS collection target storage system

Target
            ------
            SVM1
```

# Get-SmDomain

Gets all the domains registered with the SnapCenter server.

# Syntax

```
Get-SmDomain [-Name <String>] [<CommonParameters>]
```

# Detailed Description

Gets and displays information of all the domains or a specific domain registered with SnapCenter Server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | NETBIOS Name of the registered domain to get the information. | false | true (ByPropertyName) | |

# Examples

### Example 1: Gets all the domains registered with SnapCenter Server.

```
Get-SmDomain
```

```
Result:

            Id                              : 2
            Name                            : ad12
            DomainFQDN                      : ad12.test.netapp.com
            DCHostIPAddresses               :
            TrustedDomains                  :
            CreatedOn                       : 4/11/2018 10:19:49 PM
            ModifiedOn                      : 4/13/2018 2:37:53 AM
            Port                            : 389
            Protocol                        : LDAP
            DCHostNames                     :
            Id                              : 1
            Name                            : ad19
            DomainFQDN                      : ad19.test.netapp.com
            DCHostIPAddresses               :
```

```
TrustedDomains                  :
CreatedOn                       : 9/22/2021 10:06:34 PM
ModifiedOn                      : 9/23/2021 6:05:29 AM
Port                            : 636
Protocol                        : LDAPS
DCHostNames                     : WS9K19DC.ad19.test.netapp.com
```

## Example 2: Get a specific registered domain.

```
Get-SmDomain -Name ad12
```

Result:

```
Id                              : 2
Name                            : ad12
DomainFQDN                      : ad12.test.netapp.com
DCHostIPAddresses               :
TrustedDomains                  :
CreatedOn                       : 4/11/2018 10:19:49 PM
ModifiedOn                      : 4/13/2018 2:37:53 AM
Port                            : 389
Protocol                        : LDAP
DCHostNames                     :
```

# Get-SmDownloadRepository

Provides the SnapCenter Server repository path on the local host. SnapCenter uses this path to store Compatibility File and plug-in installation packages.

# Syntax

```
Get-SmDownloadRepository [<CommonParameters>]
```

# Detailed Description

Provides the SnapCenter Server repository path on the local host. SnapCenter uses this path to store Compatibility File and plug-in installation packages. You can also use this cmdlet after the Set-SmDownloadRepository cmdlet to verify changes to the installation package download repository.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Examples

### Example 1: Verifying the plugin installation download repository location

```
Get-SmDownloadRepository
```

```
This example syntax verifies the location of the plug-in installation download
repository.
```

```
O:\inetpub\wwwroot\SnapCenter\Repository\
```

# Get-SmDownloads

Gets a supportability metrics between SnapCener Server version and plug-in version.

# Syntax

```
Get-SmDownloads [<CommonParameters>]
```

# Detailed Description

Gets and displays the details of plug-in versions supported by SnapCenter Servers.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Examples

### Example: Get the details of all the plug-in versions supported by different SnapCenter Server versions.

```
Get-SmDownloads
```

```
This example syntax retrieves the supportability metrics between the SnapCener Server
version and the plug-in version.
```

```
Compatibility file version: 4.4
```

```
SMS_Name                 : SnapCenter Server 2.0

Version                  : 2.0.0.2953

SMS_GUID                 : 166EB1F4-0BD6-434E-B2D3-85F64FF9969B

Family_GUID              : 52B25C41-C093-4B94-87AA-CC3004A4482D

NOW_Path                 : http://mysupport.netapp.com/NOW/cgi-bin/software/

Hash                     : 123123123123123123

Comments                 : Supports Windows Server 2012 R2

Downloaded               : False

Repository_Path          :

SupportedPluginPackages  : {, , , ...}

IsCurrent                : False

ReleaseVersion           : 2.0
```

```
Name                    :
Type                    :
Id                      :
Host                    :
UserName                :
Passphrase              :
Deleted                 : False
Auth                    : SMCoreContracts.SmAuth
IsClone                 : False
CloneLevel              : 0
Hosts                   : {}
StorageName             :
ResourceGroupNames      :
PolicyNames             :
Key                     : 0
NsmObjectID             : 0
SizeOfSmObject          : SMCoreContracts.SmObjectSize
SMS_Name                : SnapCenter Server 2.0 P1
Version                 : 2.0.1.21
SMS_GUID                : 8DBF2456-EB7E-4E26-A324-0AF8864208D3
Family_GUID             : 52B25C41-C093-4B94-87AA-CC3004A4482D
NOW_Path                : http://mysupport.netapp.com/NOW/cgi-bin/software/
Hash                    : 123123123123123123
Comments                : Supports Windows Server 2012 R2
Downloaded              : False
Repository_Path         :
SupportedPluginPackages : {, , , ...}
IsCurrent               : False
ReleaseVersion          : 2.0.1
Name                    :
Type                    :
Id                      :
Host                    :
```

```
UserName                :
Passphrase              :
Deleted                 : False
Auth                    : SMCoreContracts.SmAuth
IsClone                 : False
CloneLevel              : 0
Hosts                   : {}
StorageName             :
ResourceGroupNames      :
PolicyNames             :
Key                     : 0
NsmObjectID             : 0
SizeOfSmObject          : SMCoreContracts.SmObjectSize
SMS_Name                : SnapCenter Server 2.0 P2
Version                 : 2.0.1.26
SMS_GUID                : AE5A8605-C9C5-4162-8663-E8D9993AB32A
Family_GUID             : 52B25C41-C093-4B94-87AA-CC3004A4482D
NOW_Path                : http://mysupport.netapp.com/NOW/cgi-bin/software/
Hash                    : 123123123123123123
Comments                : Supports Windows Server 2012 R2
Downloaded              : False
Repository_Path         :
SupportedPluginPackages : {, , , ...}
IsCurrent               : False
ReleaseVersion          : 2.0.1
Name                    :
Type                    :
Id                      :
Host                    :
UserName                :
Passphrase              :
Deleted                 : False
Auth                    : SMCoreContracts.SmAuth
IsClone                 : False
```

```
CloneLevel              : 0

Hosts                   : {}

StorageName             :

ResourceGroupNames      :

PolicyNames             :

Key                     : 0

NsmObjectID             : 0

SizeOfSmObject          : SMCoreContracts.SmObjectSize


Note: This is just snippet of the output.
```

# Get-SmHost

Gets information about one or more hosts.

# Syntax

```
Get-SmHost [-HostNames <String>] [-IncludePluginInfo <Boolean>] [-
IncludeVerificationServerInfo <Boolean>] [-OsType <SmOperatingSystemType>] [-PluginCode
<PluginCode>] [<CommonParameters>]
```

# Detailed Description

Gets information about one or more hosts. The information includes the host status and plug-ins on the hosts.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostNames | | false | true (ByPropertyName) | |
| IncludePluginInfo | | false | true (ByPropertyName) | |
| IncludeVerificationServerInfo | | false | true (ByPropertyName) | |
| OsType | Specifies the type of operating system running on the host. Valid values are AIX, Windows, Linux, and vSphere. | false | true (ByPropertyName) | |
| PluginCode | | false | true (ByPropertyName) | |

# Examples

## Example 1: Get a SnapCenter registered AIX host

```
Get-SmHost -HostNames aix207-193.gdl.englab.netapp.com
```

```
This example syntax gets the registered AIX host.

OsInfo                  : SMCoreContracts.SmOperatingSystemInfo

HostName                : aix207-193.gdl.englab.netapp.com

IP                      : 10.10.207.193

Description             :

HostId                  : 63

DomainName              : gdl.englab.netapp.com

Version                 :
```

```
Port                    : 8145
ClusterHost             : False
ClusterName             :
Members                 : {}
HostStatus              : eHostUp
HostPluginInfos         : {}
ColoHost                : False
HostConfiguration       :
DiscoverPlugin          : False
HostUUID                :
HostBIOSID              :
HostMaintenanceStatus   : Production
IsNLBEnabled            : False
VerificationServers     :
HypervisorType          :
IsHypervisorConfigured : False
Preference              : 0
OverallStatus           : SMCoreContracts.SmHostOverallStatusInfo
IsCatalogHost           : False
Name                    :
Type                    :
Id                      :
Host                    : gdl.englab.netapp.com
UserName                :
Passphrase              :
Deleted                 : False
Auth                    : SMCoreContracts.SmAuth
IsClone                 : False
CloneLevel              : 0
Hosts                   :
StorageName             :
ResourceGroupNames      :
PolicyNames             :
```

```
Key                     : 0

NsmObjectID             : 0

SizeOfSmObject          :
```

# Get-SmJobSummaryReport

Initiates a job summary report.

# Syntax

```
Get-SmJobSummaryReport [[-Date] <DateTime>] [[-JobId] <Int64>] [<CommonParameters>]
```

# Detailed Description

Initiates a job summary report. A job summary report provides information on every job initiated by SnapCenter on a specified day, along with a breakdown of the job status. The job summary report provides similar data to the job information in the Monitor page of the SnapCenter GUI, however here the job information is limited to one day.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Date | Specifies the day for which you want to initiate the job summary report. If the cmdlet is run?from the remote computer, the output will be shown based on the SnapCenter Server time zone. | false | true (ByValue, ByPropertyName) | |
| JobId | To be deleted. | false | true (ByValue, ByPropertyName) | |

# Examples

## Example 1: Initiating a job summary report for one day

```
Get-SmJobSummaryReport -Date "1/27/2015"
```

```
This example syntax gets a job summary report of all jobs run on January 27th, 2015.

            SmJobId            : 1750

            JobCreatedDateTime :

            JobStartDateTime   : 1/27/2015 12:18:13 PM

            JobEndDateTime     : 1/27/2015 12:18:24 PM

            JobDuration        : 00:00:11.1600000

            JobName            : Backup of dataset 'Test' with policy 'OnDemand'

            JobDescription     :

            Status             : Completed

            IsScheduled        :

            JobError           :
```

```
            JobType            : Backup

            PolicyName         :

            SmJobId            : 1781

            JobCreatedDateTime :

            JobStartDateTime   : 1/27/2015 1:07:14 PM

            JobEndDateTime     : 1/27/2015 1:07:03 PM

            JobDuration        : -00:00:10.8830000

            JobName            : Backup of dataset 'Clone' with policy 'Vault'

            JobDescription     :

            Status             : Completed

            IsScheduled        :

            JobError           :

            JobType            : Backup

            PolicyName         :
```

## Example 2: Initiating a job summary report for failed jobs on a given day

```
Get-SmJobSummaryReport -Date "1/27/2015"| ?{$_.Status -eq "Failed" }
```

Get a job summary report for failed jobs on January 27th, 2015.

```
            SmJobId            : 1770

            JobCreatedDateTime :

            JobStartDateTime   : 1/27/2015 1:01:22 PM

            JobEndDateTime     :

            JobDuration        :

            JobName            : Backup verification of dataset 'Test' with policy
'VerificationDefault'

            JobDescription     :

            Status             : Failed

            IsScheduled        :

            JobError           : Verification server(s) are not configured in the
dataset

            JobType            : Dataset

            PolicyName         :
```

```
            SmJobId            : 1777

            JobCreatedDateTime :

            JobStartDateTime   : 1/27/2015 1:06:58 PM

            JobEndDateTime     :

            JobDuration        :

            JobName            : Backup verification of dataset 'Test' with policy
'VerificationDefault'

            JobDescription     :

            Status             : Failed

            IsScheduled        :

            JobError           : Verification server(s) are not configured in the
dataset

            JobType            : Dataset

            PolicyName         :
```

# Get-SmLoadBalanceNode

Lists Network Load Balance (NLB) nodes and Application Request Routing (ARR) status for them.

# Syntax

```
Get-SmLoadBalanceNode [<CommonParameters>]
```

# Detailed Description

Lists Network Load Balance (NLB) nodes and Application Request Routing (ARR) status for them.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Examples

### Example 1: Getting the current NLB nodes and ARR

```
Get-SmLoadBalanceNode
```

```
This example syntax lists the current Network Load Balance (NLB) nodes and Application
Request Routing (ARR) and their status.
```

# Get-SmLogs

Gets SnapCenter log files.

# Syntax

```
Get-SmLogs [-Path] <String> [-AllLogs] [<CommonParameters>]
```

```
Get-SmLogs [-Path] <String> [-ServerLogs] [<CommonParameters>]
```

```
Get-SmLogs [-Path] <String> [-JobId] <Int64> [<CommonParameters>]
```

```
Get-SmLogs [-Path] <String> [-PluginId] <Int64> [<CommonParameters>]
```

```
Get-SmLogs [-Path] <String> [[-HostName] <String>] [-PluginCode] <PluginCode>
[<CommonParameters>]
```

# Detailed Description

Gets SnapCenter log files. Log files are returned in a .zip file. You can retrieve all SnapCenter logs, or logs for a individual plug-in or SnapCenter instance. You can also get logs for a specified job.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies the path for the location to which you want the log .zip file to be written. | true | false | |
| AllLogs | Indicates that you want to receive all SnapCenter logs, which include SnapCenter server, managed host, and plug-in logs. | true | false | |
| ServerLogs | Indicates that you want to receive logs for the SnapCenter server only. | true | false | |
| JobId | Indicates that you want to receive information for a specified job ID. | true | false | |
| PluginId | Indicates that you want to receive information for the specified plug-in ID. | true | false | |
| HostName | Specifies the host for the plug-in instance for which you want to retrieve logs. | false | false | |
| PluginCode | Indicates that you want to create log settings pertaining to a specified plug-in instance. Valid plug-in values are SCSQL and SCO. For example, if you want to retrieve the SnapCenter Plug-in for Microsoft SQL Server logs, the plug-in code is SCSQL. | true | false | |

# Examples

### Example 1: Retrieving all logs

```
Get-SmLogs -AllLogs -Path C:\temp\allLogs.zip
```

This example syntax retrieves all log files.

## Example 2: Retrieving SnapCenter Server logs

```
Get-SmLogs -Path C:\temp\serverLogs.zip ?ServerLogs
```

This example syntax retrieves all Server logs.

## Example 3: Retrieving plugin instance logs

```
Get-SmLogs -HostName host123 -Path C:\temp\smsqlLogs.zip -PluginCode SCSQL
```

This example syntax retrieves all plug-in instance logs for SnapCenter Plug-in for Microsoft SQL Server.

## Example 4: Retrieving logs for a designated job

```
Get-SmLogs -JobId 1234 -Path C:\temp\job_1234.zip
```

This example syntax retrieves logs for job ID 1234.

# Get-SmLogSettings

Retrieves log settings.

# Syntax

```
Get-SmLogSettings [-Server] [<CommonParameters>]
```

```
Get-SmLogSettings [-Agent] [-HostName] <String> [<CommonParameters>]
```

```
Get-SmLogSettings [-Plugin] [-HostName] <String> [-PluginCode] <PluginCode>
[<CommonParameters>]
```

# Detailed Description

Retrieves the log settings for SnapCenter, a host, or a plug-in. Log setting determine the log severity level, the maximum file size for the log file, the maximum number of log file backups to retain, and the maximum size for all job log files.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Server | Retrieves log file settings for SnapCenter Server. | true | false | |
| Agent | Specifies that you want to retrieve log file settings for SnapCenter host agent. | true | false | |
| HostName | Provides the host name for the SnapCenter host that will capture the log files. | true | false | |
| Plugin | Specifies that you want to retrieve log file settings for a plug-in. | true | false | |
| PluginCode | Provides the plug-in code for the plug-in for which you want to retrieve the log file settings. Valid plug-in codes are SCSQL, SCV, and SCO. For custom plug-ins, the plug-in code is the name of the custom plug-in. | true | false | |

# Examples

## Example 1: Getting log file settings for SnapCenter Server

```
Get-SmLogSettings -Server
```

```
This example syntax retreives log file settings for SnapCenter Server.

            LogSettingsId      : 1

            LogSettingsType    : Server

            LogLevel           : All

            MaxFileSize        : 10485760
```

```
MaxSizeRollBackups : 10
JobLogsMaxFileSize : 104857600
HostId             :
HostName           :
PluginInfoId       :
PluginCode         :
```

## Example 2: Getting log file settings for SnapCenter host agent

```
Get-SmLogSettings ?Agent ?HostName host123
```

This example syntax retrieves log files for the SnapCenter host agent.

```
LogSettingsId      : 1
LogSettingsType    : Agent
LogLevel           : All
MaxFileSize        : 10485760
MaxSizeRollBackups : 10
JobLogsMaxFileSize : 104857600
HostId             : 1
HostName           : bryankDev
PluginInfoId       :
PluginCode         :
```

## Example 3: Getting log file settings for plugins

```
Get-SmLogSettings ?Plugin ?PluginCode SCSQL ?HostName bryankDev
```

This example syntax retrieves plug-in log file settings.

```
LogSettingsId      : 1
LogSettingsType    : Plugin
LogLevel           : Info
MaxFileSize        : 10485760
MaxSizeRollBackups : 10
JobLogsMaxFileSize : 104857600
HostId             : 1
```

```
HostName            : bryankDev

PluginInfoId        : 1

PluginCode          : SMSQL
```

# Get-SmMultiFactorAuthentication

Gets the MFA configuration of the SnapCenter Server.

# Syntax

```
Get-SmMultiFactorAuthentication [-] [<CommonParameters>]
```

# Detailed Description

Gets the MFA configuration of the SnapCenter Server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | | | | |

# Examples

## Example 1: Get MultiFactorAuthentication configuration

```
Get-SmMultiFactorAuthentication
```

```
This example syntax gets the MFA configuration of the SnapCenter Server.
```

```
ISMFAEnabled = True

ADFSHostName = adfs19.ad19domain.com

ADFSConfigFilePath = C:\\ADFS_metadata\\FederationMetadata.xml

SCConfigFilePath = c:\ProgramData\NetApp\SnapCenter\Package
Repository\SnapCenterMFAMetadata.xml
```

# Get-SmPluginConfiguration

Gets the plug-in configuration for a host.

# Syntax

```
Get-SmPluginConfiguration -PluginCode <PluginCode> -HostName <String>
[<CommonParameters>]
```

# Detailed Description

Gets the plug-in information for a host.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PluginCode | The plug-in code. Valid values are SCW, SCSQL, and SCO. | true | true (ByPropertyName) | |
| HostName | The name of the host on which the plug-in is installed. | true | true (ByPropertyName) | |

# Examples

## Example 1: Getting plugin configuration information for a host

```
Get-SmPluginConfiguration -PluginCode SCSQL -HostName localhost
```

```
This example syntax gets the SnapCenter plug-in configuration for the specified host.

            PluginInfoId              :

            HostName                  :

            PluginName                : SnapCenter Plug-in  for Microsoft SQL Server

            PluginVersion             :

            InstallPath               :

            Description               :

            VendorName                :

            EndpointURI               : http://localhost:809/SqlManagementService

            DateCreated               :

            DateModified              :

            Message                   :

            Resources                 : {}

            PluginCode                : SMSQL
```

```
PluginConfiguration       : SMCoreContracts.SmSqlConfiguration

ServiceName               :

DisplayName               :

ServiceStatus             : Unavailable

PluginServiceAction       : None

Port                      : 0

GUID                      :

PluginCompatibilityStatus : None

LicenseType               : None

LicenseKey                :

PluginInstallStatus       : ePluginInstallStatusUnknown

HostMaintenanceStatus     : Production

TCPPort                   : 0

Auth                      : SMCoreContracts.SmAuth
```

# Get-SmPluginPackage

Gets information about plug-in packages that have been uploaded for a specific custom plug-in.

# Syntax

```
Get-SmPluginPackage [[-PluginName] <String>] [<CommonParameters>]
```

# Detailed Description

Gets information about the plug-in packages that are uploaded for a specific custom plug-in.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PluginName | Specifies the name of the custom plug-in for which you want to determine the uploaded plug-ins. | false | false | |

# Examples

## Example 1: Get information about a custom plugin package

```
Get-SmPluginPackage -PluginName DB2
```

```
This example syntax gets all uploaded package version information of the custom plug-in
named DB2.
```

```
            CustomPluginName        : DB2

            CustomPluginVersion     : 1.0

            CustomPluginType        :

            OsInfo                  : SMCoreContracts.SmOperatingSystemInfo

            Resources               : {SMCoreContracts.SmSCCustomResoureceType}

            RequireFileSystemPlugin : False

            UploadedFileName        : DB2_1.0.zip

            CustomPluginDisplayName : IBM DB2

            CustomPluginName        : DB2

            CustomPluginVersion     : 2.0

            CustomPluginType        :

            OsInfo                  : SMCoreContracts.SmOperatingSystemInfo

            Resources               : {SMCoreContracts.SmSCCustomResoureceType}
```

```
RequireFileSystemPlugin : False

UploadedFileName        : DB2_2.0.zip

CustomPluginDisplayName : IBM DB2
```

# Get-SmPluginReport

Initiates a plug-in report.

# Syntax

```
Get-SmPluginReport [-Plugin] <PluginCode> [[-HostName] <String>] [[-ResourceGroup]
<String>] [[-DayCount] <Int32>] [-Terse] [<CommonParameters>]
```

# Detailed Description

Initiates a plug-in report. A plug-in report provides backup information about resources managed by a specified SnapCenter plug-in. For example, the report shows you how many SnapCenter Plug-in for Microsoft SQL Server resources have been backed up, which resources have failed backups, which resources are unprotected, and which resources do not have SnapVault updates. This report provides information for a time period you specify. The default time period is 7 days.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Plugin | Specifies the plug-in code for which you want a plug-in activity report. For example, if you want this report for SnapCenter Plug-in for Microsoft SQL Server, enter SCSQL. Valid plug-in values are SCW, SCSQL, and SMO. | true | true (ByPropertyName) | |
| HostName | Specifies the name of the host on which the plug-in instance is installed. You can specify the host name or IP address if you want to run a plug-in activity report for only one instance of a plug-in. | false | true (ByPropertyName) | |
| ResourceGroup | | false | true (ByPropertyName) | |
| DayCount | Indicates the number of days for which you want plug-in activity reported. For example, if you want to get information for the last 5 days, enter 5. The default is 7 days. | false | true (ByPropertyName) | |
| Terse | Indicates that you want to receive only limited information. Specifying terse gives you just the number of databases that are protected, unprotected, with backups that have failed, and that have no SnapVault updates. | false | false | |

# Examples

## Example 1: Getting a plugin report

```
Get-SmPluginReport -Plugin SCSQL
```

```
This example syntax gets a plug-in report for the SnapCenter Plug-in for Microsoft SQL
Server.
```

```
            BackupCount                    : 29
```

```
AgedBackupCount              : 25
ProtectedObjectCount         :
NotBackedUpObjectCount       : 0
UnprotectedObjectCount       : 1
FailedBackupObjectCount      : 0
UnprotectedBackupObjectCount : 0
AllObjectCount               : 6
Backups                      : {Test, Test, Test, Test...}
NotBackedUpObjects           : {}
UnprotectedObjects           : {TestDB6}
FailedBackupObjects          : {}
UnprotectedBackupObjects     : {}
Result                       : SMCoreContracts.SMResult
TotalCount                   : 0
DisplayCount                 : 0
Context                      :
Job                          : SMCoreContracts.SmJob
```

## Example 2: Getting a plugin report for a specific plugin instance and number of days

```
Get-SmPluginReport -Plugin SCSQL -HostName SCSPR0019366001.gdl.mycompany.com
```

This example syntax gets a plug-in report for the SnapCenter Plug-in for Microsoft SQL Server.

```
BackupCount                  : 29
AgedBackupCount              : 25
ProtectedObjectCount         :
NotBackedUpObjectCount       : 0
UnprotectedObjectCount       : 1
FailedBackupObjectCount      : 0
UnprotectedBackupObjectCount : 0
AllObjectCount               : 6
Backups                      : {Test, Test, Test, Test...}
NotBackedUpObjects           : {}
UnprotectedObjects           : {TestDB6}
```

```
FailedBackupObjects          : {}

UnprotectedBackupObjects     : {}

Result                       : SMCoreContracts.SMResult

TotalCount                   : 0

DisplayCount                 : 0

Context                      :

Job                          : SMCoreContracts.SmJob
```

## Example 3: Limiting the amount of information in the plugin report

```
Get-SmPluginReport -Plugin SCSQL -Terse
```

This example syntax gets a plug-in report for the SnapCenter Plug-in for Microsoft SQL Server that only includes resource counts.

```
BackupCount                  : 29

AgedBackupCount              : 25

ProtectedObjectCount         :

NotBackedUpObjectCount       : 0

UnprotectedObjectCount       : 1

FailedBackupObjectCount      : 0

UnprotectedBackupObjectCount : 0

AllObjectCount               : 6
```

# Get-SmPolicy

Retrieves details about one or more policy.

# Syntax

```
Get-SmPolicy [-PolicyName <String>] [-DatasetName <String>] [<CommonParameters>]
```

# Detailed Description

Retrieves details about one or more policy. You can retrieve details about a specific policy or about all policies in a resource group.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PolicyName | Specifies the name of the policy for which you want details. | false | true (ByPropertyName) | |
| DatasetName | Specifies a dataset. This parameter retrieves policy details for each policy in the dataset. | false | true (ByPropertyName) | |

# Examples

### Example 1: Retrieving information about a policy

```
Get-SmPolicy -PolicyName "Full Backup with Replication"
```

```
This example syntax gets information about the specified policy.

            ApplySnapvaultUpdate        : True

            ApplyRetention              : True

            RetentionCount              : 2

            RetentionDays               : 0

            ApplySnapMirrorUpdate       : True

            SnapVaultLabel              : OneTime

            MirrorVaultUpdateRetryCount : 7

            AppPolicies                 : {}

            Description                 :

            PreScriptPath               :

            PreScriptArguments          :

            PostScriptPath              :
```

```
PostScriptArguments          :
ScriptTimeOut                : 60000
DateModified                 : 6/10/2015 7:18:50 PM
DateCreated                  : 6/8/2015 11:03:07 PM
Schedule                     : SMCoreContracts.SmSchedule
PolicyType                   : Backup
PluginPolicyType             : SMSQL
Name                         : Full Backup with Replication
Type                         :
Id                           : 1
Host                         :
UserName                     :
Passphrase                   :
Deleted                      : False
Auth                         : SMCoreContracts.SmAuth
IsClone                      : False
CloneLevel                   : 0
SmSqlBackupType                 : FullBackup
CopyOnlyBackup                  : False
CopyOnlyLogBackup               : False
UtmType                         : None
UtmCounts                       : 7
UtmDays                         : 14
RunLiveDBCCBefore               : False
RunLiveDBCCAfter                : False
RetentionType                   :
TruncateLog                     : True
VerificationAfterBackup         : False
TransLogMark                    :
TransLogDescription             :
AGBackupType                    : UsePreferredBackupReplica
AGReplicaType                   : Primary
AGBackupPriorityMin             : 1
```

```
            AGBackupPriorityMax            : 100
            VerifyLogBackup                : False
            MaxDbConcurrentBackup          : 35
            CreateLogFolderSnapshot        : True
            DeleteLogFolderSnapshot        : False
            LogFolderSnapshotRetentionType :
            LogFolderSnapshotCounts        : 0
            LogFolderSnapshotDays          : 0
            DeleteLogInShare               : False
            LogInShareRetentionType        :
            LogInShareCounts               :
            LogInShareDays                 :
            CopyLogToShare                 : False
            CopyLogToShareType             :
            VerifyPolicy                   : SMCoreContracts.SmVerificationPolicy
            Name                           :
            Type                           :
            Id                             :
            Host                           :
            UserName                       :
            Passphrase                     :
            Deleted                        : False
            Auth                           : SMCoreContracts.SmAuth
            IsClone                        : False
            CloneLevel                     : 0
```

## Example 2: Retrieving information for policies in a dataset

```
Get-SmPolicy -DatasetName DB_ON_I_S_DRIVE_ds

ApplySnapvaultUpdate        : True
            ApplyRetention              : True
            RetentionCount              : 2
            RetentionDays               : 0
            ApplySnapMirrorUpdate       : True
```

```
SnapVaultLabel              : OneTime
MirrorVaultUpdateRetryCount : 7
AppPolicies                 : {}
Description                 :
PreScriptPath               :
PreScriptArguments          :
PostScriptPath              :
PostScriptArguments         :
ScriptTimeOut               : 60000
DateModified                : 6/10/2015 7:18:50 PM
DateCreated                 : 6/8/2015 11:03:07 PM
Schedule                    : SMCoreContracts.SmSchedule
PolicyType                  : Backup
PluginPolicyType            : SMSQL
Name                        : Full Backup with Replication
Type                        :
Id                          : 1
Host                        :
UserName                    :
Passphrase                  :
Deleted                     : False
Auth                        : SMCoreContracts.SmAuth
IsClone                     : False
CloneLevel                  : 0
SmSqlBackupType                : FullBackup
CopyOnlyBackup                 : False
CopyOnlyLogBackup              : False
UtmType                        : None
UtmCounts                      : 7
UtmDays                        : 14
RunLiveDBCCBefore              : False
RunLiveDBCCAfter               : False
RetentionType                  :
TruncateLog                    : True
```

```
VerificationAfterBackup        : False
TransLogMark                   :
TransLogDescription            :
AGBackupType                   : UsePreferredBackupReplica
AGReplicaType                  : Primary
AGBackupPriorityMin            : 1
AGBackupPriorityMax            : 100
VerifyLogBackup                : False
MaxDbConcurrentBackup          : 35
CreateLogFolderSnapshot        : True
DeleteLogFolderSnapshot        : False
LogFolderSnapshotRetentionType :
LogFolderSnapshotCounts        : 0
LogFolderSnapshotDays          : 0
DeleteLogInShare               : False
LogInShareRetentionType        :
LogInShareCounts               :
LogInShareDays                 :
CopyLogToShare                 : False
CopyLogToShareType             :
VerifyPolicy                   : SMCoreContracts.SmVerificationPolicy
Name                           :
Type                           :
Id                             :
Host                           :
UserName                       :
Passphrase                     :
Deleted                        : False
Auth                           : SMCoreContracts.SmAuth
IsClone                        : False
CloneLevel                     : 0
```

## GetSmPolicy for custom DB2 plugin

```
Get-SmPolicy -PolicyName SECONDARY_SNAPMIRROR

Custom plug-in DB2 policy with SnapMirror update enabled

            BackupType          : DATA
            SchedulerType       : None
            RetentionCount      : 24
            RetentionDays       : 0
            VerificationEnabled : False
            ApplyRetention              : True
            ApplySnapMirrorUpdate       : True
            ApplySnapvaultUpdate        : False
            MirrorVaultUpdateRetryCount : 3
            RetentionCount              : 24
            RetentionDays               : 0
            SnapVaultLabel              :
            AppPolicies                 : {}
            DateCreated                 : 8/21/2016 4:23:20 PM
            DateModified                : 8/21/2016 4:23:20 PM
            Description                 : testPolicy
            PluginPolicyType            : DB2
            PolicyType                  : Backup
            PostScriptArguments         :
            PostScriptPath              :
            PreScriptArguments          :
            PreScriptPath               :
            Schedules                   : {}
            Schedule                    : SMCoreContracts.SmSchedule
            ScriptTimeOut               : 60
            Name                        : SECONDARY_SNAPMIRROR
            Type                        :
            Id                          : 23
            Host                        :
            UserName                    :
            Passphrase                  :
```

```
Deleted                     : False
Auth                        : SMCoreContracts.SmAuth
IsClone                     : False
CloneLevel                  : 0
Hosts                       : {}
PolicyId     : 23
PluginName   : DB2
PluginParams : SMCoreContracts.SmKeyValueCollection
Name         :
Type         :
Id           :
Host         :
UserName     :
Passphrase   :
Deleted      : False
Auth         : SMCoreContracts.SmAuth
IsClone      : False
CloneLevel   : 0
Hosts        : {}
```

# Get-SmReportSchedule

Get the list of report schedules using this cmdlet.

# Syntax

```
Get-SmReportSchedule [-Name] <String> [-Plugin] <PluginCode> [[-Enabled] <Boolean>]
[<CommonParameters>]
```

# Detailed Description

Get the list of report schedules created either by the logged in user or the users with the same role as that of the logged in user.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Get the schedule based on the schedule name. | true | true (ByPropertyName) | |
| Plugin | Get the schedule based on the Plug-in name. Specify "all" to get the schedules configured with "All Plug-ins" Plug-in. | true | true (ByPropertyName) | |
| Enabled | Get the schedules for a specific schedule status (enabled or disabled). Pass $true or 1 to fetch all the enabled schedules and $false or 0 to fetch all the disabled schedules. | false | true (ByPropertyName) | |

# Examples

### Example 1: Get the details of a specific report schedule.

```
Get-SmReportSchedule -Name schedule1
```

```
This example gets the details of a specific schedule.

                        ScheduleReportId  : 225

                         ScheduleName      : Schedule1

                         Enabled           : True

                         PluginCode        : SCO

                         PluginName        : Oracle Database

                         PluginDisplayName : Oracle Database

                         FormatType        : PDF

                         DayOfTheWeek      : Monday

                         DayOfTheMonth     :
```

```
TriggerTime       : 21:00
EmailSubject      : SnapCenter Weekly Report for Oracle
Database
FromEmail         : user®domain.com
Recipients          : user1®domain.com,user2®domain.com
UserId            : 1
RoleId            : 1
ReportData        : Backup,Clone,Restore,Protection
Frequency         : 9:00 pm Monday every week
CreatedBy         : Administrator
ScheduleType      : Weekly
```

## Example 2: Get the report schedules based on plug-in name.

```
Get-SmReportSchedule -Plugin SCO
```

This example gets the list of schedules created for a specific plug-in.

```
ScheduleReportId  : 225
ScheduleName      : Schedule1
Enabled           : True
PluginCode        : SCO
PluginName        : Oracle Database
PluginDisplayName : Oracle Database
FormatType        : PDF
DayOfTheWeek      : Monday
DayOfTheMonth     :
TriggerTime       : 21:00
EmailSubject      : SnapCenter Weekly Report for Oracle
Database
FromEmail         : user®domain.com
Recipients        : user1®domain.com,user2®domain.com
UserId            : 1
RoleId            : 1
ReportData        : Backup,Clone,Restore,Protection
Frequency         : 9:00 pm Monday every week
CreatedBy         : Administrator
```

```
ScheduleType      : Weekly

ScheduleReportId  : 217

ScheduleName      : Schedule2

Enabled           : True

PluginCode        : SCO

PluginName        : Oracle Database

PluginDisplayName : Oracle Database

FormatType        : PDF

DayOfTheWeek      :

DayOfTheMonth     :

TriggerTime       : 01:01

EmailSubject      : SnapCenter Daily Report for Oracle Database

FromEmail         : user®domain.com

Recipients        : user1®domain.com,user2®domain.com

UserId            : 1

RoleId            : 1

ReportData        :

Frequency         : 1:01 am  every day

CreatedBy         : Administrator

ScheduleType      : Daily
```

## Example 3: Get the enabled or disabled report schedules.

```
Get-SmReportSchedule -Enabled $true
```

This example gets the list of all enabled schedules. Pass $true or 1 to fetch all the enabled schedules and $false or 0 to fetch all the disabled schedules.

```
ScheduleReportId  : 202

ScheduleName      : Schedule3

Enabled           : False

PluginCode        : All

PluginName        : All Plug-ins

PluginDisplayName : All Plug-ins

FormatType        : PDF

DayOfTheWeek      : Monday
```

```
DayOfTheMonth     :
TriggerTime       : 21:00
EmailSubject      : SnapCenter Weekly Report for All Plug-ins
FromEmail         : user®domain.com
Recipients        : user1®domain.com,user2®domain.com
UserId            : 1
RoleId            : 1
ReportData        : Backup,Clone,Restore,Protection
Frequency         : 9:00 pm Monday every week
CreatedBy         : Administrator
ScheduleType      : Weekly
ScheduleReportId  : 221
ScheduleName      : Schedule4
Enabled           : False
PluginCode        : SCO
PluginName        : Oracle Database
PluginDisplayName : Oracle Database
FormatType        : PDF,CSV
DayOfTheWeek      : monday
DayOfTheMonth     :
TriggerTime       : 01:10
EmailSubject      : SnapCenter Weekly Report for Oracle
Database
FromEmail         : user®domain.com
Recipients        : user1®domain.com,user2®domain.com
UserId            : 1
RoleId            : 1
ReportData        :
Frequency         : 1:10 am monday every week
CreatedBy         : Administrator
ScheduleType      : Weekly
```

# Get-SmRepositoryBackups

Gets the backup and saves the metadata to the active file system (AFS).

# Syntax

```
Get-SmRepositoryBackups [[-Hostname] <String>] [[-SMSbaseUrl] <String>]
[<CommonParameters>]
```

# Detailed Description

Gets the backup and saves the metadata to the active file system (AFS).

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Hostname | Specifies the SnapCenter database host name. If the SnapCenter database is hosted by a failover cluster instance (FCI), then specify the FCI owner host name. | false | true (ByPropertyName) | |
| SMSbaseUrl | Specifies the SnapCenter Server URL. This is required when executing a PowerShell command from a plug-in machine. For example: -SMSbaseUrl https://172.17.166.128:8146 | false | true (ByPropertyName) | |

# Examples

## Example 1: Retrieving repository backups

```
Get-SmRepositoryBackups
```

```
This example syntax retrieves repository backups.
```

# Get-SmRepositoryConfig

Displays the repository configuration information.

# Syntax

```
Get-SmRepositoryConfig [[-SMSbaseUrl] <String>] [<CommonParameters>]
```

# Detailed Description

Displays the repository configuration information.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SMSbaseUrl | Specifies the SnapCenter Server base URL. The base URL includes the name or IP address of the SnapCenter Server, and, if the remote system is in a different domain from that of the SnapCenter Server, the domain name. For example: https://SNAPCENTER_SERVER_NAME/DOMAIN_NAME. | false | true (ByPropertyName) | |

# Examples

## Example 1: Displaying the MySQL repository details

```
Get-SmRepositoryConfig
```

```
This example syntax displays the MySQL repository details.

            ActiveRepository   : 10.236.221.0

            ReplicationServers : 10.236.221.0,10.236.221.34

            ReplicationStatus  : Healthy

            ReplicationIssues  :

            LastSwitchoverTime : 4/28/2017 7:11:10 AM
```

## Example 2: Displaying MySQL repository details from a remote host to SnapCenter using a base URL

```
Get-SmRepositoryConfig -SMSbaseUrl https://10.236.221.75:8146/
```

```
This example syntax displays the MySQL repository details from a remote host to
SnapCenter using the specified base URL.
```

```
ActiveRepository   : 10.236.221.0

ReplicationServers : 10.236.221.0,10.236.221.34

ReplicationStatus  : Healthy

ReplicationIssues  :

LastSwitchoverTime : 4/28/2017 7:11:10 AM
```

# Get-SmResourceCredentialName

Gets credential information of the SQL instance that are registered with the SnapCenter Server.

## Syntax

```
Get-SmResourceCredentialName [-HostName <String>] [-ResourceName <String>] [-ResourceId
<String>] [<CommonParameters>]
```

## Detailed Description

Gets and displays the credential information of the SQL instance that are registered with the SnapCenter Server.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostName | | false | true (ByPropertyName) | |
| ResourceName | | false | true (ByPropertyName) | |
| ResourceId | | false | true (ByPropertyName) | |

## Examples

### Example : Get the credential information of the SQL instance by the resource name.

```
Get-SmResourceCredentialName -ResourceName R708202074BV1\SQL2019
```

```
This example syntax retrieves the credential information of the SQL instance based on
the resource name.
```

```
Name                : R708202074BV1\SQL2019

Type                : SQL Instance

Id                  : 20

Host                : R708202074BV1.HNK2.com

UserName            :

Passphrase          :

Deleted             : False

Auth                : SMCoreContracts.SmAuth

IsClone             : False

CloneLevel          : 0

Hosts               : {}

StorageName         :
```

```
ResourceGroupNames :

PolicyNames        :

Key                : 0

NsmObjectID        : 0

SizeOfSmObject     : SMCoreContracts.SmObjectSize

Id                              : 3

RunAsName                       : Hnkn

AuthMode                        : Windows

UserName                        : HNK2\administrator

Passpharse                      :

OwnerId                         :

HostName                        :

InstanceName                    :

CheckforAdministratorPrivilage : False

TargetURL                       :

IsSudoEnabled                   : False
```

# Get-SmResourceGroup

Retrieves details about resource groups.

# Syntax

```
Get-SmResourceGroup [-ResourceGroupName <String>] [-ListResources] [-ListConfiguration]
[-ListPolicies] [<CommonParameters>]
```

# Detailed Description

Retrieves details about resource groups. Entering GetSmResourceGroup with no parameters specifies retrieves information about all resource groups.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ResourceGroupName | Specifies a resource group name for which you want to retrieve details. | false | true (ByPropertyName) | |
| ListResources | Specifies whether or not resources for a resource group are listed. | false | true (ByPropertyName) | |
| ListConfiguration | Specifies whether or not configuration information for a resource group is listed. | false | true (ByPropertyName) | |
| ListPolicies | Specifies whether or not policies in a resource group are listed. | false | true (ByPropertyName) | |

# Examples

## Example 1: Getting all resource group information

```
Get-SmResourceGroup
```

```
This example syntax retrieves information about all resource groups.

            Description                 :

            CreationTime                : 10/10/2016 4:45:53 PM

            ModificationTime            : 10/10/2016 4:45:53 PM

            EnableEmail                 : False

            EmailSMTPServer             :

            EmailFrom                   :

            EmailTo                     :

            EmailSubject                :

            EnableSysLog                : False
```

```
ProtectionGroupType         : Backup
EnableAsupOnFailure         : False
Policies                    : {}
HostResourceMaping          : {}
Configuration               : SMCoreContracts.SmCloneConfiguration
LastBackupStatus            : Completed
VerificationServer          :
EmailBody                   :
EmailNotificationPreference : Never
VerificationServerInfo      :
SchedulerSQLInstance        :
CustomText                  :
CustomSnapshotFormat        :
SearchResources             : False
ByPassRunAs                 : False
IsCustomSnapshot            :
MaintenanceStatus           : Production
PluginProtectionGroupTypes  : {SMSQL}
Tag                         :
IsInternal                  : False
EnableEmailAttachment       : False
VerificationSettings        : {}
Name                        : NFS_DB
Type                        : Group
Id                          : 2
Host                        :
UserName                    :
Passphrase                  :
Deleted                     : False
Auth                        : SMCoreContracts.SmAuth
IsClone                     : False
CloneLevel                  : 0
Hosts                       :
```

```
StorageName                 :
ResourceGroupNames          :
PolicyNames                 :
Description                 :
CreationTime                : 10/10/2016 4:51:36 PM
ModificationTime            : 10/10/2016 5:27:57 PM
EnableEmail                 : False
EmailSMTPServer             :
EmailFrom                   :
EmailTo                     :
EmailSubject                :
EnableSysLog                : False
ProtectionGroupType         : Backup
EnableAsupOnFailure         : False
Policies                    : {}
HostResourceMaping          : {}
Configuration               : SMCoreContracts.SmCloneConfiguration
LastBackupStatus            : Failed
VerificationServer          :
EmailBody                   :
EmailNotificationPreference : Never
VerificationServerInfo      :
SchedulerSQLInstance        :
CustomText                  :
CustomSnapshotFormat        :
SearchResources             : False
ByPassRunAs                 : False
IsCustomSnapshot            :
MaintenanceStatus           : Production
PluginProtectionGroupTypes  : {SMSQL}
Tag                         :
IsInternal                  : False
EnableEmailAttachment       : False
VerificationSettings        : {}
```

```
Name                        : Test

Type                        : Group

Id                          : 3

Host                        :

UserName                    :

Passphrase                  :

Deleted                     : False

Auth                        : SMCoreContracts.SmAuth

IsClone                     : False

CloneLevel                  : 0

Hosts                       :

StorageName                 :

ResourceGroupNames          :

PolicyNames                 :
```

# Get-SmResources

Discovers plug-in resources.

# Syntax

```
Get-SmResources -PluginCode <PluginCode> -HostName <String> [-UseKnownResources
<SwitchParameter>] [-AppObjectType <String>] [-AppObjectId <String>] [-IsDAG
<SwitchParameter>] [-InformationAction <ActionPreference>] [-InformationVariable
<String>] [-WhatIf <SwitchParameter>] [-Confirm <SwitchParameter>] [<CommonParameters>]
```

# Detailed Description

Discovers plug-in resources. For SnapCenter Plug-in for Microsoft SQL Server, resources include databases, Availability Groups, and SQL Server instances. You can query one host at a time and return information about any plug-in instances installed on that host. You can use this cmdlet to get detailed information about resources located on the specified host. For SnapCenter Plug-in for Oracle Database, resources include Oracle databases and application volumes This is useful for creating appropriate disk and SMB shares and to include resources in datasets for later data protection. If a request times out when running this cmdlet, you can add the following rest timeout value key to the out from PowerShell config file located at "C:\Windows\System32\WindowsPowerShell\v1.0\Modules\SnapCenter\SnapManager.PSModule.dll.config": <add key="RESTTimeout" value="10800000" />

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PluginCode | The name of the plug-in for which you want to discover resources. Possible inputs include SCSQL, SCW, SCO, HANA, SCU, SCE, and SP. | true | true (ByPropertyName) | |
| HostName | Specifies the host name. You can query one host at a time. | true | true (ByPropertyName) | |
| UseKnownResources | Indicates that you want to return the cached resources. You can use this parameter when you have already queried resources from the SnapCenter GUI. In this case, you receive information only about the already discovered resources. You can use this parameter for resource verification. Oracle application volume resources are manually created by the user. These resources will always be obtained from the SnapCenter database because discovery on host is not applicable for them. | false | true (ByPropertyName) | |
| AppObjectType | Specifies the type of application object. For example, instance, database, or a SAP HANA SingleContainer or MultipleContainers. For SnapCenter Plug-in for Oracle Database, valid object types are Database and ApplicationVolume. | false | true (ByPropertyName) | |
| AppObjectId | Specifies the AppObjectId of resource. For example, -AppObjectId MVA-RX200-S13\SQLEXPRESS\DB16. For Oracle databases and application volume resources, the ID is of the format HostName\ResourceName. | false | true (ByPropertyName) | |
| IsDAG | Required parameter that enables SnapCenter to discover Microsoft Exchange Database Availability Groups (DAGs) | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | when you use the SnapCenter Plug-in for Microsoft Exchange Server. | | | |
| WhatIf | | false | false | |
| Confirm | | false | false | |
| DatabaseName | SAP HANA database name. | false | true (ByValue, ByPropertyName) | |
| ListStorageFootprint | | false | true (ByValue, ByPropertyName) | |
| SID | This is a SAP HANA database specific parameter. A SAP HANA system is identified by a unique 3 letter system ID (SID). For example, ABC. | false | true (ByValue, ByPropertyName) | |
| ResourceType | Specifies the type of application object. For example, instance, database, or a SAP HANA SingleContainer or MultipleContainers. | false | true (ByValue, ByPropertyName) | |
| TenantDatabaseName | This is a SAP HANA database specific parameter. It is the name of the tenant database for SAP HANA Multitenant Database. | false | true (ByValue, ByPropertyName) | |
| ResourceName | This can be used to filter resources by their names | false | true (ByValue, ByPropertyName) | |

# Examples

## Example 1: Discovering resources on a host

```
Get-SmResources -HostName 'vise-f6.sddev.mycompany.com' -PluginCode MSFT_SQL
```

```
This example syntax discovers the resources for the Microsoft SQL plug-in on the
specified host.
```

```
PluginCode   OperationResults

            ----------   ----------------

            MSFT_SQL     {SMCoreContracts.SmObjectOperationResult, SMCoreContract...
```

## Example 2: Listing storage content of custom DB2 plugin resource

```
Get-SmResources -HostName 'sccorelinux61.sccore.test.com' -PluginCode DB2 -
AppObjectName financeDB -ListStorageFootprint
```

```
This example syntax lists resource details along with StorageFoot print details of the
custom plug-in resource named financeDB of DB2.
```

```
Completed Discovering resources: Job Id [123]

            ResourceName     : financeDB

            ResourceVersion  :

            ResourceId       : sccorelinux61.sccore.test.com\Db2\financeDB
```

```
            ResourceType     : Instance

            Protected        : No

            RunAsName        :

            ResourceSettings :

            MountPaths       :

            StorageFootPrint : StorageResourceType : SDStorageDir, StorageResource :
financeDB :/vol/SM1_SRC_sccorelinux61_sccore_test_com
```

## Example 3: Listing SAP HANA databases of type SingleContainer

```
Get-SmResources -HostName 'scspr0204312001.gdl.englab.netapp.com' -PluginCode hana -
AppObjectType SingleContainer


This example syntax lists all SAP HANA databases of resource type SingleContainer.


Completed Discovering Resources: Job Id [564]

            DatabaseName     : NonMDC6

            SID              : LMN

            UserStoreKeys    :
bG1uOGfG3efS1yJZQMqOttTQH5C283MUtNTlOHUlIYhUbAH+zBtCpXAr/v89mO2Is9IoQuNKjOOGeKD/iv4vYaP
+2hK0VNM8YOf8zAU58u24RZGTrLjcLZX0OeH0JwPgGZ5Ljml629LkU7ArBMfWXokq6Q==

            FileBackupPath   : /hana/shared/LMN/HDB01/backup/data

            FileBackupPrefix : SnapCenter_

            OSDBUser         :

            ResourceId       : scspr0204312001.gdl.englab.netapp.com\hana\LMN

            ResourceUid      : LMN

            PluginName       : hana

            Host             : scspr0204312001.gdl.englab.netapp.com

            ResourceType     : SingleContainer

            Protected        : No

            RunAsName        :

            ResourceSettings :

            MountPaths       :
```

## Example 4: Listing SAP HANA databases of type Multitenant Database Container

```
Get-SmResources -HostName 'scspr0204312001.gdl.englab.netapp.com' -PluginCode hana -
AppObjectType MultipleContainers
```

```
This example syntax lists SAP HANA databases of resource type MultipleContainers.


Completed Discovering Resources: Job Id [565]


            DatabaseName       : NewRes1

            SID                : BGB

            UserStoreKeys      :
YmdiOd9V1LuiyloAsPoQhXb1I32XN8mu4kmsXUT1eWA/wsEBIr0YbxAniqNQCWPJxot/bw24xEfTr1IUOuP8wXG
P4t/DluFo4HfNIYIpEAQ9BuK9ehMQagGY9DwbsvtTrrueVzPCi0E4LAfV4+WsLdLaow==

            FileBackupPath     : /hana/shared/PPP/HDB01/backup/data

            FileBackupPrefix   : SnapCenter_

            OSDBUser           :

            TenantDatabaseName : hhh

            TenantType         : SingleTenant

            ResourceId         : scspr0204312001.gdl.englab.netapp.com\hana\BGB\hhh

            ResourceUid        : BGB\hhh

            PluginName         : hana

            Host               : scspr0204312001.gdl.englab.netapp.com

            ResourceType       : MultipleContainers

            Protected          : No

            RunAsName          :

            ResourceSettings   :

            MountPaths         :
```

## Example 5: Listing all SAP HANA resources of specified host

```
Get-SmResources -PluginCode 'hana' -HostName 'schana02.gdl.englab.netapp.com' -
UseKnownResources


This example lists all the SAP HANA databases of a selected host.


Completed Discovering Resources: Job Id [21]


            DatabaseName        : R57

            SID                 : R57

            UserStoreKeys       :
cjU3uItRwnENhBzpUwKFGMsPL+sWzrS0LwLvh+BVhDJEh+hxGEBF00tcKka6ElLUjyXEPDULjXdVqw6GmlkIr+U
uIa4Zq+pnGKlt0zRbM6E1ZxE8k6r8HElNgHrjY3JUsUvBS7RNQlOirVC6R2n93Qfd9A==

            FileBackupPath      :

            FileBackupPrefix    : SnapCenter_
```

```
            OSDBUser            : r57adm

            TenantDatabaseNames : {R57, TDB01, TDB02, TDB03}

            TenantType          : MultiTenant

            ResourceId          : schana02.gdl.englab.netapp.com\hana\MDC\R57

            ResourceUid         : MDC\R57

            PluginName          : hana

            Host                : schana02.gdl.englab.netapp.com

            ResourceType        : MultipleContainers

            Protected           : No

            RunAsName           :

            ResourceSettings    :

            MountPaths          :

            DiscoveryType       : Auto

            IsAuthenticated     : Yes

            DatabaseName        : MDC

            SID                 : MT1

            UserStoreKeys       :
bXQxDY8049rvqv2jPtrmFNChtY9CuhhNBSnsSJ9Fzo13LYquhwnlDknOd+QeJepEFFSIEX0AxRFcYnQVm1RR5Ky
2P3oi2vgEUrPqe0UoHkfBe/QgjDeeaIrBIr4CNIiXZVwKFxOm0oLxXcf4Uluo/amAhw==

            FileBackupPath      :

            FileBackupPrefix    : SnapCenter_

            OSDBUser            : root

            TenantDatabaseNames : {}

            TenantType          : MultiTenant

            ResourceId          : schana02.gdl.englab.netapp.com\hana\MDC\MT1

            ResourceUid         : MDC\MT1

            PluginName          : hana

            Host                : schana02.gdl.englab.netapp.com

            ResourceType        : MultipleContainers

            Protected           : No

            RunAsName           :

            ResourceSettings    :

            MountPaths          :

            DiscoveryType       : Manual
```

```
            IsAuthenticated     : Not Applicable

            DatabaseName     : NonMDC_SN

            SID              : H01

            UserStoreKeys    :
aDAx85jqzWC0G9U7i7ohDgG1VxG7E8AxaUKyD2BeRnv+fF3sluc9aZDdPUyaWgJwQ5ZAAe0IPBY/l1PGkli2Dgf
fnbhPjwu9fPg+nKhlErLyjXp26txx+CJJWHAniekIAsJxLdc9aUrcKO4Xm5N2wdNgdQ==

            FileBackupPath   :

            FileBackupPrefix : SnapCenter_

            OSDBUser         : user

            ResourceId       : schana02.gdl.englab.netapp.com\hana\H01

            ResourceUid      : H01

            PluginName       : hana

            Host             : schana02.gdl.englab.netapp.com

            ResourceType     : SingleContainer

            Protected        : No

            RunAsName        :

            ResourceSettings :

            MountPaths       :

            DiscoveryType    : Manual

            IsAuthenticated  : Not Applicable
```

## Example 6: Listing all the resources of a specified resource type

```
Get-SmResources -PluginCode 'hana' -HostName 'schana02.gdl.englab.netapp.com' -
UseKnownResources -ResourceType 'MultipleContainers' -DatabaseName 'R57'
```

This example lists all the resources of a specified resource type.

```
Completed Discovering Resources: Job Id [47]

            DatabaseName       : R57

            SID                : R57

            UserStoreKeys      :

            FileBackupPath     :

            FileBackupPrefix   : SnapCenter_

            OSDBUser           :

            TenantDatabaseName :

            TenantType         : MultiTenant
```

```
            ResourceId         : schana02.gdl.englab.netapp.com\hana\MDC\R57

            ResourceUid        : MDC\R57

            PluginName         : hana

            Host               : schana02.gdl.englab.netapp.com

            ResourceType       : MultipleContainers

            Protected          : No

            RunAsName          :

            ResourceSettings   :

            MountPaths         :

            DiscoveryType      : Auto

            IsAuthenticated    : No
```

## Example 7: Trigger plug-in discovery and list the resources of specified host

```
Get-SmResources -PluginCode 'hana' -HostName 'schana02.gdl.englab.netapp.com' -
UseKnownResources:$false


This example syntax lists all resources of specified host.


Completed Discovering Resources: Job Id [21]


            DatabaseName        : R57

            SID                 : R57

            UserStoreKeys       :
cjU3uItRwnENhBzpUwKFGMsPL+sWzrS0LwLvh+BVhDJEh+hxGEBF00tcKka6ElLUjyXEPDULjXdVqw6GmlkIr+U
uIa4Zq+pnGKlt0zRbM6E1ZxE8k6r8HElNgHrjY3JUsUvBS7RNQlOirVC6R2n93Qfd9A==

            FileBackupPath      :

            FileBackupPrefix    : SnapCenter_

            OSDBUser            : r57adm

            TenantDatabaseNames : {R57, TDB01, TDB02, TDB03}

            TenantType          : MultiTenant

            ResourceId          : schana02.gdl.englab.netapp.com\hana\MDC\R57

            ResourceUid         : MDC\R57

            PluginName          : hana

            Host                : schana02.gdl.englab.netapp.com

            ResourceType        : MultipleContainers

            Protected           : No

            RunAsName           :
```

```
            ResourceSettings    :

            MountPaths          :

            DiscoveryType       : Auto

            IsAuthenticated     : Yes

            DatabaseName        : MDC

            SID                 : MT1

            UserStoreKeys       :
bXQxDY8049rvqv2jPtrmFNChtY9CuhhNBSnsSJ9Fzo13LYquhwnlDknOd+QeJepEFFSIEX0AxRFcYnQVm1RR5Ky
2P3oi2vgEUrPqe0UoHkfBe/QgjDeeaIrBIr4CNIiXZVwKFxOm0oLxXcf4Uluo/amAhw==

            FileBackupPath      :

            FileBackupPrefix    : SnapCenter_

            OSDBUser            : root

            TenantDatabaseNames : {}

            TenantType          : MultiTenant

            ResourceId          : schana02.gdl.englab.netapp.com\hana\MDC\MT1

            ResourceUid         : MDC\MT1

            PluginName          : hana

            Host                : schana02.gdl.englab.netapp.com

            ResourceType        : MultipleContainers

            Protected           : No

            RunAsName           :

            ResourceSettings    :

            MountPaths          :

            DiscoveryType       : Manual

            IsAuthenticated     : Not Applicable

            DatabaseName     : NonMDC_SN

            SID              : H01

            UserStoreKeys    :
aDAx85jqzWC0G9U7i7ohDgG1VxG7E8AxaUKyD2BeRnv+fF3sluc9aZDdPUyaWgJwQ5ZAAe0IPBY/l1PGkli2Dgf
fnbhPjwu9fPg+nKhlErLyjXp26txx+CJJWHAniekIAsJxLdc9aUrcKO4Xm5N2wdNgdQ==

            FileBackupPath   :

            FileBackupPrefix : SnapCenter_

            OSDBUser         : user

            ResourceId       : schana02.gdl.englab.netapp.com\hana\H01

            ResourceUid      : H01
```

```
            PluginName       : hana

            Host             : schana02.gdl.englab.netapp.com

            ResourceType     : SingleContainer

            Protected        : No

            RunAsName        :

            ResourceSettings :

            MountPaths       :

            DiscoveryType    : Manual

            IsAuthenticated  : Not Applicable
```

## Example 8: Listing the resources for given sid and resource type

```
Get-SmResources -HostName 'schana02.gdl.englab.netapp.com' -PluginCode hana -
ResourceType MultipleContainers -UseKnownresources -SID 'R57' -DatabaseName 'R57'
```

This example lists all the resources of a specified host.

```
Completed Discovering Resources: Job Id [1692]


            DatabaseName        : R57

            SID                 : R57

            UserStoreKeys       :
cjU3YuC1vIPicEl3zD+B6o/fev9RR0vicLMY9+9iW3DGz0WN1WiAVHFywsnSJh3vlksKbR75f2klpfhgkI27yTZ
Pxuja5HqHsTQVrW6ZITfirN9hfM61sHeI38LSBNNaKLCsfU4kk6Okk6QzZL+RVtht1g==

            FileBackupPath      :

            FileBackupPrefix    : SnapCenter_

            OSDBUser            : r57adm

            TenantDatabaseNames : {R57, TDB01, TDB02, TDB03}

            TenantType          : MultiTenant

            ResourceId          : schana02.gdl.englab.netapp.com\hana\MDC\R57

            ResourceUid         : MDC\R57

            PluginName          : hana

            Host                : schana02.gdl.englab.netapp.com

            ResourceType        : MultipleContainers

            Protected           : No

            RunAsName           :

            ResourceSettings    :

            MountPaths          :
```

```
DiscoveryType       : Auto

IsAuthenticated     : Yes
```

## Example 8: Get details of the specified resource using AppObjectId

```
Get-SmResources -PluginCode 'SCSQL' -HostName 'schana02.gdl.englab.netapp.com' -
AppResourceId 'MVA-RX200-S13\SQLEXPRESS\DB16'
```

This example syntax displays the details of the resources (including cloud protection).

```
DBName        : DB16

DBVersion     : 11.0.2100

DBId          : MVA-RX200-S13\SQLEXPRESS\DB16

DBType        : SQL Database

Protected     : Yes

OverallStatus :

CloudProtected        : Yes

CloudProtectedPolices : sql_fulllog_backup_policy_daily
```

## Example 9: Listing all Oracle Plug-in resources on a specified host

```
Get-SmResources -PluginCode 'SCO' -HostName 'R8092776CF4V1.HNK2.com' -UseKnownResources
```

This example lists all the SnapCenter Plug-in for Oracle resources on a specified host.

```
DBName        : DB11

DBVersion     : 19.0.0.0.0

DBId          : R8092776CF4V1.HNK2.com\DB11

DBType        : Oracle Single Instance

Protected     : No

OverallStatus : Not protected

DBName        : DB13

DBVersion     : 19.0.0.0.0

DBId          : R8092776CF4V1.HNK2.com\DB13

DBType        : Oracle Single Instance

Protected     : No

OverallStatus : Not protected
```

```
Name          : appVolLun

Uid           : appVolLun

Id            : R8092776CF4V1.HNK2.com\appVolLun

Type          : Application Volume

Protected     : No

OverallStatus : Not protected

Name          : appVol

Uid           : appVol

Id            : R8092776CF4V1.HNK2.com\appVol

Type          : Application Volume

Protected     : No

OverallStatus : Not protected
```

## Example 10: Listing all Oracle application volume resources on a specified host

```
Get-SmResources -PluginCode 'SCO' -HostName 'R8092776CF4V1.HNK2.com' -UseKnownResources
-AppObjectType 'ApplicationVolume'
```

This example lists all the Oracle application volume resources on a specified host.

```
Name          : appVolLun

Uid           : appVolLun

Id            : R8092776CF4V1.HNK2.com\appVolLun

Type          : Application Volume

Protected     : No

OverallStatus : Not protected

Name          : appVol

Uid           : appVol

Id            : R8092776CF4V1.HNK2.com\appVol

Type          : Application Volume

Protected     : No

OverallStatus : Not protected
```

## Example 11: Listing all Oracle database resources on a specified host

```
Get-SmResources -PluginCode 'SCO' -HostName 'R8092776CF4V1.HNK2.com' -UseKnownResources
-AppObjectType 'Database'
```

This example lists all the Oracle database resources on a specified host.

```
DBName        : DB11
DBVersion     : 19.0.0.0.0
DBId          : R8092776CF4V1.HNK2.com\DB11
DBType        : Oracle Single Instance
Protected     : No
OverallStatus : Not protected
DBName        : DB13
DBVersion     : 19.0.0.0.0
DBId          : R8092776CF4V1.HNK2.com\DB13
DBType        : Oracle Single Instance
Protected     : No
OverallStatus : Not protected
```

## Example 12: Get Oracle Plug-in resources on a specified host and filter by resource name

```
Get-SmResources -PluginCode 'SCO' -HostName 'R8092776CF4V1.HNK2.com' -UseKnownResources
-AppObjectType 'ApplicationVolume' -ResourceName 'appVolLun'
```

This example gets the SnapCenter Plug-in for Oracle resources on a specified host and filters it by resource name

```
Name          : appVolLun
Uid           : appVolLun
Id            : R8092776CF4V1.HNK2.com\appVolLun
Type          : Application Volume
Protected     : No
OverallStatus : Not protected
```

## Example 13: Trigger Discovery of Oracle Plug-in resources on a specified host and lists them

```
Get-SmResources -PluginCode 'SCO' -HostName 'R8092776CF4V1.HNK2.com'
```

This example triggers discovery of SnapCenter Plug-in for Oracle resources on a specified host and lists them.

```
Completed Discovering Resources: Job Id [3172]
```

```
DBName        : DB11

    DBVersion     : 19.0.0.0.0

    DBId          : R8092776CF4V1.HNK2.com\DB11

    DBType        : Oracle Single Instance

    Protected     : No

    OverallStatus : Not protected

    DBName        : DB13

    DBVersion     : 19.0.0.0.0

    DBId          : R8092776CF4V1.HNK2.com\DB13

    DBType        : Oracle Single Instance

    Protected     : No

    OverallStatus : Not protected

    Name          : appVolLun

    Uid           : appVolLun

    Id            : R8092776CF4V1.HNK2.com\appVolLun

    Type          : Application Volume

    Protected     : No

    OverallStatus : Not protected

    Name          : appVol

    Uid           : appVol

    Id            : R8092776CF4V1.HNK2.com\appVol

    Type          : Application Volume

    Protected     : No

    OverallStatus : Not protected
```

# Get-SmRestoreReport

Initiates a restore report.

# Syntax

```
Get-SmRestoreReport [-JobId] <Int64> [<CommonParameters>]
```

```
Get-SmRestoreReport [-FromDateTime <DateTime>] [-ToDateTime <DateTime>] [-Resource
<String>] [-Plugin <PluginCode>] [-HostName <String>] [<CommonParameters>]
```

# Detailed Description

Initiates a restore report. The restore report tells you which resource was restored on which host and the job status. You can specify the time range for which you want this report. The default time range is the last 7 days. You can also query for restore information about an individual resource. For any integer value provided for date, value is taken as 1/1/0001 12:00 AM.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| JobId | To be deleted. | true | true (ByPropertyName) | |
| FromDateTime | Specifies that you want to get a restore report for restore jobs run between a specified day and time. This option provides the start date and time. You can specify the date and time using any date and time format string. For example, "2/2/2015 8:52PM". If the cmdlet is run?from the remote computer, the output will be shown based on the SnapCenter Server time zone. | false | false | |
| ToDateTime | Specifies that you want to get a restore report for restore jobs run between a specified day and time. This option provides the end date and time. You can specify the date and time using any date and time format string. For example, "2/2/2015 8:52PM". If the cmdlet is run?from the remote computer, the output will be shown based on the SnapCenter Server time zone. | false | false | |
| Resource | Provides the name of a specific resource for which you want to get a restore report. | false | true (ByPropertyName) | |
| Plugin | Specify the plug-in code to generate the report. For custom plug-ins, specify the custom plug-in name for example, hana, mysql. | false | true (ByPropertyName) | |
| HostName | Specifies the name of the host on which the restore was taken. | false | true (ByPropertyName) | |

# Examples

### Example 1: Getting a restore report

```
Get-SmRestoreReport
```

This example syntax gets a restore report.

```
SmJobId           : 2516
StartDateTime     : 2/4/2015 1:09:15 PM
EndDateTime       : 2/4/2015 1:09:57 PM
Status            : Completed
Resource          : SMCoreContracts.SmObject
RecoveryRequest   :
PluginCode        : SCO
PluginName        : Oracle Database
PluginDisplayName : Oracle Database
SmJobId           : 2535
StartDateTime     : 2/5/2015 6:02:19 AM
EndDateTime       : 2/5/2015 6:03:13 AM
Status            : Completed
Resource          : SMCoreContracts.SmObject
RecoveryRequest   :
PluginCode        : SCC
PluginName        : SAP HANA
PluginDisplayName : SAP HANA
```

## Example 2: Getting a restore report for a specific resource

```
Get-SmRestoreReport -Resource TestDb3
```

This example syntax gets a report on restores performed for the given resource.

```
SmJobId           : 2516
StartDateTime     : 2/4/2015 1:09:15 PM
EndDateTime       : 2/4/2015 1:09:57 PM
Status            : Completed
Resource          : SMCoreContracts.SmObject
RecoveryRequest   :
PluginCode        : SCC
PluginName        : SAP HANA
PluginDisplayName : SAP HANA
```

## Example 3: Getting a restore report for a specific host

```
Get-SmRestoreReport  -HostName SCSPR0019366001.gdl.mycompany.com
```

This example syntax gets a restore report for all resources on the given host.

```
SmJobId           : 2516
StartDateTime     : 2/4/2015 1:09:15 PM
EndDateTime       : 2/4/2015 1:09:57 PM
Status            : Completed
Resource          : SMCoreContracts.SmObject
RecoveryRequest   :
PluginCode        : SCO
PluginName        : Oracle Database
PluginDisplayName : Oracle Database
SmJobId           : 2535
StartDateTime     : 2/5/2015 6:02:19 AM
EndDateTime       : 2/5/2015 6:03:13 AM
Status            : Completed
Resource          : SMCoreContracts.SmObject
RecoveryRequest   :
PluginCode        : SCC
PluginName        : SAP HANA
PluginDisplayName : SAP HANA
```

# Get-SmRole

Get information for one or more RBAC roles.

# Syntax

```
Get-SmRole [-Name <String>] [<CommonParameters>]
```

# Detailed Description

Get information about all the roles associated with SnapCenter. If you specify a specific role, you will return only information about the individual role. This information includes the role description, name.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name of the role for which you want information. If you do not specify a role name, you will receive information for all available roles. | false | true (ByPropertyName) | |

# Examples

## Example 1: Getting information about all roles

```
Get-SmRole
```

```
This example syntax retrieves the information about all SnapCenter roles.

            Description : Overall administrator of SnapCenter system

            Name        : SnapCenterAdmin

            Type        : Administrator

            Id          : 1

            Host        :

            UserName    :

            Passphrase  :

            Deleted     : False

            Auth        : SMCoreContracts.SmAuth

            IsClone     : False

            CloneLevel  : 0
```

```
Description : Backup and Clone Viewer
Name        : Backup and Clone Viewer
Type        : Backup and Clone Viewer
Id          : 7
Host        :
UserName    :
Passphrase  :
Deleted     : False
Auth        : SMCoreContracts.SmAuth
IsClone     : False
CloneLevel  : 0
Description : App Backup and Clone Admin
Name        : App Backup and Clone Admin
Type        : App Backup and Clone Admin
Id          : 8
Host        :
UserName    :
Passphrase  :
Deleted     : False
Auth        : SMCoreContracts.SmAuth
IsClone     : False
CloneLevel  : 0
Description : Infrastructure Admin
Name        : Infrastructure Admin
Type        : Infrastructure Admin
Id          : 9
Host        :
UserName    :
Passphrase  :
Deleted     : False
Auth        : SMCoreContracts.SmAuth
IsClone     : False
CloneLevel  : 0
```

## Example 2: Getting information about a specific role

```
Get-SmRole -Name "Infrastructure Admin"
```

This example syntax retrieves the information about the specified role.

```
Description : Infrastructure Admin

Name        : Infrastructure Admin

Type        : Infrastructure Admin

Id          : 9

Host        :

UserName    :

Passphrase  :

Deleted     : False

Auth        : SMCoreContracts.SmAuth

IsClone     : False

CloneLevel  : 0
```

# Get-SmRoleAssignedPermission

Retrieves information about permissions assigned to a designated role.

## Syntax

```
Get-SmRoleAssignedPermission -RoleName <String> [<CommonParameters>]
```

## Detailed Description

Retrieves information about permissions assigned to a specified role. The information includes the permission name and its attributes. The attributes are Allow, Create, Read, Update, and Delete.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| RoleName | Specifies the name of the role for which you want permission and permission attribute information. | true | true (ByPropertyName) | |

## Examples

### Example 1: Getting permissions assigned to a role

```
Get-SmRoleAssignedPermission -RoleName SnapCenterAdmin
```

```
This example syntax gets the permissions assigned to the specified role.

            AttribCode : create

            Name       : DataSet

            Type       :

            Id         : 1

            Host       :

            UserName   :

            Passphrase :

            Deleted    : False

            Auth       : SMCoreContracts.SmAuth

            IsClone    : False

            CloneLevel : 0
```

```
AttribCode : delete
Name       : DataSet
Type       :
Id         : 2
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : read
Name       : DataSet
Type       :
Id         : 3
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : update
Name       : DataSet
Type       :
Id         : 4
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : create
```

```
Name       : Policy
Type       :
Id         : 5
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : delete
Name       : Policy
Type       :
Id         : 6
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : update
Name       : Policy
Type       :
Id         : 7
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : read
```

```
Name       : Policy
Type       :
Id         : 8
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : create
Name       : Backup
Type       :
Id         : 9
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : read
Name       : Backup
Type       :
Id         : 10
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : delete
Name       : Backup
```

```
Type       :
Id         : 11
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : create
Name       : Host
Type       :
Id         : 13
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : delete
Name       : Host
Type       :
Id         : 14
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : read
Name       : Host
```

```
Type       :
Id         : 15
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : update
Name       : Host
Type       :
Id         : 16
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : create
Name       : StorageConnection
Type       :
Id         : 17
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : delete
Name       : StorageConnection
```

```
Type       :
Id         : 18
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : read
Name       : StorageConnection
Type       :
Id         : 19
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : update
Name       : StorageConnection
Type       :
Id         : 20
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : create
Name       : Clone
```

```
Type       :
Id         : 21
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : delete
Name       : Clone
Type       :
Id         : 22
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : read
Name       : Clone
Type       :
Id         : 23
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : update
Name       : Clone
Type       :
```

```
Id         : 24
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : create
Name       : Provision
Type       :
Id         : 25
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : delete
Name       : Provision
Type       :
Id         : 26
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : read
Name       : Provision
Type       :
```

```
Id         : 27
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : update
Name       : Provision
Type       :
Id         : 28
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : update
Name       : Backup
Type       :
Id         : 45
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : allow
Name       : DashBoard
Type       :
Id         : 51
```

```
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : allow
Name       : Reports
Type       :
Id         : 52
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : allow
Name       : Restore
Type       :
Id         : 53
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : allow
Name       : Discovery
Type       :
Id         : 54
```

```
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : allow
Name       : Plugin_Installation
Type       :
Id         : 58
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
AttribCode : allow
Name       : Migration
Type       :
Id         : 59
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
```

# Get-SmRolePermissions

Retrieves permissions and associated permission attribute codes available in SnapCenter.

# Syntax

```
Get-SmRolePermissions [-Name <String>] [<CommonParameters>]
```

# Detailed Description

Retrieves permissions and associated permission attribute codes available in SnapCenter. If you specify a permission name, you receive attribute codes associated with that permission. If you do not specify a name, you retrieve all permissions available in SnapCenter.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name of the Run As account that you want to get information about. | false | true (ByPropertyName) | |

# Examples

### Example 1: Getting information about a specified permission

```
Get-SmRolePermissions -Name DataSet

This example syntax lists the information for the specified permission.

PermissionName                                                PermissionCode
            --------------                                                --------------
            DataSet                                                       create
            DataSet                                                       delete
            DataSet                                                       read
            DataSet                                                       update
```

### Example 2: Getting a list of permissions available in SnapCenter

```
Get-SmRolePermissions

This example syntax displays permissions for all permissions in SnapCenter.
```

| PermissionName | PermissionCode |
| --- | --- |
| DataSet | create |
| DataSet | delete |
| DataSet | read |
| DataSet | update |
| Policy | create |
| Policy | delete |
| Policy | update |
| Policy | read |
| Backup | create |
| Backup | read |
| Backup | delete |
| Host | create |
| Host | delete |
| Host | read |
| Host | update |
| StorageConnection | create |
| StorageConnection | delete |
| StorageConnection | read |
| StorageConnection | update |
| Clone | create |
| Clone | delete |
| Clone | read |
| Clone | update |
| Provision | create |
| Provision | delete |
| Provision | read |
| Provision | update |
| Backup | update |
| DashBoard | allow |
| Reports | allow |
| Restore | allow |
| Discovery | allow |

| | |
|---|---|
| Plugin_Installation | allow |
| Migration | allow |

# Get-SmSchedule

Retrieves the schedule information. This command migrates data from SnapManager to SnapCenter plug-in for SQL Server. (This command works only if there are schedules present for SQL Server in SnapManager.)

# Syntax

```
Get-SmSchedule -HostName <String> [-DisableCurrentGenSchedule] -PluginCode <PluginCode>
[-SMSBaseUrl <String>] [<CommonParameters>]
```

# Detailed Description

Retrieve the schedule information based on the host name and the plug-in code.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostName | | true | true (ByPropertyName) | |
| DisableCurrentGenSchedule | | false | true (ByPropertyName) | |
| PluginCode | | true | true (ByPropertyName) | |
| SMSBaseUrl | | false | true (ByPropertyName) | |

# Examples

### Example : Retrieve the schedule information based on the host name and the plug-in code.

```
Get-SmSchedule -HostName windows2016 -PluginCode SCSQL
```

```
This example syntax retrieves the schedule information based on the host name and the
plug-in code.
```

```
Schedule detail for the following Resources :

*****************

Windows2016\INSTANCE1\anu1

Schedule Information :

*****************


ScheduleStatus          : Enabled

Schedule                : Backup Schedule

BackupType              : FullBackupAndLogBackup

TaskName                : New2

ScheduleType            : OneTime
```

```
SchedulerType           : WINDOWS

StartTime               : 9/13/2020 11:32:00 PM

EndTime                 :

DaysInterval            :

DaysoftheMonth          :

DaysOfTheWeek           :

IntervalDuration        :

MonthlyFrequency        :

MonthsofTheYear         :

RepeatTask_Every_Hour   :

RepeatTask_Every_Mins   :

SchedulerSQLInstance    :

retention               : {SmPSSnapin.GetSmSchedule+Retention,
SmPSSnapin.GetSmSchedule+Retention,

                          SmPSSnapin.GetSmSchedule+Retention}

verificationsettings    : SmPSSnapin.GetSmSchedule+VerificationSettings

hasVerificationSettings : False




Retention Information :

*****************

BackupType     : DATA

RetentionCount : 7

RetentionDays  : 0




BackupType     : LOG

RetentionCount : 0

RetentionDays  : 7
```

```
BackupType     : LOG_SNAPSHOT

RetentionCount : 8

RetentionDays  : 0




*******************************************************************************

Schedule detail for the following Resources :

*****************

Windows2016\INSTANCE1\anu1

Schedule Information :

*****************

ScheduleStatus          : Enabled

Schedule                : Backup Schedule

BackupType              : FullBackupAndLogBackup

TaskName                : NEW6

ScheduleType            : OneTime

SchedulerType           : WINDOWS

StartTime               : 9/14/2020 4:52:00 AM

EndTime                 :

DaysInterval            :

DaysoftheMonth          :

DaysOfTheWeek           :

IntervalDuration        :

MonthlyFrequency        :

MonthsofTheYear         :

RepeatTask_Every_Hour   :

RepeatTask_Every_Mins   :

SchedulerSQLInstance    :

retention               : {SmPSSnapin.GetSmSchedule+Retention,
SmPSSnapin.GetSmSchedule+Retention,

                          SmPSSnapin.GetSmSchedule+Retention}

verificationsettings    : SmPSSnapin.GetSmSchedule+VerificationSettings

hasVerificationSettings : False
```

```
Retention Information :
*****************
BackupType     : DATA
RetentionCount : 7
RetentionDays  : 0



BackupType     : LOG
RetentionCount : 0
RetentionDays  : 7



BackupType     : LOG_SNAPSHOT
RetentionCount : 8
RetentionDays  : 0



*******************************************************************************
Schedule detail for the following Resources :
*****************
Windows2016\INSTANCE1\anu1
Schedule Information :
*****************
ScheduleStatus          : Enabled
Schedule                : Backup Schedule
BackupType              : FullBackupAndLogBackup
TaskName                : NEW7
ScheduleType            : OneTime
SchedulerType           : WINDOWS
```

```
StartTime               : 9/14/2020 4:52:00 AM

EndTime                 :

DaysInterval            :

DaysoftheMonth          :

DaysOfTheWeek           :

IntervalDuration        :

MonthlyFrequency        :

MonthsofTheYear         :

RepeatTask_Every_Hour   :

RepeatTask_Every_Mins   :

SchedulerSQLInstance    :

retention               : {SmPSSnapin.GetSmSchedule+Retention,
SmPSSnapin.GetSmSchedule+Retention,

                          SmPSSnapin.GetSmSchedule+Retention}

verificationsettings    : SmPSSnapin.GetSmSchedule+VerificationSettings

hasVerificationSettings : False



Retention Information :

*****************

BackupType     : DATA

RetentionCount : 7

RetentionDays  : 0


BackupType     : LOG

RetentionCount : 0

RetentionDays  : 7

BackupType     : LOG_SNAPSHOT

RetentionCount : 8

RetentionDays  : 0



*******************************************************************************
```

# Get-SmServerConfig

Retrieves information about the SnapCenter version currently configured.

# Syntax

```
Get-SmServerConfig [<CommonParameters>]
```

# Detailed Description

Retrieves information about the SnapCenter version currently configured.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Examples

### Example : Gets information about the SnapCenter version currently configured.

```
Get-SmServerConfig
```

```
This example syntax gets information about the SnapCenter version currently configured.
```

```
Standalone Server Configuration
SnapCenter Server Version : 4.4.0.4868
```

# Get-SmSMTPServer

Retrieves information about the SMTP server currently configured to send data protection job reports.

## Syntax

```
Get-SmSMTPServer [<CommonParameters>]
```

## Detailed Description

Retrieves information about the SMTP server currently configured to send data protection job reports. The cmdlet displays the name of the SMTP server, the name of the recipient to whom email messages are sent, and the name of the sender. There are no parameters for this cmdlet.

## Related Commands

- Unknown

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

## Examples

### Example 1: Retrieving SMTP server configuration information

```
Get-SmSMTPServer
```

```
This example syntax retrieves information about the current SMTP server configuration
for SnapCenter.
```

# Get-SmSnapCenterVersion

Gets the SnapCenter Server version and build number.

# Syntax

```
Get-SmSnapCenterVersion [-] [<CommonParameters>]
```

# Detailed Description

Gets the SnapCenter Server version and build number.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | | | | |

# Examples

## Example 1: Get SnapCenter Server Version

```
Get-SmSnapCenterVersion
```

```
This example syntax gets the installed SnapCenter Server version and build number.

            ServerVersion  : 4.5.0.6127

            PluginVersion  :

            ProductVersion : 4.5

            ProductName    : SnapCenter Server 4.5

            Result         : SMCoreContracts.SMResult

            TotalCount     : 0

            DisplayCount   : 0

            Context        :

            Job            : SMCoreContracts.SmJob
```

# Get-SmStorageConnection

Retrieves all storage system connections.

# Syntax

```
Get-SmStorageConnection [[-Storage] <String>] [[-StorageType] <String>] [[-
AzureNetAppAccountId] <bigint(20)>] [<CommonParameters>]
```

# Detailed Description

Retrieves information about available storage system connections. You can get information about a specified storage system, or about all of them.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Storage | | false | true (ByPropertyName) | |
| StorageType | Specifies storage type. Valid values are DataOntap and AzureNetAppAccount. | false | true (ByPropertyName) | |
| AzureNetAppAccountId | Specifies Azure NetApp Account ID. | false | true (ByPropertyName) | |

# Examples

## Example 1: Getting storage system connections for a specified storage system

```
Get-SmStorageConnection -SVM 172.17.168.13
```

```
This example syntax retrieves information for a specified storage system connection.

            UserName            : vsadmin

            Password            :

            Port                : 80

            TransportType       : Http

            ModifyTime          : 1/1/0001 12:00:00 AM

            Mode                :

            OntapiMajorVersion  :

            OntapiMinorVersion  :

            Version             : NetApp Release 8.2.2X33 Cluster-Mode: Fri Aug 22
06:04:17 PDT 2014

            StorageSystemOSType : DataOntap
```

```
            Passphrase          :

            Id                  : 5

            Timeout             : 60

            Uuid                :

            OperationContext    :

            PreferredIpAddress  :

            Aliases             : {}

            SmIPAddresses       : {SMCoreContracts.SmIPAddress,
SMCoreContracts.SmIPAddress, SMCoreContracts.SmIPAddress,

            SMCoreContracts.SmIPAddress...}

            IPAddresses         : {172.17.168.13, 172.17.168.13, 172.17.168.13,
172.17.168.13...}

            Name                : mva-dev-3270-02-d1.lab.netapp.com

            IsResolved          : True

            IsValid             : True

            Identity            : mva-dev-3270-02-d1.lab.netapp.com
```

## Example 2: Getting storage system connections for all available storage systems

```
Get-SmStorageConnection
```

This example syntax gets information about all available storage system connections.

```
            UserName            : vsadmin

            Password            :

            Port                : 80

            TransportType       : Http

            ModifyTime          : 1/1/0001 12:00:00 AM

            Mode                :

            OntapiMajorVersion  :

            OntapiMinorVersion  :

            Version             :

            StorageSystemOSType :

            Passphrase          :

            Id                  : 1

            Timeout             : 60

            Uuid                :
```

```
            OperationContext    :

            PreferredIpAddress  :

            Aliases             : {}

            SmIPAddresses       : {SMCoreContracts.SmIPAddress,
SMCoreContracts.SmIPAddress, SMCoreContracts.SmIPAddress,

            SMCoreContracts.SmIPAddress...}

            IPAddresses         : {172.17.124.165, 172.17.124.165, 172.17.124.165,
172.17.124.165...}

            Name                : neeraj_vs1

            IsResolved          : True

            IsValid             : True

            Identity            : neeraj_vs1



            UserName            : vsadmin

            Password            :

            Port                : 80

            TransportType       : Http

            ModifyTime          : 1/1/0001 12:00:00 AM

            Mode                :

            OntapiMajorVersion  :

            OntapiMinorVersion  :

            Version             :

            StorageSystemOSType :

            Passphrase          :

            Id                  : 2

            Timeout             :

            Uuid                :

            OperationContext    :

            PreferredIpAddress  :

            Aliases             : {}

            SmIPAddresses       : {SMCoreContracts.SmIPAddress,
SMCoreContracts.SmIPAddress, SMCoreContracts.SmIPAddress,

            SMCoreContracts.SmIPAddress...}

            IPAddresses         : {10.225.13.49, 10.225.13.49, 10.225.13.49,
10.225.13.49...}
```

```
Name                : rtp-rr1-d2.gdl.mycompany.com

IsResolved          : True

IsValid             : True

Identity            : rtp-rr1-d2.gdl.mycompany.com
```

## Example 3: Getting Azure NetApp Account with specified ID

```
Get-SmStorageConnection -StorageType AzureNetAppAccount -AzureNetAppAccountId 1

This example gets information about Azure NetApp Account with specified ID.

NetAppAccountId   : 9

NetAppAccountName : test

ResourceGroupName : test

StorageOSType     : AzureNetAppAccount

CredentialName    : test1

CredentialId      : 209

ModifyTime        : 3/4/2020 6:45:08 AM

ModifyTimeTicks   : 637189011080000000

StorageBaseId     : 211
```

# Get-SmTrustedDomains

Get the trusted domains details of the specified domain registered with SnapCenter Server.

# Syntax

```
Get-SmTrustedDomains -ParentDomainName <String> -Credential <PSCredential>
[<CommonParameters>]
```

# Detailed Description

Get the trusted domains of the specified domain.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ParentDomainName | NETBIOS Name of the registered domain. | true | true (ByPropertyName) | |
| Credential | Credentials of any user in the registered domain. | true | true (ByPropertyName) | |

# Examples

### Example 1: Get the trusted domains of the specified domain registered with SnapCenter Server.

```
Get-SmTrustedDomains -ParentDomainName mva -Credential mva\administrator
```

```
Successfully discovered the trusted domains of the specified domain mva.
```

```
            Id                              : 1

            Name                            : mva

            DomainFQDN                      : mva.gdl.englab.netapp.com

            DCHostIPAddresses               :

            TrustedDomains                  :
gdl.englab.netapp.com,GDL,nb.englab.netapp.com,NB,ict.englab.netapp.com,ICT,wbu.englab.
netapp.com,WBU,eng.netapp.com,ENG,nane.englab.netapp.com,NANE,svl.englab.netapp

            .com,SVL

            CreatedOn                       : 4/11/2018 10:06:34 PM

            ModifiedOn                      : 4/20/2018 3:26:40 AM
```

# Get-SmUserAssignedPermission

Retrieves information about the permissions associated with a specified user.

# Syntax

```
Get-SmUserAssignedPermission -Name <String> [<CommonParameters>]
```

# Detailed Description

Retrieves information about the permissions associated with a specified user.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Names the domain\user about whom you want to retrieve permission information. | true | true (ByPropertyName) | |

# Examples

## Example 1: Getting permissions associated with a user

```
Get-SmUserAssignedPermission -Name sddev\administrator
```

```
This example syntax displays the permissions associated with the specified user.

            AttribCode : create

            Name       : Backup

            Type       :

            Id         : 9

            Host       :

            UserName   :

            Passphrase :

            Deleted    : False

            Auth       : SMCoreContracts.SmAuth

            IsClone    : False

            CloneLevel : 0


            AttribCode : read

            Name       : Backup
```

```
Type       :
Id         : 10
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : read
Name       : Host
Type       :
Id         : 15
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : read
Name       : DataSet
Type       :
Id         : 3
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
```

```
AttribCode : read
Name       : Provision
Type       :
Id         : 27
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : read
Name       : Clone
Type       :
Id         : 23
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : allow
Name       : Discovery
Type       :
Id         : 54
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
```

```
IsClone    : False
CloneLevel : 0

AttribCode : allow
Name       : Restore
Type       :
Id         : 53
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : read
Name       : Backup
Type       :
Id         : 10
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : create
Name       : Host
Type       :
Id         : 13
Host       :
UserName   :
Passphrase :
```

```
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : delete
Name       : Host
Type       :
Id         : 14
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : read
Name       : Host
Type       :
Id         : 15
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : update
Name       : Host
Type       :
Id         : 16
```

```
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : read
Name       : DataSet
Type       :
Id         : 3
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : read
Name       : Policy
Type       :
Id         : 8
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : create
Name       : Provision
```

```
Type       :
Id         : 25
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : delete
Name       : Provision
Type       :
Id         : 26
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : read
Name       : Provision
Type       :
Id         : 27
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
```

```
AttribCode : update
Name       : Provision
Type       :
Id         : 28
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : read
Name       : Clone
Type       :
Id         : 23
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : create
Name       : StorageConnection
Type       :
Id         : 17
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
```

```
IsClone    : False
CloneLevel : 0

AttribCode : delete
Name       : StorageConnection
Type       :
Id         : 18
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : read
Name       : StorageConnection
Type       :
Id         : 19
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : update
Name       : StorageConnection
Type       :
Id         : 20
Host       :
UserName   :
```

```
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : allow
Name       : DashBoard
Type       :
Id         : 51
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : allow
Name       : Discovery
Type       :
Id         : 54
Host       :
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

AttribCode : allow
Name       : Plugin_Installation
Type       :
Id         : 58
```

```
Host       :

UserName   :

Passphrase :

Deleted    : False

Auth       : SMCoreContracts.SmAuth

IsClone    : False

CloneLevel : 0


AttribCode : allow

Name       : Reports

Type       :

Id         : 52

Host       :

UserName   :

Passphrase :

Deleted    : False

Auth       : SMCoreContracts.SmAuth

IsClone    : False

CloneLevel : 0
```

# Get-SmUsersAndGroups

Gets information of the user and the group.

# Syntax

```
Get-SmUsersAndGroups [[-Type] <FilterType>] [<CommonParameters>]
```

# Detailed Description

Valid session is required to get the information like, user, roles, and domain details.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Type | | false | false | |

# Examples

## Example 1: Get the user and the group details

```
Get-SmUsersAndGroups -Type ALL
```

```
This example syntax gets the information of the user and the group.
```

```
PS C:\> Get-SmUsersAndGroups -Type ALL


                        Name          Type Roles           Domain

                        ----          ---- -----           ------

                        administrator User SnapCenterAdmin exchange1
```

# Get-SmVerificationServer

Gets information about existing verification servers.

# Syntax

```
Get-SmVerificationServer [-Names <String>] [<CommonParameters>]
```

# Detailed Description

Gets information about existing verification servers. You can get information about specific servers, or all SnapCenter verification servers.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Names | Specifies the names of the verification server about which you want to get information. If you omit the Names parameter, you get information about all SnapCenter verification servers. | false | true (ByPropertyName) | |

# Examples

## Example 1: Getting information about a specified verification server

```
Get-SmVerificationServer -Names mva-s51, mva-s51/instance1
```

```
This example syntax gets information about a specified verification server.

            Name                     : MVA-S51

            HostName                 : MVA-S51.mva.gdl.mycompany.com

            PlugIn                   : SnapManager for SQL

            UseDriveLetterIfAvail    : True

            DefaultMountPointFolder  : c:\abc

            MaxJobCount              : 1

            Description              :

            EndpointURI              : http://localhost:809/SqlManagementService

            PluginVersion            :


            Name                     : mva-s51/instance1

            HostName                 : MVA-S51.mva.gdl.mycompany.com

            PlugIn                   : SnapManager for SQL
```

```
UseDriveLetterIfAvail   : True
DefaultMountPointFolder : c:\temp
MaxJobCount             : 1
Description             :
EndpointURI             : http://localhost:809/SqlManagementService
PluginVersion           :
```

## Example 2: Getting information about all SnapCenter verification servers

```
Get-SmVerificationServer
```

This example syntax gets information about all available verification servers.

```
Name                    : MVA-S51
HostName                : MVA-S51.mva.gdl.mycompany.com
PlugIn                  : SnapManager for SQL
UseDriveLetterIfAvail   : True
DefaultMountPointFolder : c:\abc
MaxJobCount             : 1
Description             :
EndpointURI             : http://localhost:809/SqlManagementService
PluginVersion           :

Name                    : MVA-S57-VM2
HostName                : MVA-S57-VM2.mva.gdl.mycompany.com
PlugIn                  : SnapManager for SQL
UseDriveLetterIfAvail   : True
DefaultMountPointFolder : c:\temp
MaxJobCount             : 1
Description             :
EndpointURI             :
PluginVersion           :

Name                    : MVA-S51\MTSHASTA
HostName                : MVA-S51.mva.gdl.mycompany.com
PlugIn                  : SnapManager for SQL
```

```
UseDriveLetterIfAvail   : True
DefaultMountPointFolder : c:\temp
MaxJobCount             : 1
Description             :
EndpointURI             : http://localhost:809/SqlManagementService
PluginVersion           :

Name                    : mva-s51/instance1
HostName                : MVA-S51.mva.gdl.mycompany.com
PlugIn                  : SnapManager for SQL
UseDriveLetterIfAvail   : True
DefaultMountPointFolder : c:\temp
MaxJobCount             : 1
Description             :
EndpointURI             : http://localhost:809/SqlManagementService
PluginVersion           :
```

# Install-SmHostPackage

Installs or upgrades a host plug-in package on one or more hosts.

# Syntax

```
Install-SmHostPackage [-HostNames] <String> [-PluginCodes] <UploadedPluginCode> [[-
PluginVersions] <Hashtable>] [[-InstallPath] <String>] [[-SkipPreinstallChecks]
<SwitchParameter>] [[-GMSAName] <String>] [[-Force] <SwitchParameter>]
[<CommonParameters>]
```

# Detailed Description

Installs or upgrades a host plug-in package on one or more hosts. When specifying multiple hosts, all hosts must have the same OS.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostNames | Specifies the hosts on which you want to install or upgrade the plug-in. You can specify one host, or multiple, comma-separated host names. Host names must be entered using the format -HostNames ®("hostname") when installing to a single host, or -HostNames ®("hostname1", "hostname2") when installing to multiple hosts. You can specify the hostname using either the host FQDN or IP address. | true | true (ByPropertyName) | |
| PluginCodes | Specifies the code for one or more plug-ins in the packages that you want to install. The following values are valid: SCSQL, SCO, SCW, SCE and hana. For custom plug-ins, the value is the custom plug-in name. For example "CustomPlugin1". You can use a comma-separated list of plug-in codes to install multiple plug-ins. | true | true (ByPropertyName) | |
| PluginVersions | Specifies in a hash table the custom plug-in name and the version to install. The PluginVersions parameter uses the format ®{"customplugin" = "4.0"} | false | true (ByPropertyName) | |
| InstallPath | Specifies the plug-in installation path, if the path different from the default. | false | true (ByPropertyName) | |
| SkipPreinstallChecks | Specifies that installation prechecks will not be triggered. | false | true (ByPropertyName) | |
| GMSAName | Specifies that group Managed Service Account (gMSA) name will be used to run the plug-in services. | false | true (ByPropertyName) | |
| Force | Internal switch. | false | true (ByPropertyName) | |

# Examples

### Example 1: Installing SnapCenter Plug-in for Microsoft SQL Server and SnapCenter Plug-in for Microsoft Windows on a Windows host

```
Install-SmHostPackage -HostNames ®("host2012r2.mycompany.com") -PluginCodes SCSQL,SCW
```

This example syntax installs SnapCenter Plug-in for Microsoft SQL Server and SnapCenter Plug-in for Windows on the specified host.

## Example 2: Installing SnapCenter Plug-in for Microsoft SQL Server and SnapCenter Plug-in for Microsoft Windows on multiple hosts

```
Install-SmHostPackage -HostNames ®("sql-1.mycompany.com", "sql-2.mycompany.com") -
PluginCodes SCSQL,SCW
```

This example syntax installs SnapCenter Plug-in for Microsoft SQL Server and SnapCenter Plug-in for Microsoft Windows on multiple hosts.

## Example 3: Installing a custom plug-in with SnapCenter Plug-in for Oracle and SnapCenter Plug-in for Unix on a Linux host

```
Install-SmHostPackage -HostNames("scspr0098708001.englab.mycompany.com") -PluginCodes
CustomPlugin1,SCO -InstallPath /opt/NetApp/snapcenter/ -PluginVersions
®{"customplugin1" = "2.0"}
```

This example syntax installs a custom plug-in along with SnapCenter Plug-in for Oracle and SnapCenter Plug-in for Unix on a Linux host.

## Example 4: Installing SnapCenter Plug-in for Microsoft Exchange Server

```
Install-SmHostPackage -HostNames Exchange2016DAG -PluginCodes SCE,SCW -Verbose
```

This example syntax installs SnapCenter Plug-in for Microsoft Exchange Server on the specified host.

## Example 5: Installing SnapCenter Plug-in for SAP HANA Database on the same Windows host

```
Install-SmHostPackage -HostNames 'Windows.Host.lab.com' -PluginCodes hana,SCW
```

This example syntax installs the SnapCenter Plug-in for SAP HANA Database on the same host where SnapCenter Server is installed.

## Example 6: Installing SnapCenter Plug-in for SAP HANA database on a remote host

```
Install-SmHostPackage -HostNames 'Host.fqdn.lab.com' -PluginCodes hana
```

This example syntax installs the  SnapCenter Plug-in for SAP HANA Database on the specified remote host (Windows and Linux).

## Example 7: Installing SnapCenter Plug-in for Oracle Database on a AIX host

```
Install-SmHostPackage -HostNames 'aix207-193.gdl.englab.netapp.com' -PluginCodes SCO
```

This example syntax installs the SnapCenter Plug-in for Oracle Database on the specified AIX host. Plugin code SCC is not supported.

## Example 8: Installing SnapCenter Plug-in for Microsoft SQL Server and SnapCenter Plug-in for Microsoft Windows on a Windows host to run with group Managed Service Account (gMSA)

```
Install-SmHostPackage -HostNames 'host2012r2.NewDomain.com' -PluginCodes SCSQL,SCW -
GMSAName 'NewDomain\gMSAName$'
```

This example syntax installs SnapCenter Plug-in for Microsoft SQL Server and SnapCenter Plug-in for Windows to run with the mentioned group Managed Service Account (gMSA) name on the specified host.

# Invoke-DiagnosticLogCollection

Gets SnapCenter log files.

# Syntax

```
Invoke-DiagnosticLogCollection [-SnapCenter] [-Hosts <String>] [-svms <String>] [-
vcenter <String>] [-joblogs <Int64>] [-Cluster <String>] [<CommonParameters>]
```

# Detailed Description

Gets SnapCenter log files. Log files are returned in a .zip file. You can retrieve all SnapCenter logs, Svms, Vcenter, Cluster or logs for a individual plug-in or SnapCenter instance. You can also get logs for a specified job.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SnapCenter | | false | true (ByPropertyName) | |
| Hosts | | false | true (ByPropertyName) | |
| svms | | false | true (ByPropertyName) | |
| vcenter | | false | true (ByPropertyName) | |
| joblogs | | false | true (ByPropertyName) | |
| Cluster | | false | true (ByPropertyName) | |

# Examples

### Example 1: Retrieving all logs

```
Invoke-DiagnosticLogCollection -SnapCenter
```

```
This example syntax retrieves all log files.
```

### Example 2: Retrieving logs for a designated jobs

```
Invoke-DiagnosticLogCollection -Joblogs 1234,1235
```

```
This example syntax retrieves logs for job ID 1234 ad 1235.
```

### Example 3: Retrieving Cluster logs

```
Invoke-DiagnosticLogCollection -Cluster host123
```

```
This example syntax retrieves all cluster node logs.
```

## Example 4: Retrieving Hosts logs

```
Invoke-DiagnosticLogCollection -Hosts hostname1,hostname2
```

This example syntax retrieves all the hosts server,plugin and config logs.

## Example 5: Retrieving svms logs

```
Invoke-DiagnosticLogCollection -svms Vserver1,Vserver2
```

This example syntax retrieves all the vserver logs.

# Invoke-SCVOVAMigration

Migrates SCV to the virtual appliance.

# Syntax

```
Invoke-SCVOVAMigration -SourceSCVHost <String> -DestinationSCVOVAHost <String> -
OVACredential <String> [-ByPassValidationCheck] [-Overwrite] [-
ContinueMigrationOnStorageError] [-ScheduleOffsetTime <String>] [<CommonParameters>]
```

# Detailed Description

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SourceSCVHost | The IP or hostname of the SCV host that will be migrated to the NDB host | true | false | |
| DestinationSCVOVAHost | The IP or hostname of the destination NDB host that the SCV host will be migrated to | true | false | |
| OVACredential | The name of the Run As credentials to use for connecting to the OVA. These Run As credentials must be created on the SnapCenter Server. | true | false | |
| ByPassValidationCheck | Skip validation that checks if the source SCV host is registered to the same vCenter as the destination NDB host. | false | false | |
| Overwrite | If enabled, the MySQL database on the NDB host is completely overwritten with the migrated metadata from the source SCV host. All existing metadata on the NDB host, with the exception of storage connections, is deleted. This parameter is reccomended for large scale setups. | false | false | |
| ContinueMigrationOnStorageError | If enabled, migration continues if there are any errors while migrating storage systems. After migration, you must resolve all storage migration errors. Refer to documentation. | false | false | |
| ScheduleOffsetTime | Use this parameter if the source SCV host and the destination NDB host are in different time zones. Value should be a positive or negative time offset to adjust scheduled backup run times. Specify time difference in the format hh:mm:ss, such as 06:00:00, or -06:00:00 for a negative value. | false | false | |

# Examples

## Example 1: Only required parameters

```
invoke-SCVOVAMigration -SourceSCVHost 10.225.12.187 -DestinationSCVOVAHost 10.225.43.91
-OVACredential ova
```

## Example 2: Including optional parameters

```
invoke-SCVOVAMigration -SourceSCVHost 10.225.12.187 -DestinationSCVOVAHost 10.225.43.91
-OVACredential ova -ByPassValidationCheck -Overwrite -ContinueMigrationOnStorageError -
ScheduleOffsetTime 06:00:00
```

This example includes the use of all optional parameters. See migration help for information on these parameters.

# Invoke-Sm_ExecuteQuery

This is a test cmdlet, for QA use only.

# Syntax

```
Invoke-Sm_ExecuteQuery -Query <String> [<CommonParameters>]
```

# Detailed Description

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Query | | true | true (ByPropertyName) | |

# Invoke-SmBackupMigration

Migrates archived backups from SnapManager for Microsoft SQL Server to SnapCenter Plug-in for SQL Server.

# Syntax

```
Invoke-SmBackupMigration -HostName <String> -PluginCode <PluginCode> [-SMSBaseUrl
<String>] [<CommonParameters>]
```

# Detailed Description

Invokes the operation of migrating archived backups from SnapManager for Microsoft SQL Server to SnapCenter Plug-in for SQL Server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostName | | true | true (ByPropertyName) | |
| PluginCode | | true | true (ByPropertyName) | |
| SMSBaseUrl | | false | true (ByPropertyName) | |

# Examples

### Example : Migrates archived backups from SnapManager to SnapCenter Plug-in for Microsoft SQL Server

```
Invoke-SmBackupMigration -HostName windows2016.smsqlqa3.gdl.englab.netapp.com -
PluginCode SCSQL
```

```
This example syntax invokes the operation of migrating archived backups from
SnapManager for Microsoft SQL Server to SnapCenter Plug-in for SQL Server.
```

# Invoke-SmBackupVerification

Initiates a verification job. [This command is being deprecated in Snapcenter 4.4 and the support to the command will be stopped in future releases.]

# Syntax

```
Invoke-SmBackupVerification [-DatasetName] <String> [-VerificationPolicy] <String> [-
BackupPolicies <String>] [-ScheduleOnly] [-SchedulerCredentialName <String>] [-BackupID
<String>] [-NumBackups <Int32>] [-Auth <String>] [-IsScheduled <Boolean>] [-ClusterName
<String>] [-SMSBaseUrl <String>] [-IsNLBHost <Boolean>] [-ScheduleName <String>] [-
Guid1 <String>] [-Guid2 <String>] [-ScheduleType <String>] [-BackupScheduleType
<String>] [<CommonParameters>]
```

# Detailed Description

Initiates a verification job by specifying the dataset backup you want to verify and the verification policy for the operation. When you start a verification job, the Snapshot copy you specify is mounted. The mount operation creates a clone and the cloned database is attached to the verification server you specified in the verification policy. DBCC checkdb is run and any error are recorded for that particular backup. Once verification has finished, the clone database is deleted and the Snapshot copy is unmounted.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| DatasetName | Specifies the dataset name for the backups you want to verify. You can use the verification policy and the backup policy to govern how many and what kind of dataset backups you want to verify. | true | false | |
| VerificationPolicy | Specifies the verification policy you want to use during backup verification. The verification policy is used to provide scheduling, replication pre-and post script information, and DBCC CHECK options. A verification policy is required for every verification job. | true | false | |
| BackupPolicies | Specifies one or more backup policies to select the backups to be verified. For example, if you have a Daily, a Weekly, and a Monthly backup policy attached to a dataset. You can specify Monthly, to just verify the monthly backups. | false | true (ByPropertyName) | |
| ScheduleOnly | Indicates that you want to schedule verification jobs for the future, rather than run one now. The scheduling information is in the verification policy you specified with the VerificationPolicy parameter. | false | true (ByPropertyName) | |
| SchedulerCredentialName | | false | true (ByPropertyName) | |
| BackupID | Specifies a backup ID. This parameter allows you to verify specific backups, rather than a group of backups created for a given dataset. If you use this parameter, you do not need to provide the DatasetName. | false | false | |
| NumBackups | Indicates the number of backups you want to verify for a given dataset. If provided, this parameter overrides the verification policy settings. This allows to you run quick | false | false | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | verification checks, without altering the verification policy. | | | |
| Auth | Provides authorization credentials to run this verification job. Authorization credentials allows you to provide different credentials to run verification operations. You want to provide these credentials when your original PowerShell session does not have sufficient RBAC permissions to run the desired operation. | false | false | |
| IsScheduled | This is for internal use only. This switch parameter indicates that the verification job has been invoked by a schedule. | false | false | |
| ClusterName | This is for internal use only. This parameter identifies the cluster host name for which the verification job is scheduled. | false | false | |
| SMSBaseUrl | This is for internal use only. This parameter identifies the SnapCenter-based URL. | false | false | |
| IsNLBHost | Internal switch that indicates whether this host is part of Network Load Balancing. | false | false | |
| ScheduleName | Specifies the name of the schedule you want to use for performing deferred verification jobs. | false | false | |
| Guid1 | | false | false | |
| Guid2 | | false | false | |
| ScheduleType | | false | false | |
| BackupScheduleType | | false | false | |

# Examples

## Example 1: Verifying backups from a specified backup policy

```
Invoke-SmBackupVerification -DatasetName test -VerificationPolicy verifp -
BackupPolicies backup ?Verbose
```

```
This example syntax verifies backups created by a specific policy.

PS C:\Software> Invoke-SmBackupVerification -DatasetName test -VerificationPolicy
verifp -BackupPolicies backup -Verbose

            VERBOSE: Start Invoke-SmBackupVerification

            VERBOSE: ProcessRecord Invoke-SmBackupVerificaiton - Begin

            VERBOSE: ProcessRecord Invoke-SmBackupVerificaiton - End

            VERBOSE: Invoke-SmBackupVerification ended successfully.
```

## Example 2: Verifying one backup using a backup ID

```
Invoke-SmBackupVerification -DatasetName test -BackupID 109 -VerificationPolicy verifp
-Verbose
```

```
This example syntax verifies backups using a specific backup ID.
```

```
VERBOSE: Start Invoke-SmBackupVerification

            VERBOSE: ProcessRecord Invoke-SmBackupVerificaiton - Begin

            VERBOSE: ProcessRecord Invoke-SmBackupVerificaiton - End

            VERBOSE: Invoke-SmBackupVerification ended successfully.
```

## Example 3: Scheduling a backup verification

```
Invoke-SmBackupVerification -DatasetName test -VerificationPolicy verifp -
BackupPolicies backup -ScheduleOnly -SchedulerRunAsName mvawin -Verbose
```

This example syntax schedules a backup verification job for a future time.

```
VERBOSE: Start Invoke-SmBackupVerification

            VERBOSE: ProcessRecord Invoke-SmBackupVerificaiton - Begin

            VERBOSE: ProcessRecord Invoke-SmBackupVerificaiton - End

            VERBOSE: Invoke-SmBackupVerification ended successfully.
```

## Example 4: Running a verification job with alternate authentication credentials

```
Invoke-SmBackupVerification -DatasetName test -VerificationPolicy verifp -
BackupPolicies backup -Auth mvawin
```

This example syntax runs a verification job with alternate authentication credentials.

## Example 5: Verifying your most recent backups

```
Invoke-SmBackupVerification -DatasetName test -VerificationPolicy verifp
```

This example syntax verifies your most recent backups.

## Example 6: Overwriting the number of backups to be verified in verification policy

```
Invoke-SmBackupVerification -DatasetName test -VerificationPolicy verifp -
BackupPolicies backup ?NumBackups 1
```

This example syntax overwrites the verification policy specified number of backups to be verified.

# Invoke-SmConfigureResources

Moves an existing Microsoft SQL Server database from a local disk to a NetApp LUN.

# Syntax

```
Invoke-SmConfigureResources -Resources <Hashtable[]> [-DataPath <String>] [-LogPath
<String>] [-Files <Hashtable[]>] [-DeleteOriginal] -PluginCode <PluginCode> [-
DBCC_NOINDEX] [-DBCC_ALL_ERRORMSGS] [-DBCC_NO_INFOMSGS] [-DBCC_TABLOCK] [-
DBCC_PHYSICALONLY] [-UpdateTableStatsBeforeDetach] [-RUnDBCCBeforeMigration] [-
RunDBCCAfterMigration] [<CommonParameters>]
```

# Detailed Description

Moves an existing Microsoft SQL Server database from a local disk to a NetApp LUN. This cmdlet moves and configures either system or user databases for the following configurations: - Configuration of databases on standalone SQL server instances - Configuration of Availability Group SQL databases. - Configuration of SQL Failover Cluster Instance databases. In an Availability Group, you must run this cmdlet separately on both the primary and secondary nodes to ensure databases are moved for all nodes.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Resources | Specifies the resources, in a hashtable, including host, type, name, files, and destination. Host indicates the name of the host from which the database is being moved. Type is the type of database being moved. The type is SQLDatabase. | true | true (ByValue) | |
| DataPath | Specifies the destination disk path for database data files to be moved. | false | true (ByValue) | |
| LogPath | Specifies the destination path to which all the database log files will be moved. | false | true (ByValue) | |
| Files | Specifies the logical name of the database file and the destination path to which the file will be moved. | false | true (ByValue) | |
| DeleteOriginal | Specifies that all the database files are deleted from the source location. | false | true (ByValue) | |
| PluginCode | Specifies the plug-in code of the destination host. The valid code is SMSQL. | true | true (ByValue) | |
| DBCC_NOINDEX | | false | false | |
| DBCC_ALL_ERRORMSGS | | false | true (ByPropertyName) | |
| DBCC_NO_INFOMSGS | | false | true (ByPropertyName) | |
| DBCC_TABLOCK | | false | true (ByPropertyName) | |
| DBCC_PHYSICALONLY | | false | true (ByPropertyName) | |
| UpdateTableStatsBeforeDetach | | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| RUnDBCCBeforeMigration | | false | true (ByPropertyName) | |
| RunDBCCAfterMigration | | false | true (ByPropertyName) | |

# Examples

## Example 1: Moving a single database at the database level

```
Invoke-SmConfigureResources -Resources ®{"Host"="scspr0088723007";"Type"="SQL
Database";"Name"="scspr0088723007\INST1\d1"} ?DataPath G:\ -Logpath G:\ ?PluginCode
SMSQL
```

## Example 2: Moving multiple databases at the database level

```
Invoke-SmConfigureResources -Resources ®{"Host"="nfs1";"Type"="SQL
Database";"Name"="nfs1\SQL12INST1\newnfs"},®{"Host"="nfs1";"Type"="SQL
Database";"Name"="nfs1\SQL12INST1\chk1";} -DataPath E:\ -LogPath E:\ -PluginCode SMSQL
```

## Example 3: Moving a single database at the file level

```
Invoke-SmConfigureResources -Resources
®{"Host"="nfs1";"Type"="SQLDatabase";"Name"="nfs1\SQL12INST1\new1";"Files"=®{"LogicalNa
me"="new1";"Destination"="E:\"},®{"LogicalName"="new1_log";"Destination"="E:\"},®{"Logi
calName"="f";"Destination"="E:\"}} ?DeleteOriginal ?PluginCode SMSQL
```

```
This example syntax moves a single database from on disk to another.
```

## Example 4: Moving multiple databases at the file level

```
Invoke-SmConfigureResources -Resources
®{"Host"="nfs1";"Type"="SQLDatabase";"Name"="nfs1\SQL12INST1\newnfs";"Files"=®{"Logical
Name"="newnfs";"Destination"="F:\"},®{"LogicalName"="newnfs_log";"Destination"="E:\"}},
®{"Host"="nfs1";"Type"="SQLDatabase";"Name"="nfs1\SQL12INST1\chk1";"Files"=®{"LogicalNa
me"="chk1";"Destination"="F:\"},®{"LogicalName"="chk1_log";"Destination"="F:\"}}
?DeleteOriginal ?PluginCode SMSQL
```

```
This example syntax moves multiple database files from one disk to another.
```

## Example 5: Moving a database in a failover cluster instance

```
Invoke-SmConfigureResources -Resources
®{"Host"="Host1";"Type"="SQLDatabase";"Name"="Host1\DB1";"Files"=®{"LogicalName"="DB1";
"Destination"="F:\"},®{"LogicalName"="DB1_log";"Destination"="F:\"}},®{"Host"="Host2";"
Type"="SQLDatabase";"Name"="Host2\RahulDB";"Files"=®{"LogicalName"="RahulDB";"Destinati
on"="F:\"},®{"LogicalName"="RahulDB_log";"Destination"="F:\"}} ?DeleteOriginal
?PluginCode SMSQL
```

This example syntax moves a database from one shared volume to another shared volume in a failover cluster instance.

# Invoke-SmReportSchedule

Run an existing schedule using this cmdlet.

# Syntax

```
Invoke-SmReportSchedule [-Name] <String> [<CommonParameters>]
```

# Detailed Description

Perform an on-demand run operation of an existing schedule using this cmdlet.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specify the schedule name to perform on-demand run operation. | true | true (ByPropertyName) | |

# Examples

### Example 1: Run a report schedule.

```
Invoke-SmReportSchedule -Name schedule1
```

```
This example runs a report schedule on-demand. Pass name of the schedule to perform on-
demand run operation.
```

# Invoke-SmResourceSplit

Initiates the split clone operation.

# Syntax

```
Invoke-SmResourceSplit [-Estimate] [-AppObjectId <String>] [-CloneName <String>]
[<CommonParameters>]
```

```
Invoke-SmResourceSplit [-Start] [-AppObjectId <String>] [-CloneName <String>] [-
DoNotEstimate] [-EnableEmail] [-EmailPreference <SmEmailNotificationPreference>]
[<CommonParameters>]
```

```
Invoke-SmResourceSplit [-Stop] [-AppObjectId <String>] [-CloneName <String>]
[<CommonParameters>]
```

```
Invoke-SmResourceSplit [-Status] [-AppObjectId <String>] [-CloneName <String>]
[<CommonParameters>]
```

# Detailed Description

You can use SnapCenter to split the database clone from the parent database. The split clone database becomes independent of the original database.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Estimate | Specifies that details be provided for volumes that are being split. | false | true (ByValue) | |
| AppObjectId | Specifies the AppObjectId of the clone where the split will be performed. | false | true (ByValue) | |
| CloneName | The name of the clone where the split will be performed. | false | true (ByValue) | |
| EmailBody | | false | true (ByPropertyName) | |
| EmailFrom | | true | true (ByPropertyName) | |
| EmailTo | | true | true (ByPropertyName) | |
| EmailSubject | | true | true (ByPropertyName) | |
| EnableEmailAttachment | | false | true (ByPropertyName) | |
| Start | Triggers the split clone operation. | false | true (ByValue) | |
| DoNotEstimate | Specifies that details should not be provided for the volumes that are being split. | false | true (ByValue) | |
| EnableEmail | Enables email notifications. | false | false | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| EmailPreference | Specifies when you will received email notifications. Possible values include Always, Never, OnError, OnErrorOrWarning. | false | false | |
| Stop | Stops the split clone operation. | false | true (ByValue) | |
| Status | Determines the status of the split clone operation. | false | true (ByValue) | |

# Examples

## Example 1: Clone split estimate

```
Invoke-SmResourceSplit -AppObjectId 'SC14110001040-
3\NAMEDINST1\SC14110001040_3_SDML_1_Clone_103255'  -Estimate


This example syntax displays the estimate details for the volume that is going to be
split.

Clone Split Estimate Job Summary:

            ================================




            JobId                      : 221

            ListVolumeAggSpaceMapping : {SC14110001040_3_SDML_Data_Vol1115172233091381,

            SC14110001040_3_SDML_Log_Vol1115172233079350}

            CanSplit                   : True

            AppObjectId                : SC14110001040_3_SDML_1_Clone_103255

            CloneName                  : ResourceGroup_SDML_45212443__clone__11-15-
2017_22.33.25

            Result                     : SMCoreContracts.SMResult

            TotalCount                 : 0

            DisplayCount               : 0

            Context                    :

            Job                        : SMCoreContracts.SmJob


            Estimation Details for the volumes involved in Clone Split:

            ============================================================

            VolumeName                 : SC14110001040_3_SDML_Data_Vol1115172233091381

            RequiredSpace              : 24 MB

            AggregateName              : aggr_anu

            AvailableSpaceInAggregate : 3528 GB
```

```
            StorageSystem             : 10.225.85.51

            IsVolumeAlreadySplit      : False


            VolumeName                : SC14110001040_3_SDML_Log_Vol1115172233079350

            RequiredSpace             : 22 MB

            AggregateName             : aggr_anu

            AvailableSpaceInAggregate : 3528 GB

            StorageSystem             : 10.225.85.51

            IsVolumeAlreadySplit      : False
```

## Example 2: Clone split status

```
Invoke-SmResourceSplit -CloneName 'Resource_Group_Instance_45212443__clone__11-15-
2017_22.44.24'  -Status
```

This example syntax displays the status of a clone split operation.

```
Clone Split Status Job Summary:

            ==============================




            JobId        : 237

            AppObjectId  : SC14110001040_3_MDSL_4_Clone_104322

            CloneName    : Resource_Group_Instance_45212443__clone__11-15-2017_22.44.24

            Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0
```

## Example 3: Starting a clone split operation

```
Invoke-SmResourceSplit -CloneName 'Resource_Group_Instance_45212443__clone__11-15-
2017_22.44.24'  -confirm:$false  -Start
```

This example syntax starts a clone split operation.

```
Clone Split Start Job Summary:

            ==============================
```

```
            JobId        : 238

            AppObjectId  : SC14110001040_3_MDSL_4_Clone_104322

            CloneName    : Resource_Group_Instance_45212443__clone__11-15-2017_22.44.24

            Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob
```

## Example 4: Stopping a clone split operation

```
Invoke-SmResourceSplit -AppObjectId 'SC14110001040-
3\NAMEDINST1\SC14110001040_3_MDML_4_Clone_105129'  -Stop
```

This example syntax stops a clone split operation.

```
Clone Split Stop Job Summary:

            ============================




            JobId        : 246

            AppObjectId  : SC14110001040_3_MDML_4_Clone_105129

            CloneName    : Resource_Group_Instance_45212443__clone__11-15-2017_22.52.47

            Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob
```

## Example 5: Clone split estimate for a SAP HANA MultiTenant Database Container resource clone

```
Invoke-SmResourceSplit -Estimate -CloneName
SNAPCENTER40.sccore.test.com\hana\H30\H30_cn
```

This example syntax displays the estimate details for the volume that is going to be split. CloneName may be obtained by running the Get-SmClone command.

```
Clone Split Stop Job Summary:
```

```
            ==============================



            JobId                      : 773

            ListVolumeAggSpaceMapping : {ng_pvol04021807440550}

            CanSplit                   : True

            AppObjectId                : H30_cn

            CloneName                  : SNAPCENTER40.sccore.test.com\hana\H30\H30_cn

            Result                     : SMCoreContracts.SMResult

            TotalCount                 : 0

            DisplayCount               : 0

            Context                    :

            Job                        : SMCoreContracts.SmJob


            Estimation Details for the volumes involved in Clone Split:

            ============================================================

            VolumeName                 : ng_pvol04021807440550

            RequiredSpace              : 48 MB

            AggregateName              : aggr1_old

            AvailableSpaceInAggregate : 4670 GB

            StorageSystem              : 10.200.200.100

            IsVolumeAlreadySplit       : False
```

## Example 6: Starting a clone split operation for a SAP HANA MultiTenant Database Container resource clone

```
Invoke-SmResourceSplit -start -CloneName SNAPCENTER40.sccore.test.com\hana\H30\H30_cn


This example syntax starts a clone split operation. CloneName may be obtained by
running the Get-SmClone command.

This may take several minutes to complete for large volumes. All backups taken on the
clone will be deleted

            Do you still want to continue?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):

            Clone Split Start Job Summary:
```

```
            ==============================



            JobId        : 774

            AppObjectId  : H30_cn

            CloneName    : SNAPCENTER40.sccore.test.com\hana\H30\H30_cn

            Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob
```

## Example 7: Stopping a clone split operation for a SAP HANA MultiTenant Database Container resource clone

```
Invoke-SmResourceSplit -stop -CloneName SNAPCENTER40.sccore.test.com\hana\H30\H30_cn


This example syntax stops a clone split operation. CloneName may be obtained by running
the Get-SmClone command

Clone Split Stop Job Summary:

            ==============================



            JobId        : 775

            AppObjectId  : H30_cn

            CloneName    : SNAPCENTER40.sccore.test.com\hana\H30\H30_cn

            Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob
```

# New-SmAlert

Create new alert.

# Syntax

```
New-SmAlert -Name <String> -Description <String> -Recommendation <String> -Severity
<SmAlertSeverity> [-Status <SmAlertStatus>] -EntityType <SmEntityType> [-EntityName
<String>] -JobId <String> -Source <SmAlertSource> [<CommonParameters>]
```

# Detailed Description

To create new alert, Valid connection is required. You should provide alert severity like Informational, Warning or Critical and EntityType can be All, SnapCenterServer, Host or StorageSystem. The Source parameter should be ConfigurationChecker or SnapCenterServer.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | | true | true (ByPropertyName) | |
| Description | | true | true (ByPropertyName) | |
| Recommendation | | true | true (ByPropertyName) | |
| Severity | | true | true (ByPropertyName) | |
| Status | | false | true (ByPropertyName) | |
| EntityType | | true | true (ByPropertyName) | |
| EntityName | | false | true (ByPropertyName) | |
| JobId | | true | true (ByPropertyName) | |
| Source | | true | true (ByPropertyName) | |

# Examples

## Example 1: Create new alert

```
New-SmAlert -Name TestAlert -Description ForSnapCenter -Recommendation AnyRecom -
Severity Informational -Status New -EntityType Host -EntityName WIN-
SCServer.Domain1.com -JobId 162 -Source SnapCenterServer


This example syntax creates an alert.

Id              :

                        CreatedTime    : 1/1/0001 12:00:00 AM

                        ModifiedTime   : 1/1/0001 12:00:00 AM

                        Name           : TestAlert

                        Status         : New

                        Severity       : Informational
```

```
Entity         : SMCoreContracts.ConfigCheck.SmEntity

Description    : ForSnapCenter

Recommendation : AnyRecom

JobId          : 162

Source         : SnapCenterServer

IsRulePassed   : False


EntityType : Host

EntityName : WIN-SCServer.Domain1.com

EntityId   :

Username   :

Password   :

Port       :
```

# New-SmBackup

Initiates a new Snapshot copy job.

# Syntax

```
New-SmBackup [-Resources <Hashtable[]>] [-DatasetName <String>] [[-ResourceGroupName]
<String>] [-Policy] <String> [[-Auth] <String>] [[-IsScheduled] <Boolean>] [[-
ClusterName] <String>] [[-SMSBaseUrl] <String>] [[-IsNLBHost] <Boolean>] [[-
ScheduleName] <String>] [[-ScheduleType] <SmSchedulerType>] [-Guid1 <String>] [-Guid2
<String>] [-SnapShotLabel <SmSPSnapShotLabel>] [-HostName <String>] [-
VerifyOnSecondary] [-EnableVerification] [<CommonParameters>]
```

# Detailed Description

Initiates a new Snapshot copy job on the provided resource or the resources mapped to the provided resource group.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Resources | Specifies the resource which you want to backup. For Oracle Application Volume resource, format is -Resources ®{"Host"="host1";"Application Volume"="appVol1"} | false | true (ByPropertyName) | |
| DatasetName | Names the dataset you want to back up. | false | false | |
| ResourceGroupName | | false | false | |
| Policy | Specifies the policy you want to use for the backup operation. | true | false | |
| Auth | This parameter is for internal use only. | false | false | |
| IsScheduled | Internal switch to determine Cmdlet invocation by scheduler. | false | false | |
| ClusterName | Internal switch for identifying the cluster host. | false | false | |
| SMSBaseUrl | Internal switch that points to the SMS Base URL. | false | false | |
| IsNLBHost | Internal switch that indicates whether this host is part of NLB. | false | false | |
| ScheduleName | Internal switch that indicates schedule name. | false | false | |
| ScheduleType | | false | false | |
| Guid1 | | false | false | |
| Guid2 | | false | false | |
| SnapShotLabel | | false | false | |
| HostName | Determines the host name (FQDN) for which the backup job has been scheduled. | false | false | |
| VerifyOnSecondary | Specifies whether verification is enabled on secondary storage. | false | false | |
| EnableVerification | Specifies whether verification of backups is enabled. Values are either $True or $False. | false | false | |

# Examples

## Example 1: Backing up a resource group

```
New-SMBackup -ResourceGroupName FullOnlineDataset1 -Policy FullBackupPolicy
```

This example syntax backs up the specified resource group.

## Example 2: Backing up resources

```
New-SMBackup -Policy FullBackupPolicy -Resources ®{"Host"="scspr0101826001-
sumanr.lab.netapp.com";"Oracle Database"="ong"}
```

This example syntax backs up the specified resources.

## Example 3: Enabling verification of a backup

```
New-SMBackup -EnableVerification $true -VerifyOnSecondary $true -Policy
FullBackupPolicy -Resources ®{"Host"="scspr0101826001-sumanr.lab.netapp.com";"Oracle
Database"="ong"}
```

This example syntax backs up the specified resources and verifies the backup when it completes.

## Example 4: Triggering a new backup of the HANA resource

```
New-SMBackup -Resources
®{"Host"="schana02.gdl.englab.netapp.com";"Uid"="MDC\R57";"PluginName"="hana"} -Policy
"HANAPOLICY"
```

This example backs up the specified resources.

```
Name                : Backup of Resource Group
'schana02_gdl_englab_netapp_com_hana_MDC_R57' with policy 'HANAPOLICY'

            Id                  : 25

            StartTime           : 02-Oct-19 21:49:46

            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           : 0

ApisJobKey          :

ObjectId            : 0

PluginCode          : SCC

PluginName          : PluginCreator

HostId              : 0

RoleId              :

JobIds              : {}
```

## Example 5: Backing up an Oracle Application Volume Resource

```
New-SMBackup -Policy ndvpolicy -Resources
®{"Host"="R809278EA03V1.HNK2.com";"Application Volume"="appVol1"}
```

This example syntax backs up the specified Oracle Application Volume resource.

# New-SmClone

Initiates a clone operation.

# Syntax

```
New-SmClone [-DatasetName] <String> [-Policy] <String> [-AppPluginCode] <PluginCode> [-
PDBName <String>] [-PDBCloneName <String>] [-CDBTargetSID <String>] [-PdbsToBeExcluded
<String>] [-OpenPluggableDatabaseAfterClone <Boolean>] [[-
SkipTempTablespaceTempFileCreation]] [-LogArchivedLocators <Hashtable[]>] [[-Auth]
<String>] [[-IsScheduled] <Boolean>] [[-ClusterName] <String>] [[-SMSBaseUrl] <String>]
[[-IsNLBHost] <Boolean>] [[-ScheduleName] <String>] [[-CreateRemoteClone] <Boolean>] [-
Guid1 <String>] [-Guid2 <String>] [<CommonParameters>]
```

```
New-SmClone [[-BackupName] <String>] [-Resources] <Hashtable[]> [-AppPluginCode]
<PluginCode> [[-CloneUid] <String>] [-CloneToInstance] <String> [[-
AutoAssignMountPoint]] [[-ArchivedLocators] <Hashtable[]>] [[-
AssignMountPointUnderPath] <String>] [[-Suffix] <String>] [-LogArchivedLocators
<Hashtable[]>] [[-LogRestoreType] <SmSqlLogRestoreType>] [[-LogCutOffDateTime]
<DateTime>] [[-LogCount] <Int32>] [[-Auth] <String>] [[-IsScheduled] <Boolean>] [[-
ClusterName] <String>] [[-SMSBaseUrl] <String>] [[-IsNLBHost] <Boolean>] [[-
ScheduleName] <String>] [[-CloneLastBackup] <Int32>] [[-CreateRemoteClone] <Boolean>]
[-Guid1 <String>] [-Guid2 <String>] [[-CloneName] <String>] [-EnableEmail] [-
PreScriptCommand <String>] [-PreScriptArguments <String>] [-PostScriptCommand <String>]
[-PostScriptArguments <String>] [-ScriptTimeOut <Int32>] [-PreCloneScriptPath <String>]
[-PostCloneScriptPath <String>] [-MountCommands <String>] [<CommonParameters>]
```

# Detailed Description

Initiates a clone operation. You can initiate a clone job from either a clone dataset or an existing backup.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| DatasetName | Specifies the name of the clone dataset. | true | false | |
| Policy | Specifies the clone policy you want to use. | true | false | |
| AppPluginCode | Specifies the application plug-in type of the resource. Possible values are SMSQL and SCO. | true | false | |
| PDBName | Source Oracle pluggable database name. | false | false | |
| PDBCloneName | Pluggable Clone Oracle pluggable database name. | false | false | |
| CDBTargetSID | Target container database SID. | false | false | |
| PdbsToBeExcluded | List of Oracle pluggable databases to be excluded from newly cloned container database. | false | false | |
| OpenPluggableDatabaseAfterClone | To open pluggable database after clone creation. | false | false | |
| SkipTempTablespaceTempFileCreation | Skips creating a tempfile for the default temporary tablespace of the cloned database. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| LogArchivedLocators | Specifies the secondary storage system details for each unique primary storage system resource in the dataset. For example: -LogArchivedLocators ®{Primary="my_vs1:my_vol_iscsi";Secondary="my_vs1:my_vol_iscsi_SECONDARY"} | false | false | |
| Auth | This parameter is for internal use only. | false | false | |
| IsScheduled | This parameter is for internal use only. | false | false | |
| ClusterName | This parameter is for internal use only. | false | false | |
| SMSBaseUrl | This parameter is for internal use only. | false | false | |
| IsNLBHost | | false | false | |
| ScheduleName | | false | false | |
| CreateRemoteClone | | false | true (ByPropertyName) | |
| Guid1 | | false | false | |
| Guid2 | | false | false | |
| OracleUntilCancel | Specifies recovery will be performed using the latest available log backup. If archive log pruning is configured, the latest log backup having archive logs prior to pruning is selected for recovery. | false | true (ByPropertyName) | |
| OracleUntilScn | Specifies the SCN of logs till which you want to recover the cloned Oracle Database. | false | true (ByPropertyName) | |
| OracleUntilTime | Specifies the date and time till which you want to recover the cloned Oracle Database. You must specify the date and time in the 'MM-dd-yyyy HH:mm:ss' format. For example: '07/02/2018 06:12:15'. | false | true (ByPropertyName) | |
| ExternalArchiveLogMountPaths | Specifies the alternate paths for archive logs to be used for recovery. Multiple alternate archive log paths can be specified in a comma separated list. | false | true (ByPropertyName) | |
| DataFilesMountPaths | Specifies, in a hash table, the destination mount path, source directory path, and disk location type. For example: ®{"DestinationMountPath" = "/mnt/db12c_data_STAND";"SourceDirectoryPath"=<br>"/mnt/db12c_data"; "DiskLocationType"="MountPoint"} | false | true (ByPropertyName) | |
| DatabaseSID | Specifies the Oracle system ID, which is used to uniquely identify a particular database. The maximum length of a clone SID is 8 characters. Example: -DatabaseSID STAND | true | true (ByPropertyName) | |
| DisableArchiveLogMode | Specify if archive log mode to be disabled. | false | true (ByPropertyName) | |
| EnableOSAuthentication | | false | true (ByPropertyName) | |
| OracleOsUserName | Specifies the OS user name. For example: -OracleOsUserName oracle | true | true (ByPropertyName) | |
| OracleOsUserGroup | Specifies the name of the Oracle OS user group. For example: oinstall | true | true (ByPropertyName) | |
| databaseLoginUserName | Specifies the login name of the database user. | false | true (ByPropertyName) | |
| databaseLoginPassword | Specifies the database user's login password. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| OracleVersion | Specifies the Oracle version. Example: -OracleVersion 12.1.0.2 | false | true (ByPropertyName) | |
| OracleHome | Specifies the Oracle home directory. Example: -OracleHome /ora01/app/oracle/product/11.2.0/db_1 | false | true (ByPropertyName) | |
| ControlFileConfiguration | Specifies the path for the control file in a hash table. For example: -ControlFileConfiguration ®{"FilePath"="/mnt/db12c_data_STAND/STAND/control/control01.ctl"}, ®{"FilePath"="/mnt/db12c_data_STAND/STAND/control/control02.ctl"} | true | true (ByPropertyName) | |
| RedoLogFileConfiguration | Specifies the redo log file details in a hash table. The following parameters are required: FilePath, RedologNumber, TotalSize, BlockSize. The following is an example of using the RedoLogFileConfiguration parameter: -RedoLogFileConfiguration ®{"FilePath"="/mnt/db12c_data_STAND/STAND/redolog/redo01.log";"RedologNumber"="1";"BlockSize"="512";"TotalSize"="50"}, ®{"FilePath"="/mnt/db12c_data_STAND/STAND/redolog/redo02.log";"RedologNumber"="2";"BlockSize"="512";"TotalSize"="50"}, ®{"FilePath"="/mnt/db12c_data_STAND/STAND/redolog/redo03.log";"RedologNumber"="3";"BlockSize"="512";"TotalSize"="50"} | true | true (ByPropertyName) | |
| PostCloneSqlQueries | Specifies any post-clone SQL queries. Multiple queries are separated by a semicolon ';'. | false | true (ByPropertyName) | |
| CustomParameters | Specifies custom parameters in a hash table. At least one custom parameter is required. For example: -CustomParameters ®{"Key" = "audit_file_dest";"Value"="/u01/app/oracle/admin/DB12C/adump_STAND"} , ®{"Key"="log_archive_dest_1";"Value"="LOCATION=/u01/app/oracle/product/12.1.0.2/db_1/STAND"} You can use this parameter when you have a clone of a clone that fails with the error "ORA-00058: DB_BLOCK_SIZE must be 32768 to mount this database (not 8192)" to explicitly pass the custom parameter, for example: -CustomParameters ®{"Key" = "DB_BLOCK_SIZE ";"Value"="value"} and substituting the correct block size. | false | true (ByPropertyName) | |
| RenamePDBConfiguration | Renames the PDB configuration in a hash table using the following format: -RenamePDBConfiguration ®{"CurrentName"="", "NewName"=""} | false | true (ByPropertyName) | |
| SkipRecovery | Indicates that you want to skip the recovery operation of the cloned database. | false | false | |
| DatabasePort | | false | true (ByPropertyName) | |
| ASMPort | | false | true (ByPropertyName) | |
| DatabaseCredentialName | | false | true (ByPropertyName) | |
| AsmCredentialName | | false | true (ByPropertyName) | |
| SkipNIDCreation | To skip new DBID creation for the cloned Oracle Database. | false | true (ByPropertyName) | |
| EmailBody | | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| EmailFrom | Specifies the sender's e-mail address. | true | true (ByPropertyName) | |
| EmailTo | Specifies the receipient's e-mail address. | true | true (ByPropertyName) | |
| EmailSubject | Specifies the subject of the e-mail. | true | true (ByPropertyName) | |
| EnableEmailAttachment | | false | true (ByPropertyName) | |
| BackupName | Specifies the name of the backup from which you want to clone. The following is an example of a SnapCenter Plug-in for Oracle Database backup name: -BackupName CDBPS_scomaddev_04-07-2016_06.14.38.8575_0 | false | false | |
| Resources | Specifies the list of resources from which to clone. Use the Resources parameter when you are creating a clone from an existing backup. You must provide the resource information in a hashtable, and it must contain the resource name and type, as well as the host on which the resource is located. For example, ®{"Host"="localhost";"Type"="SQL Database";"Names"="Instance\Database"} Valid Type value are SQL Database, Oracle Database, Windows Filesystem. For Oracle Database, the format is -Resources ®{"Host"="host.example.com";"Oracle Database"="db"}. For Oracle Application Volume, the format is -Resources ®{"Host"="host.example.com";"Application Volume"="appVol"}. | true | false | |
| CloneToInstance | Specifies the SQL Server instance that you want to clone to. All databases in the clone dataset are cloned to this instance. For Oracle application volume resource, it specifies the host on which clone should be mounted. | true | true (ByPropertyName) | |
| AutoAssignMountPoint | Specifies that the file system mount point is assigned automatically. | false | true (ByPropertyName) | |
| ArchivedLocators | Specifies the secondary storage system details for each unique primary storage system resource in the dataset. For example: -ArchivedLocators ®{Primary="my_vs1:my_vol_iscsi";Secondary="my_vs1:my_vol_iscsi_SECONDARY"} | false | true (ByPropertyName) | |
| AssignMountPointUnderPath | Specifies that the file system mount point is created automatically under the specified mount path. | false | true (ByPropertyName) | |
| CloneUid | Provide a target HANA clone UID. Use this parameter if you are creating a HANA clone on the same host as that of the source. You can use the -CloneUid parameter only with a HANA resource. | false | true (ByPropertyName) | |
| Suffix | Provides a clone name suffix. All clones you create with one clone job are appended with the same suffix name. Use this parameter if you are creating a clone from an existing backup. You can use the -suffix parameter or the -clonename parameter, but not both. | false | true (ByPropertyName) | |
| LogRestoreType | Specifies the recovery type for clones. Valid values are, the roll forward time, the number of logs to roll forward, or that you want to roll all logs forward. | false | true (ByPropertyName) | |
| LogCutOffDateTime | When you specify the date and time in the LogRestoreType parameter, you can use LogCutOffDateTime parameter to indicate the cut off time. If the server and plug-in host are in different time zones, the input must be as per the plug-in host time zone. | false | true (ByPropertyName) | |
| LogCount | When you specify a number of logs in LogRestoreType, use LogCount to specify the number of logs you want to roll forward. | false | true (ByPropertyName) | |
| CloneLastBackup | | false | false | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| CloneName | Enables you to specify a new name for the cloned database or resource. You can use the -clonename parameter or the -suffix parameter, but not both. | false | true (ByPropertyName) | |
| EnableEmail | Specifies whether to enable or disable e-mail. | false | false | |
| PreScriptCommand | Specifies commands that are executed before the restore operation. | false | true (ByPropertyName) | |
| PreScriptArguments | Specifies arguments to the prescript command. | false | true (ByPropertyName) | |
| PostScriptCommand | Specifies the commands that are executed after the restore operation. | false | true (ByPropertyName) | |
| PostScriptArguments | Specifies the arguments to the postscript command. | false | true (ByPropertyName) | |
| PreCloneScriptPath | This is an Oracle Application Volume specific parameter. It specifies absolute path of the executable script to be run before Clone operation. The script should be located either at /var/opt/snapcenter/spl/scripts/ or any directory inside the path on the Oracle Plug-in host. | false | true (ByPropertyName) | |
| PostCloneScriptPath | This is an Oracle Application Volume specific parameter. It specifies absolute path of the executable script to be run after Clone operation. The script should be located either at /var/opt/snapcenter/spl/scripts/ or any directory inside the path on the Oracle Plug-in host. | false | true (ByPropertyName) | |
| MountCommands | This is an Oracle Application Volume specific parameter. It specifies commands to mount a file system to a the Clone Host. Mount command format is : mount <Source_SVM>:%<SOURCE_VOLUME_NAME>_Clone <mount_directory> To clone from secondary, the secondary volume name will be the SOURCE_VOLUME_NAME. Enter multiple mount commands separated by semi colon (;). | false | true (ByPropertyName) | |
| ScriptTimeOut | Specifies the maximum time to wait for the script to complete before timing out. | false | true (ByPropertyName) | |
| InitiatorName | Specifies the iSCSI IQN or FCP WWPN of the host on which the new clone will be created. | false | true (ByPropertyName) | |
| IgroupProtocol | Specifies the Igroup protocol type (mixed, fcp, or iscsi) to be used for the new clone. | false | true (ByPropertyName) | |

# Examples

## Example 1: Creating a clone from a dataset

```
New-SmClone -DatasetName payrollclone_dataset -Policy clonefromprimary_ondemand
```

```
This example syntax creates a new clone using the 'payrollclone_dataset' dataset and
policy 'clonefromprimary_ondemand'.
```

```
Result        : SMCoreContracts.SMResult

            TotalCount    : 0
```

```
            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob


            Name                : Clone life cycle of dataset 'payrollclone_dataset'
with policy 'clonefromprimary_ondemand'

            Id                  : 85

            StartTime           : 8/5/2015 2:21:06 PM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0
```

## Example 2: Creating a clone from backup with all logs

```
New-SmClone -BackupName payroll_dataset_vise-f3_08-05-2015_15.28.28.9774 -Resources
®{"Host"="vise-f3.sddev.mycompany.com";"Type"="SQL Database";"Names"="vise-
f3\SQLExpress\payroll"} -CloneToInstance vise-f3\sqlexpress -AutoAssignMountPoint -
Suffix _clonefrombackup -LogRestoreType All -Policy clonefromprimary_ondemand
```

This example syntax creates a clone from the specified backup with all logs.

```
Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob
```

```
            Clones       : {}
```

## Example 3: Creating a clone from backup with the specified number of logs

```
New-SmClone -BackupName payroll_dataset_vise-f3_08-05-2015_15.28.28.9774 -Resources ®{"

          Host"="vise-f3.sddev.mycompany.com";"Type"="SQL Database";"Names"="vise-
f3\SQLExpress\payroll"} -CloneToInstance vise-f

          3\sqlexpress -AutoAssignMountPoint -Suffix _clonefrombackup1 -LogRestoreType
ByTransactionLogs -LogCount 2 -Policy clone

          fromprimary_ondemand


This example syntax creates a clone from backup with the specified number of logs.

Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob

            Clones       : {}
```

## Example 4: Creating a clone from backup with no logs

```
New-SmClone -BackupName payroll_dataset_vise-f3_08-05-2015_15.28.28.9774 -Resources ®{

          Host"="vise-f3.sddev.mycompany.com";"Type"="SQL Database";"Names"="vise-
f3\SQLExpress\payroll"} -CloneToInstance vise-

          3\sqlexpress -AutoAssignMountPoint -Suffix _clonefrombackup1 -LogRestoreType
None -Policy clonefromprimary_ondemand


This example syntax creates a clone from the specified backup with no logs.


Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob

            Clones       : {}
```

## Example 5: Creating a clone to Microsoft SQL Server instance

```
New-SmClone -BackupName "BackupDS1_NY-VM-SC-SQL_12-08-2015_09.00.24.8367" -Resources
®{"host"="ny-vm-sc-sql";"Type"="SQL Database";"Names"="ny-vm-sc-
sql\AdventureWorks2012_data"} -AppPluginCode SMSQL -CloneToInstance "ny-vm-sc-sql" -
Suffix _CLPOSH -AutoAssignMountPoint -AssignMountPointUnderPath "C:\SCMounts"
```

This example syntax creates a clone to the specified Microsoft SQL Server instance.

## Example 6: Creating an on demand clone of multiples resources of custom plugin DB2 on alternate host from primary Storage

```
New-SmClone -BackupName
Verify_Clone_frombackup_Multiple_vols_with_multiple_resources_Alternate_Host_sccorelinu
x61_08-21-2016_19.04.14.6011 -Resources
®(®{"Host"="sccorelinux61.sccore.test.com";"Uid"="Inst1\DB1"},®{"Host"="sccorelinux61.s
ccore.test.com";"Uid"="Inst21\DB2"})  -CloneToInstance sccore146.sccore.test.com -
Suffix '_clone'  -AutoAssignMountPoint -AppPluginCode 'DB2' -initiatorname 'iqn.1994-
05.com.redhat:a24a75da948e' -igroupprotocol 'mixed'
```

This example syntax creates a clone of 2 resources, hosted on Storage type LUN, and creates a new clone on an alternate host, which takes initiatorName of new host and protocoltype to be used

```
Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob

            Clones       : {}



            Name                 : Clone from backup
'Verify_Clone_frombackup_Multiple_vols_with_multiple_resources_Alternate_Host_sccorelin
ux61_08-21-2016_19.04.14.6011'

            Id                   : 1043

            StartTime            : 8/21/2016 7:05:11 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

PluginCode          : NONE

PluginName          :
```

## Example 7: Creating an on demand clone from Secondary Storage for custom plugin resource

```
New-SmClone -BackupName Verify_clone_secondary_SM_on_Qtree_unix_sccorelinux61_08-21-
2016_16.57.18.8490 -Resources
®{"Host"="sccorelinux61.sccore.test.com";"Uid"="QTREESM1"}  -CloneToInstance
sccorelinux61.sccore.test.com -Suffix '_QtreeClone4'  -preclonecreatecommands 'mkdir
/qtreeVol6_clone' -ArchivedLocators (
®{Primary="vserver_scauto_secondary:qtree_vol6_sccorelinux61_sccore_test_com";Secondary
="vserver_scauto_primary:qtree_vol6SM_sccorelinux61_sccore_test_com"}) -
AutoAssignMountPoint -AppPluginCode 'DB2' -mountcommand 'mount
vserver_scauto_primary:%qtree_vol6_sccorelinux61_sccore_test_com/qtreeVol6_Clone
/qtreeVol6_clone'
```

Clone QTree to same host from Secondary Storage using mount command.

At run-time, %qtree_vol6_sccorelinux61_sccore_test_com (source volume name) will resolve to new cloned volume name and new clone exported QTree will be mounted on folder "/qtreeVol6_clone

## Example 8: Creating a clone of an ASM database

```
New-SmClone -BackupName "RG_084825_rhel68_asmsan_03-04-2017_08.49.52.1104_0" -
AppPluginCode SCO -DatabaseSID clone -Resources ®{"Host"="10.228.9.250";"Oracle
Database"="sandb"} -AutoAssignMountPoint -CloneToInstance 10.228.9.250 -
ControlFileConfiguration ®{"FilePath"="/home/oracle/control01.ctl"} -
RedoLogFileConfiguration
®{"FilePath"="/home/oracle/redo03.log";"RedologNumber"="3";"TotalSize"="50";"BlockSize"
="512"},®{"FilePath"="/home/oracle/redo02.log";"RedologNumber"="2";"TotalSize"="50";"Bl
ockSize"="512"},®{"FilePath"="/home/oracle/redo01.log";"RedologNumber"="1";"TotalSize"=
"50";"BlockSize"="512"} -CustomParameters ®{"Key" =
"audit_file_dest";"Value"="/var/test"}
```

This example syntax creates a clone of an Automatic Storage Management (ASM) database.

## Example 9: Creating a clone using a Windows file system resource

```
New-SmClone -CloneLastBackup 0 -Resources ®{"Host"="localhost";"Type"="Windows
Filesystem";"Names"="F:\"} -AppPluginCode SCW -AssignMountPointUnderPath C:\scmnpt\ -
CloneToHost localhost
```

## Example 10: Creating a remote clone

```
New-SmClone -BackupName SQL-Prod_mydb_SQL_Prod_10-23-2017_15.56.12.1837 -AppPluginCode
SMSQL  -Suffix _clone2 -Resources (®{"Host"="SQL-PROD";"Type"="SQL
Database";"Names"="SQL-PRD\mydb"}) -CloneToInstance SQL-PRD  -ArchivedLocators
(®{Primary="svm1:sql_data";Secondary="svm1-
dr:sql_data_vault"},®{Primary="svm1:sql_log";Secondary="svm1-dr:sql_log_vault"}) -
AutoAssignMountPoint
```

This example syntax creates a clone from secondary storage with the following details:

Primary data volume path: svm1:sql_data

Secondary  data volume path: svm1-dr:sql_data_vault

Primary log volume path: svm1:sql_log

Secondary  log volume path: svm1-dr:sql_log_vault

The "ArchivedLocators" attribute is populated as a hash table with Primary and Secondary values for each volume that hosts the SQL database you want to clone.

## Example 11: Creating an on demand clone for hana database from primary backup and using NFSExportIPs to export the cloned volumes

```
New-SmClone -BackupName cn2_sccore_test_com_hana_NonDataVolume_C21_CN_cn2_06-21-
2018_03.21.14.6261 -Resources ®{"Host"="cn2";"UID"="NonDataVolume\C21\CN"}

          -AppPluginCode hana -CloneToInstance rhel182 -nfsexportips
"RHEL182,10.232.206.116,sccorelinux61.sccore.test.com" -mountcommand "mount
10.232.206.5:%cn_p2_Clone /cn_vol_test"
```

Clone from primary storage using NFS Export IP field to specify the comma separated host name or IP address on which the cloned volumes are exported

## Example 12: Creating a HANA Clone on same centralized host with mount command and NFS Export IPs

```
New-SmClone -BackupName "mva-s63_gdl_englab_com_hana_MDC_H14_mva-s63_03-22-
2021_05.43.49.8438" -Resources
®{"Host"="schana01.gdl.englab.netapp.com";"Uid"="MDC\R70"}

 -CloneToInstance "mva-s63.gdl.englab.com" -AppPluginCode HANA -CloneUid "MDC\H70"

 -nfsexportips "10.232.206.116,mva-s63.gdl.englab.com" -mountcommand "mount
10.232.206.5:%cn_p2_Clone /cn_vol_test"
```

HANA clone will be created using the same centralized host. In case of the same host, use -CloneUid paramter to specify the target clone UID.

## Example 13: Creating an on demand clone for hana database from secondary backup and using NFSExportIPs to export the cloned volumes

```
New-SmClone -BackupName cn2_sccore_test_com_hana_NonDataVolume_C21_CN_cn2_06-21-
2018_03.21.14.6261 -Resources ®{"Host"="cn2";"UID"="NonDataVolume\C21\CN"}

          -AppPluginCode hana -CloneToInstance rhel182 -ArchivedLocators
®{"primary"="vs_test1:cn_p2";"secondary"="vs_test1:cn_p2_vault1"} -nfsexportips
"RHEL182,10.232.206.116,sccorelinux61.sccore.test.com" -mountcommand "mount
10.232.206.5:%cn_p2_Clone /cn_vol_test"
```

Clone from secondary storage backup using NFS Export IP field to specify the comma separated host name or IP address on which the cloned volumes are exported

## Example 14: Creating an Oracle database clone from secondary using LogArchivedLocators

```
New-SmClone -OracleOsUserName oracle -OracleOsUserGroup oinstall -BackupName "auto-
nfs_gdl_englab_netapp_com_nasdb_05-02-2018_08.39.11.5184_0" -AppPluginCode SCO -
DatabaseSID Clon32 -Resources ®{"Host"="auto-nfs.gdl.englab.netapp.com";"Oracle
Database"="nasdb"} -AutoAssignMountPoint -CloneToInstance auto-
nfs.gdl.englab.netapp.com -ControlFileConfiguration
®{"FilePath"="/mnt/Data_Clon32/Clon32/control/control01.ctl"} -RedoLogFileConfiguration
®{"FilePath"="/mnt/Data_Clon32/Clon32/redolog/redo01.log";"RedologNumber"="3";"TotalSiz
e"="50";"BlockSize"="512"},®{"FilePath"="/MntPt_StaDB/Data_Clon32/Clon32/redolog/redo02
.log";"RedologNumber"="2";"TotalSize"="50";"BlockSize"="512"},®{"FilePath"="/MntPt_StaD
B/Data_Clon32/Clon32/redolog/redo03.log";"RedologNumber"="1";"TotalSize"="50";"BlockSiz
e"="512"} -CustomParameters ®{"Key" = "audit_file_dest";"Value"="/var/test"} -
archivedlocators
®{Primary="10.225.118.251:auto_nfs_data";Secondary="ongqathree_man:ongqaone_man_auto_nf
s_data_vault"} -logarchivedlocators
®{Primary="10.225.118.251:auto_nfs_log";Secondary="ongqathree_man:ongqaone_man_auto_nfs
_log_vault"}
```

This example uses the -LogArchivedLocators to create an Oracle database clone from secondary storage.

## Example 15: Creating an SQL clone using the clonename parameter to specify a new clone name

```
New-SmClone -BackupName SCNEW3_INSTANCE1_SCNEW3_MDML2_SCNEW3_02-28-2018_02.27.53

          .7034 -Resources ®{"Host"="SCNEW3";"Type"="SQL
Database";"Names"="SCNEW3\INSTANCE1\SCNEW3_MDML2"}  -CloneToInstance SCNE

          W3\INSTANCE1 -clonename '_Clone_035231'  -LogRestoreType 'None' -
AutoAssignMountPoint -AppPluginCode 'SCSQL'
```

This example creates a new clone _Clone_035231 using the -clonename parameter.

## Example 16: Creating an ASM Oracle database clone using the backupname parameter

```
New-SmClone -OracleOsUserName oracle -OracleOsUserGroup oinstall -BackupName "scodev-
us1_gdl_englab_netapp_com_asmud2_scodev-us1_04-13-2020_08.15.50.6683_0" -AppPluginCode
SCO -DatabaseSID abc3 -Resources ®{"Host"="scodev-us1.gdl.englab.netapp.com";"Oracle
Database"="asmud2"} -AutoAssignMountPoint -CloneToInstance scodev-
us1.gdl.englab.netapp.com -DataFilesMountPaths
®{"DestinationMountPath"="SC_2443056968_abc3";"DiskLocationType"="Asm_DiskGroup";"Sourc
eDirectoryPath"="DATAUDEV2"} -ControlFileConfiguration
®{"FilePath"="+SC_2443056968_abc3/abc3/control/control01.ctl"} -
RedoLogFileConfiguration
®{"FilePath"="+SC_2443056968_abc3/abc3/redolog/redo03.log";"RedologNumber"="3";"TotalSi
ze"="50";"BlockSize"="512"},®{"FilePath"="+SC_2443056968_abc3/abc3/redolog/redo02.log";
"RedologNumber"="2";"TotalSize"="50";"BlockSize"="512"},®{"FilePath"="+SC_2443056968_ab
c3/abc3/redolog/redo01.log";"RedologNumber"="1";"TotalSize"="50";"BlockSize"="512"}  -
CustomParameters ®{"Key" =
"audit_file_dest";"Value"="/ora01/app/oracle_software/oracle_base/admin/abc3/adump"};
```

This example creates a new ASM Oracle database clone abc3 using the -BackupName parameter.

## Example 17: Creating an Oracle PDB clone

```
New-SmClone -OracleOsUserName oracle -OracleOsUserGroup oinstall -BackupName
"R706261C8F1V1_ZCDB1_R706261C8F1V1_08-03-2020_03.36.23.5540_0" -AppPluginCode SCO -
PDBName PDB3 -PDBCloneName SCJOBID -CDBTargetSID ZCDB1 -OpenPluggableDatabaseAfterClone
-Resources ®{"Host"="scodev-us1.gdl.englab.netapp.com";"Oracle Database"="asmud2"} -
AutoAssignMountPoint -CloneToInstance scodev-us1.gdl.englab.netapp.com -
DataFilesMountPaths
®{"DestinationMountPath"="SC_2443056968_abc3";"DiskLocationType"="Asm_DiskGroup";"Sourc
eDirectoryPath"="DATAUDEV2"} -ControlFileConfiguration
®{"FilePath"="+SC_2443056968_abc3/abc3/control/control01.ctl"} -
RedoLogFileConfiguration
®{"FilePath"="+SC_2443056968_abc3/abc3/redolog/redo03.log";"RedologNumber"="3";"TotalSi
ze"="50";"BlockSize"="512"},®{"FilePath"="+SC_2443056968_abc3/abc3/redolog/redo02.log";
"RedologNumber"="2";"TotalSize"="50";"BlockSize"="512"},®{"FilePath"="+SC_2443056968_ab
c3/abc3/redolog/redo01.log";"RedologNumber"="1";"TotalSize"="50";"BlockSize"="512"}  -
CustomParameters ®{"Key" =
"audit_file_dest";"Value"="/ora01/app/oracle_software/oracle_base/admin/abc3/adump"};
```

This example creates an Oracle PDB clone.

## Example 18: Cloning an Oracle Application Volume from backup

```
New-SmClone -AppPluginCode SCO -BackupName
"R8092776CF4V1_HNK2_com_appVol1_R8092776CF4V1_11-06-2021_03.04.13.5289" -Resources
®{"Host"="R8092776CF4V1.HNK2.com";"Application Volume"="appVol1"} -CloneName
testExampleClone -CloneToInstance R8092776CF4V1.HNK2.com -PreCloneScriptPath
"/var/opt/snapcenter/spl/scripts/preClone.sh" -MountCommands "mount
Test_SVM:%vol_test1_Clone /mnt/test" -PostCloneScriptPath
"/var/opt/snapcenter/spl/scripts/postClone.sh"
```

This example clones an Oracle Application Volume from backup.

## Example 19: Cloning an Oracle Application Volume from secondary storage backup

```
New-SmClone -AppPluginCode SCO -BackupName
"R8092776CF4V1_HNK2_com_appVol1_R8092776CF4V1_11-06-2021_03.04.13.5289" -Resources
```

®{"Host"="R8092776CF4V1.HNK2.com";"Application Volume"="appVol1"} -CloneName testExampleClone -CloneToInstance R8092776CF4V1.HNK2.com -ArchivedLocators ®{"primary"="Source_SVM:vol_source";"secondary"="Dest_SVM:vol_source_dest"}

This example clones an Oracle Application Volume from secondary storage backup.

# New-SmMountBackup

Initiates a mount operation for a given backup.

# Syntax

```
New-SmMountBackup -BackupName <String> -HostName <String> -AppObjectId <String> [-
ArchivedLocators <Hashtable[]>] [-AsmCredentialName <String>] [-AsmPort <Int32>]
[<CommonParameters>]
```

# Detailed Description

Initiates a mount operation for a given backup.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| BackupName | Specifies the name of the backup being mounted. | true | true (ByPropertyName) | |
| HostName | Specifies the name of the host on which you want to mount the backup. | true | true (ByPropertyName) | |
| AppObjectId | Specifies the application object name and type. For example: -AppObjectId "linux.serengeti.com\orcl" | true | true (ByPropertyName) | |
| ArchivedLocators | Specifies in a hash table, the primary and secondary storage system and volume locations. For example: -ArchivedLocators ®{Primary="my_vs1:my_vol_iscsi";Secondary="my_vs1:my_vol_iscsi_SECONDARY"} | false | true (ByPropertyName) | |
| AsmCredentialName | | false | false | |
| AsmPort | Specifies the port on which the Oracle ASM instance is available. | false | false | |

# Examples

## Example 1: Mounting a backup

```
New-SmMountBackup ?BackupName dailyset1_linux_10-12-2015_18.19.07.1866_0 -HostName
linux.serengeti.com  -AppObjectId "linux.serengeti.com\orcl"
```

```
This example syntax mounts an Oracle backup.
```

## Example 2: Mounting an ASM database backup using a Run As account and port

```
New-SmMountBackup -BackupName "dbMigSrcAsm_Dataset_scspr0070373002_12-14-2015_09.56.41.
```

```
          7460_0" -HostName "scspr0070373002.gdl.netapp.com" -AppObjectId
"scspr0070373002.gdl.netapp.com\dbMigSrcA

          sm" -ASMRunAsName "mounter" -ASMPort 1521
```

This example syntax mounts an ASM database backup using the specified ASM Run As account and port.

Mount started successfully

```
            Name                : Mount Backup dbMigSrcAsm_Dataset_scspr0070373002_12-
14-2015_09.56.41.7460_0

            Id                  : 1479

            StartTime           : 12/14/2015 10:01:43 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0
```

## Example 3: Mounting a backup using archived locators

```
New-SmMountBackup ?BackupName dailyset1_linux_10-12-2015_18.19.07.1866_0 -HostName
linux.serengeti.com  -AppObjectId "linux.serengeti.com\orcl" -ArchivedLocators
®{Primary="test_vs1:test1_vol";Secondary=

          "test_vs1:test1_vol_SECONDARY"}
```

This example syntax mounts a backup using archived locators.

# New-SmMultifactorAuthenticationMetadata

To create the metadata required to setup the MFA for SnapCenter in a specified location.

# Syntax

```
New-SmMultifactorAuthenticationMetadata [<CommonParameters>]
```

```
New-SmMultifactorAuthenticationMetadata [[-Path]] [<CommonParameters>]
```

# Detailed Description

To create the metadata required to setup MFA for SnapCenter in the specified location.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Create SnapCenter MFA metadata at the specified path. | false | false | |

# Examples

## Example 1: Create SnapCenter MFA metadata at default location

```
New-SmMultifactorAuthenticationMetadata
```

```
This example syntax creates SnapCenter MFA metadata at default location.
```

```
SnapCenter MFA Metadata: SnapCenterMFAMetadata.xml successfully generated at:
c:\ProgramData\NetApp\SnapCenter\Package Repository
```

## Example 2: Create SnapCenter MFA metadata at specified location

```
New-SmMultifactorAuthenticationMetadata -Path C:\SC_metadata
```

```
This example syntax creates SnapCenter MFA metadata at specified location.
SnapCenter MFA Metadata: SnapCenterMFAMetadata.xml successfully generated at:
C:\SC_metadata
```

# New-SmRole

Enables you to create a role, assign users, assign groups, and assign permissions.

# Syntax

```
New-SmRole -Name <String> [-Description <String>] [-Permissions <String>] [-
AssignedUsers <String>] [-AssignedGroups <String>] [-SharedObjects]
[<CommonParameters>]
```

# Detailed Description

Enables you to create a role, assign users, assign groups, and assign permissions.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name of the new role. | true | true (ByPropertyName) | |
| Description | Specifies an optional description of the role. | false | true (ByPropertyName) | |
| Permissions | Specifies what permissions are assigned to the role. | false | true (ByPropertyName) | |
| AssignedUsers | Specifies users assigned to the role. | false | true (ByPropertyName) | |
| AssignedGroups | Specifies groups assigned to the role. | false | true (ByPropertyName) | |
| SharedObjects | | false | true (ByPropertyName) | |

# Examples

## Example 1: Creating a new role

```
New-SmRole -Name TestRole
```

```
This example syntax creates a new role with the specified name.

Description :

            Name        : TestRole

            Type        :

            Id          :

            Host        :

            UserName    :

            Passphrase  :

            Deleted     : False

            Auth        : SMCoreContracts.SmAuth

            IsClone     : False

            CloneLevel  : 0
```

## Example 2: Creating a new role and assigning a user

```
New-SmRole -Name TestRoleWithUser -AssignedUsers sddev\snapdrive
```

This example syntax creates a new role and assigns the specified user.

```
Description :

            Name        : TestRoleWithUser

            Type        :

            Id          :

            Host        :

            UserName    :

            Passphrase  :

            Deleted     : False

            Auth        : SMCoreContracts.SmAuth

            IsClone     : False

            CloneLevel  : 0
```

## Example 3: Creating a new role and assigning multiple users

```
New-SmRole -Name TestRoleWithUsers -AssignedUsers "sddev\administrator,sddev\snapdrive"
```

This example syntax creates a new role and assigns multiple users to the role.

```
Description :

            Name        : TestRoleWithUsers

            Type        :

            Id          :

            Host        :

            UserName    :

            Passphrase  :

            Deleted     : False

            Auth        : SMCoreContracts.SmAuth

            IsClone     : False

            CloneLevel  : 0
```

## Example 4: Creating a new role and assigning a group

```
New-SmRole -Name TestRoleWithGroup -AssignedGroups sddev\administrators
```

This example syntax creates a new role and assigns the specified group to the role.

```
Description :

            Name        : TestRoleWithGroup

            Type        :

            Id          :

            Host        :

            UserName    :

            Passphrase  :

            Deleted     : False

            Auth        : SMCoreContracts.SmAuth

            IsClone     : False

            CloneLevel  : 0
```

## Example 5: Creating a role and assigning multiple groups

```
New-SmRole -Name TestRoleWithGroups -AssignedGroups "sddev\administrators, sddev\Domain
Admins"
```

This example syntax creates a new role and assigns multiple groups to the role.

```
Description :

            Name        : TestRoleWithGroups

            Type        :

            Id          :

            Host        :

            UserName    :

            Passphrase  :

            Deleted     : False

            Auth        : SMCoreContracts.SmAuth

            IsClone     : False

            CloneLevel  : 0
```

## Example 6: Creating a new role and assigning permissions

```
New-SmRole -Name TestRoleWithGroups -AssignedGroups "sddev\administrators, sddev\Domain
Admins"
```

This example syntax creates a new role and assigns the specified permissions the groups assigned to the role.

```
PS C:\> New-SmRole -Name TestRoleWithPermissions -Permissions "Host: read, update,
delete, create; dataset: read, update, create, delete"

            Description :

            Name        : TestRoleWithPermissions

            Type        :

            Id          :

            Host        :

            UserName    :

            Passphrase  :

            Deleted     : False

            Auth        : SMCoreContracts.SmAuth

            IsClone     : False

            CloneLevel  : 0
```

# New-SmUnmountBackup

Initiates an unmount operation.

# Syntax

```
New-SmUnmountBackup -BackupName <String> [<CommonParameters>]
```

# Detailed Description

Initiates an unmount operation.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| BackupName | Specifies the name of the backup you want to unmount. | true | true (ByPropertyName) | |

# Examples

## Example 1: Unmounting a backup

```
New-SmUnmountBackup -BackupName my_linux_10-20-2015_14.07.32.8158_0
```

```
This example syntax unmounts a mounted Oracle backup.
```

# Open-SmConnection

Initiates a PowerShell connection session with SnapCenter, for a specified user.

# Syntax

```
Open-SmConnection -Credential <PSCredential> [-SMSbaseUrl <String>] [-Port <String>] [-
RoleName <String>] [<CommonParameters>]
```

# Detailed Description

Initiates a PowerShell connection session with SnapCenter, for a specified user. The session is valid for 24 hours. To end a PowerShell connection session, exit PowerShell by either entering the Exit command at the PowerShell prompt, or by closing the PowerShell window. You can open separate PowerShell sessions to the same SnapCenter Server by using different user credentials for each session.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Credential | Provides domain user credentials for the user for whom you wish to establish a PowerShell session. | true | true (ByPropertyName) | |
| SMSbaseUrl | Specifies the SnapCenter Server base URL. The base URL includes the name or IP address of the SnapCenter Server, and, if the remote system is in a different domain from that of the SnapCenter Server, the domain name. For example: https://SNAPCENTER_SERVER_NAME/DOMAIN_NAME. | false | true (ByPropertyName) | |
| Port | Enables you to specify the port number when the port is different than the default of 8146. | false | true (ByPropertyName) | |
| RoleName | If a user is assigned to multiple roles, specifies the role with which you want to log in. | false | true (ByPropertyName) | |

# Examples

## Example 1: Opening a PowerShell session

```
Open-SmConnection
```

```
This command syntax opens a PowerShell session.
```

## Example 2: Opening a PowerShell session with a specific role

```
Open SmConnection -Credential sddev\administrator
```

```
This command syntax opens a PowerShell session for the specified role.
```

### Example 3: Opening a PowerShell session to SnapCenter Server from a remote host using the SnapCenter Server name and domain in the base URL

```
Open-SmConnection ?SMSbaseUrl https://SnapCenterServer1 -RoleName "SnapCenterAdmin"
```

This example syntax opens a PowerShell session to SnapCenter from a remote host in a different domain using the SnapCenter Server name in the base URL and the specified role.

### Example 4: Opening a PowerShell session from a remote host to SnapCenter using the SnapCenter Server IP address in the base URL

```
Open-SmConnection -SMSbaseUrl https://172.17.166.128:8146 -RoleName SnapCenterAdmin -
Verbose
```

This example syntax opens a PowerShell session to SnapCenter from a remote host using the SnapCenter Server IP address in the base URL.

### Example 5: Opening a PowerShell session using a port that is not the default

```
Open-SmConnection -Port 1694
```

This example syntax opens a PowerShell connection using a port that is different from the default port, 8146.

### Example 6: Opening a PowerShell session from a remote host to SnapCenter using a base URL and a port that is not the default

```
Open-SmConnection -SMSbaseUrl https://SnapCenterServer1.netapp.com:8156
```

This examples syntax opens a PowerShell session to SnapCenter from a remote host using a base URL and a port that is not the default port, 8146.

# Protect-SmRepository

Sets the configuration that is required to create a backup of the SnapCenter database.

# Syntax

```
Protect-SmRepository [-HostName] <String> [-Path] <String> [-Schedule] <Hashtable> [[-
RetentionCount] <Int32>] [<CommonParameters>]
```

# Detailed Description

Sets the configuration that is required to create a backup of the SnapCenter database.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostName | Specifies the SnapCenter database host name. If the SnapCenter database is hosted by a failover cluster instance (FCI), then specify the FCI owner host name. | true | true (ByPropertyName) | |
| Path | Specifies the NetApp destination disk path where MySQL dumps are stored. Virtual disks are not supported. | true | true (ByPropertyName) | |
| Schedule | Specifies in a hash table the schedule to use when backing up the repository. For example: -Schedule ®{"ScheduleType"="hourly";"StartTime"="10/21/2016 5:18 PM"} | true | true (ByPropertyName) | |
| RetentionCount | Specifies the number of backups to retain. By default, 7 backups are retained. | false | true (ByPropertyName) | |

# Examples

## Example 1: Configuring a database backup for MySQL DB

```
Protect-SmRepository -HostName NB-MVA-DEV057.nbsdsm.mycompany.netapp.in -Path E:\DATA -
Schedule ®{"ScheduleType"="hourly";"StartTime"="10/21/2016 5:18 PM"}
```

```
This example syntax configures an hourly backup for the file system specified and uses
the Path argument to indicate the NetApp disk path where the repository DB dumps will
be placed.
```

# Refresh-SmBackup

Clears the stale backup entries from the SnapCenter Server.

# Syntax

```
Refresh-SmBackup [-AppObjectList <String>] [-CleanupAllObjects] [-Auth <String>]
[<CommonParameters>]
```

# Detailed Description

Clears the stale backup entries from the SnapCenter Server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| AppObjectList | | false | true (ByPropertyName) | |
| CleanupAllObjects | | false | true (ByPropertyName) | |
| Auth | | false | true (ByPropertyName) | |

# Examples

## Example 1: Clears the stale backup entries from the SnapCenter Server for all resources

```
Refresh-SmBackup -CleanupAllObjects
```

```
This example syntax clears the stale backup entries from the SnapCenter Server for all
resources.
```

## Example 2: Clears the stale backup entries from the SnapCenter Server by resource name

```
Refresh-SmBackup -AppObjectList R708202074BV1\SQL2019\MDSL_DB3
```

```
This example syntax clears the stale backup entries from the SnapCenter Server by
resource name.
```

# Remove-SmAlert

Removes the alert(s) from SnapCenter.

# Syntax

```
Remove-SmAlert [-AlertIds <String>] [-EntityType <SmEntityType>] [-EntityName <String>]
[-Severity <SmAlertSeverity>] [<CommonParameters>]
```

# Detailed Description

Removes the alert(s) from SnapCenter. Either Alert Id(s) or Entity Type and Entity Name or Severity must be provided!

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| AlertIds | Specify the list of alert ids to be deleted. | false | true (ByPropertyName) | |
| EntityType | Specify the entity type of the alert(s) needs to be deleted. ("Server", "Host", "Storage") | false | true (ByPropertyName) | |
| EntityName | Specify the entity name of the alert(s) needs to be deleted. | false | true (ByPropertyName) | |
| Severity | Specify the severity of the alert(s) needs to be deleted. "Informational", "Warning", "Critical") | false | true (ByPropertyName) | |

# Examples

## Example 1: Remove one or more alerts by id(s)

```
Remove-SmAlert -AlertIds 100,101
```

```
This example syntax removes the specified alerts from SnapCenter.

Remove-SmAlert

            Are you sure you want to remove the alert(s) ?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y
```

## Example 2: Remove one or more alerts by id(s) without confirmation dialogue

```
Remove-SmAlert -AlertIds 100,101 -Confirm:$false
```

```
This example syntax removes the specified alerts from SnapCenter.
```

## Example 1: Remove one or more alerts by EntityType and EntityName

```
Remove-SmAlert -EntityType Host -EntityName mtme.englab.netapp.com
```

This example syntax removes all the alerts of the given Host.

```
Remove-SmAlert

            Are you sure you want to remove the alert(s) ?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y
```

## Example 1: Remove one or more alerts by Severity

```
Remove-SmAlert -Severity Warning
```

This example syntax removes all the warning alerts.

```
Remove-SmAlert

            Are you sure you want to remove the alert(s) ?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y
```

# Remove-SmBackup

Removes one or more backup.

# Syntax

```
Remove-SmBackup [-BackupNames <String>] [-BackupIds <String>] [-
DeleteSecondaryMetadata] [-CleanupSecondaryBackups] [-SourceVolumes <String>] [-
CleanupBackups] [-Force] [-Auth <String>] [-AppObjectId <String>] [<CommonParameters>]
```

# Detailed Description

Removes one or more backup.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| BackupNames | Specifies the list of backup names to be deleted. | false | true (ByPropertyName) | |
| BackupIds | Specifies the list of backup ids to be deleted. | false | true (ByPropertyName) | |
| DeleteSecondaryMetadata | Specifies that the secondary backup metadata should be deleted. | false | true (ByPropertyName) | |
| CleanupSecondaryBackups | Specifies that the secondary backups that have no secondary Snapshot copies are cleaned up. | false | true (ByPropertyName) | |
| SourceVolumes | Specifies the source volumes whose secondary volumes are deleted. Use this option to clean-up the secondary backup metadata for the deleted volumes. | false | true (ByPropertyName) | |
| CleanupBackups | This cmdlet cleans up the backups that do not have Snapshot copies. | false | true (ByPropertyName) | |
| Force | Forces the removal of a backup. | false | true (ByPropertyName) | |
| Auth | | false | true (ByPropertyName) | |
| AppObjectId | | false | true (ByPropertyName) | |

# Examples

## Example 1: Removing multiple backups using the backup ID

```
Remove-SmBackup -BackupIds 3,4
```

```
This example syntax removes multiple backups using the backup IDs.

Remove-SmBackup

            Are you sure want to remove the backup(s).
```

```
            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):
```

## Example 2: Removing multiple backups using the backup name

```
Remove-SmBackup -BackupNames "Payroll Dataset_vise-f6_08-04-
2015_12.01.56.2744","Payroll Dataset_vise f6_08-04-2015_12.02.27.8732"
```

```
Remove-SmBackup

            Are you sure want to remove the backup(s).

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):




            BackupResult : {}

            Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob
```

## Example 3: Removing secondary backup metadata

```
Remove-SmBackup -BackupIds 1 -DeleteSecondaryMetadata
```

```
This example syntax removes secondary backup metadata.

Remove-SmBackup

            Are you sure want to remove the backup(s).

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):




            BackupResult : {}

            Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob
```

## Example 4: Cleaning up secondary backups without a confirm dialogue

```
Remove-SmBackup -CleanupSecondaryBackups -Confirm:$false
```

This example syntax cleans up secondary backups that do not have secondary Snapshot copies.

```
BackupResult : {}

            Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob
```

## Example 5: Cleaning up secondary backups where secondary volume is deleted

```
Remove-SmBackup -CleanupSecondaryBackups -SourceVolumes SVM1:Volume1,SVM2:Volume2
```

This example syntax cleans up the secondary backups that do not have any secondary snapshot copies or the secondary volumes are deleted for the specified source volumes.

```
BackupResult : {}

            Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob
```

# Remove-SmClone

Removes an existing clone.

# Syntax

```
Remove-SmClone [[-CloneName] <String>] [-PluginCode] <PluginCode> [[-CloneAppObjectId]
<String>] [[-Force]] [[-IsOracleAppVol] <String>] [[-PreCloneDeleteScriptPath]
<String>] [[-UnMountCommands] <String>] [<CommonParameters>]
```

# Detailed Description

Removes an existing clone.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| CloneName | Specifies the name of the clone you want to remove. | false | false | |
| PluginCode | Specifies the plug-in code for the plug-in host whose clone you want to remove. | true | false | |
| CloneAppObjectId | Specifies the ID of the clone application object. | false | false | |
| Force | Enables you to unregister a clone that has been removed outside of SnapCenter. | false | true (ByPropertyName) | |
| IsOracleAppVol | This is a Oracle Application Volume specific parameter. It specifies the flag which enables to provide Pre-clone Deletion script and Unmount cmds to be run before Oracle Application Volume Clone Deletion. | false | true (ByPropertyName) | |
| PreCloneDeleteScriptPath | This is an Oracle Application Volume specific parameter and IsOracleAppVol flag needs to be set to use this. It specifies absolute path of the executable script to be run before Clone deletion. The script should be located either at /var/opt/snapcenter/spl/scripts/ or any directory inside the path on the Oracle Plug-in host. | false | true (ByPropertyName) | |
| UnMountCommands | This is an Oracle Application Volume specific parameter and IsOracleAppVol flag needs to be set to use this. It specifies commands to unmount a file system from the Clone Host before Clone deletion. Enter multiple mount commands separated by semi colon (;). | false | true (ByPropertyName) | |

# Examples

## Example 1: Removing a clone

```
Remove-SmClone -CloneName payrollclone_dataset__clone__08-05-2015_14.41.11
```

```
This example syntax removes the specified clone.
```

```
Remove-SmClone

            Are you sure you want to remove the clone?
```

```
            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y



            Name                : Deleting clone 'payrollclone_dataset__clone__08-05-
2015_14.41.11'

            Id                  : 91

            StartTime           : 8/5/2015 2:47:14 PM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0
```

## Example 2: Removing a clone without the confirm dialogue

```
Remove-SmClone -CloneName payrollclone_dataset__clone__08-05-2015_14.41.11 -
Confirm:$false


This example syntax removes the specified clone.

Name                : Deleting clone 'payrollclone_dataset__clone__08-05-2015_14.41.11'

            Id                  : 91

            StartTime           : 8/5/2015 2:47:14 PM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False
```

```
IsCompleted         : False

IsVisible           : False

IsScheduled         : False

PercentageCompleted : 0

Description         :

Status              : Queued

Owner               :

Error               :

Priority            : None

Tasks               : {}

ParentJobID         : 0

EventId             : 0
```

## Example 3: Removing an Oracle Application Volume clone with PreCloneDeletion Script and Unmount Command

```
Remove-SmClone -CloneName R8092776CF4V1_HNK2_com_appVol4__clone__3221_11-06-
2021_05.57.33 -PluginCode SCO -IsOracleAppVol -PreCloneDeleteScriptPath
"/var/opt/snapcenter/spl/scripts/preCloneDel.sh" -UnMountCommands "unmount /mnt/test"
```

This example syntax removes the specified Oracle Application Volume clone, PreCloneDeletion Script and Unmount Command are specified.

```
Remove-SmClone

                        Are you sure you want to remove the clone?

                        [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend
[?] Help (default is "Y"):




                        Name                : Deleting clone
'R8092776CF4V1_HNK2_com_appVol4__clone__3221_11-06-2021_05.57.33'

                        Id                  : 3222

                        StartTime           : 11/6/2021 6:35:42 AM

                        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           : 7

                        ApisJobKey          :

                        ObjectId            : 0

                        PluginCode          : SCO

                        PluginName          : SnapCenter Plug-in for Oracle Database

                        HostId              : 0

                        RoleId              :

                        JobIds              : {}
```

## Example 4: Removing an Oracle Application Volume clone

```
Remove-SmClone -CloneName R8092776CF4V1_HNK2_com_appVol4__clone__3221_11-06-
2021_05.57.33 -PluginCode SCO
```

This example syntax removes the specified Oracle Application Volume clone.

```
Remove-SmClone

                        Are you sure you want to remove the clone?

                        [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend
[?] Help (default is "Y"):




                        Name                : Deleting clone
'R8092776CF4V1_HNK2_com_appVol4__clone__3221_11-06-2021_05.57.33'

                        Id                  : 3222

                        StartTime           : 11/6/2021 6:35:42 AM

                        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           : 7
ApisJobKey          :
ObjectId            : 0
PluginCode          : SCO
PluginName          : SnapCenter Plug-in for Oracle Database
HostId              : 0
RoleId              :
JobIds              : {}
```

# Remove-SmCloneJob

Removes an existing clone job.

# Syntax

```
Remove-SmCloneJob [-CloneJobName] <String> [<CommonParameters>]
```

# Detailed Description

Removes an existing clone job based on the name of the clone job provided.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| CloneJobName | | true | true (ByPropertyName) | |

# Examples

## Example 1: Remove a clone job by clone job name

```
Remove-SmCloneJob -CloneJobName cl2
```

```
This example syntax removes a clone job based on the name of the clone job provided.

Remove-SmCloneJob

Are you sure you want to perform this action?

[Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help (default is "Y"):
Y

No clones associated with 'cl2' Resource Group.

Deleted Protection Group 'cl2' successfully.

Deleted clone policy 'cl2_ClonePolicy' successfully.
```

## Example 2: Removes a clone job by clone job name without a confirmation dialogue.

```
Remove-SmCloneJob -CloneJobName cl2 -Confirm:$false
```

```
This example syntax removes a clone job based on the name of the clone job provided.
```

# Remove-SmCredential

Unregister a registered credential.

# Syntax

```
Remove-SmCredential -Name <String> [<CommonParameters>]
```

# Detailed Description

Remove a registered credential from the SnapCenter Server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | | true | true (ByPropertyName) | |

# Examples

### Example 1: Remove Credential

```
Remove-SmCredential -Name RunAs1
```

# Remove-SmDomain

Unregister a registered domain.

# Syntax

```
Remove-SmDomain -Name <String> [<CommonParameters>]
```

# Detailed Description

Remove a registered domain from SnapCenter server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | NETBIOS Name of the registered domain to be removed. | true | true (ByPropertyName) | |

# Examples

### Example 1: Unregister a registered domain from SnapCenter Server.

```
Remove-SmDomain -Name dom-newad01
```

```
Remove-SmDomain

            The domain "dom-newad01" will be unregistered from SnapCenter Server and
the domain users will no longer be able to access the SnapCenter Server.

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y
```

# Remove-SmDRFailoverBackups

After failback, delete special backups taken during failover.

# Syntax

```
Remove-SmDRFailoverBackups -AppObjectId [<CommonParameters>]
```

```
Remove-SmDRFailoverBackups -AppObjectId -BackupNames [<CommonParameters>]
```

```
Remove-SmDRFailoverBackups -AppObjectId -Primary [<CommonParameters>]
```

# Detailed Description

After failback, delete special backups taken during failover.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| AppObjectId | Specifies the application object identifier of an SQL database. | true | true (ByPropertyName) | |
| BackupNames | Specifies one or more backups of an application object to delete. | false | true (ByPropertyName) | |
| BackupIds | Specifies one or more backups of an application object to delete. | false | true (ByPropertyName) | |
| Primary | Specifies to delete backups from the primary storage. | false | true (ByPropertyName) | |

# Examples

## Example 1: Delete all special backups of the SQL resources after failback from secondary

```
Remove-SmDRFailoverBackups -AppObjectId Host1\Inst\DB1
```

```
This example syntax deletes all the special backup of the resource from the storage
where the backup was taken (secondary storage).
```

```
Remove-SmDRFailoverBackups

                    Are you sure you want to remove the backups?

                    [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?]
Help (default is "Y"): yes


                    Result       : SMCoreContracts.SMResult
```

```
                    TotalCount   : 0

                    DisplayCount : 0

                    Context      :

                    Job          : SMCoreContracts.SmJob
```

## Example 2: Delete few special backups of the SQL resource after failback

```
Remove-SmDRFailoverBackups -AppObjectId Host1\Inst\DB1 -BackupNames Backup1,Backup2
```

This example syntax deletes the specified special backups from the storage where the backup was taken (secondary storage).

```
Remove-SmDRFailoverBackups

                    Are you sure you want to remove the backups?

                    [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?]
Help (default is "Y"): yes


                    Result       : SMCoreContracts.SMResult

                    TotalCount   : 0

                    DisplayCount : 0

                    Context      :

                    Job          : SMCoreContracts.SmJob
```

## Example 3: Delete all special backups of the SQL resources after failback from the secondary and the primary.

```
Remove-SmDRFailoverBackups -AppObjectId Host1\Inst\DB1 -Primary
```

This example syntax removes all the resource backups taken during failover from the secondary and the primary storage. For SnapMirror relationship, during subsequent SnapMirror update, deleted backups in the primary storage will be reflected in the secondary storage.

```
Remove-SmDRFailoverBackups

                    Are you sure you want to remove the backups?

                    [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?]
Help (default is "Y"): yes


                    Result       : SMCoreContracts.SMResult

                    TotalCount   : 0

                    DisplayCount : 0
```

```
                    Context      :

                    Job          : SMCoreContracts.SmJob
```

## Example 4: Delete few special backups of the SQL resources after failback from the secondary and the primary.

```
Remove-SmDRFailoverBackups -AppObjectId Host1\Inst\DB1 -BackupNames Backup1,Backup2 -
Primary
```

This example syntax removes all the resource backups taken during failover from the secondary and the primary storage. For SnapMirror relationship, during subsequent SnapMirror update, deleted backups in the primary storage will be reflected in the secondary storage.

```
Remove-SmDRFailoverBackups

                    Are you sure you want to remove the backups?

                    [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?]
Help (default is "Y"): yes


                    Result       : SMCoreContracts.SMResult

                    TotalCount   : 0

                    DisplayCount : 0

                    Context      :

                    Job          : SMCoreContracts.SmJob
```

# Remove-SmGroup

Removes an AD group or local group from SnapCenter.

# Syntax

```
Remove-SmGroup -Group <SmString> [-Domain <String>] [<CommonParameters>]
```

# Detailed Description

Removes an Active Directory group or local group from SnapCenter.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Group | Single group or list of groups belonging to the same domain or local host. | true | true (ByPropertyName) | |
| Domain | The domain to which the group belongs to. Local group should skip this parameter. | false | true (ByPropertyName) | |

# Examples

## Example 1: Removing a single group

```
Remove-SmGroup -Group group1 -Domain domain1
```

## Example 2: Removing multiple groups of same domain

```
Remove-SmGroup -Group group1,group2  -Domain domain1
```

## Example 3: Removing a local group

```
Remove-SmGroup -Group LocalGroup1
```

# Remove-SmGroupFromRole

Removes a group from a specified role.

# Syntax

```
Remove-SmGroupFromRole [-Domain <String>] -Group <SmString> -RoleName <String>
[<CommonParameters>]
```

# Detailed Description

Removes a group from a specified role.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Domain | Specifies the domain to which the group belongs. | false | true (ByPropertyName) | |
| Group | Specifies the group you want to remove from the role. | true | true (ByPropertyName) | |
| RoleName | Specifies the name of the role from which you want to remove a group. | true | true (ByPropertyName) | |

# Examples

## Example 1: Removing a group from a role

```
Remove-SmGroupFromRole -Domain sddev -Group administrators -RoleName SnapcenterAdmin
```

```
This example syntax removes the specified group from the SnapCenterAdmin role.
```

```
Remove-SmGroupFromRole

            Are you sure you want to unassign the group from role?.

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y

            Successfully UnAssigned Group From Role
```

## Example 2: Removing a group from a role without confirm dialogue

```
Remove-SmGroupFromRole -Domain sddev -Group administrators -RoleName SnapcenterAdmin -
Confirm:$false
```

```
This example syntax removes the specified group from the SnapCenterAdmin role.

Successfully UnAssigned Group From Role
```

# Remove-SmHost

Removes one or more hosts from SnapCenter.

# Syntax

```
Remove-SmHost [-HostNames] <String> [[-Force]] [-PluginCode <PluginCode>]
[<CommonParameters>]
```

# Detailed Description

Removes one or more hosts from SnapCenter. Note: For this command to succeed, the host you are removing must be resolvable in DNS or in the SnapCenter Server's hosts file. This applies even when you use the -force option.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostNames | Specifies one or more hosts that you want to remove. You can remove a cluster and all its nodes by specifying the cluster name. | true | true (ByPropertyName) | |
| Force | Forces the removal of discovered resources and hosts. For Oracle databases, if the backup is cataloged, and you force deletion of a host, cataloged backups associated with that host are not uncataloged. Therefore, if you want to force delete an Oracle database host, you must first uncatalog all the cataloged backups for that host before forcing the deletion of the host. | false | true (ByPropertyName) | |
| PluginCode | Provides the plug-in code for the host you want to remove. Valid plug-in codes include SCSQL, SCO and SCV. For example, if you want to remove SnapCenter Plug-in for Microsoft SQL Server host, the plug-in code is SCSQL. | false | true (ByPropertyName) | |
| DoNotIncludeClusterNodes | Specifies that the host plug-in packages are not uninstalled from cluster nodes. If you set the parameter to True, then the host package is uninstalled only from the specified host. The default value is False, which means that when you provide a cluster name, the host package is uninstalled from all nodes in the cluster. | false | true (ByPropertyName) | |

# Examples

## Example 1: Removing a host without backups or clones

```
Remove-smhost -HostNames localhost
```

```
This example syntax removes a host from SnapCenter.
```

```
Remove-SmHost
```

```
            Are you sure you want to remove the host and its resources.?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): yName                : Remove Host 'HostName'

            Id                  : 44390

            StartTime           : 4/17/2017 2:07:51 AM

            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           : 10

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : NONE

            PluginName          :
```

## Example 2: Removing a host without a confirm dialogue

```
Remove-smhost -HostNames localhost -Confirm:$false
```

This example syntax removes a host from SnapCenter.

```
            Name                : Remove Host 'Host name'

            Id                  : 44391

            StartTime           : 4/17/2017 2:08:50 AM

            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           : 10

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : NONE

            PluginName          :
```

## Example 3: Removing a host with backups and clones

```
Remove-smhost -HostNames localhost -Force


Delete the resource backups and clones associated with this host as part of the delete
host operation.

Remove-SmHost

            Are you sure you want to remove the host and its resources.?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): yName                : Remove Host 'HostName'

            Id                  : 44392

            StartTime           : 4/17/2017 2:10:09 AM

            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           : 10

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : NONE

            PluginName          :
```

## Example 4: Removing a host with clones on an alternate host

```
Remove-smhost -HostNames localhost -Force -ForceDeleteClones
```

Delete resources that are cloned or mounted on an alternate host as part of the delete host operation.

```
Remove-SmHost

            Are you sure you want to remove the host and its resources.?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): yName                : Remove Host 'HostName'

            Id                  : 44392

            StartTime           : 4/17/2017 2:10:09 AM

            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           : 10

ApisJobKey          :

ObjectId            : 0

PluginCode          : NONE

PluginName          :
```

# Remove-SmJobs

Removes completed jobs.

# Syntax

```
Remove-SmJobs [-JobId <Int32>] [-StartTime <DateTime>] [-EndTime <DateTime>] [-Auth
<String>] [<CommonParameters>]
```

# Detailed Description

Removes completed jobs using either the job ID of a specific job or all jobs within a specified date and time.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| JobId | Specifies the ID of the job you want to remove. | false | false | |
| StartTime | Specifies that jobs completed after the specified date and time should be removed. | false | false | |
| EndTime | Specifies that jobs completed before the specified date and time should be removed. | false | false | |
| Auth | | false | false | |

# Examples

## Example 1: Removing a job using a specific job ID

```
Remove-SmJobs -JobId 1002
```

```
This example syntax removes the job associated with the specified job ID.

Remove-SmJobs

            Are you sure want to remove all the jobs(s) ?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y
```

## Example 2: Removing jobs completed within specific start and end dates without a confirm dialogue

```
Remove-SmJobs -StartTime 02/12/2015 -EndTime 07/02/2015 -Confirm:$false
```

```
This example syntax removes jobs completed between the specified beginning and end
dates.
```

# Remove-SmPermissionFromRole

Removes one or more permissions from a specified role.

# Syntax

```
Remove-SmPermissionFromRole -RoleName <String> -Permissions <String>
[<CommonParameters>]
```

# Detailed Description

Removes one or more permissions from a specified role. Use the format <SnapCenter Resource Name>:<Permission Name> where the SnapCenter Resource name is Dataset, Policy, Backup, Host, Storage Connection, Clone, Provision, Dashboard, Restore, Reports, Discovery, Plugin Install/Uninstall, Migration, Mount, and Unmount, and the permission name is create, read, update, delete and allow.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| RoleName | Specifies the name of the role from which you want to remove permissions. | true | true (ByPropertyName) | |
| Permissions | Specifies one or more permissions you want to remove from a role. Use the format <SnapCenter Role Name>:<Permission Name>. Permission include: create, read, update, delete and allow. | true | true (ByPropertyName) | |

# Examples

## Example 1: Removing a specific permission from a role

```
Remove-SmPermissionFromRole -RoleName "Infrastructure Admin" -Permissions
DataSet:create
```

```
This example syntax removes the specified permission from a role.

Remove-SmPermissionFromRole

            Are you sure you want to unassign the permission from role?.

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y
```

## Example 2: Removing a specific permission from a role without a confirm dialogue

```
Remove-SmPermissionFromRole -RoleName "Infrastructure Admin" -Permissions
DataSet:create -Confirm:$false
```

```
This example syntax removes the specified permission from a role.
```

## Example 3: Removing multiple permissions from a role

```
Remove-SmPermissionFromRole -RoleName "Infrastructure Admin" -
Permissions("Host:read","Host:update","Host:delete")
```

This example syntax removes multiple permissions from a role.

# Remove-SmPlugin

Removes the specified plug-ins on one or more hosts.

## Syntax

```
Remove-SmPlugin [-HostNames] <String> [-PluginCodes] <PluginCode> [[-Force]]
[<CommonParameters>]
```

## Detailed Description

Removes the specified plug-ins on one or more hosts.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostNames | Name of one or more hosts from which you want to uninstall the specified plug-ins. | true | true (ByPropertyName) | |
| PluginCodes | Provides the code for the plug-in you want to uninstall. Valid plug-in codes include SCSQL, SCO, SCE and hana. For custom plug-ins, the value is the custom plug-in name. For example "CustomPlugin1". For example, if you want to uninstall SnapCenter Plug-in for Microsoft SQL Server, the plug-in code is SCSQL. | true | true (ByPropertyName) | |
| Force | Internal switch. | false | true (ByPropertyName) | |

## Examples

### Example 1: Uninstalling SnapCenter Plug-in for Microsoft SQL Server from a host

```
Remove-SmPlugin -HostNames myHostname -PluginCodes SCSQL
```

```
This command syntax uninstalls SnapCenter Plug-in for Microsoft SQL Server from the
specified host.
```

```
Remove-SmPlugin

            Are you sure you want to uninstall plugin(s) from the host(s)?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):
```

### Example 2: Uninstall single plug-in from a single host without a confirmation dialogue

```
Remove-SmPlugin -HostNames host.example.com -PluginCodes DB2 -Verbose -Confirm:$false
```

```
Uninstall single Plug-in from single host
```

```
VERBOSE: Start Remove-SmPlugin


            Name                : Plug-in Uninstallation on host
'scspn0115971001.lab.eng.btc.netapp.in'

            Id                  : 56

            StartTime           : 6/16/2016 1:37:25 AM

            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
```

## Example 3: Uninstall multiple plug-ins from multiple hosts without the confirm dialogue

```
Remove-SmPlugin ?Hostnames myhostname1,myhostname2 ?PluginCodes DB2,MongoDB -
Confirm:$false
```

One main job will be created for removing plug-ins from the hosts. Separate tasks will be created for removing each of the plug-in from the host.

# Remove-SmPluginPackage

Removes a custom plug-in package from the SnapCenter repository.

# Syntax

```
Remove-SmPluginPackage [-PluginName] <String> [-PluginVersion] <String>
[<CommonParameters>]
```

# Detailed Description

Removes a custom plug-in package from the SnapCenter repository.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PluginName | Specifies the name of the plug-in package you want to remove. | true | false | |
| PluginVersion | Specifies the version of the plug-in you want to remove. | true | false | |

# Examples

## Example 1: Removing a custom plugin package

```
Remove-SmPluginPackage -PluginName CustomPlugin -PluginVersion 1.0
```

```
This example syntax removes the 1.0 plug-in version of the custom plug-in named
CustomPlugin from the SnapCenter repository.
```

# Remove-SmPolicy

Removes one or more policies from SnapCenter.

# Syntax

```
Remove-SmPolicy -PolicyNames <String> [<CommonParameters>]
```

# Detailed Description

Removes one or more policies from SnapCenter. In order to delete polices from SnapCenter, you must have already detached them from any datasets with which they are associated.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PolicyNames | Identifies the policy you want to delete. You can provide an individual policy name or a comma-separated list. | true | true (ByPropertyName) | |

# Examples

## Example 1: Deleting a policy from SnapCenter

```
Remove-SmPolicy -PolicyNames ?SQL Full Backup?
```

```
This example syntax removes a specified policy.
```

```
Remove-SmPolicy

            Are you sure you want to remove the dataset policy. Its association with
dataset also gets removed.?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):
```

## Example 1: Deleting a policy from SnapCenter without confirmation dialogue

```
Remove-SmPolicy -PolicyNames ?SQL Full Backup? -Confirm:$false
```

```
This example syntax removes a specified policy.
```

# Remove-SmProtectResource

This command helps remove the protection for the resources.

# Syntax

```
Remove-SmProtectResource -Resources <Hashtable[]> [-Force] [-UnmanageOnly]
[<CommonParameters>]
```

# Detailed Description

Remove-SmProtectResource removes the protection for the resources provided.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Resources | The list of protected resources from which protection will be removed. You must provide the resource information in a hashtable, and it must contain the resource name and type, as well as the host on which the resource is located. For example, ®{"Host"="localhost";"Type"="SQL Database";"Names"="Instance\Database"} Valid Type values are: SQL Database, SQL Instance, SQL Availability Group. You can include comma-separated values for Names. For Oracle Database, the format is -Resources ®{"Host"="host.example.com";"Oracle Database"="db1"}. For Oracle Application Volume, the format is -Resources ®{"Host"="host.example.com";"Application Volume"="appVol1"}. | true | true (ByPropertyName) | |
| Force | The force flag indicates that the protection will be deleted even if it has an associated policy and backup. | false | true (ByPropertyName) | |
| UnmanageOnly | | false | true (ByPropertyName) | |

# Examples

## Example 1: Removes the protection of the resources

```
Remove-SmProtectResource  -Resources
®{"Host"="test.mycompany.com";"Type"="SQLDatabases";"Names"="test\SQLExpress\inst1"},®{
"Host"="test.mycompany.com";"Type"="SQLDatabases";"Names"="test\SQLExpress\inst2"}  -
Force
```

```
This example syntax removes the protection of the two resources
```

```
Remove-SmProtectResource

            Are you sure you want to delete the Protection of the selected resource?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):
```

## Example 1: Removes the protection of the resources without confirmation dialogue

```
Remove-SmProtectResource  -Resources
®{"Host"="test.mycompany.com";"Type"="SQLDatabases";"Names"="test\SQLExpress\inst1"},®{
"Host"="test.mycompany.com";"Type"="SQLDatabases";"Names"="test\SQLExpress\inst2"}  -
Force -Confirm:$false
```

```
This example syntax removes the protection of the two resources
```

## Example 3: Unprotecting a single volume

```
Remove-SmProtectResource -Resources ®{"Type"="StorageVolume";"ResourceGuids"="f37b4bae-
72a2-48b3-8504-7cc8eef15031";}
```

## Example 4: Unprotecting multiple volumes

```
Remove-SmProtectResource -Resources ®{"Type"="StorageVolume";"ResourceGuids"="f37b4bae-
72a2-48b3-8504-7cc8eef15031,b806a86a-1374-4be1-bb83-fc0d33947a97";}
```

## Example 5: Removes the protection of the Oracle Application Volume resources

```
Remove-SmProtectResource -Resources ®(®{"Host"="R8092776CF4V1.HNK2.com";"Application
Volume"="appVol1"},®{"Host"="R8092776CF4V1.HNK2.com";"Application Volume"="appVol2"})
```

```
This example syntax removes the protection of the two Oracle application volume
resources

Remove-SmProtectResource

            Are you sure you want to delete the Protection of the selected resource?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):
```

# Remove-SmReportSchedule

Delete a report schedule using this cmdlet.

# Syntax

```
Remove-SmReportSchedule [-Name] <String> [<CommonParameters>]
```

# Detailed Description

Delete an existing report schedule using this cmdlet.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specify the schedule name to delete it. | true | true (ByPropertyName) | |

# Examples

### Example 1: Delete a report schedule.

```
Remove-SmReportSchedule -Name schedule1
```

```
This example deletes a report schedule. Pass the name of the schedule to delete it.
```

# Remove-SmRepositoryProtection

Removes the protection for the NSM database from SnapCenter Server.

# Syntax

```
Remove-SmRepositoryProtection [<CommonParameters>]
```

# Detailed Description

Removes the protection for NSM database from SnapCenter Server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Examples

### Example : Removes the protection for the MySQL database from SnapCenter Server.

```
Remove-SmRepositoryProtection
```

```
This example syntax removes the protection for the MySQL database from SnapCenter
Server.
```

# Remove-SmResource

Removes a custom plug-in resource or an Oracle plug-in application volume resource.

## Syntax

```
Remove-SmResource -HostName <String> -PluginCode <PluginCode> [<CommonParameters>]
```

## Detailed Description

Enables you to delete a custom plug-in resource or an Oracle plug-in application volume resource from SnapCenter. This deletes only the SnapCenter object, not the actual application object. If the resource is protected, then the resource is only soft-deleted and is available for recall Undo-Resource cmdlet; otherwise, the resource is permanently deleted from SnapCenter.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostName | Specifies the name of host from which you want to remove the resource. | true | true (ByPropertyName) | |
| PluginCode | Specifies the name of the plug-in associated with the resource you are removing. Possible inputs include HANA or any SCC Custom Plug-in name or SCO. | true | true (ByPropertyName) | |
| ResourceType | The type of application object. For example, instance, database, or a SAP HANA SingleContainer or MultipleContainers. This parameter is not applicable for Oracle application volume resource. | true | true (ByPropertyName) | |
| ResourceName | Specifies the name of the resource which you want to remove. | true | true (ByPropertyName) | |
| SID | This is a SAP HANA database specific parameter. A SAP HANA system is identified by a unique 3 letter system ID (SID). For example, ABC. | true | true (ByPropertyName) | |
| TenantDatabaseName | This is a SAP HANA database specific parameter. It is the name of the tenant database for SAP HANA Multitenant Database. | false | true (ByPropertyName) | |

## Examples

### Remove a custom plugin resource

```
Remove-SmResource -HostName 'sccorelinux188.sccore.test.com' -PluginCode 'DB2' -
Instance INST -ResourceType Database -ResourceName Db1
```

```
Remove a resource of type Database of custom plug-in type DB2

            A resource will be soft deleted (marked as deleted) if the resource being
deleted contains backup or is protected.

Successfully removed Inventory sccorelinux188.sccore.test.com:DB2:INST1\Db1
```

## Remove a custom plugin resource without confirmation dialogue

```
Remove-SmResource -HostName 'sccorelinux188.sccore.test.com' -PluginCode 'DB2' -
Instance INST -ResourceType Database -ResourceName Db1 -Confirm:$false


Remove a resource of type Database of custom plug-in type DB2

            A resource will be soft deleted (marked as deleted) if the resource being
deleted contains backup or is protected.

Remove-SmResource

            Are you sure you want to remove the resource?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):



            Successfully removed Inventory sccorelinux188.sccore.test.com:DB2:INST1\Db1
```

## Remove SAP HANA Multitenant Database Container

```
Remove-SmResource -HostName 'scspr0204312001.gdl.englab.netapp.com' -PluginCode 'hana'
-ResourceType MultipleContainers -SID NBC -TenantDatabaseName ttt


Remove Multitenant Database Container of SnapCenter Plug-in for SAP HANA. A resource
will be soft deleted (marked as deleted) if the resource being deleted contains backup
or is protected.

Remove-SmResource

            Are you sure you want to remove the resource?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):



            Successfully removed Inventory
scspr0204312001.gdl.englab.netapp.com:hana:NBC\ttt
```

## Remove SingleContainer SAP HANA Database

```
Remove-SmResource -HostName 'scspr0204312001.gdl.englab.netapp.com' -PluginCode 'hana'
-ResourceType SingleContainer -SID H14


Remove SingleContainer database of SnapCenter Plug-in for SAP HANA.

            A resource will be soft deleted (marked as deleted) if the resource being
deleted contains backup or is protected.


Remove-SmResource
```

```
            Are you sure you want to remove the resource?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):



            Successfully removed Inventory
scspr0204312001.gdl.englab.netapp.com:hana:H14
```

## Removes an Oracle Application Volume resource

```
Remove-SmResource -HostName 'R8092776CF4V1.HNK2.com' -PluginCode 'SCO' -ResourceName
'appVol'


Removes an Oracle application volume resource.

            A resource will be soft deleted (marked as deleted) if the resource being
deleted contains backup or is protected.

Remove-SmResource

                        Are you sure you want to remove the resource : 'appVol' ?

                        [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend
[?] Help (default is "Y"):

                        Successfully removed resource R8092776CF4V1.HNK2.com:SCO:appVol
```

# Remove-SmResourceCredentialName

Unregister a registered SQL instance credential.

# Syntax

```
Remove-SmResourceCredentialName -ResourceName <String> [<CommonParameters>]
```

# Detailed Description

Unregister a registered SQL instance credential based on the parameters provided.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ResourceName | | true | true (ByPropertyName) | |

# Examples

### Example 1: Removes a registered SQL instance credential by the SQL instance name.

```
Remove-SmResourceCredentialName -ResourceName R708202074BV1\SQL2019
```

```
This example syntax removes a registered SQL instance credential based on the SQL
instance name provided.

Remove-SmResourceCredentialName

Are you sure you want to perform this action?

[Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help (default is "Y"):
Y
```

### Example 2: Removes a registered SQL instance credential by the SQL instance name without a confirmation dialogue.

```
Remove-SmResourceCredentialName -ResourceName R708202074BV1\SQL2019 -Confirm:$false
```

```
This example syntax removes a registered SQL instance credential based on the SQL
instance name provided.
```

# Remove-SmResourceDRMode

Remove resources from disaster recovery mode.

# Syntax

```
Remove-SmResourceDRMode [-HostNames] [<CommonParameters>]
```

```
Remove-SmResourceDRMode [-AppObjectIds] [<CommonParameters>]
```

# Detailed Description

Remove the resources from disaster recovery mode.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostNames | Specifies one or more hosts (FQDN) to remove all the resources of the hosts from disaster recovery mode. | true | true (ByPropertyName) | |
| AppObjectIds | Specifies one or more application object identifier of an SQL database to remove from disaster recovery mode. | true | true (ByPropertyName) | |

# Examples

## Example 1: Removing all resources of the host from disaster recovery mode

```
Remove-SmResourceDRMode -HostNames host1.gdl.netapp.com
```

```
This example syntax removes all the resources of the host from disaster recovery mode.

Result       : SMCoreContracts.SMResult

                        TotalCount   : 0

                        DisplayCount : 0

                        Context      :

                        Job          : SMCoreContracts.SmJob
```

## Example 2: Removing all resources of multiple hosts from disaster recovery mode

```
Remove-SmResourceDRMode -HostNames host1.gdl.netapp.com,host2.gdl.netapp.com
```

```
This example syntax removes all the resources of hosts from disaster recovery mode.
```

```
Result       : SMCoreContracts.SMResult

                        TotalCount   : 0

                        DisplayCount : 0

                        Context      :

                        Job          : SMCoreContracts.SmJob
```

## Example 3: Removing all resources of the cluster host from disaster recovery mode

```
Remove-SmResourceDRMode -HostNames
Clusterhost.netapp.com,Node1.netapp.com,Node2.netapp.com
```

This example syntax removes all the resources of cluster host from disaster recovery mode. Specify cluster host with all the nodes.

```
Result       : SMCoreContracts.SMResult

                        TotalCount   : 0

                        DisplayCount : 0

                        Context      :

                        Job          : SMCoreContracts.SmJob
```

## Example 4: Removing SQL resource from disaster recovery mode

```
Remove-SmResourceDRMode -AppObjectIds Host1/Inst1/DB1
```

This example syntax removes SQL resource from disaster recovery mode.

```
Result       : SMCoreContracts.SMResult

                        TotalCount   : 0

                        DisplayCount : 0

                        Context      :

                        Job          : SMCoreContracts.SmJob
```

## Example 5: Removing multiple SQL resources from disaster recovery mode

```
Remove-SmResourceDRMode -AppObjectIds Host1/Inst1/DB1,Host1/Inst1/DB2
```

This example syntax removes SQL resources from disaster recovery mode.

```
Result       : SMCoreContracts.SMResult

                        TotalCount   : 0

                        DisplayCount : 0
```

```
Context       :

Job           : SMCoreContracts.SmJob
```

# Remove-SmResourceFromUser

Removes a SnapCenter resource assigned to specified user.

# Syntax

```
Remove-SmResourceFromUser -UserName <String> -ResourceNames <String> -ResourceType
<OperationAssignmentType> [-UserGroupObjectType <SmUserGroupObjectType>]
[<CommonParameters>]
```

# Detailed Description

Remove a SnapCenter resource assigned to specified user.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| UserName | Name of the domain\user. | true | true (ByPropertyName) | |
| ResourceNames | Name of the resources to be removed. Allow comma seperated resources names. The resource name is the policy name, resource group name, storage connection name, credential name, host name or IP address, or plug-in name created by the user. | true | true (ByPropertyName) | |
| ResourceType | Type of resource. The SnapCenter resource types are Credential, Host, ResourceGroup, Policy, StorageConnection or Plugin. | true | true (ByPropertyName) | |
| UserGroupObjectType | Specifies the user type whose resources are removed. Possible values are User or Group. | false | true (ByPropertyName) | |

# Examples

## Example 1: Removing a specific resource from a user

```
Remove-SmResourceFromUser -ResourceNames PayrollDataset -ResourceType ResourceGroup -
UserName mva\administrator
```

```
This example syntax removes the specified resource name from the user indicated.
```

```
Remove-SmResourceFromUser

            Are you sure want to perform this action?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):y
```

## Example 2: Removing a specific resource from a user without confirmation dialogue

```
Remove-SmResourceFromUser -ResourceNames PayrollDataset -ResourceType ResourceGroup -
UserName mva\administrator -Confirm:$false
```

This example syntax removes the specified resource name from the user indicated.

## Example 3: Removing a specific resource from a group.

```
Remove-SmResourceFromUser -ResourceNames PayrollDataset -ResourceType ResourceGroup -
UserName mva\group1 -UserGroupObjectType Group
```

This example syntax removes the specified resource name from the identified group.

# Remove-SmResourceGroup

Removes a resource group.

# Syntax

```
Remove-SmResourceGroup -ResourceGroupNames <String> [-Force] [<CommonParameters>]
```

# Detailed Description

Enables you to delete a resource group from SnapCenter based on the resource group name provided.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ResourceGroupNames | | true | true (ByPropertyName) | |
| Force | | false | true (ByPropertyName) | |

# Examples

### Example 1: Removes a resource group by the resource group name

```
Remove-SmResourceGroup -ResourceGroupNames RG2
```

```
This example syntax removes a resource group from SnapCenter based on the resource
group name provided.
```

```
Remove-SmResourceGroup

Are you sure you want to delete the Resource Group selected?Resource Group will be
removed from all the member hosts of the Resource Group. The backups of the Resource
Group will be deleted when the Resource Group is removed. Also all the association of
policy with this Resource Group will be detached.

[Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help (default is "Y"):
Y
```

### Example 2: Removes the resource group by resource group name without a confirmation dialogue.

```
Remove-SmResourceGroup -ResourceGroupNames RG2 -Confirm:$false
```

```
This example syntax removes a resource group from  SnapCenter based on the resource
group name provided.
```

# Remove-SmRole

Removes an RBAC role.

## Syntax

```
Remove-SmRole -Name <String> [<CommonParameters>]
```

## Detailed Description

Removes an RBAC role.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Names the RBAC role you want to delete. | true | true (ByPropertyName) | |

## Examples

### Example 1: Removing a specific role

```
Remove-SmRole -Name BackupAdmin
```

```
This example syntax removes the specified role from SnapCenter.

Remove-SmRole

            Are you sure you want to remove the role ?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y
```

### Example 2: Removing a specific role without confirmation dialogue

```
Remove-SmRole -Name BackupAdmin -Confirm:$false
```

```
This example syntax removes the specified role from SnapCenter.
```

# Remove-SmServer

Removes the SC server from the High Availability cluster.

# Syntax

```
Remove-SmServer -Credential <PSCredential> [-ServerName <String>] -ServerIP <String>
[<CommonParameters>]
```

# Detailed Description

Removes the given SC server from the High Availability cluster. The SC server should be removed from the load balancing configuration and, SnapCenter should be uninstalled on the server to be removed.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Credential | Provides domain user credentials for the user to remove High Availability cluster configuration. | true | true (ByPropertyName) | |
| ServerName | Secondary SC server name. | false | false | |
| ServerIP | Secondary SC server IP Address. | true | false | |

# Examples

## Example 1: Removing SnapCenter Server from High Availability cluster

```
Remove-SmServer -Credential sddev\administrator -ServerIP 10.225.231.178 -ServerName
SecondServer.domain.com


This example removes SnapCenter Server from High Availability cluster.

Remove-SmServer -ServerIP 10.225.231.178

            WARNING: Uninstallation of SnapCenter Server on secondary node is
recommended.



            Name                : Removing SnapCenter Server 10.225.231.178 from High
Availability Cluster

            Id                  : 1606

            StartTime           : 9/25/2019 1:23:11 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False
```

```
IsCompleted         : False

IsVisible           : True

IsScheduled         : False

PercentageCompleted : 100

Description         :

Status              : Running

Owner               :

Error               :

Priority            : None

Tasks               : {}

ParentJobID         : 0

EventId             : 0

JobTypeId           : 38

ApisJobKey          :

ObjectId            : 0

PluginCode          : NONE

PluginName          : NONE

HostId              : 0

RoleId              :

JobIds              : {}
```

# Remove-SmServerCluster

Removes the High Availability cluster configuration on the SnapCenter Server

# Syntax

```
Remove-SmServerCluster -Credential <PSCredential> [-ClusterName <String>] -ClusterIP
<String> [<CommonParameters>]
```

# Detailed Description

Removes the High Availability cluster configuration on the SnapCenter Server. This can be used to convert to Standalone configuration.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Credential | Provides domain user credentials for the user to remove High Availability cluster configuration. | true | true (ByPropertyName) | |
| ClusterName | F5 cluster name. | false | false | |
| ClusterIP | F5 Cluster IP Address. | true | false | |

# Examples

### Example 1: Removing High Availability cluster configuration on the SnapCenter Server

```
Remove-SmServerCluster -Credential sddev\administrator -ClusterIP 10.235.236.190 -
ClusterName f5pool
```

```
This removes the High Availability cluster configuration on the SnapCenter Server.

Name                : Remove High Availability for SnapCenter Server

            Id                  : 972

            StartTime           : 10/5/2019 6:19:26 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : True

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :
```

```
Status              : Running

Owner               :

Error               :

Priority            : None

Tasks               : {}

ParentJobID         : 0

EventId             : 0

JobTypeId           : 38

ApisJobKey          :

ObjectId            : 0

PluginCode          : NONE

PluginName          : NONE

HostId              : 0

RoleId              :

JobIds              : {}


Monitor the progress of job 972 in the Job Monitor page or by running the
cmdlet: 'Get-SmJobSummaryReport -JobId 972'
```

# Remove-SmStorageConnection

Removes a storage system connection.

# Syntax

```
Remove-SmStorageConnection [[-Storage] <String>] [-AzureNetAppAccountIds <bigint(20)>]
[<CommonParameters>]
```

# Detailed Description

Removes a storage system connection. You can remove one storage system connection at a time.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Storage | | false | true (ByPropertyName) | |

# Examples

## Example 1: Removing a storage system connection

```
Remove-SmStorageConnection -SVM 172.17.168.13
```

```
This example syntax removes a storage system connection

Remove-SmStorageConnection

            Are you sure you want to remove the storage connection?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y

            Remove Storage connection successful
```

## Example 2: Removing a storage system connection without confirmation dialogue

```
Remove-SmStorageConnection -SVM 172.17.168.13 -Confirm:$false
```

```
This example syntax removes a storage system connection

Remove Storage connection successful
```

## Example 3: Removing Azure NetApp Account

```
Remove-SmStorageconnection -AzureNetAppAccountIds 1

This example removes Azure NetApp Accounts with specified Azure NetApp Account IDs.
```

# Remove-SmUser

Removes AD users or local workgroup users from SnapCenter.

# Syntax

```
Remove-SmUser -UserName <SmString> [-Domain <String>] [<CommonParameters>]
```

# Detailed Description

Removes Active Directory users or local workgroup users from SnapCenter.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| UserName | Single user or list of users belonging to the same domain or workgroup. | true | true (ByPropertyName) | |
| Domain | The domain to which the user belongs to. Workgroup users should skip this parameter. | false | true (ByPropertyName) | |

# Examples

## Example 1: Removing a single user 1

```
Remove-SmUser -UserName user1 -Domain domain1
```

## Example 2: Removing multiple users of same domainle 2

```
Remove-SmUser -UserName user1,user2 -Domain domain1
```

## Example 3: Removing workgroup user

```
Remove-SmUser -UserName LocalUser1
```

# Remove-SmUserFromRole

Deletes a user from an RBAC role.

# Syntax

```
Remove-SmUserFromRole -UserName <SmString> -RoleName <String> [-Domain <String>]
[<CommonParameters>]
```

# Detailed Description

Deletes a user from an RBAC role.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| UserName | Specifies the user you want to remove from the RBAC role. | true | true (ByPropertyName) | |
| RoleName | Specifies the name of the role from which you want to remove the user. | true | true (ByPropertyName) | |
| Domain | Domain to which user belongs to. Workgroup users should skip this parameter. | false | true (ByPropertyName) | |

# Examples

## Example 1: Deleting a role from a specific user

```
Remove-SmUserFromRole  -UserName administrator -Domain mva -RoleName BackupAdmin
```

```
This example syntax removes the specified user from a role.

Remove-SmUserFromRole

            Are you sure you want to unassign the user from role?.

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y

            BackupAdmin

            mva\administrator
```

## Example 2: Deleting a role from a specific user without confirmation dialogue

```
Remove-SmUserFromRole  -UserName administrator -Domain mva -RoleName BackupAdmin -
Confirm:$false
```

```
This example syntax removes the specified user from a role.
```

```
Remove-SmUserFromRole

            BackupAdmin

            mva\administrator
```

# Remove-SmVerificationServer

Removes one or more verification servers.

# Syntax

```
Remove-SmVerificationServer -Names <String> [<CommonParameters>]
```

# Detailed Description

Removes one or more verification servers. When you run Remove-SmVerificationServer, you do not remove the SQL Server instance you are using as the verification server, you simply remove the verification server settings so that the SQL Server instance can no longer be used as a SnapCenter verification server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Names | Specifies the names of the verification server or servers you want to remove. | true | true (ByPropertyName) | |

# Examples

## Example 1: Removing a verification server

```
Remove-SmVerificationServer -Names mva-s51/instance1
```

```
This example syntax removes a verification server.

Remove-SmVerificationServer

            Are you sure you want to remove the host and its resources.?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): y
```

## Example 2: Removing a verification server without confirmation dialogue

```
Remove-SmVerificationServer -Names mva-s51/instance1 -Confirm:$false
```

```
This example syntax removes a verification server.
```

# Rename-SmBackup

Renames an existing backup.

# Syntax

```
Rename-SmBackup [-BackupName] <String> [-NewBackupName] <String> [-PluginType]
<PluginCode> [<CommonParameters>]
```

# Detailed Description

Renames an existing backup.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| BackupName | Name of the existing backup. | true | false | |
| NewBackupName | The new name you will give the backup. | true | false | |
| PluginType | Provides the SnapCenter plug-in type. You can specify one of the following: SCSQL or SCW. | true | false | |

# Examples

## Example 1: Renames an existing backup

```
Rename-SmBackup -BackupName SQL_DATASET_CLONE_csmdev-smsql-02_08-03-2015_13.45.19.4400

          -NewBackupName SQL_DATASET_CLONE_RENAMED -PluginType SCSQL -Verbose

This example command syntax renames an existing backup to a new name that you specify.

VERBOSE: Start Rename-SmBackup

            VERBOSE: Rename-SmBackup ended successfully.
```

# Reseed-SmBackup

Restores the particular database and joins it back to the Availability Group.

# Syntax

```
Reseed-SmBackup [[-PluginCode] <PluginCode>] [-AppObjectId] <String> [[-BackupName]
<String>] [<CommonParameters>]
```

# Detailed Description

Restores the particular database and joins it back to the Availability Group. This operation is supported only with the database of secondary replica.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PluginCode | | false | false | |
| AppObjectId | | true | false | |
| BackupName | | false | false | |

# Examples

### Example 1: Reseed Secondary Database of an availability Group

```
Reseed-SmBackup -AppObjectId CHAN-New\INST4\Auto_DB_CHAN_ESX7_INST1_MDML_1
```

```
This example syntax reseeds the secondary copy of the database mentioned by the
appobjectId and brings it to sync with primary database and joins the database back to
Availability Group.
```

# Reseed-SmDagReplicaCopy

This command will restore or reseed the failed copy of the database.

## Syntax

```
Reseed-SmDagReplicaCopy [-ReplicaHost] <String> [-Database] <String> [[-BackupHost]
<String>] [<CommonParameters>]
```

## Detailed Description

Restores an unhealthy replica by using either the most recent copy on the same host or the most recent copy from an alternate host.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ReplicaHost | | true | false | |
| Database | | true | false | |
| BackupHost | | false | false | |

## Examples

### Example 1: Reseed a replica

```
reseed-SmDagReplicaCopy -ReplicaHost "mva-rx200.netapp.com" -Database  execdb -
BackupHost "mva-rx201.netapp.com"
```

# Restore-SmBackup

Restores a backup.

# Syntax

```
Restore-SmBackup [-PluginCode] <PluginCode> [-AppObjectId] <String> [[-BackupId]
<String>] [[-BackupName] <String>] [[-LogRestoreType] <SmSqlLogRestoreType>] [[-
RestoreWhenOnline]] [[-RetainReplicationSettings]] [[-CreateTransactionLog]] [[-
FailOnTransactionLogBackupFailure]] [[-RecoveryModel] <SmSqlRecoveryModel>] [[-
UndoLogDirectory] <String>] [[-Archive] <Hashtable[]>] [-AuxiliaryDestination <String>]
[-LogArchive <Hashtable[]>] [[-AlternatePath] <Hashtable[]>] [[-LogCount] <Int32>] [[-
LogCutOffDateTime] <DateTime>] [[-FailOnLogBackupFailure]] [[-SceRecoveryModel]
<SCERecoveryModel>] [[-ExistingFiles]] [[-TargetHost] <String>] [[-NoVerify]] [[-
IsRecoverMount]] [[-PreScriptCommand] <String>] [[-PreScriptArguments] <String>] [[-
SQLInstanceName] <String>] [[-DatabaseName] <String>] [[-CustomLogDirectory] <String>]
[[-RecoveryType] <HanaRecoveryType>] [[-Recovertimezone]] [[-TenantDatabaseName]
<String>] [[-VolumeRevert]] [[-PostScriptCommand] <String>] [[-PostScriptArguments]
<String>] [[-ScriptTimeOut] <Int32>] [[-OracleControlFileRestore]] [[-
OracleFullRestore]] [[-OracleSkipRecovery]] [[-OracleUntilScn] <Int64>] [[-
OracleTablespaces] <String>] [[-OracleChangeState]] [[-OraclePluggableDatabases]
<String>] [[-AlternateArchiveLogsPath] <String>] [[-OracleOpenDatabaseAfterRecovery]]
[[-OracleUntilTime] <DateTime>] [[-RestoreLastBackup] <Int32>] [[-RestoreOnClusterHost]
<String>] [[-RestoreOracleRedoLogFile]] [[-OracleOpenPluggableDatabasesAfterRecovery]]
[[-OracleOpenTablespacesAfterRecovery]] [[-ForceInplaceRestore]] [[-
PluginCreatorCustomRestoreParams] <Hashtable>] [-EnableEmail] [-EmailPreference
<SmEmailNotificationPreference>] [<CommonParameters>]
```

# Detailed Description

Restores a backup. You can specify whether to restore log files or not, and the types of log files. You can restore databases even if existing databases are online.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PluginCode | Specifies the plug-in code of the resource to be restored. Valid plug-in codes are SCW and SCSQL. | true | false | |
| AppObjectId | Specifies the ID of the application object. | true | false | |
| BackupId | Specifies the ID of the backup to use for restore. | false | false | |
| BackupName | Specifies the name of the backup to use for restore. | false | false | |
| LogRestoreType | Specifies the log restore type. User can choose to apply no logs, all logs or specific logs. | false | false | |
| RestoreWhenOnline | Restore databases even if existing databases are online. | false | false | |
| RetainReplicationSettings | Retain SQL database replication settings. | false | false | |
| CreateTransactionLog | Create transaction log backup before restore. | false | false | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| FailOnTransactionLogBackupFailure | Quit restore if transaction log backup fails before restore. | false | false | |
| RecoveryModel | Specifies the SQL recovery model for applying logs. | false | false | |
| UndoLogDirectory | Specifies a location where the standby files are created, so that the recovery effects can be reversed. | false | false | |
| Archive | Specifies the secondary storage system details for restore. | false | false | |
| AlternatePath | Specifies an alternate location to restore the database. | false | false | |
| LogCount | Specifies the number of logs to apply. | false | false | |
| AuxiliaryDestination | Auxiliary destination on the database host required to perform Oracle point in time recovery. | false | false | |
| LogArchive | Specify the archive location of the archive logs from where the Oracle database resource is to be restored | false | false | |
| LogCutOffDateTime | Specifies the cutoff time to restore the database. If the server and plug-in host are in different time zones, the input must be as per the plug-in host time zone. | false | false | |
| FailOnLogBackupFailure | | false | false | |
| SceRecoveryModel | | false | false | |
| ExistingFiles | Restore from Existing files specified in AlternatePath. | false | false | |
| TargetHost | | false | false | |
| NoVerify | | false | false | |
| IsRecoverMount | | false | false | |
| PreScriptCommand | Specifies commands that get executed before the restore operation. | false | true (ByPropertyName) | |
| PreScriptArguments | Specifies arguments to the prescript command. | false | true (ByPropertyName) | |
| SQLInstanceName | Specifies the SQL Server instance to which the database is restored in an alternate path scenario. | false | false | |
| DatabaseName | Specifies the new database name when restoring the database to an alternate path. | false | false | |
| CustomLogDirectory | This parameter is required for specifying a custom path, either a network share path or a drive path, where you have stored the logs. This parameter is used for restore operations from both primary and secondary copies. | false | false | |
| RecoveryType | Specifies the recovery type for HANA resources. | false | false | |
| Recovertimezone | Timezone of the client. This parameter is applicable to HANA plug-in resource when the RecoveryType specified is | false | false | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | 'RecoverUntilDateTime'. Acceptable format: GMT+HH:MM or GMT-HH:MM. | | | |
| TenantDatabaseName | Name of the HANA tenant database to be restored. This parameter is applicable to MultiTenant Database Containers resources. No recovery will be performed for the specified tenant database. | false | false | |
| VolumeRevert | Enables file system restore in case of Complete Restore for Auto-discovered resources. This parameter is used mainly for auto-discovered resource backups and this option can be used to prevent volume based restore and cleaning up of later backups if an older backup is selected for restore. | false | false | |
| PostScriptCommand | Specifies the commands that get executed after the restore operation. | false | true (ByPropertyName) | |
| PostScriptArguments | Specifies the arguments to the postscript command. | false | true (ByPropertyName) | |
| ScriptTimeOut | Specifies the maximum timeout to wait for the script to complete. | false | true (ByPropertyName) | |
| OracleControlFileRestore | Indicates that you want to restore the Oracle control file. | false | false | |
| OracleFullRestore | Indicates that you want to perform a full Oracle database restore. | false | false | |
| OracleSkipRecovery | Indicates that you want to skip Oracle database recovery. | false | false | |
| OracleUntilScn | Indicates that you want to restore to a specific System Change Number. | false | false | |
| OracleTablespaces | Indicates the Pluggable database (PDB) tablespaces to be restored. | false | false | |
| OracleChangeState | Indicates that the database state should be changed to the state required to perform restore and recovery operations. The states of a database from higher to lower are open, mounted, started, and shutdown. | false | false | |
| OraclePluggableDatabases | Indicates the Pluggable databases to be restored. | false | false | |
| AlternateArchiveLogsPath | Indicates an alternate archive logs path. | false | false | |
| OracleOpenDatabaseAfterRecovery | Specifies that the databases must be opened after recovery is performed. | false | false | |
| OracleUntilTime | | false | false | |
| RestoreLastBackup | Restore the Nth Backup of a resource with provided AppObjectId. For example, value entered as 5 with AppObjectId "testResource", it will restore the 5th backup for resource found with AppObjectId "testResource" provided that at least 5 backups are available. | false | false | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| RestoreOnClusterHost | Specifies the cluster node on which the restore operation must be performed. You must specify this option only for an Oracle RAC database. If this option is not specified, restore operation is performed on the node where the backup was created. | false | false | |
| RestoreOracleRedoLogFile | Indicates that you want to restore Oracle redo log files. Redo log file restore is only supported for Data Guard and Active Data Guard standby database. | false | false | |
| OracleOpenPluggableDatabasesAfterRecovery | Specifies that the pluggable databases must be opened after recovery is performed. | false | false | |
| OracleOpenTablespacesAfterRecovery | Specifies that the tablespaces must be opened after recovery is performed. | false | false | |
| ForceInplaceRestore | Indicates that you want to perform in-place restore and bypass all restore validations. | false | false | |
| PluginCreatorCustomRestoreParams | | false | false | |
| EnableEmail | Enables e-mail. | false | false | |
| EmailPreference | Specifies when you will receive e-mail notifications. Possible values: Always, Never, OnError, OnErrorOrWarning. | false | false | |
| EmailFrom | Specifies the sender's e-mail address. | true | true (ByPropertyName) | |
| EmailTo | Specifies the recipient's e-mail address. | true | true (ByPropertyName) | |
| EmailSubject | Specifies the e-mail subject. | true | true (ByPropertyName) | |
| EnableEmailAttachment | Enables email attachments. | false | true (ByPropertyName) | |

# Examples

## Example 1: Restoring from a primary backup

```
PS C:\> Restore-SmBackup -PluginCode SCSQL -AppObjectId 'vise-f6\PayrollDatabase' -
BackupNam

          e 'NetApp_PayrollDataset_Backup Policy_vise-f6_NetApp_08-07-
2015_08.48.59.6962' -RestoreWhenOnline


This example syntax restores from a primary backup.


Name                : Restore 'vise-f6\PayrollDatabase'

            Id                  : 199

            StartTime           : 8/7/2015 9:21:36 AM
```

```
            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0
```

## Example 2: Restoring to an alternate path from a primary

```
PS C:\> Restore-SmBackup -PluginCode SCSQL -AppObjectId 'vise-f6\PayrollDatabase' -
BackupNam

          e 'NetApp_PayrollDataset_Backup Policy_vise-f6_NetApp_08-07-
2015_08.48.59.6962' -AlternatePath ®{Source='I:\PayrollDatab


ase.mdf';Destination='H:\PayrollDatabase_copy_log.mdf'},®{Source='I:\PayrollDatabase_lo
g.ldf';Destination='H:\PayrollDat

          abase_copy_log.ldf'} -SQLInstanceName 'vise-f6\BRAVEHEART' -DatabaseName
'PayrollDatabase_copy'


This example syntax restores a backup to an alternate path


Name                : Restore 'vise-f6\PayrollDatabase'

            Id                  : 203

            StartTime           : 8/7/2015 9:30:32 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False
```

```
            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0
```

## Example 3: Restoring from a secondary backup

```
PS C:\> Restore-SmBackup -PluginCode SCSQL -AppObjectId 'vise-f6\PayrollDatabase' -
BackupNam

          e 'NetApp_PayrollDataset_Backup Policy_vise-f6_NetApp_08-07-
2015_08.48.59.6962' -Archive ®{Primary="rtp-rr1-d2.gdl.engla

          b.netapp.com:vol_src";Secondary="vs1:vs1_vol_src_vault"} -RestoreWhenOnline


This example syntax restores from a secondary backup.


Name                : Restore 'vise-f6\PayrollDatabase'

            Id                  : 208

            StartTime           : 8/7/2015 9:40:12 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}
```

```
            ParentJobID         : 0

            EventId             : 0
```

## Example 4: Removing a Run As account from a resource

```
PS C:\> Restore-SmBackup -PluginCode SCSQL -AppObjectId 'vise-f6\PayrollDatabase' -
BackupNam

          e 'Mycompany_PayrollDataset_Backup Policy_vise-f6_Mycompany_08-07-
2015_08.48.59.6962' -Archive ®{Primary="rtp-rr1-
d2.gdl.mycompany.com:vol_src";Secondary="vs1:vs1_vol_src_vault"} -RestoreWhenOnline -
AlternatePath ®{Source='I:\PayrollDatabase.


mdf';Destination='H:\PayrollDatabase_copy_log.mdf'},®{Source='I:\PayrollDatabase_log.ld
f';Destination='H:\PayrollDatabas

          e_copy_log.ldf'} -SQLInstanceName 'vise-f6\BRAVEHEART' -DatabaseName
'PayrollDatabase_copy'


This example syntax removes a Run As account from a resource.


Name                : Restore 'vise-f6\PayrollDatabase'

            Id                  : 210

            StartTime           : 8/7/2015 9:46:54 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0
```

## Example 5: Restore complete Resource of Custom plugin DB2 from Primary Storage

```
Restore-SmBackup -PluginCode 'DB2' -AppObjectId
'sccorelinux61.sccore.test.com\DB2\NTP\DB1' -BackupId 191 -Confirm:$false -
mountcommands 'sh /var/opt/mountCmd.sh' -unmountcommands 'sh /var/opt/unmountCmd.sh'
```

```
Restore complete Resource of type Database of Custom plug-in DB2 from Primary Storage
with mount and umount commands
```

## Example 6: Restore Complete custom plugin resource from Secondary storage

```
Restore-SmBackup -PluginCode 'DB2' -AppObjectId
'sccorelinux61.sccore.test.com\DB2\SECONDARYSMSV1' -BackupId 198 -Confirm:$false  -
customrestoreparams ®{"KEY_PARAM1"="CUSTPARAM1"} -prescriptarguments 'PreScriptCommand
> PreScriptCommand.txt' -prescriptcommand echo -postscriptarguments 'PostScriptCommand
> PostScriptCommand.txt' -postscriptcommand echo -Archive ®(
®{"Primary"="vserver_scauto_primary:SMSV1_SRC_sccorelinux61_sccore_test_com";"Secondary
"="vserver_scauto_primary:SMSV1_DST3_sccorelinux61_sccore_test_com"})
```

```
Restore Complete custom plug-in resource from Secondary storage with custom key-value
pairs and pre-post commands
```

## Example 7: Restore files/LUNs from Primary storage of Custom plugin resource

```
Restore-SmBackup -PluginCode 'DB2' -AppObjectId
'sccorelinux61.sccore.test.com\DB2\RNVOL' -BackupId 313 -Confirm:$false  -path
vserver_scauto_primary:/vol/ng_rvol1_sccorelinux61_sccore_test_com/file1,vserver_scauto
_primary:/vol/ng_rvol2_sccorelinux61_sccore_test_com/file1
```

```
Restoring multiples files from multiple/single volumes can be combined together
```

## Example 8: Restoring to a cluster host

```
Restore-SmBackup -PluginCode 'SCO' -AppObjectId 'smo-suse-
11g.gdl.englab.netapp.com\itdb' -BackupName 96skdb_smo-suse-11g_02-15-
2017_18.11.43.3978_0   -oraclechangestate  -RestoreOnClusterHost 'clusterhost.com'
```

```
Restore to a cluster host. This is applicable only for Oracle RAC Database.
```

## Example 9: After restore change the state of tablespaces to online

```
Restore-SmBackup -PluginCode 'SCO' -AppObjectId
'scspr0198204001.gdl.englab.netapp.com\itdb' -BackupName rg1_scspr0198204001_02-15-
2017_16.53.38.9804_0   -oraclechangestate  -OracleOpenTablespacesAfterRecovery  -
OracleTablespaces newts -ForceInplaceRes
```

```
After restoring the database, changes the state of the tablespaces to online
```

## Example 10: After restore change the state of PDBS to read write

```
Restore-SmBackup -PluginCode 'SCO' -AppObjectId 'smo-suse-
11g.gdl.englab.netapp.com\skdb' -BackupName 96skdb_smo-suse-11g_02-16-
2017_17.46.09.0207_0  -oraclechangestate   -OraclePluggableDatabases 'SKPDB1','SKPDB2'
-OracleOpenPluggableDatabasesAfterRecovery
```

After restoring the database, changes the state of the PDBS to read write.

## Example 11: Restoring from existing files specified in alternate path from a primary

```
PS C:\> Restore-SmBackup -PluginCode SCSQL -AppObjectId 'vise-f6\PayrollDatabase' -
BackupNam

          e 'NetApp_PayrollDataset_Backup Policy_vise-f6_NetApp_08-07-
2015_08.48.59.6962' -AlternatePath ®{Source='I:\PayrollDatab


ase.mdf';Destination='H:\PayrollDatabase_copy_log.mdf'},®{Source='I:\PayrollDatabase_lo
g.ldf';Destination='H:\PayrollDat

          abase_copy_log.ldf'} -SQLInstanceName 'vise-f6\BRAVEHEART' -DatabaseName
'PayrollDatabase_copy' -ExistingFiles


This example syntax restores a backup using existing files specified alternate path

Name                : Restore 'vise-f6\PayrollDatabase'

            Id                  : 203

            StartTime           : 8/7/2015 9:30:32 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0
```

## Example 12: Restore files/LUNs from Primary storage of Custom plugin resource using All File Restore option

```
Restore-SmBackup -PluginCode 'DummyPlugin' -AppObjectId
'scclinux1.scc.test.com\DummyPlugin\RNVOL' -BackupId 313 -Confirm:$false  -
AllFileRestorePath vserver_scauto_primary:/vol/ng_rvol1_scclinux1_scc_test_com
```

```
All File Restore can be performed on multiple volumes and on multiple Vservers by
providing a comma separated list of volume paths from which All File Restore is to be
performed
```

## Example 13: Restore files from Primary storage of SAP HANA MultiTenant Database Container resource using All File Restore option

```
Restore-SmBackup -PluginCode 'hana' -AppObjectId scspr43002.scc.test.com\hana\R01\R01 -
BackupId 313 -Confirm:$false  -AllFileRestorePath vs_test:/vol/cn_p1,vs_test:/vol/cn_p2
```

```
All File Restore can be performed on multiple volumes and on multiple Vservers by
providing a comma separated list of volume paths from which All File Restore is to be
performed
```

## Example 14: Restore files and LUNs from a Primary storage of SAP HANA MultiTenant Database Container resource

```
Restore-SmBackup -PluginCode 'hana' -AppObjectId scspr043002.scc.test.com\hana\R01\R01
-BackupId 3 -Confirm:$false  -AllFileRestorePath vs_test:/vol/cn_p1 -Path
vs_test:/vol/cn_lun_vol/cn_lun
```

```
All File Restore can be performed on multiple volumes and on multiple Vservers by
providing a comma separated list of volume paths from which All File Restore is to be
performed. Lun path can be provided as a value for Path parameter.

Name                : Restore 'scspr043002.scc.test.com\hana\R01\R01'

            Id                  : 1363

            StartTime           : 9/28/2019 10:22:11 AM

            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           : 1

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : SCC

            PluginName          : PluginCreator

            HostId              : 0

            RoleId              :

            JobIds              : {}
```

## Example 15: Restore LUNs from a specific backup of SAP HANA MultiTenant Database Containers resource

```
Restore-SmBackup -PluginCode 'hana' -BackupName
'schana02_gdl_englab_netapp_com_hana_MDC_R70_schana02_08-19-2019_21.07.33.2537' -
AppObjectId 'schana02.gdl.englab.netapp.com\hana\MDC\R70' -RecoveryType
RecoverToSpecificBackup


Restore performed to specific backup on Hana resource.

Name                : Restore 'schana02.gdl.englab.netapp.com\hana\MDC\R70'

            Id                  : 1363

            StartTime           : 9/30/2019 12:40:44 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           : 1

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : SCC

            PluginName          : PluginCreator

            HostId              : 0

            RoleId              :

            JobIds              : {}
```

## Example 16: Restore the HANA resource to a specific date or time (Point in time restore)

```
Restore-SmBackup -PluginCode 'hana' -AppObjectId 'AutoMTSles253\hana\MDC\MT1' -BackupId
'469' -Confirm:$false -recovertimezone 'GMT+05:30' -recoveruntiltime '10/01/19 05:46:21
AM' -recoverytype RecoverUntilDateTime


Restore performed to a specific date or time on a HANA resource.

Name                : Restore 'AutoMTSles253\hana\MDC\MT1'

            Id                  : 1371

            StartTime           : 9/30/2019 12:59:42 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           : 1

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : SCC

            PluginName          : PluginCreator

            HostId              : 0

            RoleId              :

            JobIds              : {}
```

## Example 17: Restoring to a custom log directory

```
Restore-SmBackup -PluginCode SCSQL -AppObjectId 'RAHUL-123-123\INSTANCE2\db1'
BackupName 'RAHUL-123-123_INSTANCE2_db1_SQL-123-123_06-18-2018_15.53.55.4944 -
AlternatePath ®{Source='F:\New
folder\db1.mdf';Destination='C:\rtah\db1.mdf'},®{Source='F:\New
folder\db1_log.ldf';Destination='C:\rtah\db1_log.ldf'} -SQLInstanceName 'RX200-
WHQL10\INST' -DatabaseName 'DB1_RTAH' -TargetHost 'rx200-whql10.sdwdc.netapp.com' -
LogRestoreType All -CustomLogDirectory "\\STAB-VM1\net share" -Archive
®{Primary="RAHUL_fs1-smhv:Rahul_scsql";Secondary="RAHUL_fs.1-
smhv:RAHUL_fs1_smhv_Rahul_scsql_vault"}
```

This example syntax specifies a custom log directory when restoring backups.

```
Name:               : Restore 'RAHUL-123-123\INSTANCE2\db1' to instance 'RX200-
WHQL10\INST'

            Id                  : 48

            StartTime           : 6/20/2018 1:31:25 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsVisible           : True

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :
```

```
            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0

            JobTypeId           : 1

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : SCSQL

            PluginName          : SnapCenter Plug-in for Microsoft SQL Server

            HostId              : 0

            RoleId              :
```

## Example 18: Trigger file system restore without volume based restore

```
Restore-SmBackup -BackupName 'vp-hana1_gdl_englab_netapp_com_hana_MDC_N92_vp-hana1_08-
20-2019_22.35.52.9698' -PluginCode hana -AppObjectId 'vp-
hana1.gdl.englab.netapp.com\hana\MDC\N92'-RecoveryType SkipRecovery -VolumeRevert


This example syntax supports file system restore without volume based restore.

Name:               : Restore 'vp-hana1.gdl.englab.netapp.com\hana\MDC\N92'

            Id                  : 77

            StartTime           : 6/22/2018 1:55:10 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsVisible           : True

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0
```

```
            JobTypeId           : 1

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : SCC

            PluginName          : hana

            HostId              : 0

            RoleId              :
```

## Example 19: Trigger tenant database restore

```
Restore-SmBackup -BackupName 'vp-hana1_gdl_englab_netapp_com_hana_MDC_N92_vp-hana1_08-
20-2019_22.35.52.9698' -PluginCode hana -AppObjectId 'vp-
hana1.gdl.englab.netapp.com\hana\MDC\N92'-RecoveryType SkipRecovery -TenantDatabaseName
N92
```

This example syntax restores the given tenant database.

```
Name:               : Restore 'vp-hana1.gdl.englab.netapp.com\hana\MDC\N92'

            Id                  : 78

            StartTime           : 6/23/2019 1:55:10 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsVisible           : True

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0

            JobTypeId           : 1

            ApisJobKey          :

            ObjectId            : 0
```

```
            PluginCode          : SCC

            PluginName          : hana

            HostId              : 0

            RoleId              :
```

## Example 20: Trigger HANA database restore with all logs

```
Restore-SmBackup -PluginCode 'HANA' -AppObjectId 'R708057AFB8V1\hana\MDC\H14' -
BackupName 'R708057AFB8V1_hana_MDC_H14_R708057AFB8V1_08-25-2020_03.02.03.7780' -
RecoveryType RecoverToMostRecentState -InitializeLogArea
```

```
This example syntax restores the given HANA database.
```

```
Name                : Restore 'R708057AFB8V1\hana\MDC\H14'

            Id                  : 8025

            StartTime           : 8/25/2020 3:49:10 AM

            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           : 1

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : SCC

            PluginName          : PluginCreator
```

```
            HostId              : 0

            RoleId              :

            JobIds              : {}
```

## Example 21: Oracle Tablespace point in time recovery (TSPITR)

```
Restore-SmBackup -PluginCode SCO -AppObjectId
'SLES11SP4NONE.gdl.englab.netapp.com\PITNASDB' -BackupId 65 -AuxiliaryDestination
'/mnt/auxDest'  -OracleTablespaces TS1 -OracleUntilScn 987450
```

This example syntax performs an Oracle point in time recovery for a tablespace using SCN.

```
Name                : Restore 'SLES11SP4NONE.gdl.englab.netapp.com\PITNASDB'

            Id                  : 208

            StartTime           : 9/11/2020 9:40:12 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0
```

## Example 22: Oracle Pluggable database point in time recovery

```
Restore-SmBackup -PluginCode SCO -AppObjectId
'SLES11SP4NONE.gdl.englab.netapp.com\PITNASDB' -BackupId 65 -AuxiliaryDestination
'/mnt/auxDest' -OraclePluggableDatabases PDBUNQ -OracleUntilScn 987450
```

This example syntax performs an Oracle point in time recovery for a Pluggable database(PDB) using SCN.

```
Name                : Restore 'SLES11SP4NONE.gdl.englab.netapp.com\PITNASDB'

            Id                  : 209

            StartTime           : 9/11/2020 10:40:12 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0
```

## Example 23: Oracle point in time recovery for tablespace of a pluggable database (TSPITR)

```
Restore-SmBackup -PluginCode SCO -AppObjectId
'SLES11SP4NONE.gdl.englab.netapp.com\PITNASDB' -BackupId 65 -AuxiliaryDestination
'/mnt/auxDest' -OracleTablespaces TS109 -OraclePluggableDatabases PDBUNQ --
OracleUntilTime '2020-09-11 20:39:00'
```

```
This example syntax performs an Oracle point in time recovery for a tablespace
belonging to a pluggable database(PDB) using time.

Name                : Restore 'SLES11SP4NONE.gdl.englab.netapp.com\PITNASDB'

            Id                  : 210

            StartTime           : 9/11/2020 10:40:12 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False
```

```
            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0
```

## Example 24: Oracle Tablespace point in time recovery (TSPITR) from secondary

```
Restore-SmBackup -PluginCode SCO -AppObjectId
'SLES11SP4NONE.gdl.englab.netapp.com\PITNASDB' -BackupId 65 -AuxiliaryDestination
'/mnt/auxDest'  -OracleTablespaces TS23 -OracleUntilScn 987450 -Archive
®{Primary="svm1-scc2554-263-
264:R706221F756V1_NFS_DB_DB1_DATA";Secondary="hnkn_sec:R706221F756V1_NFS_DB_DB1_DATA_ds
t"} -LogArchive ®{Primary="svm1-scc2554-263-
264:R706221F756V1_NFS_DB_DB1_LOG";Secondary="hnkn_sec:R706221F756V1_NFS_DB_DB1_LOG_mirr
or"}
```

```
This example syntax performs an Oracle point in time recovery for a tablespace using
SCN from secondary.

Name                : Restore 'SLES11SP4NONE.gdl.englab.netapp.com\PITNASDB'

            Id                  : 232

            StartTime           : 9/11/2020 11:40:12 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : False

            IsScheduled         : False

            PercentageCompleted : 0

            Description         :

            Status              : Queued

            Owner               :

            Error               :

            Priority            : None
```

```
Tasks                : {}

ParentJobID          : 0

EventId              : 0
```

# Restore-SmRepositoryBackup

Restores the SnapCenter database.

# Syntax

```
Restore-SmRepositoryBackup [-HostName] <String> [[-SMSbaseUrl] <String>] [-BackupPath
<String>] -BackupName <String> [-RestoreFileSystem] [<CommonParameters>]
```

# Detailed Description

Restores the SnapCenter database.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostName | Specifies the SnapCenter database host name. If the SnapCenter database is hosted by a failover cluster instance (FCI), then specify the FCI owner host name. | true | true (ByPropertyName) | |
| SMSbaseUrl | Specifies the SnapCenter Server URL. This URL is required when you are executing the PowerShell command from a database host. | false | true (ByPropertyName) | |
| BackupPath | Specifies the path where the SnapCenter repository is stored. | false | true (ByPropertyName) | |
| BackupName | Specifies the name of the backup to restore. | true | true (ByPropertyName) | |
| RestoreFileSystem | Specifies that the file system can be restored when backups are missing. | false | true (ByPropertyName) | |

# Examples

## Example 1: Restoring a database backup

```
Restore-SmRepositoryBackup -BackupName MYSQL_DS_SC_Repository_mva-x3550-s09_09-15-
2016_10.32.00.4445
```

```
This example syntax restores the specified database backup.
```

```
You can retrieve -BackupName by using Get-smRepositoryBackups.
```

# Send-SmDataCollectionEms

Starts the EMS data collection process. This is primarily an internal cmdlet and generally should not be used by customers.

## Syntax

```
Send-SmDataCollectionEms [<CommonParameters>]
```

## Detailed Description

Starts the EMS data collection process. EMS data collection messages are sent by default on a weekly basis. You can use the Set-SmDataCollectionEmsSchedule cmdlet to change the default schedule. This is primarily an internal cmdlet and generally should not be used by customers.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Set-SmAuditSettings

Sets Audit configurations and Syslog configurations

# Syntax

```
Set-SmAuditSettings -MaxFileSize <Int64> -MaxSizeRollBackups <Int32> -AuditLogDirectory
<String> [-UniversalTime <Boolean>] -AuditChecksumLogDirectory <String> -
DiskSpaceLimitPercentage <Int32> -EnableAuditIntegrityCheckSchedule <Boolean> -
EnableSyslogServer <Boolean> -SyslogServerHost <String> -SyslogServerPort <Int32> -
SyslogProtocol <SyslogProtocols> -SyslogFormat <SyslogFormats> [<CommonParameters>]
```

# Detailed Description

Sets below configurations Audit related configuration - Maximum File Size Maximum files to retain Audit Log file location Audit Log Checksum file location DiskSpaceLimitPercentage Option to Enable Audit Integrity Check Schedule Syslog server related configuration - Option to Enable Syslog Server Syslog Server Host Syslog Server Port Syslog Protocol Syslog Format

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| MaxFileSize | The maximum size in MB that the log file is allowed to reach before being rolled over to backup files. | true | false | |
| MaxSizeRollBackups | The number of roll over audit files that are retained. | true | false | |
| AuditLogDirectory | The location where audit files are generated. | true | false | |
| UniversalTime | Enables message logging in UTC time for installations in different geographical locations. Use $True to enable UniversalTime or $False to disable UniversalTime. | false | false | |
| AuditChecksumLogDirectory | The location where audit checksum files are generated. | true | false | |
| DiskSpaceLimitPercentage | Disk space usage limit in percentage, after limit is reached alters are raised. | true | false | |
| EnableAuditIntegrityCheckSchedule | To Enable scheduled audit integrity check. Possible values are $True and $False. | true | false | |
| EnableSyslogServer | Switch to Enable forwarding audit logs to syslog server. | true | false | |
| SyslogServerHost | Syslog server IP address or Server name. | false | false | |
| SyslogServerPort | Syslog server Port. Possible values can range between 0 - 65535. | false | false | |
| SyslogProtocol | Syslog server Protocol. Possible values are UDP, TCP and TLS12. | false | false | |
| SyslogFormat | Syslog server messages format. Possible values are Rfc5424 and Rfc3164. | false | false | |

# Examples

### Example 1: Setting audit log and syslog server settings

```
Set-SmAuditSettings -MaxFileSize 50

-MaxSizeRollBackups 10

-AuditLogDirectory 'C:\Program Files\NetApp\SnapCenter WebApp\audit'

-AuditChecksumLogDirectory 'C:\Program Files\NetApp\SnapCenter WebApp\auditChecksum'

-DiskSpaceLimitPercentage 80

-EnableAuditIntegrityCheckSchedule $False

-EnableSyslogServer

-SyslogServerHost 10.229.39.107

-SyslogServerPort 1468

-SyslogProtocol TCP

-SyslogFormat Rfc5424
```

This example sets audit log and syslog server settings.

```
MaxFileSize : 50

MaxSizeRollBackups : 10

UniversalTime : False

AuditLogDirectory : C:\Program Files\NetApp\SnapCenter WebApp\audit

AuditChecksumLogDirectory : C:\Program Files\NetApp\SnapCenter WebApp\auditChecksum

DiskSpaceLimitPercentage : 80

EnableAuditIntegrityCheckSchedule : False

EnableSyslogServer : True

SyslogServerHost : 10.229.39.107

SyslogServerPort : 1468

SyslogProtocol : TCP

SyslogFormat : Rfc5424
```

# Set-SmCertificateSettings

Enables you to modify the certificate settings for the SnapCenter Server host or a SnapCenter plug-in host.

# Syntax

```
Set-SmCertificateSettings [-Server] [-Enable] [-Disable] [<CommonParameters>]
```

```
Set-SmCertificateSettings [-Host] [-HostName] <String> [-Enable] [-Disable]
[<CommonParameters>]
```

# Detailed Description

Enables you to modify the certificate settings for the SnapCenter Server host or a SnapCenter plug-in host.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Server | Enables the Snapcenter server to perform SSL Secure validations. | true | false | |
| Host | Specifies that you want to perform SSL Secure validations on Snapcenter Host. | true | false | |
| HostName | Specifies the name of the host on which you want to perform SSL Secure validations. | true | false | |
| Enable | Specifies the Snapcenter server or host to enable SSL Secure validations. | true | false | |
| Disable | Specifies the Snapcenter server or host to disable SSL Secure validations. | true | false | |

# Examples

## Example 1: Updating certificate settings for server

```
Set-SmCertificateSettings -Server -Enable
```

```
This example syntax sets certificate settings for server. Enables the server to perform
SSL secure validations.
```

```
Name                : Enabling certificate validation on server

                      Id                  : 51

                      StartTime           : 3/12/2021 1:42:58 PM

                      EndTime             : 3/12/2021 1:42:59 PM

                      IsCancellable       : False
```

```
                        IsRestartable       : False

                        IsCompleted         : False

                        IsVisible           : True

                        IsScheduled         : False

                        PercentageCompleted : 100

                        Description         :

                        Status              : Completed

                        Owner               :

                        Error               :

                        Priority            : None

                        Tasks               : {}

                        ParentJobID         : 0

                        EventId             : 0

                        JobTypeId           : 38

                        ApisJobKey          :

                        ObjectId            : 0

                        PluginCode          : NONE

                        PluginName          : NONE

                        HostId              : 0

                        RoleId              :

                        JobIds              : {}
```

## Example 2: Updating certificate settings for Host

```
Set-SmCertificateSettings -Host -HostName R71104B320CV1.mva.gdl.englab.netapp.com -
Enable
```

This example syntax sets certificate settings for host. Enables the host to perform SSL secure validations.

```
Name                : Enabling certificate validation on Host
R71104B320CV1.mva.gdl.englab.netapp.com

                        Id                  : 52

                        StartTime           : 3/12/2021 1:47:06 PM

                        EndTime             : 3/12/2021 1:47:13 PM

                        IsCancellable       : False

                        IsRestartable       : False
```

```
IsCompleted         : False

IsVisible           : True

IsScheduled         : False

PercentageCompleted : 100

Description         :

Status              : Completed

Owner               :

Error               :

Priority            : None

Tasks               : {}

ParentJobID         : 0

EventId             : 0

JobTypeId           : 38

ApisJobKey          :

ObjectId            : 0

PluginCode          : NONE

PluginName          : NONE

HostId              : 0

RoleId              :

JobIds              : {}
```

# Set-SmCloneDataSet

Modifies an existing clone dataset.

# Syntax

```
Set-SmCloneDataSet [-DataSetName] <String> [[-Description] <String>] [[-Policies]
<String>] [-PluginCode] <PluginCode> [-CloneToInstance] <String> [-Resources]
<Hashtable[]> [[-Suffix] <String>] [[-SchedulerCredentialName] <String>] [[-
ArchivedLocators] <Hashtable[]>] [-EnableEmail] [-EmailPreference
<SmEmailNotificationPreference>] [[-EmailFrom] <String>] [[-EmailTo] <String>] [[-
EmailSubject] <String>] [[-EmailBody] <String>] [-CustomSnapShotFomat <String>] [-
CustomText <String>] [-RemoveCustomSnapShot] [<CommonParameters>]
```

# Detailed Description

Modifies an existing clone dataset.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| DataSetName | Specifies the name of the clone dataset you want to modify. | true | true (ByPropertyName) | |
| Description | Modifies the optional description of the clone dataset. | false | true (ByPropertyName) | |
| Policies | Modifies which policies are attached to the clone dataset. | false | true (ByPropertyName) | |
| PluginCode | | true | true (ByPropertyName) | |
| CloneToInstance | Changes the SQL Server instance that you want to clone to. All databases in the clone dataset are cloned to this instance. | true | true (ByPropertyName) | |
| Resources | Modifies the list of resources you want to add to the clone dataset. You must provide the resource information in a hashtable, and it must contain the resource name and type, and the host on which it is located. For example, ®{"Host"="localhost";"Type"="SQL Database";"Names"="Instance\Database"} Valid Type values are: SQL Database, SQL Instance, SQL Availability Group. You can include comma-separated values for Names. | true | true (ByPropertyName) | |
| Suffix | Modifies a clone name suffix. All clones you create with one clone job are appended with the same suffix name. | false | true (ByPropertyName) | |
| SchedulerCredentialName | | false | true (ByPropertyName) | |
| ArchivedLocators | | false | true (ByPropertyName) | |
| EnableEmail | Specifies whether to enable or disable e-mail. | false | false | |
| EmailPreference | Specifies when you will receive e-mail notifications. Possible values: Always, Never, OnError, OnErrorOrWarning. | false | false | |
| EmailFrom | Specifies the sender's e-mail address. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| EmailTo | Specifies the recipient's e-mail address. | false | true (ByPropertyName) | |
| EmailSubject | Specifies the subject of the e-mail. | false | true (ByPropertyName) | |
| EmailBody | Specifies the body of the e-mail. | false | true (ByPropertyName) | |
| CustomSnapShotFomat | Specifies the custom Snaphsot copy naming format. | false | true (ByPropertyName) | |
| CustomText | Specifies the custom text in the custom Snapshot copy naming format. | false | true (ByPropertyName) | |
| RemoveCustomSnapShot | Specifies the removal of the custom Snapshot copy naming format associated with the dataset. | false | true (ByPropertyName) | |

# Examples

## Example 1: Modifying a clone dataset with a new suffix

```
Set-SmCloneDataSet -DataSetName payroll_dataset -Resources ®{"Host"="vise-
f3.sddev.mycompany.com";"Type"="SQLDatabases";"Names"="vise-f3\SQLExpress\payroll"}  -
CloneToInstance vise-f4\sqlexpress  -Suffix __

          newSuffix


This example syntax modifies a clone dataset by adding a new suffix.

Description                 :

            CreationTime                : 8/6/2015 2:27:08 PM

            ModificationTime            : 8/6/2015 2:27:08 PM

            EnableEmail                 :

            EmailSMTPServer             :

            EmailFrom                   :

            EmailTo                     :

            EmailSubject                :

            EnableSysLog                : False

            ProtectionGroupType         : Clone

            EnableAsupOnFailure         : False

            Policies                    : {}

            HostResourceMaping          : {}

            Configuration               : SMCoreContracts.SmCloneConfiguration

            LastBackupStatus            :

            VerificationServer          :

            EmailBody                   :
```

```
            EmailNotificationPreference :

            VerificationServerInfo      :

            SchedulerSQLInstance        :

            CustomText                  :

            CustomSnapshotFormat        :

            SearchResources             : False

            ByPassRunAs                 : False

            IsCustomSnapshot            :

            MaintenanceStatus           : Production

            PluginProtectionGroupTypes  :

            Name                        : payroll_dataset

            Type                        : Group

            Id                          :

            Host                        :

            UserName                    :

            Passphrase                  :

            Deleted                     : False

            Auth                        : SMCoreContracts.SmAuth

            IsClone                     : False

            CloneLevel                  : 0
```

## Example 2: Modifying a clone dataset

```
Set-SmCloneDataSet -DataSetName payroll_dataset -Resources ®{"Host"="vise-
f3.sddev.mycompany.com";"Type"="SQLDatabases";"Names"="vise-f3\SQLExpress\payroll,vise-
f3\SQLExpress\edrive"}  -CloneToInstance vise-f3\sqlexpress
```

```
This example syntax modifies a clone dataset

Description                 :

            CreationTime                : 8/6/2015 3:06:25 PM

            ModificationTime            : 8/6/2015 3:06:25 PM

            EnableEmail                 :

            EmailSMTPServer             :

            EmailFrom                   :

            EmailTo                     :

            EmailSubject                :
```

```
EnableSysLog                : False
ProtectionGroupType         : Clone
EnableAsupOnFailure         : False
Policies                    : {}
HostResourceMaping          : {}
Configuration               : SMCoreContracts.SmCloneConfiguration
LastBackupStatus            :
VerificationServer          :
EmailBody                   :
EmailNotificationPreference :
VerificationServerInfo      :
SchedulerSQLInstance        :
CustomText                  :
CustomSnapshotFormat        :
SearchResources             : False
ByPassRunAs                 : False
IsCustomSnapshot            :
MaintenanceStatus           : Production
PluginProtectionGroupTypes  :
Name                        : payroll_dataset
Type                        : Group
Id                          :
Host                        :
UserName                    :
Passphrase                  :
Deleted                     : False
Auth                        : SMCoreContracts.SmAuth
IsClone                     : False
CloneLevel                  : 0
```

# Set-SmCloneJob

Modifies an existing clone job.

# Syntax

```
Set-SmCloneJob [-CloneJobName] <String> [-PluginCode] <PluginCode> [-CloneToInstance]
<String> [-CloneToHost] <String> [-Description <String>] [-ResourceGroupName <String>]
[-Resources <Hashtable[]>] [-EnableAsupOnFailure <Boolean>] [-EnableSysLog <Boolean>]
[-EnableEmail] [-EmailPreference <SmEmailNotificationPreference>] [<CommonParameters>]
```

# Detailed Description

Modifies an existing clone job based on the parameters provided.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| CloneJobName | | true | true (ByPropertyName) | |
| PluginCode | | true | true (ByPropertyName) | |
| CloneToInstance | | true | true (ByPropertyName) | |
| CloneToHost | | true | true (ByPropertyName) | |
| Description | | false | true (ByPropertyName) | |
| ResourceGroupName | | false | true (ByPropertyName) | |
| Resources | | false | true (ByPropertyName) | |
| EnableAsupOnFailure | | false | true (ByPropertyName) | |
| EnableSysLog | | false | true (ByPropertyName) | |
| EnableEmail | | false | false | |
| EmailPreference | | false | false | |
| AutoAssignMountPoint | | false | true (ByPropertyName) | |
| AssignMountPointUnderPath | | false | true (ByPropertyName) | |
| CloneType | | false | true (ByPropertyName) | |
| Suffix | | false | true (ByPropertyName) | |
| ArchivedLocators | | false | true (ByPropertyName) | |
| CustomSnapShotFomat | | false | true (ByPropertyName) | |
| CustomText | | false | true (ByPropertyName) | |
| SchedulerCredentialName | | false | true (ByPropertyName) | |
| Schedules | | false | true (ByPropertyName) | |
| SchedulerType | | false | true (ByPropertyName) | |
| SchedulerInstance | | false | true (ByPropertyName) | |
| DeleteCloneOnScheduleExpiry | | false | true (ByPropertyName) | |
| PreScriptCommand | | false | true (ByPropertyName) | |
| PreScriptArguments | | false | true (ByPropertyName) | |
| PostScriptCommand | | false | true (ByPropertyName) | |
| PostScriptArguments | | false | true (ByPropertyName) | |
| ScriptTimeOut | | false | true (ByPropertyName) | |
| EmailBody | | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| EmailFrom | | true | true (ByPropertyName) | |
| EmailTo | | true | true (ByPropertyName) | |
| EmailSubject | | true | true (ByPropertyName) | |
| EnableEmailAttachment | | false | true (ByPropertyName) | |

# Examples

## Example 1: Modifying a clone job to add a suffix.

```
Set-SmCloneJob -ResourceGroupName RG1 -CloneJobName CLMJob -PluginCode SCSQL -
CloneToInstance   R708202074BV1\SQL2019 -CloneToHost R708202074BV1.hnk2.com -Suffix
_clone_001
```

```
This example syntax modifies a clone job by adding a new suffix.

Result       : SMCoreContracts.SMResult

TotalCount   : 0

DisplayCount : 0

Context      :

Job          : SMCoreContracts.SmJob


Name                : Clone life cycle of Resource Group 'CLMJob' with policy
'CLMJob_ClonePolicy'

Id                  : 151

StartTime           : 8/25/2020 6:14:05 AM

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           : 8

ApisJobKey          :

ObjectId            : 0

PluginCode          : NONE

PluginName          : NONE

HostId              : 0

RoleId              :

JobIds              : {}
```

## Example 2: Modifying a clone job

```
Set-SmCloneJob -ResourceGroupName RG1 -CloneJobName CLMJob -PluginCode SCSQL -
CloneToInstance

 R708202074BV1\SQL2019 -CloneToHost R708202074BV1.hnk2.com -AssignMountPointUnderPath
'C:\work' -Suffix  _clone_001


This example syntax modifies a clone job.

Result       : SMCoreContracts.SMResult

TotalCount   : 0

DisplayCount : 0

Context      :

Job          : SMCoreContracts.SmJob



Name                : Clone life cycle of Resource Group 'CLMJob' with policy
'CLMJob_ClonePolicy'

Id                  : 157

StartTime           : 8/25/2020 6:17:34 AM

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           : 8

ApisJobKey          :

ObjectId            : 0

PluginCode          : NONE

PluginName          : NONE

HostId              : 0

RoleId              :

JobIds              : {}
```

# Set-SmConfigSettings

Enables you to modify the configuration settings for the SnapCenter Server host or a SnapCenter plug-in host.

# Syntax

```
Set-SmConfigSettings [-Server] -configSettings <Hashtable> [<CommonParameters>]
```

```
Set-SmConfigSettings [-Agent] [-HostName] <String> -configSettings <Hashtable>
[<CommonParameters>]
```

```
Set-SmConfigSettings [-Plugin] [-HostName] <String> [-PluginCode] <PluginCode> -
configSettings <Hashtable> [<CommonParameters>]
```

# Detailed Description

Enables you to modify the configuration settings for the SnapCenter Server host or a SnapCenter plug-in host.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Server | Modifies the configuration values for the server on which SnapCenter is installed. | true | false | |
| configSettings | Specifies in a hash table the configuration settings you want to modify. | true | false | |
| Agent | Specifies that you want to modify configuration values for the SMCore agent. | true | false | |
| HostName | Specifies the name of the host on which you want to modify configuration settings. | true | false | |
| Plugin | Specifies that you want to modify the configuration information of the plug-in host. | true | false | |
| PluginCode | Specifies the plug-in code for the plug-in host for which you are modifying configuration settings. | true | false | |

# Examples

## Example 1: Modifying multiple configuration settings for a custom plugin

```
Set-SmConfigSettings -Agent -HostName SNAPCENTER113.sccore.test.com -configSettings
®{"SERVER_API_TIMEOUT_IN_SEC"="300";"ALLOWED_CMDS"="mount *; unmount *"}
```

```
This example syntax sets 2 configuration settings key-values for a custom plug-in.
```

```
Name                            Value
```

```
            ----                            -----

            SERVER_API_TIMEOUT_IN_SEC       300

            ALLOWED_CMDS                    mount *; unmount *
```

## Example 2: Modifying a single configuration setting on the SnapCenter Server

```
Set-SmConfigSettings -Server -configSettings
®{"WindowsRemoteInstallProcessTimeout"="900"}
```

This example syntax modifies the specified configuration setting on the SnapCenter Server.

```
Name                            Value

            ----                            -----

            WindowsRemoteInstallProcess... 900
```

## Example 3: Setting the chunk size for which files are grouped for a directory restore from primary storage

```
Set-SmConfigSettings -Server -configSettings ®{"PrimaryRestoreFileChunkSize"="500";}
```

This example syntax specifies the file chunk size to restore from primary storage. The default primary restore chunk is 500. You can increase or decrease the chunk size, but the size must be greater than 0.

## Example 4: Setting the chunk size for which files are grouped for a directory restore from secondary storage

```
Set-SmConfigSettings -Server -configSettings ®{" SecondaryRestoreFileChunkSize "="8";}
```

This example syntax specifies the file chunk size to restore from secondary storage. The default secondary restore chunk is 8. You can increase or decrease the chunk size, but the size must be greater than 0.

## Example 5: Setting a custom port

```
Set-SmConfigSettings -Agent -configSettings ®{"PORT"="8174"} -HostName
SNAPCENTER113.sccore.test.com
```

This example syntax specifies the custom port number for the SMCore agent as 8174.

```
Name                            Value

            ----                            -----

            PORT                            8174
```

## Example 6: Setting load sharing mirror retry

```
Set-SmConfigSettings -Agent -configSettings ®{"lsmsleep"="9997"} -HostName localhost
```

This example syntax sets the load sharing mirror retry time to 9997 milliseconds to enable load sharing mirrors to finish updating before retrying mount or restore operations.

```
Name                            Value

            ----                            -----

            lsmsleep                        9997
```

## Example 7: Setting the access method of SQL log backups for reseed and restore operations of availability group database

```
Set-SmConfigSettings -Server -configSettings ®{"ReseedLogBackupMount"="true"]
```

The example syntax sets the log backup's access as mount and copy for restore and reseed operations of availability group database. Setting the flag to true indicates that the SQL availability group database reseed and restore operations should mount the log backups on the target host rather than accessing them as a network share.

```
            The default value is "false".
```

# Set-SmCredential

Modify a credential registered with the SnapCenter Server.

# Syntax

```
Set-SmCredential -Name <String> -Type <SmAuthMode> [-SubscriptionId <String>] [-
ClientSecret <SecureString>] [-TenantId <String>] [-ClientId <String>] [-InstanceName
<String>] [-Force] -Credential <PSCredential> [<CommonParameters>]
```

# Detailed Description

Modify a credential registered with the SnapCenter Server. It could be for other plug-ins or for other NetApp cloud storage.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name of the Credential Account. | true | true (ByPropertyName) | |
| Type | Specifies the authentication mode. | true | true (ByPropertyName) | |
| SubscriptionId | Specifies the Azure NetApp subscription ID. | false | true (ByPropertyName) | |
| ClientSecret | Specifies the Azure NetApp client secret. | false | true (ByPropertyName) | |
| TenantId | Specifies the Azure NetApp tenant ID. | false | true (ByPropertyName) | |
| ClientId | Specifies the Azure NetApp client ID. | false | true (ByPropertyName) | |
| InstanceName | | false | true (ByPropertyName) | |
| Force | | false | true (ByPropertyName) | |
| Credential | | true | true (ByPropertyName) | |

# Examples

## Example 1: Set Azure Credential

```
Set-SmCredential -Name azure -Type AzureCredential -SubscriptionId 546698hg-6e2a-43fb-
a43b-0f2a97108756 -ClientSecret 99634c34-6d2a-9jfb-a47b-0jhg9710037d -TenantId
25434c84-982a-9jfb-a47b-0h6f97076037d -ClientId 87dg98hg-6e2a-498b-m33b-0p2a97134756
```

## Example 1: Modify AIX Credential

```
Set-SmCredential -Name 'RunAs1' -CredentialType 'AIX'
```

# Set-SmDataCollectionEmsSchedule

Sets your EMS data collection schedule.

# Syntax

```
Set-SmDataCollectionEmsSchedule [-CredentialName] <String> [-DaysInterval] <Int16> [[-
StartDateTime] <DateTime>] [<CommonParameters>]
```

# Detailed Description

Sets your EMS data collection schedule. When scheduling EMS data collection you must configure a Run As account. You can configure the start date and time, as well as the frequency of the EMS data collection.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| CredentialName | | true | false | |
| DaysInterval | Specifies the frequency with which you want to run EMS data collection, in days. The default is every 7 days. | true | false | |
| StartDateTime | Specifies the date and time you want to start EMS data collection. For example, -StartDateTime "6/20/2015 1:00 AM" | false | false | |

# Examples

### Example 1: Configuring the EMS data collection schedule

```
Set-SmDataCollectionEmsSchedule -DaysInterval 14 -RunAs runas_name -StartDateTime
"6/20/2015 1:00 AM"
```

```
This example syntax configures your EMS data collection schedule to run every two
weeks, starting on June 20th at 1:00 am, and provides a  valid Run As account name.
```

# Set-SmDataCollectionEmsTarget

Specifies the target storage system to which you want to send your EMS data collection messages.

# Syntax

```
Set-SmDataCollectionEmsTarget [-Target] <String> [<CommonParameters>]
```

# Detailed Description

Specifies the target storage system to which you want to send your EMS data collection messages. You are not required to set up the EMS data collection target storage system. If you omit the EMS data collection target, SnapCenter sends the EMS storage collection messages to the first in your list of storage system connections, and retries subsequent connections upon failure.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Target | Specifies your target storage system name. If you need to identify the storage system name, run Get-SmStorageConnection to view a list of storage system names. | true | false | |

# Examples

## Example 1: Setting the EMS data collection target storage system

```
Set-SmDataCollectionEmsTarget -Target SVM1
```

```
This example syntax sets the target storage system to which you want to send your EMS
data collection messages.
```

```
Target

            ------

            SVM1
```

# Set-SmDatasetMaintenance

Sets a dataset to maintenance or production mode.

# Syntax

```
Set-SmDatasetMaintenance -DatasetName <String> [-MaintenanceStatus]
<SmMaintenanceStatus> [<CommonParameters>]
```

# Detailed Description

Sets a dataset to maintenance or production mode. No scheduled jobs are executed for a dataset in maintenance mode.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| DatasetName | The dataset name. | true | true (ByPropertyName) | |
| MaintenanceStatus | The maintenance status of the dataset. The maintenance status is Production or UnderMaintenance. | true | true (ByPropertyName) | |

# Examples

### Example 1: Setting a dataset to production mode

```
Set-SmDatasetMaintenance -DatasetName Payroll_Dataset -MaintenanceStatus Production
```

```
This example syntax set the specified dataset to production mode.
```

# Set-SmDisasterRecovery

Enables storage disaster recovery.

# Syntax

```
Set-SmDisasterRecovery [-Enable] [<CommonParameters>]
```

```
Set-SmDisasterRecovery [-Disable] [<CommonParameters>]
```

# Detailed Description

Enables or disables storage disaster recovery.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Enable | Specifies the SnapCenter Server to enable storage disaster recovery. | true | false | |
| Disable | Specifies the SnapCenter Server to disable storage disaster recovery. | true | false | |

# Examples

## Example 1: Enabling storage disaster recovery

```
Set-SmDisasterRecovery -Enable
```

```
This example syntax enables storage disaster recovery.

Set-SmDisasterRecovery

            Before enabling this option, make sure all the SCSQL resources are online
and active on the secondary storage.Are you sure you want to enable disaster recovery??

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):



            Name                :

            Id                  : 1971

            StartTime           :

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False
```

```
            IsVisible           : True
            IsScheduled         : False
            PercentageCompleted : 0
            Description         :
            Status              : Running
            Owner               :
            Error               :
            Priority            : None
            Tasks               : {}
            ParentJobID         : 0
            EventId             : 0
            JobTypeId           :
            ApisJobKey          :
            ObjectId            : 0
            PluginCode          : NONE
            PluginName          :
            HostId              : 0
            RoleId              :
            JobIds              :

             ErrorRecords : {}
            _message     :
            _errorCode   : 0
```

## Example 2: Disabling storage disaster recovery

```
Set-SmDisasterRecovery -Disable
```

This example syntax disables storage disaster recovery.

```
Name                :
                        Id                  : 1970
                        StartTime           :
                        EndTime             :
                        IsCancellable       : False
                        IsRestartable       : False
```

```
IsCompleted         : False

IsVisible           : True

IsScheduled         : False

PercentageCompleted : 0

Description         :

Status              : Running

Owner               :

Error               :

Priority            : None

Tasks               : {}

ParentJobID         : 0

EventId             : 0

JobTypeId           :

ApisJobKey          :

ObjectId            : 0

PluginCode          : NONE

PluginName          :

HostId              : 0

RoleId              :

JobIds              :


ErrorRecords : {}

_message     :

_errorCode   : 0
```

# Set-SmDomain

Modify a domain registered with SnapCenter Server.

# Syntax

```
Set-SmDomain -Name <String> [-Protocol <String>] [-FQDN <String>] [-IPAddresses
<String>] [-DCHostNames <String>] [-Credential <PSCredential>] [<CommonParameters>]
```

# Detailed Description

Modify a domain registered with SnapCenter Server.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | NETBIOS name of the registered domain to be modified. | true | true (ByPropertyName) | |
| Protocol | Protocol of the domain to be modified. By default the protocol value is LDAP. You can specify LDAPS to use the secured windows active directory communication. | false | true (ByPropertyName) | |
| FQDN | FQDN of the domain to be modified. Used for both LDAP and LDAPS protocol, when you provide the correct FQDN while adding or modifying the domain with LDAP protocol, the domain resolves and the IP address that you might have entered using the IPAddresses parameter is not stored. | false | true (ByPropertyName) | |
| IPAddresses | Domain IP Addresses of the disjoint domain to be modified. When you provide the correct FQDN while adding or modifying the domain, the domain resolves and the IP address is not stored. | false | true (ByPropertyName) | |
| DCHostNames | Domain host name of the disjoint or the same domain to be modified. For LDAPS protocol, DCHostNames is a mandatory parameter. The IP address should resolve and the user should not be permitted to manually provide the IP address. | false | true (ByPropertyName) | |
| Credential | Provides local workgorup administrator credentials to execute a Set-SmDomain cmdlet. This is an optional parameter only can exercise if Open-SmConnection is broken due to Active Directory connectivity using LDAPS protocol. | false | true (ByPropertyName) | |

# Examples

## Example 1: Modify a domain registered with SnapCenter Server.

```
Set-SmDomain -Name ad12 -FQDN ad12.test.netapp.com -IPAddresses 192.168.0.44
```

```
Modified the domain ad12.

            Id                              : 0

            Name                            : ad12

            DomainFQDN                      : ad12.test.netapp.com
```

```
            DCHostIPAddresses              : 192.168.0.44
            TrustedDomains                 :
            CreatedOn                      :
            ModifiedOn                     :
            Port                           : 389
            Protocol                       : LDAP
            DCHostNames                    :
```

## Example 2: Modifying a registered domain protocol from LDAP to LDAPS.

```
Set-SmDomain -Name ad12 -DCHostNames WS2K12DC.ad12.test.netapp.com -Protocol LDAPS

Modified the domain ad12.
            Id                             : 0
            Name                           : ad12
            DomainFQDN                     : ad12.test.netapp.com
            DCHostIPAddresses              : 192.168.0.44
            TrustedDomains                 :
            CreatedOn                      :
            ModifiedOn                     :
            Port                           : 636
            Protocol                       : LDAPS
            DCHostNames                    : WS2K12DC.ad12.test.netapp.com
```

## Example 3: Modifying a registered domain protocol from LDAPS to LDAP.

```
Set-SmDomain -Name ad12

Modified the domain ad12.
            Id                             : 0
            Name                           : ad12
            DomainFQDN                     : ad12.test.netapp.com
            DCHostIPAddresses              :
            TrustedDomains                 :
            CreatedOn                      :
            ModifiedOn                     :
```

```
            Port                            : 389

            Protocol                        : LDAP

            DCHostNames                     :
```

## Example 4: Execute Set-SmDomain when Open-SmConnection is broken due to Active directory.

```
Set-SmDomain -Name ad12 -FQDN ad12.test.netapp.com -Credential administrator


Modified the domain ad12.

            Id                              : 0

            Name                            : ad12

            DomainFQDN                      : ad12.test.netapp.com

            DCHostIPAddresses               :

            TrustedDomains                  :

            CreatedOn                       :

            ModifiedOn                      :

            Port                            : 389

            Protocol                        : LDAP

            DCHostNames                     :
```

# Set-SmDownloadRepository

Modifies the location of the installation package download repository.

# Syntax

```
Set-SmDownloadRepository -Path <String> [<CommonParameters>]
```

# Detailed Description

Modifies the location of the installation package download repository.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | New plug-in repository path. | true | true (ByPropertyName) | |

# Examples

### Example 1: Modifying the installation download repository location

```
Set-SmDownloadRepository -Path "c:\inetpub\wwroot\SnapCenter\Repository"
```

```
This example syntax specifies a new repository location.
```

# Set-SmESXInfo

Updates the parent ESX information for SQL hosts.

# Syntax

```
Set-SmESXInfo -HostName <String> [<CommonParameters>]
```

# Detailed Description

Updates the parent ESX information for SQL hosts. The host must be of SQL type.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostName | The name of the SQL host. | true | true (ByPropertyName) | |

# Examples

### Example 1: Updating the parent ESX information for an SQL host

```
Set-SmESXInfo -HostName csmdev-smsql-02.sddev.mycompany.com -Verbose
```

```
This example syntax updates the parent ESX information for the specified SQL host.
```

```
VERBOSE: Start Set-SmESXInfo

            ESX information updated successfully

            VERBOSE: Set-SmESXInfo ended successfully.
```

# Set-SmHost

Modifies either the port or the group Managed Service Account (gMSA) or the credential name of the host.

# Syntax

```
Set-SmHost -HostName <String> [-Port <UInt16>] [-CredentialName <String>] [-UseGMSA
<Boolean>] [-GMSAName <String>] [-PushServerCredentialsToSCV <SwitchParameter>] [-Force
<SwitchParameter>] [<CommonParameters>]
```

# Detailed Description

Modifies either the port or the group Managed Service Account (gMSA) or the credential name of the host. Only one parameter can be modified at a time.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostName | The name of the host whose port or credential name will be modified. | true | true (ByPropertyName) | |
| Port | The port to be modified. | false | true (ByPropertyName) | |
| CredentialName | The credential name to be modified. | false | true (ByPropertyName) | |
| UseGMSA | Modify the plug-in services logon from gMSA to domain or LocalSystem. | false | true (ByPropertyName) | |
| GMSAName | The group Managed Service Account (gMSA) name to be modified. | false | true (ByPropertyName) | |
| PushServerCredentialsToSCV | Push the credentials to the SCV host. | false | true (ByPropertyName) | |
| Force | | false | true (ByPropertyName) | |

# Examples

## Example 1: Modifying port from 8145 to 8185

```
Set-SmHost -HostName h1 -Port 8185
```

```
This example modifies the port of host h1 to 8185.
```

## Example 2: Modifying credential name from RunAs1 to RunAs2

```
Set-SmHost -HostName h1 -CredentialName RunAs2
```

```
This example modifies the credential name of host h1 to RunAs2.
```

## Example 3: Modifying group Managed Service Account (gMSA) name from NewDomain\gMSAName1$ to NewDomain\gMSAName2$

```
Set-SmHost -HostName h1.NewDomain.com -UseGMSA:$true -GMSAName NewDomain\gMSAName2$
```

This example modifies the gMSA name for host h1.NewDomain.com to NewDomain\gMSAName2$.

## Example 4: Disabling group Managed Service Account (gMSA)

```
Set-SmHost -HostName h1.NewDomain.com -UseGMSA:$false
```

This example disables the gMSA and modifies the plug-in services to Domain or LocalSystem for host h1.NewDomain.com.

# Set-SmHostKey

Set-SmHostKey [-HostNames] [-WhatIf] [-Confirm] []

# Syntax

```
syntaxItem

----------

{®{name=Set-SmHostKey; CommonParameters=True; WorkflowCommonParameters=False;
parameter=System.Object[]}}
```

# Detailed Description

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Confirm | | false | false | |
| HostNames | Specifies list of hostnames to generate unique key | true | true (ByPropertyName) | |
| WhatIf | | false | false | |

# Input Type

inputType --------- ®{type=}

# Return Values

returnValue ---------- ®{type=}

# Set-SmLogSettings

Sets the log file retention for SnapCenter, hosts, and plug-ins.

# Syntax

```
Set-SmLogSettings [-Server] -MaxFileSize <Int64> -MaxSizeRollBackups <Int32> -
JobLogsMaxFileSize <Int64> -LogLevel <LogLevel> [-UniversalTime <Boolean>]
[<CommonParameters>]
```

```
Set-SmLogSettings [-Agent] [-HostName] <String> -MaxFileSize <Int64> -
MaxSizeRollBackups <Int32> -JobLogsMaxFileSize <Int64> -LogLevel <LogLevel> [-
UniversalTime <Boolean>] [<CommonParameters>]
```

```
Set-SmLogSettings [-Plugin] [-HostName] <String> [-PluginCode] <PluginCode> -
MaxFileSize <Int64> -MaxSizeRollBackups <Int32> -JobLogsMaxFileSize <Int64> -LogLevel
<LogLevel> [-UniversalTime <Boolean>] [<CommonParameters>]
```

# Detailed Description

Sets the log file retention for SnapCenter, hosts, and plug-ins. Log file settings govern log severity level, the maximum log file size, the maximum number of log file backups to retain, and the maximum size for all the job log files.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Server | Indicates that you want to create log settings for the SnapCenter server. | true | false | |
| MaxFileSize | The log file size that triggers a roll over. | true | false | |
| MaxSizeRollBackups | The number of roll over log files that are retained. | true | false | |
| JobLogsMaxFileSize | Specifies the maximum file size of all job log files. Job logs are created on an individual job basis. JobLogsMaxFileSize specifies the total size for all job log files. When job log files exceed the maximum size, the oldest files are deleted. | true | false | |
| LogLevel | Sets the log severity level. Valid values are: all, debug, info, warn, error, fatal, or off. | true | false | |
| UniversalTime | Enables message logging in UTC time for installations in different geological locations. Use $True to enable UniversalTime or $False to disable UniversalTime. | false | false | |
| Agent | Indicates the SnapCenter agent on which you want to create the log settings. Possible values are -server, -host, or -plugin. | true | false | |
| HostName | Specifies the host name on which the log files are created. The host should be part of the SnapCenter managed host list and the host is required when you want to create log settings for the SnapCenter host agent or plug-ins. | true | false | |
| Plugin | Indicates that you want to specify log file settings for a plug-in host. | true | false | |
| PluginCode | Indicates the plug-in code for the plug-in host on which you want to specify log settings. Valid plug-in values are SCSQL, SCO, SCV. | true | false | |

# Examples

## Example 1: Setting SnapCenter server log settings

```
Set-SmLogSettings -JobLogsMaxFileSize 100MB -LogLevel All -MaxFileSize 10MB -
MaxSizeRollBackups 10 -Server
```

```
This example syntax sets SnapCenter server log settings.

LogSettingsId      : 1

            LogSettingsType    : Server

            LogLevel           : All

            MaxFileSize        : 10485760

            MaxSizeRollBackups : 10

            JobLogsMaxFileSize : 104857600

            HostId             :

            HostName           :

            PluginInfoId       :

            PluginCode         : NONE
```

## Example 2: Setting plugin log settings

```
Set-SmLogSettings ?Plugin ?PluginCode SMSQL -HostName host123 -JobLogsMaxFileSize 100MB
-LogLevel Info -MaxFileSize 10MB -MaxSizeRollBackups 10
```

```
This example syntax sets plug-in log settings.

LogSettingsId      : 1

            LogSettingsType    : Plugin

            LogLevel           : Info

            MaxFileSize        : 10485760

            MaxSizeRollBackups : 10

            JobLogsMaxFileSize : 104857600

            HostId             :

            HostName           :

            PluginInfoId       :

            PluginCode         : SMSQL
```

## Example 3: Setting SnapCenter host agent log settings

```
Set-SmLogSettings -Agent -HostName bryankDev -JobLogsMaxFileSize 100MB -LogLevel Info -
MaxFileSize 10MB -MaxSizeRollBackups 10
```

This example syntax sets plug-in log settings.

```
LogSettingsId      : 1

            LogSettingsType    : Agent

            LogLevel           : Info

            MaxFileSize        : 10485760

            MaxSizeRollBackups : 10

            JobLogsMaxFileSize : 104857600

            HostId             :

            HostName           :

            PluginInfoId       :

            PluginCode         : NONE
```

## Example 4: Setting log messaging to UTC time

```
Set-SmLogSettings -Agent -HostName <plugin-hostname> -JobLogsMaxFileSize 10MB -LogLevel
Debug -MaxFileSize 10MB -MaxSizeRollBackups 10 -UniversalTime $True
```

This example syntax sets log messaging to Universal time.

# Set-SmMaintenanceMode

Sets a host to maintenance or production mode.

# Syntax

```
Set-SmMaintenanceMode [-HostNames] <String> [-MaintenanceStatus] <SmMaintenanceStatus>
[<CommonParameters>]
```

# Detailed Description

Sets a host to maintenance or production mode. No scheduled jobs are executed for a host in maintenance mode.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostNames | The names of the hosts for which you want to change the maintenance mode. | true | true (ByPropertyName) | |
| MaintenanceStatus | Specifies the maintenance status of the specified hosts. The maintenance status is Production or UnderMaintenance. | true | true (ByPropertyName) | |

# Examples

### Example 1: Setting a host to production mode

```
Set-SmMaintenanceMode -HostNames ®("SQL_Host") -MaintenanceStatus Production
```

```
This example syntax sets the specified host to production mode.
```

### Example 2: Setting multiple hosts to maintenance mode

```
Set-SmMaintenanceMode -HostNames ®("SQL_Host", "Verification_Host") -MaintenanceStatus
UnderMaintenance
```

```
This example syntax sets the specified hosts to maintenance mode.
```

# Set-SmMultiFactorAuthentication

To Enable or disable the MFA feature or to configure the MFA for the SnapCenter Server login.

# Syntax

```
Set-SmMultiFactorAuthentication [[-Enable]] [[-Path]] [<CommonParameters>]
```

```
Set-SmMultiFactorAuthentication [[-Path]] [<CommonParameters>]
```

```
Set-SmMultiFactorAuthentication [[-Disable]] [<CommonParameters>]
```

# Detailed Description

To enable or disable the MFA feature or to configure the MFA for the SnapCenter Server login.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Enable | Specifies the SnapCenter Server to enable MFA for the SnapCenter Server login. | false | false | |
| Path | Configure the MFA for the SnapCenter Server login with specified AD FS metadata file path. | false | false | |
| Disable | Specifies the SnapCenter Server to disable MFA for the SnapCenter server login. | false | false | |

# Examples

## Example 1: Enabling MultiFactorAuthentication

```
Set-SmMultiFactorAuthentication -Enable -Path C:\ADFS_metadata\FederationMetadata.xml
```

```
This example syntax enables MFA for SnapCenter Server login configured with specified
AD FS metadata file path.
```

```
ISMFAEnabled = True
```

```
ADFSHostName = adfs19.ad19domain.com
```

```
ADFSConfigFilePath = C:\\ADFS_metadata\\FederationMetadata.xml
```

```
SCConfigFilePath = c:\ProgramData\NetApp\SnapCenter\Package
Repository\SnapCenterMFAMetadata.xml
```

## Example 2: Disabling MultiFactorAuthentication

```
Set-SmMultiFactorAuthentication -Disable
```

```
This example syntax disables MFA for SnapCenter Server login.
```

```
ISMFAEnabled = False


ADFSHostName =


ADFSConfigFilePath =


SCConfigFilePath =
```

## Example 3: Update MultiFactorAuthentication configuration

```
Set-SmMultiFactorAuthentication -Path C:\ADFS_metadata\FederationMetadata.xml
```

```
This example syntax updates MFA configuration for SnapCenter Server login configured
with specified AD FS metadata file path.
```

```
ISMFAEnabled = True


ADFSHostName = adfs19.ad19domain.com


ADFSConfigFilePath = C:\ADFS_metadata\FederationMetadata.xml


SCConfigFilePath =
```

# Set-SmPluginConfiguration

Sets the host plug-in configuration.

# Syntax

```
Set-SmPluginConfiguration -PluginCode <PluginCode> -HostName <String> [-HostLogFolders
<Hashtable[]>] [-FCIInstanceLogFolders <Hashtable[]>] [-IgnoreVscConfiguredCheck
<Boolean>] [<CommonParameters>]
```

# Detailed Description

Sets the host plug-in configuration.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PluginCode | Specifies the plug-in type. Valid types are SCW and SCSQL. | true | true (ByPropertyName) | |
| HostName | Specifies the host name for which you are setting the plug-in configuration. | true | true (ByPropertyName) | |
| HostLogFolders | Specifies the host log folders. | false | true (ByPropertyName) | |
| FCIInstanceLogFolders | Specifies the FCI instance log folders. | false | true (ByPropertyName) | |
| IgnoreVscConfiguredCheck | | false | true (ByValue, ByPropertyName) | |

# Examples

## Example 1: Setting the plugin configuration for a standalone host

```
Set-SmPluginConfiguration -PluginCode SCSQL -HostName localhost -HostLogFolders
®{"Host"="vise-f6";"Log Folder"="S:\LOGBACKUP"}


This example syntax sets the plug-in configuration for the specified standalone host.

Set-SmPluginConfiguration

            SnapCenter has detected that your host is running on a VM. If you use an
VMDK or RDM environment, you must add a Virtual Storage Console for vSphere type host;
however, if your VM uses iSCSI direct attached disks, you can proceed with the existing
host setup.



            Choose Yes, if you are using a VM in a VMDK or RDM environment

            Choose No, if you are using a VM with iSCI direct attached disks only

            [Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default
is "Y"):
```

## Example 2: Setting the plugin configuration for a cluster host

```
Set-SmPluginConfiguration -PluginCode SCSQL

          -HostName V67VMCLUS -HostLogFolders ®{"Host"="v6vmw2012r2";"Log
Folder"="S:\LogBackup"},®{"Host"="v7vmw2012r2";"Log Folder"="S:\LogBackup"} -
FCIInstanceLogFolders ®{"FCI Instance"="vise-f6\FCIInstance";"Log Folder"="R:\"}
```

This example syntax sets the plug-in configuration for the specified cluster.

```
Set-SmPluginConfiguration

            SnapCenter has detected that your host is running on a VM. If you use an
VMDK or RDM environment, you must add a Virtual Storage Console for vSphere type host;
however, if your VM uses iSCSI direct attached disks, you can proceed with the existing
host setup.



            Choose Yes, if you are using a VM in a VMDK or RDM environment

            Choose No, if you are using a VM with iSCI direct attached disks only

            [Y] Yes [A] Yes to All [N] No [L] No to All [S] Suspend [?] Help (default
is "Y"):
```

# Set-SmPolicy

Modifies an existing policy.

# Syntax

```
Set-SmPolicy -PolicyName <String> -PolicyType <SmPolicyType> -PluginPolicyType
<PluginCode> [-Description <String>] [<CommonParameters>]
```

# Detailed Description

Modifies an existing policy.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PolicyName | Specifies the policy you want to change. | true | true (ByPropertyName) | |
| PolicyType | Specifies the policy type. Valid value is Backup. | true | true (ByPropertyName) | |
| PluginPolicyType | Specifies the type of plug-in. You need to specify a plug-in type because policies are settings that are specific to one type of plug-in. Valid plug-in policies types are SCSQL, SCO and HANA. | true | true (ByPropertyName) | |
| Description | Specifies an optional description of the policy. | false | true (ByPropertyName) | |
| UtmType | Type of up to the minute (UTM) retention settings to apply to log backups. Possible values are days and count. | false | true (ByPropertyName) | |
| UtmCount | Up to the minute (UTM) retention by count. | false | true (ByPropertyName) | |
| UtmDays | Up to the minute (UTM) retention by days. | false | true (ByPropertyName) | |
| SqlBackupType | SQL backup type. Possible values are LogBackup, FullBackup, and FullBackupAndLogBackup. | true | true (ByPropertyName) | |
| DatabasesPerGroup | Maximum number of databases in a group. This is applicable only for full backup. | false | true (ByPropertyName) | |
| CopyOnlyBackup | Determines whether the full backup is a copy only backup. | false | true (ByPropertyName) | |
| AGBackupType | Availability Group backup type. Possible values are UsePreferredBackupReplica and UseSpecifiedBackupReplica. | false | true (ByPropertyName) | |
| AGBackupReplicaType | Availability Group backup replica type. Possible values are Primary, Secondary, and All. | false | true (ByPropertyName) | |
| AGBackupPriorityMinimum | Availability Group backup minimum priority. | false | true (ByPropertyName) | |
| AGBackupPriorityMaximum | Availability Group backup maximum priority. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| CreateLogFolderSnapshot | Create Log folder Snapshot copy. | false | true (ByPropertyName) | |
| EnableLogFolderSnapshotRetention | Enable Log folder Snapshot copy retention. | false | true (ByPropertyName) | |
| DeleteLogFolderSnapshotInExcess | Delete log folder Snapshot copies in excess of specified count. If other options are specified, then that will be ignored and only the log snapshot retention value will get modified. | false | true (ByPropertyName) | |
| DeleteLogFolderSnapshotOlderThan | Delete log folder Snapshot copies that are older than specified days. | false | true (ByPropertyName) | |
| VerifyLogBackup | Enable log backup verification after backup. | false | true (ByPropertyName) | |
| DBCC_NOINDEX | DBCC options NOINDEX. | false | false | |
| DBCC_ALL_ERRORMSGS | DBCC options ALL_ERRORMSGS. | false | true (ByPropertyName) | |
| DBCC_NO_INFOMSGS | DBCC options NO_INFOMSGS. | false | true (ByPropertyName) | |
| DBCC_TABLOCK | DBCC options TABLOCK. | false | true (ByPropertyName) | |
| DBCC_PHYSICALONLY | DBCC options PHYSICALONLY. | false | true (ByPropertyName) | |
| UpdateSnapMirrorAfterbackup | Update SnapMirror copy after backup. This option is not applicable for SAP HANA policy of File-Based Backup type. | false | true (ByPropertyName) | |
| UpdateSnapVaultAfterbackup | Update SnapVault copy after backup. This option is not applicable for SAP HANA policy of File-Based Backup type. | false | true (ByPropertyName) | |
| MirrorVaultUpdateRetryCount | Number of retries to ensure SnapMirror or SnapVault update is triggered. | false | true (ByPropertyName) | |
| SnapVaultLabel | Label for SnapVault copy. | false | true (ByPropertyName) | |
| AllowSavedStateBackup | Allow saved state backup. | false | true (ByPropertyName) | |
| DeleteBackupInExcess | Delete backup in excess of specified days, it is applicable to only SnapCenter Plug-in for VMware vSphere, if it is used with other plug-ins it will be ignored. | false | true (ByPropertyName) | |
| DeleteBackupOlderThan | Delete backups older than specified days, it is applicable to only SnapCenter Plug-in for VMware vSphere, if it is used with other plug-ins it will be ignored. | false | true (ByPropertyName) | |
| PreScriptCommandVerification | | false | true (ByPropertyName) | |
| PreScriptArgumentsVerification | | false | true (ByPropertyName) | |
| PostScriptCommandVerification | | false | true (ByPropertyName) | |
| PostScriptArgumentsVerification | | false | true (ByPropertyName) | |
| ScriptTimeOutVerification | | false | true (ByPropertyName) | |
| ScheduleType | The schedule type. Possible values are None, Hourly, Weekly, Daily, and Monthly. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| RetentionSettings | Specifies in a hashtable the retention settings for the policy. | false | true (ByPropertyName) | |
| PreScriptCommand | Prescript file UNC path with proper privileges for scripts accessibility, (?\\\\server\\share\path\\file? for Universal Naming Convention (UNC) names). | false | true (ByPropertyName) | |
| PreScriptArguments | Specifies the prescript arguments. | false | true (ByPropertyName) | |
| PostScriptCommand | Postscript file UNC path with proper privileges for scripts accessibility, (?\\\\server\\share\path\\file? for Universal Naming Convention (UNC) names). | false | true (ByPropertyName) | |
| PostScriptArguments | Specifies the postscript arguments. | false | true (ByPropertyName) | |
| ScriptTimeOut | Specifies script timeout value in seconds. | false | true (ByPropertyName) | |
| VerificationScheduleType | Specifies when to run verification. | false | true (ByPropertyName) | |
| DeleteCloneOnScheduleExpiry | Removes a clone during the last run of a scheduled job. If this parameter is not set, then the last run of a schedule also runs a clone life cycle and creates a cloned database. This parameter does not apply to jobs that are not scheduled or to one time job schedules. | false | true (ByPropertyName) | |
| BackupPolicyName | Specifies the backup policy name. | true | true (ByPropertyName) | |
| CloneType | Specifies the clone type. Possible values are Primary and Secondary. | false | true (ByPropertyName) | |
| VerifyOnSecondary | Specifies whether to verify on Secondary or not. | false | false | |
| NumOfBackups | Number of backups to be verified. | false | false | |
| PluginParams | | false | true (ByPropertyName) | |
| DominoChangeInfoPath | | false | true (ByPropertyName) | |
| DominoDatabaseType | | false | true (ByPropertyName) | |
| DominoIniPath | | false | true (ByPropertyName) | |
| DominoRestoreFilePath | | false | true (ByPropertyName) | |
| DominoRestoreTime | | false | true (ByPropertyName) | |
| Lotus | | false | true (ByPropertyName) | |
| NotesExecDirectory | | false | true (ByPropertyName) | |
| DominoDisableReplication | | false | true (ByPropertyName) | |
| DominoIgnoreCorruptedDB | | false | true (ByPropertyName) | |
| DBMCliCmd | | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HandleLogWriter | | false | true (ByPropertyName) | |
| MaxDBBGServerPrefix | | false | true (ByPropertyName) | |
| MaxDBUpdateHistLog | | false | true (ByPropertyName) | |
| SQLCliCmd | | false | true (ByPropertyName) | |
| XUserEnable | | false | true (ByPropertyName) | |
| DB2Cmd | | false | true (ByPropertyName) | |
| SybaseISQLCmd | | false | true (ByPropertyName) | |
| SybaseManifest | | false | true (ByPropertyName) | |
| SybaseManifestDelete | | false | true (ByPropertyName) | |
| SybaseManifestFormat | | false | true (ByPropertyName) | |
| SybaseTranDump | | false | true (ByPropertyName) | |
| SybaseTranDumpCompress | | false | true (ByPropertyName) | |
| SybaseTranDumpFormat | | false | true (ByPropertyName) | |
| OracleBackupType | Modifies the Oracle backup type. Type values are Online, Offline mount, and Offline shutdown. | true | true (ByPropertyName) | |
| OracleBackupScope | Modifies the Oracle backup scope. This parameter is only valid when the backup type is Online. Backup scope values are Full, Data, and Log. | true | true (ByPropertyName) | |
| OracleSkipPDBSaveState | Modifies the skip PDB save state. This parameter is only available when you select Offline shutdown backup type. Values are either True or False. | false | true (ByPropertyName) | |
| DeleteAllArchiveLogs | Prunes (deletes) all archive logs after Full or Log backups. | false | true (ByPropertyName) | |
| DeleteArchiveLogsOlderThan | Modifies the number of days before archive logs older than a specified number of days are pruned (deleted). This parameter supports the use decimals to enable you to specify a fraction of a day. For example, 2.5 represents 2 days and 12 hours, and 0.04 represents 1 hour. | false | true (ByPropertyName) | |
| DeleteArchiveLogFromAllDestination | Modifies whether archive logs are pruned on all destinations or only on backed up destinations. If the value is True, archive logs are pruned on all destinations. If the value is False, archive logs are pruned only on backed up destinations. | false | true (ByPropertyName) | |
| DeleteArchiveLogBackupInExcess | Modifies the number of archive log backups deleted in excess of the specified backup count. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| DeleteAchiveLogBackupOlderThan | Modifies the number of archive log backups deleted that are older than the specified number of days. This parameter supports the use decimals to enable you to specify a fraction of a day. For example, 2.5 represents 2 days and 12 hours, and 0.04 represents 1 hour. | false | true (ByPropertyName) | |
| CatalogBackupWithOracleRMAN | | false | true (ByPropertyName) | |
| ScwBackupType | Specifies the type of SnapCenter for Windows backup. Valid values are CrashConsistent and FilesystemConsistent. | true | true (ByPropertyName) | |
| SceBackupType | Specifies the backup type you want SnapCenter for Microsoft Exchange Plug-in to use. | true | true (ByPropertyName) | |
| UtmCounts | | false | true (ByPropertyName) | |
| BackupTruncatedTransactionLog | | false | true (ByPropertyName) | |
| BackupActiveCopies | | false | true (ByPropertyName) | |
| BackupCopiesOnServer | | false | true (ByPropertyName) | |
| BackupType | This is a SAP HANA database specific parameter. Specifies the type of SAP HANA backup. The possible values are FileBasedBackup and SnapshotBasedBackup. | true | true (ByPropertyName) | |

# Examples

## Example 1: Modifying an existing Microsoft SQL policy

```
Set-SmPolicy -PolicyName test -PluginPolicyType SCSQL -PolicyType Backup -SqlBackupType
FullBackup -ScheduleType Hourly -DaysInterval 8 -StartTime $SystemTime -EndTime
$SystemTimeExpire -SchedulerType SQL
```

```
This example syntax modifies an existing Microsoft SQL policy.
```

## Example 2: Modifying an existing Oracle policy

```
Set-SmPolicy -PolicyName 1 -PolicyType Backup -PluginPolicyType SCO -OracleBackupType
ONLINE -OracleBackupScope FULL -DeleteAllArchiveLogs $true -
DeleteArchiveLogFromAllDestination $true -DeleteArchiveLogBackupInExcess 5
```

```
Modifies an existing Oracle policy.
```

## Example 3: Modifying an existing Windows backup policy

```
Set-SmPolicy -PolicyName scw_policy3 -PolicyType Backup -PluginPolicyType SCW -
ScwBackupType CrashConsistent
```

This example syntax modifies an existing Windows SCW policy.

## Example 4: Modifying an existing SAP HANA backup policy of type SnapshotBasedBackup

```
Set-SmPolicy -PolicyName hana_snapshotbased -PolicyType Backup -PluginPolicyType HANA -
BackupType SnapShotBasedBackup -UpdateSnapMirrorAfterbackup $true -
UpdateSnapVaultAfterbackup $true -SnapVaultLabel slabel
```

This example syntax modifies an existing SAP HANA backup policy of type SnapshotBasedBackup.

# Set-SmProtectResource

Modifies policies and schedules of the resource.

# Syntax

```
Set-SmProtectResource [-ArchivedLocators <Hashtable[]>] [-PluginCode] <PluginCode> [-
EnableEmail] [-EmailPreference <SmEmailNotificationPreference>] [-RemoveCustomSnapShot]
[<CommonParameters>]
```

# Detailed Description

Modifies policies and schedules of the resource.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ArchivedLocators | Specifies in a hashtable the secondary storage system details for each unique primary storage system resource in the resource group. For example: -ArchivedLocators ®{Primary="my_vs1:my_vol_iscsi"; Secondary="my_vs1:my_vol_iscsi_SECONDARY"} | false | true (ByPropertyName) | |
| PluginCode | Specifies the plug-in code of the host for which you are creating a backup resource group. Valid values are SCSQL, SCW, and SCO. | true | true (ByPropertyName) | |
| EnableEmail | Specifies whether to enable or disable email. | false | false | |
| EmailPreference | Specifies when you will receive e-mail notifications. Possible values: Always, Never, OnError, OnErrorOrWarning. | false | false | |
| RemoveCustomSnapShot | Specifies removal of the custom naming format of the Snapshot copy. | false | true (ByPropertyName) | |
| BackupArchiveLogsAfterRecentMissingOne | This option is only valid for SCO plugin code. Specifies that you want to backup archive log files, which are created after the most recent missing archive log files and ignore the files created prior to it. If this option is not specified, then all archive log files except the missing archive log files are be backed up. | false | true (ByPropertyName) | |
| ExcludeArchiveLogPathsFromBackup | This option is only valid for SCO plugin code. Specifies the archive log destinations to be excluded from backup. Archive log files present in the specified destinations will be excluded during log backup. Multiple entries can be specified using comma separated list. For example: -ExcludeArchiveLogPathsFromBackup '/arch/logs/on/local/disk1, /arch/logs/on/local/disk2'. | false | true (ByPropertyName) | |
| Resources | Specifies the resource you want to protect. You must provide the resource information in a key value format, and it must contain the resource name, type, and the host on which it is located. For example, -Resource ®{"Host"="host.example.com";"Type"="SQL Database";"Names"="NB-MVA-DEV054\newdb"} For Oracle Database, the format is -Resources ®{"Host"="host.example.com";"Oracle Database"="db"}. For Oracle Application Volume, the format is -Resources ®{"Host"="host.example.com";"Application Volume"="appVol"}. | true | true (ByPropertyName) | |
| Description | Modifies policies and schedules of the resource. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Tag | Enables you to apply a unique tag to help identify the resources. | false | true (ByPropertyName) | |
| Policies | Specifies the list of policies associated with the resource group. Multiple policies can be added as a comma-separated list. | false | true (ByPropertyName) | |
| SchedulerCredentialName | | false | true (ByPropertyName) | |
| SchedulerInstance | Specifies the SQL Server Instance where the schedule is created and managed. This is mandatory if the policy has SQL scheduler enabled. | false | true (ByPropertyName) | |
| VerificationServers | Specifies the list of verification servers to be associated with the resource group. Multiple verification servers can be added as a comma-separated list. This parameter is only required when you want to verify backups for SnapCenter Plug-in for Microsoft SQL Server resource groups. | false | true (ByPropertyName) | |
| CustomSnapshotFormat | Specifies that you want to use a custom Snapshot copy naming format. By default, a timestamp is appended to the Snapshot copy name. Valid values for CustomSnapshotFormat are : $ResourceGroup, $Policy, $HostName, $ScheduleType, $CustomText | false | true (ByPropertyName) | |
| CustomText | Specifies the custom text in the custom Snapshot copy naming format. | false | true (ByPropertyName) | |
| DeleteBackupForDetachPolicies | | false | true (ByPropertyName) | |
| Schedules | Specifies the schedule parameters to be used in the resource group. Schedule parameters can include the policy name, schedule type, schedule start and end times. You can specify multiple schedules in a comma-separated list, for example: -Schedules ®{"PolicyName"="BackupPolicy";"ScheduleType"="OneTime"}, ®{"PolicyName"="BackupPolicy";"ScheduleType"="Hourly";"StartTime"="05/27/2016 6:13 PM";"EndTime"="'05/27/2016 6:30 PM'"} | false | true (ByPropertyName) | |
| SchedulerType | Specifies the scheduler type. Possible values are Windows, SQL, None. | false | true (ByPropertyName) | |
| VerificationSchedules | Specifies the verification schedules you want to add to the resource. The verification schedule includes the following parameters: "VerificationType" which defines if and when verification is performed. The following values are available: VERIFY_SCHEDULED VERIFY_AFTER_BACKUP NONE "ScheduleType" represents the schedule type for the verification. "BackupScheduleType" represents the schedule type for the backup - VerificationServers "WIN-DVGQDI73QR6" needs to be provided in the above command if we are creating verification enabled resource group for SCSQL plugin. Example: -VerificationSchedules ®{"BackupScheduleType"="Hourly";"DeferredBackupCount"="1";"VerificationType"="VERIFY_SCHEDULED";"VerifyOnSecondary"="true";"BackupPolicyName"="sco_20july";"ScheduleType"="Weekly";"DaysOfTheWeek"="Monday";"StartTime"="20-Jul-16 6:42:12 PM";"EndTime"="25-Jul-16 6:42:12 PM"} | false | true (ByPropertyName) | |
| ConsistencyGroupSnapshot | | false | true (ByPropertyName) | |
| ConsistencyGroupWaflSync | | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ConsistencyGroupTimeOut | | false | true (ByPropertyName) | |
| SnapShotCreateCommand | | false | true (ByPropertyName) | |
| UseFileSystemConsistentSnapshot | | false | true (ByPropertyName) | |
| UseSnapcenterWithoutFileSystemConsistency | | false | true (ByPropertyName) | |
| PreAppQuiesceCmd | | false | true (ByPropertyName) | |
| PostAppQuiesceCmd | | false | true (ByPropertyName) | |
| AppQuiesceCmd | | false | true (ByPropertyName) | |
| AppUnQuiesceCmd | | false | true (ByPropertyName) | |
| PreAppUnQuiesceCmd | | false | true (ByPropertyName) | |
| PostAppUnQuiesceCmd | | false | true (ByPropertyName) | |
| PreExitCmd | | false | true (ByPropertyName) | |
| PreSnapshotCmd | | false | true (ByPropertyName) | |
| PostSnapshotCmd | | false | true (ByPropertyName) | |
| AppIgnoreError | | false | true (ByPropertyName) | |
| UseExternalSnapShot | | false | true (ByPropertyName) | |
| ExternalSnapshotRegex | | false | true (ByPropertyName) | |
| ConfigParams | | false | true (ByPropertyName) | |

# Examples

## Example 1: Modifying the Protection of a resource

```
Set-SmProtectResource -PluginCode SCSQL  -Policies BackupPolicy -Resources
®{"Host"="host.example.com";"Type"="SQL Database";"Names"="NB-MVA-DEV054\newdb"} -
Description "The protection of the resource is modified"

          -EnableAsupOnFailure
```

This example syntax modifies the protection of a resource.

## Example 2

```
Set-SmProtectResource -Resources
®(®{"Host"="sccorelinux188.sccore.test.com";"Uid"="Set_CG_Timeout6";"Type"="Instance";"
Names"="Set_CG_Timeout6"}) -PluginCode 'DummyPlugin' -consistencygrouptimeout 'Medium'
```

## Example 3: Enable email during protecting resource

```
Set-SmProtectResource -PluginCode 'HANA' -Resources
®{"Host"="hanahost01.testlab.netapp.com";"Uid"="MDC\R71"}

         -EnableEmail -EmailPreference OnErrorOrWarning -EmailFrom
'snapcenter®netapp.com' -EmailTo 'backupteam®netapp.com' -EmailSubject 'SnapCenter HANA
Backup Failure'
```

This example syntax enables email notification during the protection of a HANA resource.

## Example 4: Modifying the Protection of an Oracle Application Volume resource

```
Set-SmProtectResource -PluginCode SCO  -Policies "appVolPolicyModified" -Resources
®{"Host"="R8092776CF4V1.HNK2.com";"Application Volume"="appVol"} -Description
"protection is modified"
```

This example syntax modifies the protection policy of an Oracle application volume resource.

# Set-SmReportSchedule

Modify the report schedule using this cmdlet.

# Syntax

```
Set-SmReportSchedule [-Name] <String> [-Plugin] <PluginCode> [[-Enabled] <Boolean>] [-
ScheduleType] <String> [[-DayOfTheWeek] <String>] [[-DayOfTheMonth] <String>] [-
TriggerTime] <String> [-DocumentType] <String> [-FromEmail] <String> [-Recipients]
<String> [<CommonParameters>]
```

# Detailed Description

Modify the report schedule by passing the required schedule name and the parameters. This command can be used to enable or disable a schedule.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specify the name of the schedule to be modified. | true | true (ByPropertyName) | |
| Plugin | Specify the plug-in code to generate the report. For custom plug-ins, specify the custom plug-in name for example, hana, mysql. Specify 'all' to generate report for "All Plug-ins". | true | true (ByPropertyName) | |
| Enabled | Specify the state as $true or 1 to enable the schedule and $false or 0 to disable the schedule. Disabled schedules will not be triggered. | false | true (ByPropertyName) | |
| ScheduleType | Specify the schedule type. Valid values are 'daily', 'weekly', and 'monthly'. | true | true (ByPropertyName) | |
| DayOfTheWeek | Specify the day of the week to run the schedule. Valid values are 'monday', 'tuesday', 'wednesday', 'thursday', 'friday', 'saturday', 'sunday'. This field is applicable only for weekly schedule. | false | true (ByPropertyName) | |
| DayOfTheMonth | Specify the day (number) of the month to run the schedule. The value should be between 0 and 28. Enter zero to run the schedule for the last day of the month. This field is applicable only for monthly schedule. | false | true (ByPropertyName) | |
| TriggerTime | Specify the TriggerTime HH:MM in 24 Hours format. | true | true (ByPropertyName) | |
| DocumentType | Specify the format of the report to be sent over e-mail. The valid formats are PDF and CSV. Add the comma separator if both the formats are needed. | true | true (ByPropertyName) | |
| FromEmail | Specify the e-mail address from which the report has to be sent. | true | true (ByPropertyName) | |
| Recipients | Specify the e-mail address to send the report. For multiple e-mail ID's, seperate them by comma. | true | true (ByPropertyName) | |

# Examples

### Example 1: Modifying plug-in of a report schedule.

```
Set-SmReportSchedule -Name schedule1 -Plugin SCO
```

This example modifies the plug-in of an existing schedule to 'SCO'. Plug-in value can be any specific plug-in or 'all'. Specify 'all', to generate the report for all the configured plug-ins. For the custom plug-ins specify the plug-in name instead of the plug-in code for example, hana, mysql.

## Example 2: Modifying frequency of a report schedule.

```
Set-SmReportSchedule -Name schedule1 -ScheduleType weekly -DayOfTheWeek sunday  -
TriggerTime 1:10
```

This example modifies the frequency of an existing schedule to weekly. The ScheduleType, DayOfTheWeek/DayOfTheMonth, and TriggerTime constitutes a frequency, hence all these values should be specified to modify the frequency.

## Example 3: Modifying From and Recipients e-mail id(s) of a report schedule.

```
Set-SmReportSchedule -Name schedule1 -FromEmail user®domain.com -Recipients
"user1®domain.com,user2®domain.com"
```

This example modifies From and Recipients e-mail ids of an existing schedule. FromEmail can be any single valid e-mail id and Recipients can be a single or multiple comma separated e-mail ids.

## Example 4: Disabling a report schedule.

```
Set-SmReportSchedule -Name schedule1 -Enabled $false
```

This example disables a report schedule. The parameter $true or 1 will enable the schedule and $false or 0 will disable the schedule. Disabled schedules will not be triggered.

# Set-SmRepositoryConfig

Enables you to rebuild the slave repository from the master repository and enables you to fail over the repository to the specified node.

# Syntax

```
Set-SmRepositoryConfig [-ServerToRebuild] <String> [[-Force]] [<CommonParameters>]
```

```
Set-SmRepositoryConfig [-RebuildSlave] [[-Force]] [<CommonParameters>]
```

```
Set-SmRepositoryConfig [-ActiveMaster] <String> [[-Force]] [[-Credential]
<PSCredential>] [[-SMSbaseUrl] <String>] [<CommonParameters>]
```

# Detailed Description

Enables you to rebuild the slave repository from the master repository and enables you to fail over the repository to the specified node.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ServerToRebuild | Specifies the slave node for which you want to rebuild its repository from the master repository. | true | true (ByPropertyName) | |
| Force | Specifies that you want to force failover even when the slave repository data is not in sync with the master repository data. NOTE: Forcing failover might result in data loss. | false | true (ByPropertyName) | |
| RebuildSlave | Specifies that SnapCenter automatically identifies the slave node for which to rebuild the repository from the master repository. | true | true (ByPropertyName) | |
| ActiveMaster | Specifies the slave node that should become the master node. | true | true (ByPropertyName) | |
| Credential | Enables you to provide domain user credentials required to perform failover operations. | false | true (ByPropertyName) | |
| SMSbaseUrl | Specifies the SnapCenter Server base URL. The base URL includes the name or IP address of the SnapCenter Server, and, if the remote system is in a different domain than the SnapCenter Server, the domain name. For example: https://SNAPCENTER_SERVER_NAME/DOMAIN_NAME. | false | true (ByPropertyName) | |

# Examples

### Example 1: Failover SnapCenter repository to the specified database server

```
Set-SmRepositoryConfig -ActiveMaster 10.236.221.0 -Credential mva\administrator
```

```
This example syntax fails over the SnapCenter repository to the specified database
server.
```

```
Set-SmRepositoryConfig

            Are you sure want to failover SnapCenter repository to '10.236.221.0'?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): Y



            Name                : SnapCenter Repository Failover to host '10.236.221.0'

            Id                  : 25

            StartTime           : 4/28/2017 8:20:35 AM

            EndTime             : 4/28/2017 8:20:35 AM

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : True

            IsScheduled         : False

            PercentageCompleted : 100

            Description         :

            Status              : Completed

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0

            JobTypeId           : 35

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : NONE

            PluginName          :
```

## Example 2: Rebuilding a specified slave repository

```
Set-SmRepositoryConfig -ServerToRebuild 10.236.221.34
```

This example syntax rebuilds the specified slave repository.

```
Set-SmRepositoryConfig
```

```
            Are you sure want to rebuild SnapCenter repository on host '10.236.221.34'?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"):




            Name                : SnapCenter Repository Rebuild on host '10.236.221.34'
for High Availability

            Id                  : 17

            StartTime           : 4/28/2017 8:15:12 AM

            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           : 35

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : NONE

            PluginName          :
```

## Example 3: Rebuilding the current slave repository

```
Set-SmRepositoryConfig -RebuildSlave
```

This example syntax rebuilds the current slave repository.

```
Set-SmRepositoryConfig

            Are you sure want to rebuild SnapCenter passive repository?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): Y




            Name                : SnapCenter Repository Rebuild on host '10.236.221.34'
for High Availability

            Id                  : 11

            StartTime           : 4/28/2017 8:12:25 AM

            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           : 35

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : NONE

            PluginName          :
```

## Example 4: Failing over the SnapCenter repository to the specified database server from a remote host to SnapCenter using a base URL

```
Set-SmRepositoryConfig -ActiveMaster 10.236.221.34 -Credential mva\administrator -
SMSbaseUrl https://10.236.221.75:8146/
```

This example syntax fails over the SnapCenter repository to the specified database server from a remote host to SnapCenter using a base URL.

```
Set-SmRepositoryConfig

            Are you sure want to failover SnapCenter repository to '10.236.221.34'?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): Y




            Name                : SnapCenter Repository Failover to host
'10.236.221.34'

            Id                  : 20

            StartTime           : 4/28/2017 8:17:47 AM

            EndTime             : 4/28/2017 8:17:47 AM

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : True

            IsScheduled         : False

            PercentageCompleted : 100

            Description         :

            Status              : Completed

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0

            JobTypeId           : 35

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : NONE

            PluginName          :
```

## Example 5: Forcing SnapCenter repository failover with possibility of data loss

```
Set-SmRepositoryConfig -ActiveMaster 10.236.221.34 -Credential mva\administrator -
SMSbaseUrl https://10.236.221.75:8146/ -Force
```

This example syntax forces a SnapCenter repository failover even though data loss might occur.

```
Set-SmRepositoryConfig

            There could be a possible data loss after SnapCenter repository failover to
'10.236.221.34'

            Do you still want to continue?

            [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
(default is "Y"): Y




            Name                : SnapCenter Repository Failover to host
'10.236.221.34'

            Id                  : 32

            StartTime           : 4/28/2017 8:24:48 AM

            EndTime             : 4/28/2017 8:24:48 AM

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : True

            IsScheduled         : False

            PercentageCompleted : 100

            Description         :

            Status              : Completed

            Owner               :

            Error               :

            Priority            : None

            Tasks               : {}

            ParentJobID         : 0

            EventId             : 0

            JobTypeId           : 35

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : NONE

            PluginName          :
```

# Set-SmRepositoryConfigSettings

Enables you to set MySQL High Availability repository configuration settings for the SnapCenter Server host.

# Syntax

```
Set-SmRepositoryConfigSettings [-NLBClusterIP] <String> [-NLBNodeIPs] <String>
[<CommonParameters>]
```

# Detailed Description

Enables you to set MySQL High Availability repository configuration settings for the SnapCenter Server host.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| NLBClusterIP | Specifies the NLB Cluster IP address to which the SnapCenter Server NLB host is configured. | true | true (ByPropertyName) | |
| NLBNodeIPs | Specifies the list of NLB node IP addresses that are part of the NLB Cluster. | true | true (ByPropertyName) | |

# Examples

## Example 1: Set MySQL High Availability repository configuration settings

```
Set-SmRepositoryConfigSettings -NLBClusterIP 10.236.221.0 -NLBNodeIPs
10.236.221.10,10.236.221.11
```

```
This example syntax sets the MySQL High Availability repository configuration settings.
```

# Set-SmRepositoryPassword

Enables you to set the repository password for the SnapCenter Server host.

# Syntax

```
Set-SmRepositoryPassword [-NewPassword] <SecureString> [-ConfirmPassword]
<SecureString> [<CommonParameters>]
```

# Detailed Description

Enables you to set the repository password for the SnapCenter Server host.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| NewPassword | Specifies the new password to be configured for the repository. | true | false | |
| ConfirmPassword | Specifies the confirmation password to be configured for the repository. | true | false | |

# Examples

## Example 1: Set the MySQL repository password

```
Set-SmRepositoryPassword
```

```
This example syntax sets the MySQL repository password to the specified value.
```

# Set-SmResource

Modifies custom plug-in resource or an Oracle plug-in application volume resource settings.

# Syntax

```
Set-SmResource [[-UndoDeletion]] [[-ResourceId] <String>] -HostName <String> -
PluginCode <PluginCode> [<CommonParameters>]
```

```
Set-SmResource [[-ResourceId] <String>] -HostName <String> -PluginCode <PluginCode> [-
RunAsName <String>] [<CommonParameters>]
```

# Detailed Description

Used for modifying allowed attributes of a custom plug-in resource or an Oracle plug-in application volume resource. Also used for re-adding a resource that was soft deleted (resource which is protected).

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| UndoDeletion | | false | true (ByPropertyName) | |
| ResourceId | : System-generated unique ID of a resource. For Oracle Application Volume Resource, its resource ID is of the format HostName\ResourceName. | false | true (ByPropertyName) | |
| HostName | Specifies the name or IP address of the host, only when the Agent or Plugin parameters are specified. | true | true (ByPropertyName) | |
| PluginCode | Specifies which plug-in configuration you want to modify. Possible inputs include MSFT_SQL, SCW, SCO, HANA and SCU. For example, for SnapCenter Plug-in for Microsoft SQL Server instances, the plug-in code is MSFT_SQL. | true | true (ByPropertyName) | |
| RunAsName | | false | true (ByPropertyName) | |
| TenantDatabaseName | This is a SAP HANA database specific parameter. It is the name of the tenant database. This parameter is deprecated for MultiTenant database container resources, it will be ignored and auto discovered internally. | false | true (ByPropertyName) | |
| TenantType | This is a SAP HANA database specific parameter. This specifies the tenant type of SAP HANA Multitenant Database Container. SingleTenant as tenant type is deprecated. | true | true (ByPropertyName) | MultiTenant |

# Examples

### Example 1: Modifying custom plugin DB2 resource

```
Set-SmResource -HostName 'sccorelinux188.sccore.test.com' -PluginCode 'DB2' -
ResourceName Database1 -ResourceType Database -StorageFootPrint
(®{"QTREE_NAME"="inventory_vol_sec";"VolumeName"="inventory_vol";"StorageSystem"="vserv
er_scauto_secondary"}) -Instance INST
```

Modify Storage footprint for Database of DB2 plug-in

Cmdlet Output: Successfully updated the resource

```
            PluginName             : DB2

            Uid                    : INST\Database1

            ParentUid              :

            SmAppFiles             :

            SmAppFileStorageGroups : {}

            PluginParams           : SMCoreContracts.SmKeyValueCollection

            MountPaths             :

            LastBackupDate         :

            LastBackupStatus       :

            IsProtected            : False

            Name                   : Database1

            Type                   : Database

            Id                     :
sccorelinux188.sccore.test.com\DummyPlugin\INST\DominoA

            utoDatabase

            Host                   : sccorelinux188.sccore.test.com

            UserName               :

            Passphrase             :

            Deleted                : False

            Auth                   :

            IsClone                : False

            CloneLevel             : 0

            Hosts                  :
```

## Example 2: Modifying SAP HANA Multitenant Database Container

```
Set-SmResource -HostName 'scspr0204312001.gdl.englab.netapp.com' -ResourceId
'scspr0204312001.gdl.englab.netapp.com\hana\MDC\M01' -PluginCode' 'hana' -DatabaseName
'newname' -ResourceType  'MultipleContainers' -SID 'M01' -TenantType 'SingleTenant'
```

```
Modify DatabaseName for SAP HANA database of type MultipleContainers.

cmdlet Set-SmResource at command pipeline position 1

            Successfully updated the resource



            PluginName             : hana
            Uid                    : MDC\M01
            ParentUid              :
            SmAppFiles             :
            SmAppFileStorageGroups : {}
            PluginParams           : SMCoreContracts.SmKeyValueCollection
            MountPaths             :
            pluginConfiguration    : SMCoreContracts.SmSCSAPHANAResourceParameters
            LastBackupDate         :
            LastBackupStatus       :
            IsProtected            : False
            IsWindowsResource      : False
            Name                   : newname
            Type                   : MultipleContainers
            Id                     : scspr0204312001.gdl.englab.netapp.com\hana\MDC\M01
            Host                   : scspr0204312001.gdl.englab.netapp.com
            UserName               :
            Passphrase             :
            Deleted                : False
            Auth                   : SMCoreContracts.SmAuth
            IsClone                : False
            CloneLevel             : 0
            Hosts                  :
            StorageName            :
            ResourceGroupNames     :
            PolicyNames            :
```

```
            Key                     : 0

            NsmObjectID             : 0
```

## Example 3: Undo SmResource deletion

```
Set-SmResource -HostName 'sccorelinux188.sccore.test.com' -PluginCode 'DB2' -
ResourceName Database1 -UndoDeletion
```

```
Adds the deleted resource and is available for protection.
```

## Example 4: Edit the database name and HDB Secure User Store Key for MultiTenant database container with multi tenants resource type.

```
Set-SmResource -HostName 'vp-hana2.gdl.englab.netapp.com' -PluginCode 'HANA' -
DatabaseName MDC_MT_modified_again -ResourceType MultipleContainers -StorageFootPrint
(®{'VolumeName'='VP_HANA2_data';'StorageSystem'='buck.gdl.englab.netapp.co'}) -sid
'A12' -userstorekeys 'A12KEY_modified_again' -TenantType 'MultiTenant'
```

```
This sets the database name and HDB Userstore Key for MultiTenant database container
with multi tenants resource type.

cmdlet Set-SmResource at command pipeline position 1


            Successfully updated the resource




            PluginName              : hana

            Uid                     : MBC\A12

            ParentUid               :

            SmAppFiles              :

            SmAppFileStorageGroups  : {}

            PluginParams            : SMCoreContracts.SmKeyValueCollection

            MountPaths              :

            pluginConfiguration     : SMCoreContracts.SmSCSAPHANAResourceParameters

            LastBackupDate          :

            LastBackupStatus        :

            IsProtected             : False

            IsWindowsResource       : False

            Name                    : MDC_MT_modified_again
```

```
Type                    : MultipleContainers

Id                      : vp-hana2.gdl.englab.netapp.com\hana\MDC\A12

Host                    : vp-hana2.gdl.englab.netapp.com

UserName                :

Passphrase              :

Deleted                 : False

Auth                    : SMCoreContracts.SmAuth

IsClone                 : False

CloneLevel              : 0

Hosts                   :

StorageName             :

ResourceGroupNames      :

PolicyNames             :

Key                     : 0

NsmObjectID             : 0
```

## Example 5: Edit the database name and HDB User Store Key for single tenant resource type.

```
Set-SmResource -HostName 'vp-hana2.gdl.englab.netapp.com' -PluginCode 'HANA' -
DatabaseName MDC_ST_modified -ResourceType MultipleContainers -StorageFootPrint
(®{'VolumeName'='lun_vol';'StorageSystem'='10.232.206.5'}) -sid 'A12' -userstorekeys
'A12KEY_modified' -TenantType 'SingleTenant' -TenantDatabaseName 'TDB'
```

This sets the database name and HDB User Store Key for single tenant resource type. In this example, the tenant database name is required to edit the resource, which is added in SnapCener Server v4.2 or earlier.

cmdlet Set-SmResource at command pipeline position 1

```
Successfully updated the resource



PluginName              : hana

Uid                     : TDB

ParentUid               :

SmAppFiles              :

SmAppFileStorageGroups  : {}
```

```
PluginParams           : SMCoreContracts.SmKeyValueCollection

MountPaths             :

pluginConfiguration    : SMCoreContracts.SmSCSAPHANAResourceParameters

LastBackupDate         :

LastBackupStatus       :

IsProtected            : False

IsWindowsResource      : False

Name                   : MDC_ST_modified

Type                   : MultipleContainers

Id                     : vp-hana2.gdl.englab.netapp.com\hana\TDB

Host                   : vp-hana2.gdl.englab.netapp.com

UserName               :

Passphrase             :

Deleted                : False

Auth                   : SMCoreContracts.SmAuth

IsClone                : False

CloneLevel             : 0

Hosts                  :

StorageName            :

ResourceGroupNames     :

PolicyNames            :

Key                    : 0

NsmObjectID            : 0
```

## Example 6: Edit an Oracle Application Volume Resource storage footprint

```
Set-SmResource -HostName 'R8092776CF4V1.HNK2.com' -PluginCode 'SCO' -ResourceName
appVol -StorageFootPrint
®(®{"VolumeName"="vol_test1";"StorageSystem"="10.232.206.165"},®{"VolumeName"="vol_test
2";"LunName"="lun_test2";"StorageSystem"="10.232.206.165"},®{"QtreeName"="qtree_test1";
"VolumeName"="vol_test3";"StorageSystem"="10.232.206.165"})


This example modifies storage footprint of an Oracle Application Volume Resource



Set-SmResource

                        Are you sure you want to modify the resource : 'appVol' ?

                        [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend
[?] Help (default is "Y"): Y
```

```
                        Successfully updated the resource


            Uid                     : appVol

                        SmAppFileStorageGroups : {, , }

                        IsProtected            : False

                        LastBackupDate         :

                        LastBackupStatus       :

                        Name                   : appVol

                        Type                   : Application Volume

                        Id                     : R8092776CF4V1.HNK2.com\appVol

                        Host                   : R8092776CF4V1.HNK2.com

                        UserName               :

                        Passphrase             :

                        Deleted                : False

                        Auth                   : SMCoreContracts.SmAuth

                        IsClone                : False

                        CloneLevel             : 0

                        Hosts                  :

                        StorageName            :

                        ResourceGroupNames     :

                        PolicyNames            :

                        Key                    : 0

                        NsmObjectID            : 0

                        SizeOfSmObject         :
```

## Example 7: Edit hostname and resource name of an Oracle Application Volume Resource

```
Set-SmResource -HostName 'R809278EA03V1.HNK2.com' -PluginCode 'SCO' -ResourceName
appVolModified -ResourceId R8092776CF4V1.HNK2.com\appVol


This example modifies hostname and resource name of an Oracle Application Volume
Resource


Set-SmResource

                        Are you sure you want to modify the resource : 'appVol' ?

                        [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend
[?] Help (default is "Y"): Y
```

```
Successfully updated the resource


Uid                     : appVolModified

SmAppFileStorageGroups : {}

IsProtected             : False

LastBackupDate          :

LastBackupStatus        :

Name                    : appVolModified

Type                    : Application Volume

Id                      : R809278EA03V1.HNK2.com\appVolMo

Host                    : R809278EA03V1.HNK2.com

UserName                :

Passphrase              :

Deleted                 : False

Auth                    : SMCoreContracts.SmAuth

IsClone                 : False

CloneLevel              : 0

Hosts                   :

StorageName             :

ResourceGroupNames      :

PolicyNames             :

Key                     : 0

NsmObjectID             : 0

SizeOfSmObject          :
```

## Example 8: Undo soft deletion of an Oracle Application Volume resource

```
Set-SmResource -HostName 'R809278EA03V1.HNK2.com' -PluginCode 'SCO' -ResourceName
appVol1 -UndoDeletion
```

```
Adds the deleted Oracle Application Volume resource and is available for protection.
```

# Set-SmResourceCredentialName

Set the credential for the SQL instance registered with the SnapCenter Server.

# Syntax

```
Set-SmResourceCredentialName -ResourceAuths <Hashtable[]> [<CommonParameters>]
```

# Detailed Description

Set the credential for the SQL instance registered with the SnapCenter Server based on the credential information provided.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ResourceAuths | | true | true (ByPropertyName) | |

# Examples

### Example : Setting the credential for the SQL instance by RunAs ID.

```
Set-SmResourceCredentialName -ResourceAuths
®{"CredentialId"="3";"Names"="R708202074BV1\SQL2019";}
```

```
This example syntax sets the credential for the SQL instance registered with the
SnapCenter Server based on the RunAs ID provided.
```

```
AppObject                                                    Auth

---------                                                    ----

SMCoreContracts.SmObject                                     SMCoreContracts.SmAuth
```

# Set-SmResourceGroup

Modifies a resource group.

# Syntax

```
Set-SmResourceGroup [-ArchivedLocators <Hashtable[]>] [-ResourceGroupName] <String> [-
PluginCode] <PluginCode> [-EnableEmail] [-EmailPreference
<SmEmailNotificationPreference>] [-RemoveCustomSnapShot] [-BackupServers
<SmBackupServer>] [<CommonParameters>]
```

# Detailed Description

Modifies a resource group. You can modify policies, schedules, verification schedules, and resources associated with the resource group.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ArchivedLocators | Specifies in a hashtable the secondary storage system details for each unique primary storage system resource in the resource group. For example: -ArchivedLocators ®{Primary="my_vs1:my_vol_iscsi"; Secondary="my_vs1:my_vol_iscsi_SECONDARY"} | false | true (ByPropertyName) | |
| ResourceGroupName | Specifies the name of the resource group that you want to modify. | true | true (ByPropertyName) | |
| PluginCode | Specifies the plug-in code of the host for which you are modifying a backup resource group. Valid values are SCSQL, SCW, and SCO. | true | true (ByPropertyName) | |
| EnableEmail | Specifies whether to enable or disable email. | false | false | |
| EmailPreference | Specifies when you will receive e-mail notifications. Possible values: Always, Never, OnError, OnErrorOrWarning. | false | false | |
| RemoveCustomSnapShot | | false | true (ByPropertyName) | |
| BackupArchiveLogsAfterRecentMissingOne | This option is only valid for SCO plugin code. Specifies that you want to backup archive log files, which are created after the most recent missing archive log files and ignore the files created prior to it. If this option is not specified, then all archive log files except the missing archive log files are be backed up. | false | true (ByPropertyName) | |
| ExcludeArchiveLogPathsFromBackup | This option is only valid for SCO plugin code. Specifies the archive log destinations to be excluded from backup. Archive log files present in the specified destinations will be excluded during log backup. Multiple entries can be specified using comma separated list. For example: -ExcludeArchiveLogPathsFromBackup '/arch/logs/on/local/disk1, /arch/logs/on/local/disk2'. | false | true (ByPropertyName) | |
| BackupServers | | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Resources | Specifies the list of resources to be associated with the resource group. You must provide the resource information in a hashtable, and it must contain the resource name and type, and the host on which it is located. For example, ®{"Host"="localhost";"Type"="SQL Database";"Names"="Instance\Database"} For instance-level backup ®{"Host"="localhost";"Type"="SQL Instance";"Names"="Instance"} For availability group backup ®{"Host"="localhost";"Type"="SQL Availability Group";"Names"="AG1"} Valid Type values are: SQL Database, SQL Instance, SQL Availability Group. You can include comma-separated values for Names. For Oracle Database, the format is ®{"Host"="host.example.com";"Oracle Database"="db1,db2,.."}. For Oracle Application Volume, the format is ®{"Host"="host.example.com";"Application Volume"="appVol1,appVol2,.."}. | true | true (ByPropertyName) | |
| Description | Specifies an optional description for the new resource group. | false | true (ByPropertyName) | |
| Tag | Enables you to apply a unique tag to help identify the resource group. | false | true (ByPropertyName) | |
| Policies | Specifies the list of policies associated with the resource group. Multiple policies can be added as a comma-separated list. | false | true (ByPropertyName) | |
| SchedulerCredentialName | | false | true (ByPropertyName) | |
| SchedulerInstance | Specifies the SQL Server Instance where the schedule is created and managed. This is mandatory if the policy has SQL scheduler enabled. | false | true (ByPropertyName) | |
| VerificationServers | Specifies the list of verification servers to be associated with the resource group. Multiple verification servers can be added as a comma-separated list. This parameter is only required when you want to verify backups for SnapCenter Plug-in for Microsoft SQL Server resource groups. | false | true (ByPropertyName) | |
| CustomSnapshotFormat | Specifies that you want to use a custom Snapshot copy naming format. By default, a timestamp is appended to the Snapshot copy name. Valid values for CustomSnapshotFormat are : $ResourceGroup, $Policy, $HostName, $ScheduleType, $CustomText | false | true (ByPropertyName) | |
| CustomText | Specifies the custom text in the custom Snapshot copy naming format. | false | true (ByPropertyName) | |
| DeleteBackupForDetachPolicies | Deletes backups for the detached policies. | false | true (ByPropertyName) | |
| Schedules | Specifies the schedule parameters to be used in the resource group. Schedule parameters can include the policy name, schedule type, schedule start and end times. You can specify multiple schedules in a comma-separated list, for example: -Schedules ®{"PolicyName"="BackupPolicy";"ScheduleType"="OneTime"}, ®{"PolicyName"="BackupPolicy";"ScheduleType"="Hourly";"StartTime"="05/27/2016 6:13 PM";"EndTime"="'05/27/2016 6:30 PM'"} | false | true (ByPropertyName) | |
| SchedulerType | Specifies the scheduler type. Possible values are Windows, SQL, None. | false | true (ByProp | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | | | ertyNam e) | |
| VerificationSch edules | Specifies the verification schedules you want to add to the resource. The verification schedule includes the following parameters: "VerificationType" which defines if and when verification is performed. The following values are available: VERIFY_SCHEDULED VERIFY_AFTER_BACKUP NONE "ScheduleType" represents the schedule type for the verification. "BackupScheduleType" represents the schedule type for the backup - VerificationServers "WIN-DVGQDI73QR6" needs to be provided in the above command if we are creating verification enabled resource group for SCSQL plugin. Example: -VerificationSchedules ®{"BackupScheduleType"="Hourly";"DeferredBackupCount"="1";"Verificati onType"="VERIFY_SCHEDULED";"VerifyOnSecondary"="true";"BackupPo licyName"="sco_20july";"ScheduleType"="Weekly";"DaysOfTheWeek"="Mo nday";"StartTime"="20-Jul-16 6:42:12 PM";"EndTime"="25-Jul-16 6:42:12 PM"} | false | true (ByProp ertyNam e) | |
| ConsistencyGro upSnapshot | | false | true (ByProp ertyNam e) | |
| ConsistencyGro upWaflSync | | false | true (ByProp ertyNam e) | |
| ConsistencyGro upTimeOut | | false | true (ByProp ertyNam e) | |
| SnapShotCreate Command | | false | true (ByProp ertyNam e) | |
| UseFileSystemC onsistentSnapsh ot | | false | true (ByProp ertyNam e) | |
| UseSnapcenter WithoutFileSyst emConsistency | | false | true (ByProp ertyNam e) | |
| PreAppQuiesce Cmd | | false | true (ByProp ertyNam e) | |
| PostAppQuiesce Cmd | | false | true (ByProp ertyNam e) | |
| AppQuiesceCm d | | false | true (ByProp ertyNam e) | |
| AppUnQuiesce Cmd | | false | true (ByProp ertyNam e) | |
| PreAppUnQuies ceCmd | | false | true (ByProp | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | | | ertyNam e) | |
| PostAppUnQuie sceCmd | | false | true (ByProp ertyNam e) | |
| PreExitCmd | | false | true (ByProp ertyNam e) | |
| PreSnapshotCm d | | false | true (ByProp ertyNam e) | |
| PostSnapshotC md | | false | true (ByProp ertyNam e) | |
| AppIgnoreError | | false | true (ByProp ertyNam e) | |
| UseExternalSna pShot | | false | true (ByProp ertyNam e) | |
| ExternalSnapsh otRegex | | false | true (ByProp ertyNam e) | |
| ConfigParams | | false | true (ByProp ertyNam e) | |

# Examples

## Example 1: Modifying a custom Snapshot copy format

```
Set-SmResourceGroup -ResourceGroupName PayrollDataset -CustomSnapShotFomat '$CustomText

          $Dataset$Policy$HostName' -CustomText NetApp
```

This example syntax modifies a custom Snapshot copy format.

## Example 2: Modifying a HANA custom Snapshot copy format

```
Set-SmResourceGroup -ResourceGroupName "RG1" -PluginCode HANA

          -Resources ®{"Host"="hanahost01.testlab.netapp.com";"Uid"="MDC\R71"}

          -CustomSnapShotFomat '$CustomText $Dataset$Policy$HostName' -CustomText
NetApp
```

This example syntax modifies a HANA custom Snapshot copy format.

## Example 3: Deleting associated backups when detaching a policy from a resource group

```
Set-SmResourceGroup  -ResourceGroupName "RG1" -PluginCode SCSQL -Resources

          ®{"Host"="WIN-DVGQDI73QR6";"Type"="SQL Database";"Names"="WIN-
DVGQDI73QR6\INST_SQL12\DB123} -Policy poly_full

          -DeleteBackupForDetachPolicies 1
```

This example syntax modifies a resource group to delete the backups associated with the policy when detaching the policy.

## Example 4: Modifying an Oracle Plug-in resource group

```
Set-SmResourceGroup -ResourceGroupName 'mixedRG' -Resources
®(®{"Host"="R809278EA03V1.HNK2.com";"Oracle
Database"="DB11,DB12"},®{"Host"="R8092776CF4V1.HNK2.com";"Application
Volume"="appVol1,appVol3"}) -plugincode 'SCO' -Policies 'appVolPolicyModified'
```

This example syntax modifies the policy and resources of an Oracle Plug-in resource group.

# Set-SmResourceName

Enables you to set the system name for the specified HANA resource.

# Syntax

```
Set-SetSmResourceName [-HostName] <SecureString> [-PluginCode] <SecureString> [-
ResourceId] <SecureString> [-ResourceName] <SecureString> [<CommonParameters>]
```

# Detailed Description

Enables you to set the resource name for the specified HANA resource. This cmdlet is applicable to auto discovered SAP-HANA resources only.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostName | Specifies the name or IP of the cluster or standalone host you want to add. | true | false | |
| PluginCode | Specifies the plug-in code of the host. Valid value is HANA. | true | false | |
| ResourceId | Unique ID of a HANA resource | true | false | |
| ResourceName | Specifies the new resource name. | true | false | |

# Examples

### Example 1: Set the Resource Name of HANA resource

```
Set-SetSmResourceName -HostName "host01213.snapcenter.local" -PluginCode hana -
ResourceId "host01213.snapcenter.local\hana\MDC\R70" -ResourceName "NewResourceName"
```

```
This example syntax sets the resource name to the specified value.
```

# Set-SmRole

Creates a new role.

# Syntax

```
Set-SmRole -Name <String> [-Description <String>] [-Permissions <String>] [-
AssignedUsers <String>] [-AssignedGroups <String>] [-SharedObjects] [-
DeleteSharedObjects] [<CommonParameters>]
```

# Detailed Description

Creates a new role name. Enables you to assign groups and users to the role, and to assign SnapCenter resource permissions.

# Parameters

| Name | Description | Required ? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name of the role you want to modify. | true | true (ByPropertyName) | |
| Description | Describes the role you want to modify. | false | true (ByPropertyName) | |
| Permissions | Specifies the permissions for the new role: Example: host:read,create,delete,update;dataset:create,update,dashboard,allow Use the format [<SnapCenter Resource Name>:<permission1 name>,<permission2 name>,...];[<SnapCenter Resource Name>...] Permission settings for multiple SnapCenter resource names must be separated by ";" The SnapCenter resource name is DataSet, Policy, Backup, Host, StorageConnection, Clone, Provision, DashBoard, Restore, Reports, Discovery, Plugin_Installation or Migration. The permission name is create, read, update, delete or allow. | false | true (ByPropertyName) | |
| AssignedUsers | Specifies users to be assigned to the new role: Example: domain1\user1,domain2\user2 | false | true (ByPropertyName) | |
| AssignedGroups | Specifies groups to be assigned to the new role: Example: domain1\group1,domain2\group2 | false | true (ByPropertyName) | |
| SharedObjects | | false | true (ByPropertyName) | |
| DeleteSharedObjects | | false | true (ByPropertyName) | |

# Examples

### Example 1: Creating a new role and assigning permissions, users, and groups

```
set-smrole -Name PayrollAppAdmin -Description "Manage payroll backup operations" -
Permissions "DashBoard:allow;DataSet:create,read,update,delete" -AssignedUsers
"sddev\administrator" -AssignedGroups "mva\Administrators"
```

This example syntax creates a new role and assigns the specified permissions, users, and groups to the role.

```
Description : Manage payroll backup operations

            Name        : PayrollAppAdmin

            Type        :

            Id          :

            Host        :

            UserName    :

            Passphrase  :

            Deleted     : False

            Auth        : SMCoreContracts.SmAuth

            IsClone     : False

            CloneLevel  : 0
```

# Set-SmSchedule

Creates a schedule using information you provide and also cleans up secondary backups according to that schedule.

# Syntax

```
Set-SmSchedule -ScheduleInformation <Hashtable> -TaskName <String> [<CommonParameters>]
```

# Detailed Description

Creates a schedule using information you provide and also cleans up secondary backups according to that schedule.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ScheduleInformation | Specifies mandatory schedule information in a hashtable. | true | true (ByPropertyName) | |
| TaskName | Specifies the mandatory task name. | true | true (ByPropertyName) | |

# Examples

### Example 1: Setting a schedule to remove secondary backups

```
Set-SmSchedule -ScheduleInformation ®{"ScheduleType"="Hourly";"StartTime"="10:10 AM"
;"EndTime"="11:00 AM";"RepeatTask_Every_Hour"="00:15"} -TaskName
SnapCenter_RemoveSecondaryBackup
```

```
This example syntax creates an hourly schedule with the task name
SnapCenter_RemoveSecondaryBackup that repeats every 15 minutes.
```

```
TaskName              : SnapCenter_RemoveSecondaryBackup

            Hosts                 : {}

            StartTime             : 5/14/2017 10:10:00 AM

            DaysoftheMonth        :

            MonthsofTheYear       :

            DaysInterval          :

            DaysOfTheWeek         :

            AllowDefaults         : False

            ReplaceJobIfExist     : False
```

```
UserName              :

Password              :

SchedulerType         : Hourly

RepeatTask_Every_Hour : 0

IntervalDuration      :

EndTime               : 5/14/2017 11:00:00 AM

LocalScheduler        : False

AppType               : False

AuthMode              :

SchedulerSQLInstance  : SMCoreContracts.SmObject

MonthlyFrequency      :

Hour                  : 0

Minute                : 0

NodeName              :

ScheduleID            : 0

RepeatTask_Every_Mins : 15
```

# Set-SmServerConfig

Updates the High Availability cluster configuration on the SnapCenter Server and all the plug-in hosts.

# Syntax

```
Set-SmServerConfig -Credential <PSCredential> -UpdateSMSbaseUrl <SwitchParameter> [-
HostNames <String>] [-OverwriteSmsUrl <String>] [<CommonParameters>]
```

# Detailed Description

Updates High Availability cluster configuration on the plug-in hosts. If no hostnames are specified, it will be updated to all the registered hosts.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Credential | Provides domain user credentials for the user to update High Availability cluster configuration. | true | true (ByPropertyName) | |
| UpdateSMSbaseUrl | Update SnapCenter Server URL. | true | false | |
| HostNames | Comma separated host names. | false | false | |
| OverwriteSmsUrl | Overwrites the SMSBaseURL. | false | false | |

# Examples

## Example 1: Updating High Availability cluster configuration on the SnapCenter Server

```
Set-SmServerConfig -Credential sddev\administrator -UpdateSMSbaseUrl
```

```
This example updates the High Availability cluster configuration on all the plug-in
hosts and on the SnapCenter Server.
```

```
Name                : Configuring for SnapCenter Server URL

            Id                  : 21

            StartTime           : 9/3/2019 5:25:10 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : True

            IsScheduled         : False
```

```
            PercentageCompleted : 0
            Description         :
            Status              : Running
            Owner               :
            Error               :
            Priority            : None
            Tasks               : {}
            ParentJobID         : 0
            EventId             : 0
            JobTypeId           : 38
            ApisJobKey          :
            ObjectId            : 0
            PluginCode          : NONE
            PluginName          : NONE
            HostId              : 0
            RoleId              :
            JobIds              : {}
```

## Example 2: Updating High Availability cluster configuration on the specific hosts

```
Set-SmServerConfig -UpdateSMSbaseUrl -HostNames 10.225.13.94,10.225.13.96
```

This example updates the High Availability cluster configuration on the specified hosts.

```
Name                : Configuring for SnapCenter Server URL
            Id                  : 21
            StartTime           : 9/3/2019 5:25:10 AM
            EndTime             :
            IsCancellable       : False
            IsRestartable       : False
            IsCompleted         : False
            IsVisible           : True
            IsScheduled         : False
            PercentageCompleted : 0
            Description         :
```

```
Status              : Running

Owner               :

Error               :

Priority            : None

Tasks               : {}

ParentJobID         : 0

EventId             : 0

JobTypeId           : 38

ApisJobKey          :

ObjectId            : 0

PluginCode          : NONE

PluginName          : NONE

HostId              : 0

RoleId              :

JobIds              : {}
```

# Set-SmSMTPServer

Specifies the SMTP server to use for sending data protection job reports to yourself or to others.

# Syntax

```
Set-SmSMTPServer [-SMTPServerName] <String> [-EmailFrom] <String> [-EmailTo] <String>
[[-IsSendEmail]] [[-EmailSubject] <String>] [<CommonParameters>]
```

# Detailed Description

Specifies the SMTP server to use for sending data protection job reports to yourself or to others. The settings are applied globally for any SnapCenter job for which you configure email notification.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SMTPServerName | Specifies the name of the SMTP server. | true | true (ByPropertyName) | |
| EmailFrom | Specifies the sender's email address. This parameter is required when you configure an SMTP server. | true | true (ByPropertyName) | |
| EmailTo | Specifies the recipient's email address. This parameter is required when you configure an SMTP server. | true | true (ByPropertyName) | |
| IsSendEmail | When specified, sends email to the SMTP server specified. This parameter is optional. | false | false | |
| EmailSubject | Specifies the subject of the email. This parameter is optional. | false | false | |

# Examples

## Example 1

```
Set-SmSMTPServer smtp.gdl.englab.netapp.com -EmailFrom zhimao®netapp.com -EmailTo
zhimao®netapp.com -IsSendEmail -EmailSubject Hello
```

# Set-SmStorageConnection

Modifies your existing storage system connections.

# Syntax

```
Set-SmStorageConnection [-Storage] <String> [[-Port] <UInt16>] [[-Protocol]
<ConnectProtocol>] [[-Timeout] <Int32>] [[-Credential] <PSCredential>] [[-PreferredIP]
<String>] [[-DisableAsupOnFailure]] [[-DisableSysLog]] [-Type <StorageSystemType>] [-
NetAppAccountName <String>] [-CredentialName <String>] [-NetAppAccountId <bigint(20)>]
[-CredentialId <bigint(20)>] [-ResourceGroup <String>] [-PlatformType <String>] [-
IsSecondary] [-RediscoverSVM] [<CommonParameters>]
```

# Detailed Description

Modifies your existing storage system connections. You must create your storage system connection in advance of performing any provisioning or data protection jobs.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Storage | | true | true (ByPropertyName) | |
| Port | Specifies the port for the storage system connection. 80 is the default port and is used if you omit the Port parameter. | false | true (ByPropertyName) | |
| Protocol | Specifies the communication protocol you want to use to connect to the storage system. Valid values are: HTTP and HTTPS. | false | true (ByPropertyName) | |
| Timeout | Specifies the storage system timeout in seconds. | false | true (ByPropertyName) | |
| Credential | Specifies your storage system credentials. You must have created valid storage system credentials in advance. | false | true (ByPropertyName) | |
| PreferredIP | Specifies the preferred IP address for the storage system management or data LIF IP address. | false | true (ByPropertyName) | |
| DisableAsupOnFailure | | false | true (ByPropertyName) | |
| DisableSysLog | | false | true (ByPropertyName) | |
| Type | Specifies the type of storage. | false | true (ByPropertyName) | |
| NetAppAccountName | Specifies the Azure NetApp Account name. | false | true (ByPropertyName) | |
| NetAppAccountId | Specifies the Azure NetApp Account ID. | false | true (ByPropertyName) | |
| CredentialName | Specifies the Azure NetApp Credential name. | false | true (ByPropertyName) | |
| CredentialId | Specifies the Azure credential ID. | false | true (ByPropertyName) | |
| ResourceGroup | Specifies the resource group. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PlatformType | This optional parameter specifies the SVM platform type for licensing purposes. Possible values are Hardware and Software. Hardware indicates that you are using a FAS or All Flash FAS plaform. Software indicates that you are using ONTAP Cloud or ONTAP Select. If you specify Type as ONTAP SVM as the storage connection type, and you do not specify PlatformType, the default value is set to Hardware. | false | true (ByPropertyName) | |
| IsSecondary | | false | true (ByPropertyName) | |
| RediscoverSVM | | false | true (ByPropertyName) | |

# Examples

## Example 1: Modifying a storage system connection

```
Set-SmStorageConnection -SVM 172.17.168.13 -Port 80 -Protocol Http -Timeout 70
```

```
This example syntax modifies an existing storage system connection.

cmdlet Set-SmStorageConnection at command pipeline position 1

            Supply values for the following parameters:

            (Type !? for Help.)

            Credential:

            Set Storage connection successful
```

## Example 2: Modifying a Azure NetApp Account

```
Set-SmStorageConnection -Type AzureNetAppAccount -NetAppAccountId 1 -NetAppAccountName
"azureNetappAccount1_modified" -CredentialName "AzureCred1_modified" -ResourceGroup
"azure_rg1_modified"
```

```
This example modifies an existing Azure NetApp Account.
```

## Example 3: Modifying a Azure NetApp Account

```
Set-SmStorageConnection -Type AzureNetAppAccount -NetAppAccountId 1 -NetAppAccountName
"azureNetappAccount1_modified" -CredentialId 2 -ResourceGroup "azure_rg1_modified"
```

```
This example modifies an existing Azure NetApp Account.
```

# Start-SmAuditIntegrityCheck

Triggers integrity check on Audit log files

# Syntax

```
Start-SmAuditIntegrityCheck [<CommonParameters>]
```

# Detailed Description

Triggers integrity check on Audit log files. Raises SnapCenter alert and Sends Email if integrity check fails

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|

# Examples

## Example 1: Start Audit integrity check

```
Start-SmAuditIntegrityCheck
```

```
This example starts audit integrity check.

Name                : Audit Log Integrity Check

Id                  : 17

StartTime           : 12/14/2022 6:32:03 AM

EndTime             : 12/14/2022 6:32:03 AM

IsCancellable       : False

IsRestartable       : False

IsCompleted         : False

IsVisible           : True

IsScheduled         : False

PercentageCompleted : 100

Description         :

Status              : Completed
```

# Stop-SmJob

Stops a job that is in progress.

# Syntax

```
Stop-SmJob [-JobId <Int32>] [<CommonParameters>]
```

# Detailed Description

Stops a job that is in progress.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| JobId | The ID associated with the job you want to stop. | false | false | |

# Examples

## Example 1: Stopping a job

```
Stop-SmJob -JobId 1002
```

```
This example syntax stops a job for the job ID specified.
```

# Uncatalog-SmBackupWithOracleRMAN

Uncatalog Oracle backup(s).

# Syntax

```
Uncatalog-SmBackupWithOracleRMAN [-PluginCode] <PluginCode> [[-BackupIds] <String>] [[-
BackupNames] <String>] [-AppObjectId <String>] [<CommonParameters>]
```

# Detailed Description

Uncatalogs the Oracle Database backup(s) in SnapCenter with Oracle Recovery Manager (RMAN).

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PluginCode | Specifies the plug-in code of the resource to be cataloged. | true | false | |
| BackupIds | Specifies the id of backup that need to be uncataloged. Multiple backup ids can be specified in a comma separated list. | false | false | |
| BackupNames | Specifies the name of the backup that need to be uncataloged. Multiple backup names can be specified in a comma separated list. | false | false | |
| AppObjectId | Specifies the ID of the application object. | false | true (ByPropertyName) | |

# Examples

## Example 1: Uncataloging a SCO backup using backupId

```
Uncatalog-SmBackupWithOracleRMAN -PluginCode SCO -BackupId 7
```

```
This example syntax uncatalogs a SCO backup using backupId.
```

```
Name                : Uncataloging Backup(s)
```

```
scspr1894465002_gdl_englab_netapp_com_TSPITRDB_scspr1894465002_08-06-
2020_01.13.03.7681_1

            Id                  : 48

            StartTime           : 8/7/2020 2:11:00 AM

            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           : 29

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : SCO

            PluginName          : SnapCenter Plug-in for Oracle Database

            HostId              : 0

            RoleId              :

            JobIds              : {}
```

## Example 2: Uncataloging a SCO backup using backupname

```
Uncatalog-SmBackupWithOracleRMAN -PluginCode SCO -BackupName
scspr1894465002_gdl_englab_netapp_com_TSPITRDB_scspr1894465002_08-06-
2020_04.13.23.4083_1
```

This example syntax uncatalogs a SCO backup using backupname.

```
Name                : Uncataloging Backup(s)


scspr1894465002_gdl_englab_netapp_com_TSPITRDB_scspr1894465002_08-06-
2020_04.13.23.4083_1

            Id                  : 46

            StartTime           : 8/7/2020 2:05:40 AM

            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           : 29

            ApisJobKey          :

            ObjectId            : 0

            PluginCode          : SCO

            PluginName          : SnapCenter Plug-in for Oracle Database

            HostId              : 0

            RoleId              :

            JobIds              : {}
```

## Example 3: Uncataloging a SCO backup for the desired database

```
Uncatalog-SmBackupWithOracleRMAN -PluginCode SCO -BackupName rg1_galaxy-vm134_08-08-
2020_15.11.16.3564_0 -AppObjectId 'galaxy-vm134.gdl.englab.netapp.com\DB14'
```

This example syntax uncatalogs a SCO backup for the desired database.

```
Name                : Uncataloging Backup(s)

                                  rg1_galaxy-vm134_08-08-2020_15.11.16.3564_1

            Id                  : 50

            StartTime           : 8/7/2020 2:10:40 AM

            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           : 29

ApisJobKey          :

ObjectId            : 0

PluginCode          : SCO

PluginName          : SnapCenter Plug-in for Oracle Database

HostId              : 0

RoleId              :

JobIds              : {}
```

# Uninstall-SmHostPackage

Uninstalls all host plug-in components from one or more hosts.

# Syntax

```
Uninstall-SmHostPackage [-HostNames] <String> [[-ApplicationCode] <PluginCode>] [-
Force] [<CommonParameters>]
```

# Detailed Description

Uninstalls all host plug-in components from one or more hosts. Because this cmdlet removes all host package components, you must confirm this operation before the uninstall proceeds with either Yes or No. The default is Yes.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostNames | Name of one or more hosts from which you want to uninstall all host package components. Host names must be entered using the format -HostNames ®("hostname") when uninstalling from a single host, or -HostNames ®("hostname1", "hostname2") when uninstalling from multiple hosts. You can specify the hostname using either the host FQDN or IP address. | true | true (ByPropertyName) | |
| ApplicationCode | Specifies the application code being uninstalled from the host. The valid values are SCW, SCSQL, SCO, and SCV. For custom plug-ins, enter the name of the custom plug-in. You must specify -ApplicationCode when using Oracle Real Application Clusters (RAC) to ensure that all nodes in the cluster are upgraded. If -ApplicationCode is not specified, the host package is uninstalled from only one RAC node. | false | true (ByPropertyName) | |
| Force | | false | true (ByPropertyName) | |
| DoNotIncludeClusterNodes | Specifies that host plug-in packages are not uninstalled on cluster nodes. | false | true (ByPropertyName) | |

# Examples

### Example 1: Uninstalling all host package components from a host

```
Uninstall-SmHostPackage -HostNames ®("host2012r2.mycompany.com")
```

```
This example syntax removes all host package components from the specified host.
```

### Example 2: Uninstalling all host packages from multiple hosts

```
Uninstall-SmHostPackage -HostNames ®("sql-1.mycompany.com", "sql-2.mycompany.com")
```

This example syntax uninstalls all host packages from the specified hosts.

## Example 3: Uninstalling all host packages from an Oracle RAC

```
Uninstall-SmHostPackage -HostNames host.example.com -ApplicationCode SCO
```

This example syntax uninstalled all host packages from the specified host and uses the SCO application code to ensure that packages on all RAC nodes are uninstalled.

# Update-SmBackup

Updates the raw device mapping (RDM) information of a backup.

# Syntax

```
Update-SmBackup [[-BackupId] <Int64>] [[-BackupName] <String>] [-AccessPath] <String>
[-DataStoreName] <String> [-RdmFileName] <String> [<CommonParameters>]
```

# Detailed Description

Updates the raw device mapping (RDM) information of a backup.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| BackupId | Specifies the ID of the backup to update. | false | false | |
| BackupName | Specifies the name of the backup to update. | false | false | |
| AccessPath | Specifies the RDM file system's drive letter or mount point. | true | false | |
| DataStoreName | Specifies the datastore of the RDM file at the time of the backup. | true | false | |
| RdmFileName | Specifies the RDM file path at the time of the backup. | true | false | |

# Examples

## Example 1: Update RDM information to backup

```
Update-SmBackup -BackupId 20 -AccessPath R:\ -DataStoreName "csmdev-SMSQL-ds02"

          -RdmFileName "[csmdev-SMSQL-ds02] csmdev-SMSQL-vm02\csmdev-SMSQL-vm02_1.vmdk"
```

```
Result       : SMCoreContracts.SMResult

            TotalCount   : 0

            DisplayCount : 0

            Context      :

            Job          : SMCoreContracts.SmJob
```

# Update-SmHostPackage

Updates existing host plug-ins package for one or more specified hosts to the currently available plug-ins package version.

# Syntax

```
Update-SmHostPackage [-HostNames] <String> [[-SkipPreinstallChecks]] [[-Force]]
[<CommonParameters>]
```

# Detailed Description

Updates existing host plug-ins package for one or more specified hosts to the currently available plug-ins package version.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| HostNames | Name of one or more hosts for which you want to update the host package. Specifies the hosts on which you want to update the host package. You can specify one host, or multiple, comma-separated host names. Host names must be entered using the format -HostNames ®("hostname") when installing to a single host, or -HostNames ®("hostname1", "hostname2") when installing to multiple hosts. You can specify the hostname using either the host FQDN or IP address. | true | true (ByPropertyName) | |
| SkipPreinstallChecks | Specifies that installation prechecks will not be triggered. | false | true (ByPropertyName) | |
| Force | Internal switch. | false | true (ByPropertyName) | |

# Examples

## Example 1: Updating the host plug-ins package on a host

```
Update-SmHostPackage -HostNames ®("host2012r2.mycompany.com")
```

```
This example syntax updates an existing host plug-ins package on a host to the
currently available version.
```

## Example 2: Updating the host plugin package on multiple hosts

```
Update-SmHostPackage -HostNames ®("sql-1.mycompany.com", "sql-2.mycompany.com")
```

```
This example syntax updates existing host plug-in packages on multiple hosts to the
currently available version.
```

# Update-SmServerCluster

Updates the High Availability cluster configuration on the SnapCenter Server

# Syntax

```
Update-SmServerCluster -Credential <PSCredential> [-ClusterName <String>] -ClusterIP
<String> [<CommonParameters>]
```

# Detailed Description

Updates the High Availability cluster configuration on the SnapCenter Server. This can be used to update the cluster name or cluster IP Address.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Credential | Provides domain user credentials for the user to update High Availability cluster configuration. | true | true (ByPropertyName) | |
| ClusterName | F5 cluster name. | false | false | |
| ClusterIP | F5 Cluster IP Address. | true | false | |

# Examples

### Example 1: Updates High Availability cluster configuration on the SnapCenter Server

```
Update-SmServerCluster -Credential sddev\administrator -ClusterName Sab_Pool_Update -
ClusterIP 10.225.231.160
```

```
This example updates the High Availability cluster configuration on the SnapCenter
Server.
```

```
Name                : Modify High Availability for SnapCenter Server Configuration

            Id                  : 59

            StartTime           : 10/7/2019 3:31:55 AM

            EndTime             :

            IsCancellable       : False

            IsRestartable       : False

            IsCompleted         : False

            IsVisible           : True

            IsScheduled         : False

            PercentageCompleted : 0
```

```
Description         :

Status              : Running

Owner               :

Error               :

Priority            : None

Tasks               : {Update HA Parameters in SC Repository}

ParentJobID         : 0

EventId             : 0

JobTypeId           : 38

ApisJobKey          :

ObjectId            : 0

PluginCode          : NONE

PluginName          : NONE

HostId              : 0

RoleId              :

JobIds              : {}


Monitor the progress of job 59 in the Job Monitor page or by running the
cmdlet: 'Get-SmJobSummaryReport -JobId 59'
```

# Upload-SmPluginPackage

Uploads a custom plug-in package to SnapCenter.

# Syntax

```
Upload-SmPluginPackage [-FullPath] <String> [<CommonParameters>]
```

# Detailed Description

A custom-developed plug-in is zipped along with plug-in description file. This zip file is uploaded to SnapCenter and is later pushed to specified host.

# Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| FullPath | Specifies the path to the custom plug-in zip file. | true | false | |

# Examples

### Example 1: Uploading a plugin from SnapCenter Server

```
Open-SmConnection -Credential nbsdsm\administrator

          PS C:\Users\administrator.NBSDSM> Upload-SmPluginPackage -AbsolutePath
c:\Mongo1.zip


Uploading Custom named Mongo, version 1.0 from SnapCenter Server Host.

Successfully uploaded the plug-in package.



            CustomPluginName        : Mongo

            CustomPluginVersion     : 1.0

            CustomPluginType        : Mongo

            OsInfo                  : SMCoreContracts.SmOperatingSystemInfo

            Resources               : {SMCoreContracts.SmSCCustomResoureceType}

            RequireFileSystemPlugin : False

            UploadedFileName        : Mongo_1.0.zip
```

### Example 2: Uploading a plugin from a nonSnapCenter Server Windows host

```
Upload-SmPluginPackage -AbsolutePath c:\customplugin\MongoDB_1.zip -UserCredential
nbsdsm\administrator
```

This example syntax uploads a custom plug-in named MongoDB, version 1.0 from a non-SnapCenter Server Windows Host.

Successfully uploaded the plug-in package.

```
CustomPluginName        : MongoDB

CustomPluginVersion     : 1.0

CustomPluginType        : Perl

OsInfo                  : SMCoreContracts.SmOperatingSystemInfo

Resources               : {SMCoreContracts.SmSCCustomResoureceType}

RequireFileSystemPlugin : False

UploadedFileName        : DB2_1.0.zip
```

# Add-SdIgroupInitiator

Adds one or more FCP and/or iSCSI initiators to an existing igroup on your storage system.

## Syntax

```
Add-SdIgroupInitiator [-Name] <String> [-Initiators] <String[]> [-StorageSystem] <String> [[-
Validate]] [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Adds one or more FCP and/or iSCSI initiators to an existing igroup on your storage system. You should not mix FCP and iSCSI initiators on a specified Windows node. You can mix FCP and iSCSI initiators in a clustered scenario on a Windows node.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name of the igroup to which you want to add an array of FCP or iSCSI initiators. | true | true (ByPropertyName) | |
| Initiators | Provides a comma-separated list of the FCP or iSCSI initiators you want to add to your igroup. | true | true (ByPropertyName) | |
| StorageSystem | Specifies the storage system on which your igroup is defined. | true | true (ByPropertyName) | |
| Validate | | false | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Examples

### Example 1: Adding an FCP initiator to an igroup

```
PS C:\> Add-SdIgroupInitiator -Name IGroupFCPDemo -Initiators "20:00:00:0e:13:75:90:02" -
StorageSystem 172.17.168.13
```

```
This example syntax adds an FCP initiator to the specified igroup.
```

### Example 2: Adding an iSCSI initiator to an igroup

```
PS C:\> Add-SdIgroupInitiator -Name IgroupDemo -Initiators iqn.1991-05.com.microsoft:mva-s24-
rx200.sddev.mycompany.com -StorageSystem 172.17.168.13
```

This example syntax adds an iSCSI initiator to the specified igroup.

## Example 3: Adding an array of initiators to your igroup

```
PS C:\> Add-SdIgroupInitiator -Name IgroupDemo -Initiators iqn.1991-05.com.microsoft:mva-
s24-rx200.sddev.mycompany.com,iqn.1991-05.com.microsoft:mva-rx200-s4.sddev.mycompany.com -
StorageSystem 172.17.168.13
```

This example syntax adds an array of initiators to the specified igroup.

# Add-SdLunMap

Maps your LUN to an igroup.

## Syntax

```
Add-SdLunMap [-StorageSystem] <String> [-LunPath] <String> [-Igroup] <String> [-Session
 <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Maps your LUN to an igroup. You can use this on the storage system level, for Data ONTAP storage systems. If you are performing provisioning operations, use New-SdStorage.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | Specifies the storage system on which the igroup to which you want to map your LUN is located. | true | true (ByPropertyName) | |
| LunPath | Specifies the LUN on your storage system. | true | true (ByPropertyName) | |
| Igroup | Specifies the igroup to which you want to map your LUN. | true | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. For internal use only. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Examples

### Example 1: Maping a LUN to an igroup on an ONTAP storage system

```
Add-SdLunMap -StorageSystem svm1 -LunPath /vol/vol1/lun1 -Igroup ?myTestIgroup"
```

```
This example syntax maps the LUN called lun1 to the igroup"myTestIgroup" on svm1.
```

# Add-SdPortSetPort

Adds a port to an existing portset.

## Syntax

```
Add-SdPortSetPort [-PortSetName] <String> [-Port] <String> [-StorageSystem] <String> [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Adds a port to an existing portset.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PortSetName | Specifies the name of the portset to which you want to add a new port. | true | true (ByPropertyName) | |
| Port | Specifies the name of the port you want to add to your portset. | true | true (ByPropertyName) | |
| StorageSystem | Specifies the storage system on which your portset resides. | true | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. For internal use only. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# Connect-SdIscsiTarget

Establishes a session with your specified iSCSI target.

## Syntax

```
Connect-SdIscsiTarget [-TargetNodeAddress] <String> [-TargetPortalAddress] <String>
 [[-TargetPortalPortNumber] <UInt16>] [[-InitiatorPortalAddress] <String>] [[-
CHAPUserName] <String>] [[-CHAPPassword] <String>] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Establishes a session with your specified iSCSI target.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| TargetNodeAddress | Specifies the target node address. | true | true (ByPropertyName) | |
| TargetPortalAddress | Specifies the target portal address. | true | true (ByPropertyName) | |
| TargetPortalPortNumber | Specifies the target portal port number. | false | true (ByPropertyName) | |
| InitiatorPortalAddress | Specifies the initiator portal address. | false | true (ByPropertyName) | |
| CHAPUserName | Specifies your CHAP user name. | false | true (ByPropertyName) | |
| CHAPPassword | Specifies your CHAP password. | false | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. For internal use only. | false | true (ByPropertyName) | |
| Host | Specifies the name of the computer or host on which the SnapCenter Plug-in for Microsoft Windows service you want to perform the operation runs. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

System.String System.Nullable`1[[System.UInt16, mscorlib, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089]]

## Return Values

SnapDrive.Nsf.Interfaces.iSCSIManagement.iSCSISession

## Examples

### Example 1: Connecting to an iSCSI target

```
PS C:\> Connect-SdIscsiTarget -TargetNodeAddress
 iqn.1992-08.com.netapp:sn.54053432d1f311e19455123478563412:vs.5 -TargetPortalAddress
 172.17.175.84 -TargetPortalPortNumber 3260


This example syntax connects you to an iSCSI target.
```

# Connect-SdStorage

Connects a Windows disk to a LUN.

## Syntax

```
Connect-SdStorage [-Path <String>] -LunPath <String> -StorageSystem <String> [-SharedDisk]
 [-ClusteredSharedVolume] [-Igroup <String>] [-InitiatorInfo <HostInitiatorInfo>] [-
PortSet <String>] [-AutoPickPortSet] [-AutopickMountPoint] [-ResourceGroup <String>] [-
RawDeviceMapping] [-Datastore <String>] [-FileSystemLabel <String>] [-Session <String>] [-
Host <String>] [<CommonParameters>]
```

## Detailed Description

Connects a dedicated disk, shared disk, or a clustered shared volume based on a LUN.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies the drive letter or mount point: D:, D:\ | false | true (ByPropertyName) | |
| LunPath | Specifies your LUN path using this format: /vol/volx/lunx | true | true (ByPropertyName) | |
| StorageSystem | Specifies the target virtual storage machine that you are going to use for provisioning. | true | true (ByPropertyName) | |
| SharedDisk | Indicates whether you need to provision your Windows disk as a shared disk. | false | true (ByPropertyName) | |
| ClusteredSharedVolume | Indicates whether you will provision your Windows disk as a Clustered Shared Volume. | false | true (ByPropertyName) | |
| Igroup | Specifies the igroup you want to use for mapping the LUN. If not specified, SnapCenter Plug-in for Microsoft Windows automatically manages the igroup for mapping the LUN. | false | true (ByPropertyName) | |
| InitiatorInfo | Specifies the initiators you want to add to your Igroup. | false | true (ByPropertyName) | |
| PortSet | Specifies the portset you want to use for binding your igroup. If your igroup is already bound to a different portset, specifying this parameter unbinds your igroup and then binds it to the portset specified here. | false | true (ByPropertyName) | |
| AutoPickPortSet | Indicates whether you want SnapCenter Plug-in for Microsoft Windows to handle the portset binding automatically. | false | true (ByPropertyName) | |
| AutopickMountPoint | Specifies whether SnapCenter Plug-in for Windows automatically picks the drive letter/volume mount point for the connected disk. | false | true (ByPropertyName) | |
| ResourceGroup | Specifies the Cluster Resource Group you want to use for a shared disk. | false | true (ByPropertyName) | |
| RawDeviceMapping | Specifies whether the disk is provisioned as RAW device Mapping. | false | true (ByPropertyName) | |
| Datastore | Specifies whether the datastore is to be used for RDM. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| FileSystemLabel | Specifies the label you want to attach to your new Windows volume. | false | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies your target host. | false | true (ByPropertyName) | |

## Examples

### Example 1: Connecting to a dedicated Windows disk

```
PS C:\> connect-sdstorage -StorageSystem  172.17.165.31 -path V: -LunPath /vol/santest/b09
```

```
In this example syntax, you connect to a dedicated disk.
```

### Example 2: Connecting to a shared Windows disk

```
PS C:\> connect-sdstorage -StorageSystem  172.17.165.31 -path V: -LunPath /vol/santest/b09 -
SharedDisk -ResourceGroup prod
```

```
In this example syntax, you connect to a shared disk.
```

### Example 3: Connecting to a Clustered Shared Volume

```
PS C:\> connect-sdstorage -StorageSystem  172.17.165.31 -LunPath /vol/santest/b09  -
ClusteredSharedVolume
```

```
In this example syntax, you connect to a Clustered Shared Volume.
```

# Debug-SdHost

Troubleshoots your system setup.

## Syntax

```
Debug-SdHost [-Session <String>] [-Host <String>] [<CommonParameters>]
Debug-SdHost [[-RuleCategory] <Category>] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Troubleshoots your system setup. You can use this cmdlet to identify problems with the following rules: a) Validate storage connection settings. b) Export-policy rule. c) SMB share "continuously-available" property. d) SMB share ACL setup. When you are troubleshooting a clustered Data ONTAP environment, run Debug-SdHost on each node of the Windows cluster.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| RuleCategory | Indicates that you want to troubleshoot the specified category only. | false | true (ByPropertyName) | |

## Input Type

String, SnapDrive.Nsf.Interfaces.Category

## Return Values

SnapDrive.Nsf.Interfaces.SDDebugSystem

## Examples

### Example 1: Debugging your host

```
PS C:\> Debug-SdHost
```

In this example syntax, you have checked your host for the various system setup problems and found errors with the export-policy rule, the SMB share ACL setup rule, and the SMB share "continuously-available" property rule.

```
Rule        : Storage connections.
Description : The storage connection rule verifies that the storage connection settings on
 your host system are valid and active.
Category    : General
Source      : NEXTGEN-BOX59
Severity    : Info
Problem     : N/A
Impact      : N/A
Resolution  : N/A
Message     : Success. All your storage connection settings are valid and active.

Rule        : Export-Policy Rule
Description : The export-policy rule verifies that the client trying to access the data
 objects is doing so using the SMB protocol.
Category    : SMB
Source      : NEXTGEN-BOX59
Severity    : Info
Problem     : N/A
Impact      : N/A
Resolution  : N/A
Message     : Success. The SMB protocol is set in the export-policy rule of all the virtual
 storage servers.

Rule        : SMB share ACL setup.
Description : This rule verifies that the share ACL has host permissions, and if your host is
 a part of a cluster it verifies that the share has cluster
              permissions.
Category    : Hyper_V
Source      : NEXTGEN-BOX59
Severity    : Error
Problem     : Your shares do not have access control set for the host or the cluster.
Impact      : You cannot access these shares from your host.
Resolution  : Add the host or the cluster to your share's ACL.
Message     : Error. The following shares do not have host or clusters set in the ACLs: \
\CIFS_SERV\admin$,\\CIFS_SERV\ipc$.
```

```
Rule        : SMB share "continuously-available" property.
Description : This rule verifies that your SMB share contains the continuously-available
 property. The continuously-available property is mandatory for
             installing a VM.
Category    : Hyper_V
Source      : NEXTGEN-BOX59
Severity    : Error
Problem     : Some of the shares do not contain the continuously-available property.
Impact      : You cannot install a VM on the share.
Resolution  : Set the share property to continuously-available.
Message     : Error. The following shares do not have continuously-available property set:
             \\CIFS_SERV\admin$,\\CIFS_SERV\sales_dbshare,\\CIFS_SERV\ACL,\\CIFS_SERV\qtree,
\\CIFS_SERV\ipc$.
```

# Delete-SdLUNS

## Syntax

```
Delete-SdLUNS [-LunPath] <String[]> [-RestApiURL] <String> [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| LunPath | | true | true (ByValue, ByPropertyName) | |
| RestApiURL | | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Disconnect-SdIscsiTarget

Terminates your session with the iSCSI target.

## Syntax

```
Disconnect-SdIscsiTarget [-SessionIdentifier] <String> [-TargetNodeAddress] <String> [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Terminates your session with the iSCSI target.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SessionIdentifier | Specifies the session identifier. | true | true (ByPropertyName) | |
| TargetNodeAddress | Specifies the target node address. | true | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name of the computer or host on which the SnapCenter Plug-in for Microsoft Windows service you want to perform the operation runs. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

System.String

## Return Values

System.Object

## Examples

### Example 1: Disconnecting from your iSCSI target session

```
PS C:\> DisConnect-SdIscsiTarget -SessionIdentifier fffffa800762f020-4000013700000001 -
TargetNodeAddress iqn.1992-08.com.netapp:sn.54053432d1f311e19455123478563412:vs.5


This example syntax disconnects you from your iSCSI target session.
```

# Disconnect-SdStorage

Disconnects your storage system from your Windows disk or SMB share.

## Syntax

```
Disconnect-SdStorage -Path <String> [-IgnoreVolumeMountPoint] [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

Disconnects your Windows disk or SMB share from your storage system.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies your LUN path or mount point using the format: D:, D:\Mount | true | true (ByPropertyName) | |
| IgnoreVolumeMountPoint | | false | true (ByPropertyName) | |
| Session | Specifies the Session ID from Open-SmConnection | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Examples

### Example 1: Disconnecting a storage system from a Windows drive

```
PS C:\> Disconnect-SDStorage ?Path K:
```

```
This example syntax disconnect the specified drive from a storage system.
```

### Example 2: Disconnectinga storage system from a Windows mount point

```
PS C:\> Disconnect-SDStorage ?Path K:\Mount
```

```
This example syntax disconnect the specified Mount Point from a storage system.
```

# Dismount-SdClone

Enables dismounting a cloned storage resource.

## Syntax

```
Dismount-SdClone [-ClonePath] <String[]> [-ResourceType <ResourceType>] [-Session <String>]
 [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Enables dismounting a cloned storage resource. This can be a single clone or a comma-separated list of clones of the same resource type. Related cmdlets: Mount-SdClone, Get-SmClone, Remove-SmClone, New-SmClone

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| ClonePath | Specifies the path to the clone that you want to dismount. This can be a single clone or a comma-separated list of clones of the same resource type. | true | true (ByValue, ByPropertyName) | |
| ResourceType | Specifies the type of the resource in the ClonePath parameter. The possible options are: "SDStorageVolume", "SDStorageLunPath", "SDStorageDir". | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the FQDN or IP address of the host on which you want to execute the operation. | false | true (ByPropertyName) | |

## Examples

### Example 1: Dismount a clone from a given cloned path

```
PS C:\> Dismount-SdClone -ClonePath Primary_SVM:/vol/Vol11201210041488133 -ResourceType
 SDStorageVolume
```

```
This example syntax specifies the cloned volume path and the resource type, and dismounts the
 clone.
```

```
Vserver                 : Primary_SVM
FullPath                : Primary_SVM:/vol/Vol11201210041488133
JunctionPath            :
JunctionParentName      :
SizeTotal               : 70931603456
SizeUsed                : 62187937792
SnapMirrorSource        :
SnapMirrorDest          :
SnapVaultPrimary        :
SnapVaultSecondary      :
FlexCloneEnabled        :
IsFlexClone             :
VolumeSecurityStyle     :
AggregateName           : Aggr4
AggregateUuid           : b3525de1-9aa0-46d2-9259-eeaef94d34b0
FlexCloneLevel          :
IsLeaf                  :
VolumeState             : online
AggregateAvailableSpace :
ExportPolicy            : default
VolumeUuid              : fd1bb1d5-528a-11ec-a2a8-00a0986d2568
OwningVserverName       : Primary_SVM
VolumeType              :
IsProtected             : False
StorageVmKey            :
VolumeKey               :
VolumeInstanceUuid      :
Size                    :
IsRootVolume            :
IsSelectable            :
StorageKey              :
ProtectionStatus        :
ComplianceStatus        :
StatusMessage           :
SVMSloKey               :
VolumeSloKey            :
SpaceGuarantee          :
PhysicalUsed            : 7004160
IsFlexGroup             :
ResourceType            : SDStorageVolume
```

```
ResourceName            : Primary_SVM:/vol/Vol11201210041488133
Ranges                  :
Name                    : Vol11201210041488133
Type                    :
Id                      :
Host                    :
UserName                :
Passphrase              :
Deleted                 : False
Auth                    : SMCoreContracts.SmAuth
IsClone                 : False
CloneLevel              : 0
Hosts                   :
StorageName             :
ResourceGroupNames      :
PolicyNames             :
Key                     : 0
NsmObjectID             : 0
SizeOfSmObject          :
```

## Example 2: Dismount a set of clones from the given list of cloned paths

```
PS C:\> Dismount-SdClone -ClonePath Primary_SVM:/vol/Vol11201212311309514,Primary_SVM:/vol/
Vol11201212315354515 -ResourceType SDStorageVolume -Verbose
```

This example syntax specifies the list of cloned volume paths and their resource type, and dismounts the clones. The output is shortened for readability.

```
Vserver                 : Primary_SVM
FullPath                : Primary_SVM:/vol/Vol11201212311309514
.....

Vserver                 : Primary_SVM
FullPath                : Primary_SVM:/vol/Vol11201212315354515
.....

VERBOSE: Operation successful.
```

# Dismount-SdSnapshot

Facilitates dismounting the list of SMB shares that are mounted from the specified Snapshot copy as a different set of shares. Facilitates dismounting the list of LUNs mounted from the specified Snapshot copies as a different set of LUNs.

## Syntax

```
Dismount-SdSnapshot [-Path] <Object[]> [[-DeleteParentClones]] [[-IgnoreVolumeMountPoint]] [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Facilitates dismounting the list of SMB shares that are mounted from the specified Snapshot copy as a different set of shares. Facilitates dismounting the list of LUNs mounted from the specified Snapshot copies as a different set of LUNs. You can use this cmdlet during backup verification operations. First, you can use Mount-SdSnapshot to mount database and log shares or LUNs from the Snapshot copy. Next, you perform verification operations. After the backup verification is completed, use this cmdlet to dismount the shares/LUNs. If multiple paths contain one or more invalid paths specified in the cmdlet, the command fails for all the paths in the input. Related cmdlets: Mount-SdSnapshot

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies a comma-separated list of SMB shares, disks, or LUN mount points you want to dismount. You cannot mix a logical disk or mount point with SMB shares in the same input path. | true | true (ByValue, ByPropertyName) | |
| DeleteParentClones | | false | true (ByPropertyName) | |
| IgnoreVolumeMountPoint | | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. For SMB shares, the default is your local machine. For LUNs, you must provide this parameter. | false | true (ByPropertyName) | |

## Input Type

Object[], String, SwitchParameter A volume, logical disk, or comma-separated list of shares to dismount.

## Return Values

N/A

## Examples

### Example 1: Dismounting multiple shares that were mounted from a Snapshot copy

```
PS C:\> Dismount-SdSnapshot -Path "\\SQLFileserver
\DBShareSdClone607fb343_2b3c_41f6_8912_8762a1800290","\\SQLFileserver
\DBShareSdClone6bcf3df5_3384_4ba4_9b33_25bb9636a486"


This example syntax specifies how to dismount your Snapshot copies mounted on the specified
 shares.
```

### Example 2: Dismounting a Snapshot of a LUN

```
PS C:\> Dismount-SdSnapshot -Path I: -Host Host1.DMN.COM


This example syntax specifies how to dismount your Snapshot copy mounted on the specified
 drive.
```

### Example 3: Dismounting multiple mount points

```
PS C:\> Dismount-SdSnapshot -Path "C:\scmnpt\mpdisk0005\","C:\scmnpt\mpdisk0006\" -Host
 Host1.DMN.COM


This example syntax specifies how to dismount your Snapshot copies mounted on the specified
 mount points.
```

# Get-SdAluaPaths

Lists all available ALUA-enabled disks and their state.

## Syntax

```
Get-SdAluaPaths [-Paths <String[]>] [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Lists all available ALUA-enabled disks and their state.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Paths | Specifies the drive letter or mount point of the file system. | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name of the host. | false | true (ByPropertyName) | |

## Examples

### Example 1: Listing all ALUA enabled disks

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

```
This example syntax lists information about all ALUA enabled disks.
```

# Get-SdDataStores

## Syntax

```
Get-SdDataStores [[-Shared]] [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Shared | | false | false | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Get-SdFCPInitiator

Lists FCP initiators.

## Syntax

```
Get-SdFCPInitiator [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Lists FCP initiators.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name of the computer or host on which the SnapCenter Plug-in for Microsoft Windows service you want to perform the operation runs. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

System.String

## Return Values

SnapDrive.Nsf.Interfaces.FCPManagement.FCFibrePortHBAAttribute

## Examples

### Example 1: Listing all FCP initiators

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

```
This example syntax displays all your FCP initiators.
```

# Get-SdIgroup

Gets information about available igroups.

## Syntax

```
Get-SdIgroup [[-Name] <String[]>] [[-Initiators] <String[]>] [[-LunPath] <String>] -
StorageSystem <String> [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Gets information about available igroups.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name of the igroups about which you want to retrieve information. | false | true (ByPropertyName) | |
| Initiators | Specifies any initiators included in the igroup. | false | true (ByPropertyName) | |
| LunPath | Specifies the LUN on your storage system. | false | true (ByPropertyName) | |
| StorageSystem | Specifies the storage system on which the igroup resides. | true | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Examples

### Example 1: Retrieving igroup information

```
PS C:\> Get-SdIgroup -StorageSystem 172.17.168.13
```

```
This exmaple syntax retrieves the igroup information for the specified storage system.
```

# Get-SdIgroupWithUuid

## Syntax

```
Get-SdIgroupWithUuid [[-Name] <String[]>] [[-Initiators] <String[]>] [[-LunPath] <String>]
 [-LunUuid <String>] -StorageSystem <String> [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | | false | true (ByPropertyName) | |
| Initiators | | false | true (ByPropertyName) | |
| LunPath | | false | true (ByPropertyName) | |
| LunUuid | | false | true (ByPropertyName) | |
| StorageSystem | | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Get-SdInfo

Gets information about the SnapCenter Plug-in for Microsoft Windows instance that you are running.

## Syntax

```
Get-SdInfo [-Session <String>] [-Host <String>] [<CommonParameters>]
Get-SdInfo [[-Details]] [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

You can use this cmdlet to retrieve the version number of the SnapCenter Plug-in for Microsoft Windows instance you are currently running. You can use the Details parameter to get additional information about Snapshot, discovery, virtualization, configuration, storage resolution, SMB shadow copy, SnapRemote, administration, and provisioning services, along with the interface name.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Session | Specifies the session ID from Open-SmConnection.. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| Details | Gets additional information about Snapshot copy, discovery, virtualization, configuration, storage resolution, SMB shadow copy, SnapRemote, administration, and provisioning services, along with the interface name. | false | true (ByPropertyName) | |

## Input Type

String, SwitchParameter

## Return Values

String

## Examples

### Example 1: Getting the details about the SnapCenter Plug-in for Microsoft Windows instance

```
PS C:\> Get-SdInfo -Details
```

This example gets detailed information about the version and services of the SnapCenter Plug-in for Microsoft Windows instance you are running.

```
Get-SdInfo -Details
Version: 7.0.0.5779

Snapshot Service
InterfaceName: SDSnapshot_v1_1
Version: 7.0.0.5779
URLForInterface: net.tcp://localhost:808/SnapDrive/Snapshot
URLForWSDL:

Discovery Service
InterfaceName: SDDiscovery_v10
Version: 7.0.0.5779
URLForInterface: net.tcp://localhost:808/SnapDrive/Discovery
URLForWSDL:

Virtualization Service
InterfaceName: SnapDrive.Nsf.Interfaces.Virtualization.IVirtualMachineManagement
Version: 7.0.0.5779
URLForInterface: net.tcp://localhost:808/SnapDrive/Virtualization
URLForWSDL:

Configuration Service
InterfaceName: SnapDrive.Nsf.Interfaces.SDConfiguraiton
Version: 7.0.0.5779
URLForInterface: net.tcp://localhost:808/SnapDrive/Configuration
URLForWSDL:

StorageResolution Service
InterfaceName: SnapDrive.Nsf.Interfaces.SDStorageResolution
Version: 7.0.0.5779
URLForInterface: net.tcp://localhost:808/SnapDrive/StorageResolution
URLForWSDL:
```

```
CIFS ShadowCopy Service
InterfaceName: SnapDrive.Nsf.Interfaces.SDCIFSShadowCopyManagement
Version: 7.0.0.5779
URLForInterface: net.tcp://localhost:808/SnapDrive/CIFSShadowCopyManagement
URLForWSDL:

SnapRemote Service
InterfaceName: SDSnapRemote_v1_3
Version: 7.0.0.5779
URLForInterface: net.tcp://localhost:808/SnapDrive/SnapshotRemote
URLForWSDL:

Administration Service
InterfaceName: SDAdmin_v10
Version: 7.0.0.5779
URLForInterface: net.tcp://localhost:808/SnapDrive/SDAdminNext
URLForWSDL:

InterfaceName: SDAdmin
Version: 7.0.0.5779
URLForInterface: net.tcp://localhost:808/SnapDrive/SDAdminInfo
URLForWSDL:

Provisioning Service
InterfaceName: SnapDrive.Nsf.Interfaces.SDProvisioningManagement
Version: 7.0.0.5779
URLForInterface: net.tcp://localhost:808/SnapDrive/ProvisioningManagement
URLForWSDL:
```

# Get-SdIscsiInitiator

Enumerates information about iSCSI sessions and initiators.

## Syntax

```
Get-SdIscsiInitiator [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Enumerates information about iSCSI sessions and initiators.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name of the computer or host on which the SnapDrive service you want to perform the operation runs. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

System.String SnapDrive.Nsf.Interfaces.iSCSIManagement.iSCSIInitiatorSession

## Examples

### Example 1: Listing all iSCSI sessions and initiators

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

```
In this example syntax, you list all iSCSI sessions and associated initiators.
```

# Get-SdIscsiTarget

Enumerates iSCSI targets on a storage system.

## Syntax

```
Get-SdIscsiTarget [-StorageSystemName] <String> [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Enumerates iSCSI targets on a storage system.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystemName | Specifies the name of the storage system for which you want to list iSCSI targets. | true | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name of the computer or host on which the SanpCenter Plug-in for Microsoft Windows service you want to perform the operation runs. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

System.String

## Return Values

SnapDrive.Nsf.Interfaces.iSCSIManagement.iSCSITarget

## Examples

### Example 1: Listing all iSCSI targets on a storage system

```
PS C:\> Get-SdIscsiTarget -StorageSystemName vs0

In this sample syntax, you get information about iSCSI targets on a specified storage system.
```

### Example 2: Listing all iSCSI targets on a storage system

```
PS C:\> Get-SdIscsiTarget -StorageSystem 172.17.11.122
```

In this sample syntax, you get information about iSCSI targets on a specified storage system.

# Get-SdLun

Gets information about the LUNs created on your storage system.

## Syntax

```
Get-SdLun [-StorageSystem] <String> [[-LunPath] <String>] [-Session <String>] [-Host
 <String>] [<CommonParameters>]
Get-SdLun -SerialNumber <String> [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Gets information about the LUNs created on your storage system.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | Specifies the name of the storage system on which your LUN is located. | true | true (ByPropertyName) | |
| LunPath | Specifies the path of the LUN on your storage system. | false | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| SerialNumber | | true | true (ByPropertyName) | |

# Get-SdLunMap

Gets information about all the mapped LUNs and the igroups to which they are mapped.

## Syntax

```
Get-SdLunMap [-StorageSystem] <String> [[-LunPath] <String>] [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

Gets information about all the mapped LUNs and the igroups to which they are mapped.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | Specifies the storage system on which the igroup, to which you mapped your LUNs, is located. | true | true (ByPropertyName) | |
| LunPath | Specifies the path of the LUN on your storage system. | false | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# Get-SdLunMapWithUuid

## Syntax

```
Get-SdLunMapWithUuid [-StorageSystem] <String> [[-LunPath] <String>] [[-LunUuid] <String>] [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | | true | true (ByPropertyName) | |
| LunPath | | false | true (ByPropertyName) | |
| LunUuid | | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Get-SdLunWithUuid

## Syntax

```
Get-SdLunWithUuid [-StorageSystem] <String> [[-LunPath] <String>] [-LunUuid <String>] [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

```
Get-SdLunWithUuid -SerialNumber <String> [-LunUuid <String>] [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | | true | true (ByPropertyName) | |
| LunPath | | false | true (ByPropertyName) | |
| LunUuid | | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |
| SerialNumber | | true | true (ByPropertyName) | |

# Get-SdNfsExport

## Syntax

```
Get-SdNfsExport [-DataPaths] <String[]> [-ExportPath] <String> [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| DataPaths | | true | true (ByValue, ByPropertyName) | |
| ExportPath | | true | true (ByValue, ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Get-SdPlugIn

## Syntax

```
Get-SdPlugIn [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Get-SdPlugInResource

## Syntax

```
Get-SdPlugInResource -Files <String[]> [-ComputerName <String>] [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Files | | true | true (ByPropertyName) | |
| ComputerName | | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Get-SdPortSet

Gets information about available portsets.

## Syntax

```
Get-SdPortSet [[-PortSetName] <String>] [-StorageSystem] <String> [[-GetLunMappings]] [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Gets information about available portsets.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PortSetName | Specifies the name of the portset about which you want to get information. | false | true (ByPropertyName) | |
| StorageSystem | Specifies the name of the storage system on which your portset resides. | true | true (ByPropertyName) | |
| GetLunMappings | Indicates that you want to get information about the number of LUN mappings. | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# Get-SdSMBShadowCopyEmsMessage

Gets SMB shadow copy EMS messages from the event log, so that you can find backup failure details.

## Syntax

```
Get-SdSMBShadowCopyEmsMessage -Path <Object> -SearchPattern <String> [-Session <String>] [-
Host <String>] [<CommonParameters>]
```

## Detailed Description

Gets shadow copy EMS messages that contain specified SMB shadow copy ID search criteria from the virtual storage server, so that you can view the SMB shadow copy failure details.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies the SMB share path for shadow copy EMS messages. Enter one path only. If you enter more than one path value, the search is performed only on the first path. You cannot mix a logical disk or mount point with SMB shares in the same input path. | true | true (ByValue, ByPropertyName) | |
| SearchPattern | Specifies a regular expression search criteria, so that you can search for EMS messages pertaining to a specific backup failure event. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

Object, String Object is an instance of SDCifsShare or a string with path of the host side object.

## Return Values

SnapDrive.Nsf.Interfaces.ShadowCopyEmsInfo SnapDrive.Nsf.Interfaces.ShadowCopyEmsInfo contains full information about the shadow copy EMS message.

## Examples

## Example 1: Getting shadow copy EMS messages for a specified ID

```
PS C:\> Get-SdSMBShadowCopyEmsMessage -Path \\10.53.41.218\root -SearchPattern *9831ed56-
ee2e-11e1-994b*
```

```
Gets shadow copy EMS messages that contains specified SMB shadow copy ID search criteria from
 the virtual storage server for the SMB shadow copy.
```

Gets shadow copy EMS messages that contains specified SMB shadow copy ID search criteria from
 the virtual storage server for the SMB shadow copy.

## Example 2: Getting all SMB shadow copy EMS message on a virtual storage server

```
PS C:\> Get-SdSMBShadowCopyEmsMessage -Path \\172.17.165.40\root -SearchPattern *
```

```
Gets all shadow copy EMS messages from the virtual storage server for the SMB shadow copy.
 The message you retrieve looks similar
to example 1.
```

# Get-SdSnapMirror

Gets the SnapMirror relationship status for storage system volumes you specify.

## Syntax

```
Get-SdSnapMirror [[-StorageSystem] <String>] [[-Volume] <String[]>] [-Session <String>] [-
Host <String>] [<CommonParameters>]
```

## Detailed Description

Gets the SnapMirror relationship status for storage system volumes you specify. If you do not specify any volumes, you retrieve SnapMirror relationships for all registered virtual storage servers. This cmdlet is supported in clustered Data ONTAP 8.2 and later. Related cmdlets: Invoke-SdSnapMirrorUpdate

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | Specifies the primary storage system name or IP address containing the volumes for which you want to retrieve the SnapMirror relationship status. | false | true (ByPropertyName) | |
| Volume | Indicates a comma-separated list of storage system volumes for which you want to retrieve the SnapMirror relationship status. | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

String, String[], SwitchParameter storage system volumes

## Return Values

SnapDrive.Nsf.Interfaces.SnapMirrorRelationshipStatus SnapMirror relationship status

## Examples

### Example 1: Getting SnapMirror information for a storage system volume

```
PS C:\> Get-SdSnapMirror -StorageSystem 172.17.162.61 -Volume test_vol1 -Verbose
```

In this example syntax, you retrieve SnapMirror relationship status information for the volume test_vol1.

```
Get-SdSnapMirror -StorageSystem 172.17.162.61 -Volume test_vol1 -Verbose
```

```
SnapMirrorRelationshipType : data_protection
SnapMirrorPolicyName       : DPDefault
SnapMirrorRelationship     : vserver : test_vol1 ==> vserver : test_vol2
SnapMirrorState            : snapmirrored
SnapMirrorStatus           : Idle
Lag                        : 0
LagSpecified               : False
BaseSnapshotName           : snapmirror.9a000021-
fb71-11e1-8315-123478563412_2147484917.2013-07-19_124400
Message                    : Success.
```

## Example 2: Getting SnapVault information for a storage system volume

```
PS C:\> Get-SdSnapMirror -StorageSystem 172.17.162.61 -Volume snapvault_source -Verbose
```

In this example syntax, you retrieve SnapVault relationship status information for the volume snapvault_source.

```
PS C:\Users\administrator.NEXTGEN> Get-SdSnapMirror -StorageSystem 172.17.162.61 -Volume
 snapvault_source -Verbose
```

```
SnapMirrorRelationshipType : vault
SnapMirrorPolicyName       : XDPDefault
SnapMirrorRelationship     : vserver : snapvault_source ==> vserver : snapvault_dest
SnapMirrorState            : snapmirrored
```

```
SnapMirrorStatus            : Idle
Lag                         : 0
LagSpecified                : False
BaseSnapshotName            : DATA
Message                     : Success.
```

# Get-SdSnapMirrorPolicyRule

Gets the rules for managing Snapshot retention on the SnapVault secondary storage system.

## Syntax

```
Get-SdSnapMirrorPolicyRule [-SourceStorageSystem] <String> [-SourceStorageSystemVolume]
 <String> [-DestinationStorageSystem] <String> [-DestinationStorageSystemVolume] <String> [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Gets the rules for managing Snapshot retention on the SnapVault secondary storage system.
Related cmdlets: Set-SdSnapMirrorPolicyRule, Remove-SdSnapMirrorPolicyRule

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SourceStorageSystem | Specifies the primary storage system name containing the source volumes of the SnapMirror relationship for which you want to retrieve the SnapMirror policy rules. IP addresses are not supported. | true | true (ByValue, ByPropertyName) | |
| SourceStorageSystemVolume | Specifies the source volume of the SnapMirror relationship for which you want to retrieve the SnapMirror policy rules. | true | true (ByPropertyName) | |
| DestinationStorageSystem | Specifies the secondary storage system name containing the destination volumes of the SnapMirror relationship for which you want to retrieve the SnapMirror policy rules. IP addresses are not supported. | true | true (ByValue, ByPropertyName) | |
| DestinationStorageSystemVolume | Specifies the destination volume of the SnapMirror relationship for which you want to retrieve the SnapMirror policy rules. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

String, SwitchParameter

## Return Values

SnapDrive.Nsf.Interfaces.RetentionPolicyRule

## Examples

### Example 1: Getting SnapMirror policy rule information from the policy for a SnapMirror relationship

```
PS C:\> Get-SdSnapMirrorPolicyRule -SourceStorageSystem vs1 -SourceStorageSystemVolume
 src_vol -DestinationStorageSystem vs2 -DestinationStorageSystemVolume dest_vol01 -verbose
```

Get the SnapMirror policy rules from the policy on the specified relationship.

```
SnapLabel              : daily

NumberOfSnapsToKeep    : 10

PreserveSnaps          :

PreserveSnapsSpecified : False

WarnThreshold          : 0

SnapMirrorPolicy       : snapvault_policy


SnapLabel              : weekly

NumberOfSnapsToKeep    : 3

PreserveSnaps          :

PreserveSnapsSpecified : False

WarnThreshold          : 2

SnapMirrorPolicy       : snapvault_policy
```

```
SnapLabel               : mothly

NumberOfSnapsToKeep     : 4

PreserveSnaps           :

PreserveSnapsSpecified : False

WarnThreshold           : 3

SnapMirrorPolicy        : snapvault_policy


The getting SnapMirror policy rules operation is successful.
```

# Get-SdSnapshot

Lists the Snapshot copies for a specified set of volumes, logical disks, or SMB shares.

## Syntax

```
Get-SdSnapshot [-Path] <Object[]> [[-Snapshot] <String>] [[-VersionUuid] <String>]
 [-GetAllSnapshots] [-GetSecondarySnapshots] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

```
Get-SdSnapshot [-StorageSystem] <String> [-VolumeName] <String> [[-Snapshot] <String>] [[-
VersionUuid] <String>] [-GetAllSnapshots] [-GetSecondarySnapshots] [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

Lists the Snapshot copies for a specified set of volumes, logical disks, or SMB shares. You can also use this cmdlet to get information about a specific Snapshot copy. Related cmdlets: New-SdSnapshot Remove-SdSnapshot, Rename-SdSnapshot and Restore-SdSnapshot

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies a volumes, logical disks, or a comma-separated list of SMB shares. You cannot mix a logical disk or mount point with SMB shares in the same input path. | true | true (ByValue, ByPropertyName) | |
| Snapshot | Names the Snapshot copy about which you want information. If you do not use this parameter, all the Snapshot copies for the specified list of SMB shares, Windows volume, or Windows logical disk is returned. | false | true (ByPropertyName) | |
| VersionUuid | Indicates the version of the Snapshot copy about which you want information. | false | true (ByPropertyName) | |
| GetAllSnapshots | Indicates that you want to get information about both primary and secondary Snapshot copies. The default behavior is to enumerate only the primary Snapshot copies. | false | false | |
| GetSecondarySnapshots | Indicates that you want to retrieve information about secondary Snapshot copies only. | false | false | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| StorageSystem | Specifies the name of the storage system on which the Snapshot copies are located. | true | true (ByValue, ByPropertyName) | |
| VolumeName | Specifies the name of the volume you are querying. | true | true (ByValue, ByPropertyName) | |

## Input Type

Object[], String, SwitchParameter Comma-separated list of SMB shares. The following types are allowed in the array: string; "SnapDrive.Nsf.Interfaces.SDCIFSShare"; "SDStorageResource"

## Return Values

SnapDrive.Nsf.Interfaces.SDSnapshot The Snapshot objects for the specified list of SMB shares.

## Examples

### Example 1: Getting Snapshot copies for the specified list of SMB shares

```
PS C:\> Get-SdSnapshot -path "\\CifsServer\sqlshare", "\\CifsServer\sqlshare2"

This example syntax gets a list of Snapshot copies for the list of SMB shares you provide.
```

```
PS C:\Users\administrator.NEXTGEN> Get-SdSnapshot -Path "\\CIFS_SERV\snapvault_source", "\
\CIFS_SERV\test_vol1" -Verbose
VERBOSE: Validating input paths.

AccessTime                        : 1373664154
AccessTimeDT                      : 7/12/2013 9:22:34 PM
Busy                              : False
ContainsLunClones                 :
CumulativePercentageOfTotalBlocks : 0
CumulativePercentageOfUsedBlocks  : 1
CumulativeTotalBlocks             : 1052076
CumulativeTotalkb                 : 1077325824
Dependency                        :
Is7ModeSnapshot                   : False
PercentageOfTotalBlocks           : 0
PercentageOfUsedBlocks            : 0
SnapshotInstanceUuid              : eb674595-5901-453e-9e83-93322e1f6547
SnapshotOwnersList                : {}
TotalBlocks                       : 296
TotalKb                           : 303104
```

```
SnapshotName                       : KII
AccessPoint                        : \\CIFS_SERV\snapvault_source
StorageSystemName                  : vserver1
StorageVolumeName                  : snapvault_source
VersionUuid                        : eb674595-5901-453e-9e83-93322e1f6547

AccessTime                         : 1373664320
AccessTimeDT                       : 7/12/2013 9:25:20 PM
Busy                               : False
ContainsLunClones                  :
CumulativePercentageOfTotalBlocks : 0
CumulativePercentageOfUsedBlocks  : 1
CumulativeTotalBlocks              : 1051780
CumulativeTotalkb                  : 1077022720
Dependency                         :
Is7ModeSnapshot                    : False
PercentageOfTotalBlocks            : 0
PercentageOfUsedBlocks             : 0
SnapshotInstanceUuid               : 12e542fe-f771-41ed-8ffe-f4a922337c3f
SnapshotOwnersList                 : {}
TotalBlocks                        : 116200
TotalKb                            : 118988800
SnapshotName                       : Koo
AccessPoint                        : \\CIFS_SERV\snapvault_source
StorageSystemName                  : vserver1
StorageVolumeName                  : snapvault_source
VersionUuid                        : 12e542fe-f771-41ed-8ffe-f4a922337c3f

AccessTime                         : 1373678045
AccessTimeDT                       : 7/13/2013 1:14:05 AM
Busy                               : False
ContainsLunClones                  :
CumulativePercentageOfTotalBlocks : 0
CumulativePercentageOfUsedBlocks  : 1
CumulativeTotalBlocks              : 935580
CumulativeTotalkb                  : 958033920
Dependency                         :
Is7ModeSnapshot                    : False
PercentageOfTotalBlocks            : 0
PercentageOfUsedBlocks             : 1
SnapshotInstanceUuid               : fca29895-f5cf-4737-a1df-e3915ff3e551
```

```
SnapshotOwnersList                : {}
TotalBlocks                       : 935580
TotalKb                           : 958033920
SnapshotName                      : JI
AccessPoint                       : \\CIFS_SERV\snapvault_source
StorageSystemName                 : vserver1
StorageVolumeName                 : snapvault_source
VersionUuid                       : fca29895-f5cf-4737-a1df-e3915ff3e551



AccessTime                        : 1374096530
AccessTimeDT                      : 7/17/2013 9:28:50 PM
Busy                              : False
ContainsLunClones                 :
CumulativePercentageOfTotalBlocks : 0
CumulativePercentageOfUsedBlocks  : 0
CumulativeTotalBlocks             : 9196
CumulativeTotalkb                 : 9416704
Dependency                        :
Is7ModeSnapshot                   : False
PercentageOfTotalBlocks           : 0
PercentageOfUsedBlocks            : 0
SnapshotInstanceUuid              : 22e13abf-89bf-442e-9a0a-832dc1d0a534
SnapshotOwnersList                : {}
TotalBlocks                       : 4180
TotalKb                           : 4280320
SnapshotName                      : new_SP1
AccessPoint                       : \\CIFS_SERv\test_vol1
StorageSystemName                 : vserver1
StorageVolumeName                 : test_vol1
VersionUuid                       : 22e13abf-89bf-442e-9a0a-832dc1d0a534

AccessTime                        : 1374263040
AccessTimeDT                      : 7/19/2013 7:44:00 PM
Busy                              : False
ContainsLunClones                 :
CumulativePercentageOfTotalBlocks : 0
CumulativePercentageOfUsedBlocks  : 0
CumulativeTotalBlocks             : 5016
CumulativeTotalkb                 : 5136384
```

```
Dependency                          : snapmirror
Is7ModeSnapshot                     : False
PercentageOfTotalBlocks             : 0
PercentageOfUsedBlocks              : 0
SnapshotInstanceUuid                : 49b7b1cf-9fa2-4737-b3b8-df294bb570ea
SnapshotOwnersList                  : {}
TotalBlocks                         : 4168
TotalKb                             : 4268032
SnapshotName                        : snapmirror.9a000021-
fb71-11e1-8315-123478563412_2147484917.2013-07-19_124400
AccessPoint                         : \\CIFS_SERV\test_vol1
StorageSystemName                   : vserver1
StorageVolumeName                   : test_vol1
VersionUuid                         : 49b7b1cf-9fa2-4737-b3b8-df294bb570ea

AccessTime                          : 1374517978
AccessTimeDT                        : 7/22/2013 6:32:58 PM
Busy                                : False
ContainsLunClones                   :
CumulativePercentageOfTotalBlocks : 0
CumulativePercentageOfUsedBlocks  : 0
CumulativeTotalBlocks               : 848
CumulativeTotalkb                   : 868352
Dependency                          :
Is7ModeSnapshot                     : False
PercentageOfTotalBlocks             : 0
PercentageOfUsedBlocks              : 0
SnapshotInstanceUuid                : 318d16e2-df58-495c-87ee-cd6a1d054447
SnapshotOwnersList                  : {}
TotalBlocks                         : 848
TotalKb                             : 868352
SnapshotName                        : local
AccessPoint                         : \\CIFS_SERV\test_vol1
StorageSystemName                   : vserver1
StorageVolumeName                   : test_vol1
VersionUuid                         : 318d16e2-df58-495c-87ee-cd6a1d054447
```

## Example 2: Getting information for the Snapshot copy "test"

```
PS C:\> Get-SdSnapshot -path "\\SQLCifsServer\sqlshare" -snapshot "test"
```

This example syntax gets information for Snapshot copy "test" on the SMB share \\SQLCifsServer\sqlshare.

## Example 3: Getting the latest Snapshot backup of the specified SMB share

```
PS C:\> Get-SdSnapshot -path "\\SQLCifsServer\sqlshare"| sort-object AccessTimeDT -ascending
 | select-object -last 1
```

This example syntax gets the latest Snapshot backup of the SMB share \\SQLCifsServer\sqlshare.

## Example 4: Getting secondary Snapshot copies for the specified list of SMB shares

```
PS C:\> Get-SdSnapshot -path "\\SQLCifsServer\sqlshare", "\\SQLCifsServer\sqlshare2" -
GetSecondarySnapshots
```

This example syntax gets a list of secondary Snapshot copies for list of SMB shares that you specify.

## Example 5: Getting information for specific Snapshot version for specified SMB share

```
PS C:\> Get-SdSnapshot -path "\\SQLCifsServer\sqlshare"
-SnapshotVersionUuid "d9bda43e-1e00-4fa9-9c7e-72d8dc5ca0b"
```

This example syntax  gets the information for Snapshot copy version "d9bda43e-1e00-4fa9-9c7e-72d8dc5ca0b" on the SMB share \\SQLCifsServer\sqlshare.

## Example 6: Getting Snapshot copies for a specified LUN

```
PS C:\> Get-SdSnapshot -path D:
```

This example syntax gets the latest Snapshot copies from the specified disk.

# Get-SdStorage

Gets storage system information for Windows disks or SMB shares.

## Syntax

```
Get-SdStorage [-StorageSystem <String[]>] [-ComputerName <String>] [-ExcludeStorageFootprint]
 [-ExcludeSMB] [-ExcludeSAN] [-GetMirrorInfo] [-GetUnmanagedDisks] [-CloneLevel] [-Session
 <String>] [-Host <String>] [<CommonParameters>]
```

```
Get-SdStorage [-Path <Object[]>] [-ComputerName <String>] [-ExcludeStorageFootprint] [-
ExcludeSMB] [-ExcludeSAN] [-GetUnmanagedDisks] [-CloneLevel] [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

Gets storage system information for Windows disks or SMB shares. You must enable the CSV feature in Windows Server 2008 R2 SP1 if you want to use that feature.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | Specifies the storage system name or IP address from which you want to get active storage, such as SMB shares. When you use this parameter with ExcludeSMB, this parameter is ignored. | false | true (ByPropertyName) | |
| ComputerName | Indicates the name of the host from which you want all the LUNs to be returned. | false | true (ByPropertyName) | |
| ExcludeStorageFootprint | Restricts the storage system path results to the host resource attributes only, and excludes the storage footprint. This parameter is ignored when you specify it with Path. | false | true (ByPropertyName) | |
| ExcludeSMB | Indicates that you do not want to view information about SMB shares. | false | true (ByPropertyName) | |
| ExcludeSAN | Indicates that you do not want to view information about LUNs. | false | true (ByPropertyName) | |
| GetMirrorInfo | Indicates that you want to view volume relationship and state information for the volumes on the source storage resources to which you have provided a path. | false | true (ByPropertyName) | |
| GetUnmanagedDisks | Indicates that you want to view information about available unmanaged disks. If a disk is mapped to a LUN on an unregistered storage system, it displays as an unmanaged disk, whether it is or not. If you set the parameter ExcludeSAN, GetUnmanagedDisks is ignored. | false | true (ByPropertyName) | |
| CloneLevel | If the storage system information is for a clone, specifies the clone level. | false | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| Path | Specifies a list of Windows volumes or SMB share. You cannot mix Windows volumes with SMB shares in the same input path. | false | true (ByPropertyName) | |

## Input Type

Object[], String[], String, SwitchParameter System.Object is an instance of SDCifsShare, SDWindowsDisk, SDWindowsDriveLetter, or a string with the path of the host-side object.

## Return Values

SnapDrive.Nsf.Interfaces.SDStorageFootprint SnapDrive.Interfaces.SDStorageFootprint contains full information about backing storage on the storage system, including the storage system name, volume, and the path inside the volume.

## Examples

### Example 1: Getting the storage system for a SMB share

```
PS C:\> Get-SdStorage -Path "\\SQLCifsServer\SalesDBShare"


This example syntax gets the storage system path for the SMB share \\SQLCifsServer
\SalesDBShare.
```

### Example 2: Getting storage system paths for multiple SMB shares

```
PS C:\> Get-SdStorage -Path "\\SQLCifsServer\SalesDBShare","\\SQLCifsServer2\MarketDBShare"


This example syntax gets the storage system path for the SMB Shares \\SQLCifsServer
\SalesDBShare and \\SQLCifsServer2\MarketDBShare.
```

### Example 3: Getting detailed information about host and storage system resources

```
PS C:\> Get-SdStorage -Path \\SQLCIFSServer\SalesDBShare | %{$_.HostResource,
$_.StorageSystemResource}


This example syntax gets extended information about the host resource and the storage system
 resource.
```

### Example 4: Getting all the SMB shares on the specified storage systems

```
PS C:\> Get-SdStorage -StorageSystem "10.225.13.110","172.17.175.75" -ExcludeSAN
```

```
This example syntax gets all the SMB shares on storage systems 10.225.13.110 and
 172.17.175.75.
```

## Example 5: Getting all Windows disks and SMB shares from registered storage systems

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

```
This example syntax gets all the Windows disks and SMB shares from all registered storage
 systems.
```

## Example 6: Getting the Windows disks and SMB shares with the host resources details only on the specified storage system

```
PS C:\> Get-SdStorage -StorageSystem 10.225.13.110 -ExcludeStorageFootprint
```

```
This example syntax gets information about the host resources for Windows disks and SMB
 shares on storage system 10.225.13.110. You can use this parameter to help your application
 achieve better performance if you need information about Windows disks and SMB shares but
 not their storage footprint.
```

## Example 7: Getting the all the LUNs but not SMB shares

```
PS C:\> Get-SdStorage -ExcludeSMB
```

```
This example syntax retrieves information about all the LUNs on the local host.
```

## Example 8: Getting volume mirror information

```
PS C:\> (Get-SdStorage -StorageSystem 172.17.165.31 -
GetMirrorInfo).StorageSystemResource.Volume
```

```
This example syntax uses the -GetMirrorInfo parameter to get volume state and relationship
 information from the source storage system resource.
```

# Get-SdStorageConnectionSetting

Gets the storage system connection, transport, and credential settings from the configuration repository.

## Syntax

```
Get-SdStorageConnectionSetting [[-Name] <String[]>] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
Get-SdStorageConnectionSetting -DefaultSetting [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

This cmdlet reads the storage system, transport, and credential settings from the configuration repository to make a connection to the storage system. These settings include the storage server name (virtual storage server name or IP,) port, transport type, user login, and password. If you do not include parameters, this cmdlet reads all the storage connection settings from the repository. Related cmdlets: Set-SdStorageConnectionSetting and Remove-SdStorageConnectionSetting

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name or IP address of the storage system (storage controller or virtual storage server) for which you want to retrieve connection settings. | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| DefaultSetting | Indicates that you want to view the default storage system connection settings. When you do not specify explicit storage system connection values, you use the default settings. | true | false | |

## Input Type

String, String[], SwitchParameter

## Return Values

SnapDrive.Nsf.Interfaces.SDStorageConnectionSetting, SnapDrive.Nsf.Interfaces.SDStorageConnectionSettingBase Settings for a storage system

connection retrieved from the configuration repository. Processed default settings return SnapDrive.Nsf.Interfaces.SDStorageConnectionSettingBase while processed named connection settings return SnapDrive.Nsf.Interfaces.SDStorageConnectionSetting,.

## Examples

### Example 1: Getting a named connection setting

```
PS C:\> Get-SdStorageConnectionSetting -StorageSystem 'vmStorageServer'
```

```
This example syntax gets the storage system connection settings for the specified storage
 system "vmStorageServer".
```

```
Storage System Name/IP     : vmStorageServer
User                       : vsadmin
Port                       : 80
Protocol                   : Http
```

### Example 2: Getting all connection settings

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

```
This example syntax retrieves all the storage connection settings.
```

```
Storage System Name/IP     : vmStorageServer
User                       : vsadmin
Port                       : 80
Protocol                   : Http

Storage System Name/IP     : vmStorageServer2
User                       : vsadmin2
Port                       : 443
```

```
Protocol                    : Https
```

## Example 3: Getting the default connection setting

```
PS C:\> Get-SdStorageConnectionSetting -DefaultSetting
```

This example syntax retrieves the default connection settings.

```
User         : vsadmin
Port         : 80
Protocol     : Http
```

# Get-SdVM

Lists Hyper-V VMs and their attributes.

## Syntax

```
Get-SdVM [-NoStorage] [-GetHyperVSnapshot] [[-Name] <String[]>] [[-ComputerName] <String[]>]
 [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Lists Hyper-V VMs and their attributes. Related cmdlets: Get-SdStorage

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| NoStorage | Specifies that you do not want to get the Data ONTAP storage footprint of a share or mount. | false | false | |
| GetHyperVSnapshot | Specifies that you want to get the Snapshot VHDs, the GUIDs associated with them, and the parent VHD. | false | false | |
| Name | Specifies the name or GUID of the VM you want to get. | false | true (ByPropertyName) | |
| ComputerName | Indicates the name of the Hyper-V server on which you want the VMs to be returned. | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

String[], String, SwitchParameter Name or GUIDs of the VMs you want to return. Name of the Hyper-V servers where all its VMs are returned.

## Return Values

SnapDrive.Nsf.Interfaces.Virtualization.VirtualMachine
SnapDrive.Nsf.Interfaces.Virtualization.VirtualMachine contains the attributes of a VM.

## Examples

### Example 1: Listing all HyperV VMs

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

This example syntax lists all Hyper-V VMs and their attributes.

```
ComputerName    Name    Guid                                    State      Clustered
 VirtualDisks
------------    ----    ----                                    -------    ---------
 ------------
clab-a8-7       vm1     94734822-f2a2-4ddb-9794-8139bc1efb0b    Running    false        {\
\vs1\share1\vm1\vm1.vhd}
clab-a8-8       vm2     d68f7d2a-31cd-437d-a435-e8757e730a01    Off        true         {\
\vs2\share1\vm2\vm2.vhd}
```

## Example 2: Listing all HyperV VMs on a specific HyperV server

```
PS C:\> Get-SdVM -ComputerName "clab-a8-8"
```

This examples syntax lists all Hyper-V virtual machines on Hyper-V server clab-a8-8.

```
ComputerName    Name    Guid                                    State      Clustered
 VirtualDisks
------------    ----    ----                                    -------    ---------
 ------------
clab-a8-8       vm2     d68f7d2a-31cd-437d-a435-e8757e730a01    Off        true         {\
\vs2\share1\vm2\vm2.vhd}
clab-a8-8       vm3     d68f7d2a-31cd-437d-a435-e8757e730a02    Off        false        {\
\vs2\share2\vm3\vm3.vhd}
```

## Example 3: Getting the attributes for a VM

```
PS C:\> Get-SdVM -Name vm1 |fl
```

This example syntax gets the attributes of VM vm1.

```
Owner                    : clab-a8-7
Guid                     : 94734822-f2a2-4ddb-9794-8139bc1efb0b
State                    : Running
StorageType              : NAS
SnapShotAttributes       : SnapDrive.Nsf.Interfaces.Virtualization.SnapShotAttributes
ConfigurationAttributes  : SnapDrive.Nsf.Interfaces.Virtualization.VMConfigurationAttributes
HighlyAvailable          : False
HAAttributes             : SnapDrive.Nsf.Interfaces.Virtualization.HighAvailabilityAttributes
StorageFootPrints        : {HostResource : \\vs1_cifs\vol2_share StorageSystemResource : vs1:/
vol/vol2/}
VirtualDisks             : {\\vs1\share1\vm1\vm1.vhd}
Type                     : SDHyperv
Name                     : vm1
```

## Example 4: Showing the virtual disks on a VM

```
PS C:\> (Get-SdVM sqltest-vm-01).VirtualDisks
```

This example syntax lists the virtual disks associated with VM sqltest-vm-01.

```
Name                        : sqltest-vm-01.vhdx
Type                        : SDHyperv
VirtualDisk Location        : \\10.53.14.233\r2
VirtualDisk FullPath        : \\10.53.14.233\r2\sqltest-vm-01\Virtual Hard Disks\sqltest-
vm-01.vhdx
StorageSystemResource       : sqltest-vsim1-bsd.sim.Company.com:/vol/vol2/
StorageSystemResource Type  : SDStorageDir
HostResource                : \\10.53.14.233\r2
HostResource Type           : SDSMBShare
BootDisk                    : True
```

## Example 5: Showing all virtual disks and Snapshot copies on a VM

```
PS C:\> (Get-SdVm -GetHyperVSnapshot vm_clus_smb4).VirtualDisks
```

This example syntax lists all the virtual disks including the Hyper-V Snapshot copies associated with VM vm_clus_smb4.

```
Name                        : vm_clus_smb4.vhdx
Type                        : SDHyperv
VirtualDisk Location        : \\172.17.175.82\vol3_share
VirtualDisk FullPath        : \\172.17.175.82\vol3_share\vm_clus_smb4\Virtual Hard Disks
\vm_clus_smb4.vhdx
StorageSystemResource       : vs2:/vol/vol3/
StorageSystemResource Type  : SDStorageDir
HostResource                : \\172.17.175.82\vol3_share
HostResource Type           : SDSMBShare
BootDisk                    : True

Name                        : vm_clus_smb4_0F10EBD9-01F5-4546-9A99-49CF2EEAA755.avhdx
Type                        : SDHyperv
VirtualDisk Location        : \\172.17.175.82\vol3_share
VirtualDisk FullPath        : \\172.17.175.82\vol3_share\vm_clus_smb4\Virtual Hard Disks
\vm_clus_smb4_0F10EBD9-01F5-4546-9A99-49CF2EEAA755.avhdx
StorageSystemResource       : vs2:/vol/vol3/
StorageSystemResource Type  : SDStorageDir
HostResource                : \\172.17.175.82\vol3_share
HostResource Type           : SDSMBShare
BootDisk                    : True
```

# Get-SdVolumeCloneSplit

Gets information about your clone volume splitting operation status.

## Syntax

```
Get-SdVolumeCloneSplit -JobId <String[]> -StorageSystem <String> [-Session <String>] [-Host
 <String>] [<CommonParameters>]
Get-SdVolumeCloneSplit -Path <Object[]> [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Gets information about your clone volume splitting operation status.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| JobId | | true | true (ByPropertyName) | |
| StorageSystem | | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| Path | Specifies the clone splitting operation about which you want to retrieve status information. | true | true (ByPropertyName) | |

# Get-SdVolumeCloneSplitEstimate

Estimates the amount of space you available, before you begin a clone splitting operation.

## Syntax

```
Get-SdVolumeCloneSplitEstimate -Path <Object[]> [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Estimates the amount of space you available, before you begin a clone splitting operation.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies the path to the volume about which you want to retrieve a space estimate, before you begin a clone splitting operation. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# Get-SdVsphereSetting

## Syntax

```
Get-SdVsphereSetting [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Invoke-SdEmsAutosupportLog

Facilitates logging Event Management System (EMS) AutoSupport messages.

## Syntax

```
Invoke-SdEmsAutosupportLog [-Path] <Object> [-EventId] <Int32> [-EventSource] <String> [-
AppVersion] <String> [-Category] <String> [-EventDescription] <String> [-LogLevel] <UInt32>
 [-GenerateAutosupport] [-Session <String>] [-Host <String>] [<CommonParameters>]
```

```
Invoke-SdEmsAutosupportLog [-StorageSystem] <String> [-EventId] <Int32> [-EventSource]
 <String> [-AppVersion] <String> [-Category] <String> [-EventDescription] <String>
 [-LogLevel] <UInt32> [-GenerateAutosupport] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Facilitates logging Event Management System (EMS) AutoSupport messages. You can use this cmdlet to determine the underlying administration server, and to send messages to that server, for your specified SMB share or logical disk. Your application can use this cmdlet to log events with different severity levels in EMS and to send corresponding AutoSupport messages about backup, restore, and similar operations, errors, or failures. Related cmdlets: Get-SdSMBShadowCopyEmsMessage

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies the ID for the SMB share, logical disk to which you send the EMS AutoSupport message. You cannot mix a logical disk or mount point with SMB shares in the same input path. | true | true (ByValue, ByPropertyName) | |
| EventId | Provides the event ID. This is a user-defined event ID, with a range from 0 to 2^32-2. | true | true (ByPropertyName) | |
| EventSource | Indicates the application invoking the cmdlet. | true | true (ByPropertyName) | |
| AppVersion | Provides the version of the application invoking the cmdlet. | true | true (ByPropertyName) | |
| Category | Specifies an application-defined event category. | true | true (ByPropertyName) | |
| EventDescription | Describes the event you want to log. The event description is an application-defined message. | true | true (ByPropertyName) | |
| LogLevel | Indicates the EMS message severity. Accepted values are: 0 for "emergency"; 1 for "alert"; 2 for "critical"; 3 for "error"; 4 for "warning"; 5 for "notice"; 6 for "info"; 7 for "debug" | true | true (ByPropertyName) | |
| GenerateAutosupport | Specifies that you want to generate an AutoSupport message. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| StorageSystem | Names the storage system for resources to which you send the EMS AutoSupport message. | true | true (ByPropertyName) | |

## Input Type

Object, Int32, String, UInt32, SwitchParameter SMB shares or logical disk to which the specific event is sent.

## Return Values

N/A

## Examples

### Example 1: Logging a test EMS AutoSupport message

```
PS C:\> Invoke-SdEmsAutosupportLog -Path \\172.17.165.40\root -EventId 111 -EventSource
 "SDW" -AppVersion "1.0" -Category "test" -EventDescription "This is testing message from
 NextGenSDW." -LogLevel 6
```

```
In this example sytax, you send a test EMS log message to the virtual storage server to
 which the SMB share belongs. The cluster server display the following message:
```

```
Time                 Node             Severity      Event
------------------ ---------------- -------------  ------------------------
8/14/2012 11:47:54  mvaqa-3270-1-01  INFORMATIONAL app.log.info: SNAPMGR-06: SDW 7.0: (111)
 test: This is testing message from SnapDrive.
```

### Example 2: Logging and generating a test EMS AutoSupport message

```
PS C:\> Invoke-SdEmsAutosupportLog -Path \\172.17.165.40\root -EventId 111 -EventSource
 "SDW" -AppVersion "1.0" -Category "test" -EventDescription "This is testing message from
 SnapDrive." -LogLevel 6 -GenerateAutosupport
```

```
In this example syntax, you log a test message in EMS and send an AutoSupport message to the
 virtual storage server to which the SMB share belongs.
```

## Example 3: Logging a test EMS AutoSupport message in a clustered environment

```
PS C:\> Invoke-SdEmsAutosupportLog -Path E: -EventId 111 -EventSource "SDW" -AppVersion "1.0"
 -Category "test" -EventDescription "This is testing message from SnapDrive." -LogLevel 6
```

In this example syntax, you send a test EMS log message to the virtual storage server to which the SMB share belongs.

The cluster server displays the following message:

```
Time                Node             Severity      Event
------------------  ---------------  -----------   -------------------------
8/14/2012 11:47:54  mvaqa-3270-1-01  INFORMATIONAL app.log.info: SNAPMGR-06: SDW 7.0: (111)
 test: This is testing message from SnapDrive.
```

## Example 4: Logging a test EMS AutoSupport message using a storage system

```
PS C:\> Invoke-SdEmsAutosupportLog -StorageSystem 172.17.165.39 -EventId 111 -EventSource
 "SDW" -AppVersion "1.0" -Category "test" -EventDescription "This is testing message from
 SnapDrive." -LogLevel 6
```

In this example syntax, you send a test EMS log message to the virtual storage server used as the storage system.

The cluster server displays the following message:

```
Time                Node             Severity      Event
------------------  ---------------  ------------  -------------------------   11/15/2012
 16:13:43 mvaqa-3270-1-02  INFORMATIONAL app.log.info: CLAB-A13-10: SDW 7.0: (111) test: This
 is testing message from SnapDrive.
```

# Invoke-SdHostVolumeSpaceReclaim

Initiates space reclamation on your host volume.

## Syntax

```
Invoke-SdHostVolumeSpaceReclaim [-Path] <String> [-Session <String>] [-Host <String>] [-
UnmapSize <String>] [<CommonParameters>]
```

```
Invoke-SdHostVolumeSpaceReclaim [-VdsId] <Guid> [-Session <String>] [-Host <String>] [-
UnmapSize <String>] [<CommonParameters>]
```

## Detailed Description

Initiates space reclamation on your host volume.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | The mount point (i.e. G:\) or path to any file on the volume to process. | true | true (ByValue, ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| UnmapSize | Specifies the size of the blocks you want to reclaim. The size should be greater than 0 and less than 2147483648 bytes. | false | false | |
| VdsId | Specifies your virtual disk service ID. | true | true (ByValue, ByPropertyName) | |

## Examples

### Example 1: Reclaiming space

```
PS C:\> Invoke-SdHostVolumeSpaceReclaim -Path E:
```

```
This example syntax reclaims space no longer being used by the host operating system.
```

# Invoke-SdSnapMirrorUpdate

Facilitates updates to mirror and vault relationships, in the context of Windows disks, SMB shares, or clustered Data ONTAP storage system volumes.

## Syntax

```
Invoke-SdSnapMirrorUpdate [-Path] <Object> [-MaxTransferRate <Int64>] [-Snapshot <String>] [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

```
Invoke-SdSnapMirrorUpdate [-SourceStorageSystem] <String> [-SourceVolumeName] <String>
 [[-DestinationStorageSystemName] <String>] [[-DestinationStorageVolumeName] <String>]
 [-MaxTransferRate <Int64>] [-Snapshot <String>] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Facilitates updates to mirror and vault relationships, in the context of Windows disks, SMB shares, or clustered Data ONTAP storage system volumes. For the specified resources, you can determine the underlying storage layout and issue SnapMirror updates on the corresponding storage volumes, provided that the SnapMirror relationship is already created and initialized. SnapMirror updates and returns are executed immediately. When you are updating a SnapMirror relationship, you can specify a share, storage system volume, or Windows disk. When you are updating a SnapVault relationship, you can specify a share or storage system volume. Related cmdlets: Restore-SdSnapshot and New-SdSnapshot

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Provides a volume, logical disk, SMB share for which you want SnapMirror updates. You cannot mix a logical disk or mount point with SMB shares in the same input path. When you are updating a SnapMirror relationship, you can specify a share, storage system volume, or Windows disk. When you are updating a SnapVault relationship, you can specify a share or storage system volume. | true | true (ByValue, ByPropertyName) | |
| MaxTransferRate | Specifies the maximum transfer rate, in bytes per second. | false | true (ByPropertyName) | |
| Snapshot | Specifies the Snapshot copy you want to transfer. This cmdlet is processed only for vault relationships; in the case of SnapMirror relationships, this parameter is ignored if specified. | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | localmachine |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SourceStorageSystem | Specifies the storage system from which you want to update your SnapMirror relationships. | true | true (ByPropertyName) | |
| SourceVolumeName | Specifies the volume from which you want to update your SnapMirror relationships. | true | true (ByPropertyName) | |
| DestinationStorageSystemName | Specifies the storage system on which you want to update your SnapMirror relationships. Must be used in conjunction with DestinationStorageVolumeName. If you do not specify this parameter, all storage system volumes associated with your source storage system and volume are updated. | false | true (ByPropertyName) | |
| DestinationStorageVolumeName | Specifies the volume on which you want to update your SnapMirror relationships. Must be used in conjunction with DestinationStorageSystemName. If you do not specify this parameter, all storage system volumes associated with your source storage system and volume are updated. | false | true (ByPropertyName) | |

## Input Type

Object, String, Int64, SwitchParameter Input allows for a volume, logical disk, or a comma-separated list SMB shares for which you want to invoke SnapMirror updates. The resources can be specified as a list of strings or objects. The following types are allowed: string; SnapDrive.Nsf.Interfaces.SDCIFSShare; SDStorageResource

## Return Values

SnapDrive.Nfs.Interfaces.SDSnapMirrorRelationship SnapDrive.Interfaces.SDSnapMirrorInfo returns SnapMirror relationship information.

## Examples

### Example 1: Updating SnapMirror for a single share

```
PS C:\> Invoke-SdSnapMirrorUpdate -path "\\fileserver\sqlshare"
```

```
In this example syntax, you determine the underlying storage footprint for \\fileserver
\sqlshare, and initiate a SnapMirror update on the underlying volume, provided that the
 SnapMirror relationship is created and initialized.
```

```
PS C:\Users\administrator.NEXTGEN> Invoke-SdSnapMirrorUpdate -Path \\CIFS_SERV
\snapvault_source -Verbose
VERBOSE: Validating input paths.
```

```
VERBOSE: SMB Share : \\CIFS_SERV\snapvault_source
VERBOSE: Updating SnapMirror.



SnapMirrorRelationshipType :
SnapMirrorPolicyName       :
SnapMirrorRelationship     : vserver : snapvault_source ==> vserver : snapvault_dest
SnapMirrorState            : snapmirrored
SnapMirrorStatus           : Transfering
Lag                        : 0
LagSpecified               : False
BaseSnapshotName           : local
Message                    :

VERBOSE: Operation successful.
```

## Example 2: Updating your vault for a single share

```
PS C:\> Invoke-SdSnapMirrorUpdate -path "\\fileserver\sqlshare" -snapshot "weeklybackup"
```

In this example syntax, you determine the underlying storage footprint for \\fileserver \sqlshare, and initiate a SnapVault update on the underlying volume.

```
PS C:\Users\administrator.NEXTGEN> Invoke-SdSnapMirrorUpdate -Path \\CIFS_SERV
\snapvault_source -Snapshot local -Verbose
VERBOSE: Validating input paths.
VERBOSE: SMB Share : \\CIFS_SERV\snapvault_source
VERBOSE: Updating SnapMirror.



SnapMirrorRelationshipType :
SnapMirrorPolicyName       :
SnapMirrorRelationship     : vserver1 : snapvault_source ==> vserver1 : snapvault_dest
SnapMirrorState            : snapmirrored
SnapMirrorStatus           : Transfering
Lag                        : 0
LagSpecified               : False
```

```
BaseSnapshotName           : DATA
Message                    :


VERBOSE: Operation successful.
```

## Example 3: Updating SnapMirror for a disk

```
PS C:\> Invoke-SdSnapMirrorUpdate -Path E:
```

In this example syntax, you determine the underlying storage footprint for disk drive E:, and initiate a SnapMirror update on the underlying volume, provided that the SnapMirror relationship is created and initialized.

## Example 4: Updating all SnapMirror destination storage system volumes

```
PS C:\> Invoke-SdSnapMirrorUpdate -SourceStorageSystem sdw_jenkins_vserver -SourceVolumeName
 VOLUME01 -Verbose
```

In this example syntax, you update all destination storage system volumes associated with the source storage system and volume.

```
VERBOSE: Updating Snapmirror..


SnapMirrorRelationshipType :
SnapMirrorPolicyName       :
SnapMirrorRelationship     : sdw_jenkins_vserver : VOLUME01 ==> sdw_jenkins_vserver :
 vserver01
SnapMirrorState            : snapmirrored
SnapMirrorStatus           : Transfering
Lag                        : 0
LagSpecified               : False
BaseSnapshotName           : snapmirror.e0f01251-4d32-11dc-
a3b0-123478563412_2147485514.2013-07-17_143103
Message                    :


SnapMirrorRelationshipType :
SnapMirrorPolicyName       :
SnapMirrorRelationship     : sdw_jenkins_vserver : VOLUME01 ==> sdw_jenkins_vserver :
 VOLUME01_Sec
```

```
SnapMirrorState             : snapmirrored
SnapMirrorStatus            : Transfering
Lag                         : 0
LagSpecified                : False
BaseSnapshotName            : TEST_TEST
Message                     :


VERBOSE: Operation Successful.
```

## Example 5: Updating specified SnapMirror destination storage system volumes

```
PS C:\> Invoke-SdSnapMirrorUpdate -SourceStorageSystem sdw_jenkins_vserver -SourceVolumeName
 VOLUME01 -DestinationStorageSystemName sdw_jenkins_vserver -DestinationStorageVolumeName
 VOLUME01_Sec -Verbose


In this example syntax, you update specific destination storage system volumes associated
 with the source storage system and volume.









VERBOSE: Updating Snapmirror..



SnapMirrorRelationshipType :
SnapMirrorPolicyName       :
SnapMirrorRelationship     : sdw_jenkins_vserver : VOLUME01 ==> sdw_jenkins_vserver :
 VOLUME01_Sec
SnapMirrorState            : snapmirrored
SnapMirrorStatus           : Transfering
Lag                        : 0
LagSpecified               : False
BaseSnapshotName           : TEST_TEST
Message                    :


VERBOSE: Operation Successful.
```

# Map-SdLUNS

## Syntax

```
Map-SdLUNS [-LunPath] <String[]> -Initiators <String> [-IgroupProtocol <IgroupProtocolEnum>]
 [-IgroupOsType <IgroupOSTypeEnum>] [-RestApiURL] <String> [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| LunPath | | true | true (ByValue, ByPropertyName) | |
| Initiators | | true | true (ByPropertyName) | |
| IgroupProtocol | | false | true (ByPropertyName) | |
| IgroupOsType | | false | true (ByPropertyName) | |
| RestApiURL | | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Mount-SdClone

Enables cloning and mounting a source storage from the specified Snapshot copy.

## Syntax

```
Mount-SdClone [-SourcePath] <String[]> [-Snapshot] <String> [-ResourceType <ResourceType>]
 [-Host <String>] [-Igroup <String>] [-Initiators <String>] [-IgroupProtocol
 <IgroupProtocolEnum>] [-IgroupOsType <IgroupOSTypeEnum>] [-CheckInitiatorSession] [-Session
 <String>] [<CommonParameters>]
```

## Detailed Description

Enables cloning and mounting a source storage from the specified Snapshot copy. For a LUN, the cloned volume name is automatically appended with a unique identifier, while the LUN name remains the same. For example: If the original volume is PrimarySVM:/vol/SCE_VOL, the cloned volume name is PrimarySVM:/vol/SCE_VOL1201210041488133. Related cmdlets: Dismount-SdClone, Get-SmClone, Remove-SmClone, New-SmClone

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SourcePath | Specifies a path that you want to clone and mount from the Snapshot copy. For example, the path of a volume. | true | true (ByValue, ByPropertyName) | |
| Snapshot | Specifies the Snapshot copy that you want to use for cloning and mounting. | true | true (ByPropertyName) | |
| ResourceType | Specifies the type of the resource in the SourcePath parameter. The possible options are: "SDStorageVolume", "SDStorageLunPath", "SDStorageDir". | false | true (ByPropertyName) | |
| Host | Specifies the FQDN or IP address of the host on which you want to execute the operation. | false | true (ByPropertyName) | |
| Igroup | | false | true (ByPropertyName) | |
| Initiators | | false | true (ByPropertyName) | |
| IgroupProtocol | | false | true (ByPropertyName) | |
| IgroupOsType | | false | true (ByPropertyName) | |
| CheckInitiatorSession | | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |

## Examples

## Example 1: Clone a Volume from a given snapshot

```
PS C:\> Mount-SdClone -SourcePath Primary_SVM:/vol/VOl1_LM_Port_Issue_Test -Snapshot
 r70105ec0a5v1_hnk2_com_L__ValidPath_Data_R70105EC0A5V1_05-24-2021_12.46.42.3914
```

This example syntax specifies the storage volume path and clones the Snapshot copy onto newly cloned volume.

```
Source                                    Clone
------                                    -----
Primary_SVM:/vol/VOl1_LM_Port_Issue_Test Primary_SVM:/vol/
Vol1_LM_Port_Issue_Test0525210820263222
```

## Example 2: Clone a volume from a given Snapshot copy with the ResourceType and host name specified

```
PS C:\> Mount-SdClone -SourcePath Primary_SVM:/vol/Vol1  -Snapshot
 Host1_Policy1_12-01-2021_02.31.22.3854  -ResourceType SDStorageVolume -Host Host1.DMN.COM -
Verbose
```

This example syntax specifies the storage volume path and clones the Snapshot copy to a newly cloned volume with the ResourceType and host name.

```
VERBOSE: Operation successful.
Source                                          Clone
------                                          -----
Primary_SVM:/vol/Vol1 Primary_SVM:/vol/Vol11201210243583210
```

# Mount-SdSnapshot

Facilitates mounting the list of SMB shares from the specified Snapshot copy as a different set of shares. Facilitates mounting one LUN at a time from the specified Snapshot copy as a different LUN. Mounting secondary LUN is not supported, Check Example 9

## Syntax

```
Mount-SdSnapshot [-Path] <Object[]> [-Snapshot] <String> [[-StorageSystem] <String>] [[-
VolumeName] <String>] [[-PrefixForVolumeClone] <String>] [[-MountPath] <Object[]>] [-
SharedDisk] [-ClusteredSharedVolume] [-AutopickMountPoint] [-ValidateCloneDepth] [-Session
 <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Facilitates mounting the list of SMB shares from the specified Snapshot copy as a different set of shares. Facilitates mounting one LUN at a time from the specified Snapshot copy as a different LUN. You can use this cmdlet to perform backup verification. Mount the database and log shares/LUN from the Snapshot copy and perform the verification operations. For SMB shares, the mounted share names are automatically appended with a unique identifier. For a LUN, the cloned volume name is automatically appended with a unique identifier, while the LUN name remains the same. For example: If the original share is \\SQLFileServer\DBShare, the mounted share name is \\SQLFileServer\DBShare-GUID. (\\SQLFileServer\DBShare-73111E50-E7C2-49B7-8A63-7279512CB09B) If the original LUN is PrimarySVM:/vol/SCE_VOL/lun1, the mounted LUN name is PrimarySVM:/vol/SCE_VOLGUID/lun1. (PrimarySVM:/vol/SCE_VOLSiClone2b77c074_1d9b_4929_9fac_d361bf342794/lun1) The ACLs on the mounted share are the same as the original share. To mount the shares or a LUN from a secondary Snapshot copy, you must specify the storage system and volume. Ensure that the aggregate of the volume that is the source of the FlexClone operation is assigned to the virtual storage server aggregates list. For the 'Path' parameter below, if file system path of the LUN is specified, it can be mounted on the same host as the source LUN. If the complete storage path of the LUN is specified, it can be mounted on the same host or on a different host. To mount the LUN on a different host, an igroup and an iSCSI session should to be present for the host that is accessing the SVM, where the source LUN is present. Related cmdlets: Get-SdSnapshot, Remove-SdSnapshot, Rename-SdSnapshot, New-SdSnapshot, Dismount-SdSnapshot

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies a comma-separated list of shares you want to mount from the Snapshot copy. Only one LUN can be mounted at a time. For a LUN, this parameter specifies one value which is the file system path of the LUN in the host machine or the complete storage path of the LUN in the SVM. You cannot mix a logical disk or mount point with SMB shares in the same input path. | true | true (ByPropertyName) | |
| Snapshot | Indicates the Snapshot copy that you want to use for mounting the SMB shares/LUN. For SMB shares, you must use a Snapshot copy that is valid for all the shares in your list. | true | true (ByPropertyName) | |
| StorageSystem | Indicates the name of the storage system in which the Snapshot copy you want to mount is located. | false | true (ByPropertyName) | |
| VolumeName | Indicates the name of the storage system volume in which the Snapshot copy you want to mount is located. | false | true (ByPropertyName) | |
| PrefixForVolumeClone | You can use this optional parameter to set a short name for the share on which the Snapshot copy is mounted. For LUNs, use this parameter to prefix the cloned volume name. Use this parameter when you are working on a system with name length restrictions. | false | true (ByPropertyName) | |
| MountPath | Indicates the drive letter or mountpoint that you want to assign to the disk mounted from the Snapshot copy. For a LUN mount operation, this parameter takes only one destination value. | false | true (ByPropertyName) | |
| SharedDisk | | false | true (ByPropertyName) | |
| ClusteredSharedVolume | | false | true (ByPropertyName) | |
| AutopickMountPoint | Specifies that the mountpoint is assigned automatically. | false | true (ByPropertyName) | |
| ValidateCloneDepth | | false | false | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. For SMB shares, the default is your local machine. For a LUN, this parameter must be provided with the hostname. | false | true (ByPropertyName) | |

## Input Type

Object[], String, SwitchParameter Comma-separated list of shares to mount from the Snapshot copy.

## Return Values

SnapDrive.Nfs.Interfaces.SnapConnectResult Result of the SnapConnect operation.

## Examples

### Example 1: Mounting shares from a specified backup

```
PS C:\> Mount-SdSnapshot -Path "\\SQLFileserver\DBShare","\\SQLFileserver\LogShare" -snapshot
 "weekly_backup"
```

This example syntax mounts your shares from "weekly_backup".

```
OriginalResource           MountedResource
==============             ===============
\\SQLFileserver\DBShare    \\SQLFileserver\DBShare-A470FF3A-5107-4B6A-B0C1-FB3D8744F14C
\\SQLFileserver\LogShare    \\SQLFileserver\DBShare-E6980DF6-3E64-45BD-965A-7F7A9B02156A
```

## Example 2: Mounting shares from piped Snapshot copies that start with "weekly" in the name.

```
PS C:\> Get-SdSnapshot \\SQLFileserver\DBShare -Snapshot weekly* | Mount-SdSnapshot  "\
\SQLFileserver\dbshare","\\SQLFileserver\logshare"
```

This example syntax mounts specified shares from Snapshot copies that start with "weekly." The shares you want to mount must be on the same volume.

```
OriginalResource           MountedResource
==============             ===============
\\SQLFileserver\DBShare    \\SQLFileserver\DBShare-A470FF3A-5107-4B6A-B0C1-FB3D8744F14C
\\SQLFileserver\LogShare    \\SQLFileserver  \DBShareE6980DF6-3E64-45BD-965A-7F7A9B02156A
```

## Example 3: Mounting shares from the specified secondary Snapshot copy

```
PS C:\> Mount-SdSnapshot -Path "\\SQLFileserver\DBShare","\\SQLFileserver\LogShare" -snapshot
 "weekly_snap" -storagesystem mirror_vserver -volume dbmirrorvolume
```

This example mounts the specified shares from the specified secondary Snapshot copy.

```
OriginalResource           MountedResource
================           ===============
\\SQLFileserver\DBShare    \\DRSQLFileServer\DBShare-A470FF3A-5107-4B6A-B0C1-FB3D8744F14C
\\SQLFileserver\LogShare    \\DRSQLFileServer\DBShare-E6980DF6-3E64-45BD-965A-7F7A9B02156A
```

## Example 4: Mounting shares using a prefix

```
PS C:\> Mount-SdSnapshot -Path \\172.17.165.40\capital_vol_share -Snapshot Newtest -
PrefixForVolumeClone capitalShare
```

This example syntax creates a short name for the share on which you mount the Snapshot copy.

```
Resource                           ConnectedResource
--------                           -----------------
\\172.17.165.40\capital_vol_share \\JENKINS-CIFS\capitalShare030713155542929
```

## Example 5: Mounting a LUN from a specified Snapshot with file system path.

```
PS C:\> Mount-SdSnapshot -Path L:  -Snapshot
 Host1_DMN_COM_SLDB3_Host1_06-10-2020_02.51.43.9645 -MountPath I: -Host Host1.DMN.COM
```

This example syntax mounts the Snapshot copy specified for the LUN in L: onto I: on the host Host1.DMN.COM.

```
Resource ConnectedResource
-------- -----------------
L:\      I:\
```

## Example 6: Mounting a LUN from a specified Snapshot with AutoMount option

```
PS C:\> Mount-SdSnapshot -Path L:  -Snapshot
 Host1_DMN_COM_SLDB3_Host1_06-10-2020_02.51.43.9645 -AutopickMountPoint -Host Host1.DMN.COM
```

This example syntax mounts the Snapshot copy specified for the LUN in L: onto the automount location "C:\scmnpt\mpdisk0002\" on the host Host1.DMN.COM.

```
Resource ConnectedResource
-------- -----------------
L:\      C:\scmnpt\mpdisk0002\
```

## Example 7: Mounting a LUN to a different host with LUN storage path

```
PS C:\> Mount-SdSnapshot -Path PrimarySVM:/vol/SCE_VOL/lun1  -Snapshot
 Host1_DMN_COM_SLDB3_Host1_06-10-2020_02.51.43.9645 -MountPath I: -Host Host2.DMN.COM
```

This example syntax specifies the storage path of the LUN mounted on Host1 and mounts the Snapshot copy onto I: on the host Host2.DMN.COM. The cmdlet is executed on Host2.DMN.COM.

```
Resource ConnectedResource
-------- -----------------
L:\      I:\
```

## Example 8: Mounting a LUN with LUN storage path using Primary SVM

```
PS C:\>  Mount-SdSnapshot -Path Primary_SVM:/vol/Volume_Vault/Volume_Vault_Lun1 -Snapshot
 R70105EC0A5V1_SQL2019_SQL_DB1_R70105EC0A5V1_03-15-2021_22.37.23.2993_1 -PrefixForVolumeClone
 Clone_01292021_2330 ?AutopickMountPoint -Verbose
```

This example syntax specifies the storage path of the Primary LUN mounted and mounts the Snapshot copy onto random drive letter on the same host using Primary Storage . The cmdlet is executed on Host1.

```
VERBOSE: Validating input paths.
```

```
VERBOSE: LUN: Primary_SVM:/vol/Volume_Vault/Volume_Vault_Lun1

VERBOSE: The Snapshot
 'R70105EC0A5V1_SQL2019_SQL_DB1_R70105EC0A5V1_03-15-2021_22.37.23.2993_1' of Primary_SVM:/
vol/Volume_Vault/Volume_Vault_Lun1 will be mounted.


VERBOSE: Drive letter if available or a mount point will be auto-picked

VERBOSE: Mounting the specified resources from the Snapshot copy.


VERBOSE: Operation successful.

Resource                                                      ConnectedResource

--------                                                      -----------------

Primary_SVM:/vol/Volume_Vault/Volume_Vault_Lun1              C:\scmnpt\mpdisk0006\
```

### Example 9: Mounting a LUN with LUN storage path using Secondary Storage fails

```
PS C:\>  Mount-SdSnapshot -Path Secondary_SVM:/vol/Volume_Secondary_Vault/
Volume_Secondary_Vault_Lun1 -Snapshot
 BCHExchDAG2016_Backup_kdcbchexch1_01-29-2021_23.30.20.2845 -PrefixForVolumeClone
 Clone_01292021_2330 ?AutopickMountPoint
```

This example syntax specifies the storage path of the LUN mounted and trying to mount the Snapshot copy with random drive letter on the any host using Secondary Storage . The cmdlet is executed on Host1.

```
Mount-SdSnapshot : Failed to mount the Snapshot copy.Failed to mount the resource:
 Secondary_SVM:/vol/Volume_Secondary_Vault/Volume_Secondary_Vault_Lun1 from snapshot:
 BCHExchDAG2016_Backup_kdcbchexch1_01-29-2021_23.30.20.2845.

The source LUN's iGroup does not exist.

Possible Resolution: Make sure that Host to storage connectivity is available.

At line:1 char:1

+ Mount-SdSnapshot -Path Secondary_SVM:/vol/Volume_Secondary_Vault/
Volume_Secondary_Vault_Lun1 ...

+ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

    + CategoryInfo          : InvalidResult:
 (SnapDrive.Clien...MountSdSnapshot:MountSdSnapshot) [Mount-SdSnapshot], Exception

    + FullyQualifiedErrorId : 102,SnapDrive.Client.PSModule.MountSdSnapshot
```

# New-SdBackup

## Syntax

```
New-SdBackup [-Snapshot] <String> [[-ConsistencyGroups] <NewSdBackup+ConsistencyGroupInfo>]
 [[-LUNs] <String>] [[-NasDirs] <String>] [[-DisableFallbackToVolumeSnaphot]] [-RestApiURL
 <String>] [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Snapshot | | true | true (ByValue, ByPropertyName) | |
| ConsistencyGroups | | false | true (ByPropertyName) | |
| LUNs | | false | true (ByPropertyName) | |
| NasDirs | | false | true (ByPropertyName) | |
| DisableFallbackToVolumeSnaphot | | false | true (ByPropertyName) | |
| RestApiURL | | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# New-SdIgroup

Creates a new igroup.

## Syntax

```
New-SdIgroup [-Name] <String> [-Protocol] <String> [[-Type] <String>] [[-PortSet] <String>]
 [[-Initiators] <String[]>] -StorageSystem <String> [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Creates a new igroup.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name for your new igroup. | true | true (ByPropertyName) | |
| Protocol | Specifies the protocol you want to use with your new igroup. | true | true (ByPropertyName) | |
| Type | Specifies the type of igroup you want to create. | false | true (ByPropertyName) | |
| PortSet | Specifies the portset to which you want to add your igroup. | false | true (ByPropertyName) | |
| Initiators | Specifies any initiators you want to and to your igroup. | false | true (ByPropertyName) | |
| StorageSystem | Specifies the storage system on which you want your igroup to reside. | true | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Examples

### Example 1: Creating a new igroup

```
PS C:\> New-SdIgroup -Name IG_Demo -StorageSystem 172.17.168.13 -Initiators
 iqn.1991-05.com.microsoft:mva-s24-rx200.sddev.mycompany.com -Protocol mixed
```

This example syntax creates a new mixed protocol igroup on the specified storage system.

# New-SdLun

Creates a LUN on your storage system.

## Syntax

```
New-SdLun [-StorageSystem] <String> [-LunPath] <String> [-Size] <String> [[-Type] <String>]
 [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Creates a LUN on your storage system.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | Specifies the storage system on which you want to create a new LUN. | true | true (ByPropertyName) | |
| LunPath | Specifies the path of the LUN on your storage system. If you are working in an ONTAP environment, specify the path to your LUN. If you are working in a Flashray, specify the LUN name. | true | true (ByPropertyName) | |
| Size | Specifies the size of your new LUN. Valid size specifications are MB, GB, or TB. | true | true (ByPropertyName) | |
| Type | | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# New-SdPortSet

Creates a new portset.

## Syntax

```
New-SdPortSet [-PortSetName] <String> [[-PortSetType] <String>] -StorageSystem <String> [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Creates a new portset.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PortSetName | Specifies the name of the portset you want to create. | true | true (ByPropertyName) | |
| PortSetType | Specifies the protocol you want to use for your new portset. Valid options are iSCSI, Fibre Channel (FCP), or mixed. | false | true (ByPropertyName) | |
| StorageSystem | Specifies the storage system on which you want your new portset to reside. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# New-SdSMBShare

Provisions SMB shares using templates that encapsulate best practices for provisioning shares for different types of applications.

## Syntax

```
New-SdSMBShare [[-Name] <String>] [[-Path] <String>] [[-CIFSServer] <String>] [-TemplateName
 <String>] [-ShareProperties <String[]>] [-SymlinkProperties <String[]>] [-FileUmask <Int32>]
 [-DirUmask <Int32>] [-Comment <String>] [-AttributeCacheTtl <Int32>] [-UserOrGroup <String>]
 [-Permission <String>] [-Session <String>] [-Host <String>] [<CommonParameters>]
```

```
New-SdSMBShare [[-Name] <String>] [[-Path] <String>] [[-StorageSystem] <String>] [-
TemplateName <String>] [-ShareProperties <String[]>] [-SymlinkProperties <String[]>] [-
FileUmask <Int32>] [-DirUmask <Int32>] [-Comment <String>] [-AttributeCacheTtl <Int32>]
 [-UserOrGroup <String>] [-Permission <String>] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Provisions SMB shares using templates that encapsulate best practices for provisioning shares for different types of applications. Get the provisioning templates from the "templates" folder in your install directory. This cmdlet is supported in clustered Data ONTAP 8.2 and later. Related cmdlets: New-SdVolume

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name of the SMB share you want to provision. The SMB share name must be a UTF-8 string. You cannot use following characters: control characters from 0x00 to 0x1F, both inclusive, 0x22 (double quotes) and the special characters \/[]:\|<>+=;,? | false | true (ByPropertyName) | |
| Path | Designates the file system path that is shared through your SMB share. | false | true (ByPropertyName) | |
| CIFSServer | Specifies the SMB server you want to use for provisioning the share. | false | true (ByPropertyName) | |
| TemplateName | Specifies the provisioning template name. You should also include the path to the template, if the template resides in a folder other than the Templates folder. | false | true (ByPropertyName) | |
| ShareProperties | Provides a list of properties for your SMB share. Possible values: "oplocks", "browsable", "showsnapshot", "changenotify", "homedirectory", "attributecache", "continuously-available" | false | true (ByPropertyName) | |
| SymlinkProperties | Indicates whether you want the symlinks under this shared directory to be hidden, accessible, or read-only (option "read-only" along with option "enable".) Possible values are: "enable", "hide", "read_only" | false | true (ByPropertyName) | |
| FileUmask | You can use the value of this field to control the file mode creation mask for the SMB share in qtrees with UNIX or | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | mixed security styles. The file mode create mask restricts the initial permissions setting of a newly created file. The input value is a numeric mode comprised of one to three octal digits (0-7), derived by adding up the bits with values 4, 2, and 1. The first digit selects permissions for the user who owns the file: read (4), write (2), and execute (1). The second selects permissions for other users in the file's group, with the same values. The third is for other users not in the file's group, with the same values. | | | |
| DirUmask | You can use the value of this field to control the file mode creation mask for the SMB share in qtrees with UNIX or mixed security styles. The mask restricts the initial permissions setting of a newly created directory. The input value is a numeric mode comprising of one to three octal digits (0-7), derived by adding up the bits with values 4, 2, and 1. The first digit selects permissions for the user who owns the file: read (4), write (2), and execute (1); the second selects permissions for other users in the file's group, with the same values; and the third for other users not in the file's group, with the same values. | false | true (ByPropertyName) | |
| Comment | This optional parameter describes a new SMB share. Your description is visible to SMB clients when they are browsing the virtual storage server's SMB shares. | false | true (ByPropertyName) | |
| AttributeCacheTtl | Specifies the lifetime of an entry in the file attribute cache, in seconds. You can use this value if you have set the "attributecache" property set for the share. Setting the "attributecache" property improves the performance of certain metadata operations in common workloads. The default is 10 seconds. The value of this field must be in the range of 1 to 86400. Raising this value may improve performance, but it increases the likelihood that you serve stale metadata. | false | true (ByPropertyName) | |
| UserOrGroup | Specifies the user or group name for which you list the permissions. | false | true (ByPropertyName) | |
| Permission | Indicates access rights that a user or group has on the defined SMB share. Possible values: "no_access", "read", "change", "full_control". | false | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| StorageSystem | Indicates the virtual storage server you want to use for provisioning the SMB share. The virtual storage server should already have a SMB server configured. You do not need to use this parameter if the SMB server is qualified. | false | true (ByPropertyName) | |

## Input Type

String, String[], Int32, SwitchParameter

## Return Values

SnapDrive.Nsf.Interfaces.SDCIFSShare SnapDrive.Nsf.Interfaces.SDCIFSShare returns the SMBshare that was provisioned.

## Examples

### Example 1: Provisioning SMB shares

```
PS C:\> New-SdSMBShare -Path /Sharename -Name HyperVShare -CIFSServer HyperVFileServer -
TemplateName "C:\Program Files\NetApp\SnapCenter\SnapCenter Plug-in for Microsoft Windows"


This example syntax provisions a SMB share using the specified template.
```

# New-SdSnapshot

Creates Snapshot copies of specified Windows disks or SMB shares.

## Syntax

```
New-SdSnapshot [-Path] <Object[]> [[-Snapshot] <String>] [-NoCleanUpOnError] [-UpdateMirror]
 [-CrashConsistent] [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Creates Snapshot copies of specified Windows disks or SMB shares. Related cmdlets: Get-SdSnapshot, Remove-SdSnapshot and Rename-SdSnapshot

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Provides the volume, logical disk, or a comma-separated list of SMB shares of which you want to make Snapshot copies. You cannot mix a logical disk or mount point with SMB shares in the same input path. | true | true (ByValue, ByPropertyName) | |
| Snapshot | Designates the name of the new Snapshot copy. You cannot use special characters in a Snapshot copy name. If you do not specify a Snapshot copy name, a GUID appended with timestamp is generated and used as the Snapshot copy name. | false | true (ByPropertyName) | A GUID appended with timestamp will be generated and used for the Snapshot copy name |
| NoCleanUpOnError | Indicates whether you want to delete Snapshot copies if there is an error in backing up one of the specified resources, that results in an incomplete Snapshot backup. | false | true (ByPropertyName) | |
| UpdateMirror | Initiates a mirror or vault update after your Snapshot operation completes. | false | false | |
| CrashConsistent | | false | false | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

Object[], String, SwitchParameter Volume, logical disk, or a comma-separated list of SMB shares of which you want to take a Snapshot copy. The SMB shares can be specified as list of strings or

list of objects. The following types are allowed: string; SnapDrive.Nsf.Interfaces.SDCIFSShare; SDStorageResource

## Return Values

SnapDrive.Nsf.Interfaces.SDSnapshot The object corresponding to the new Snapshot copy that was created.

## Examples

### Example 1: Backing up the specified SMB shares

```
PS C:\> New-SdSnapshot -Path "\\fileserver\sqlshare","\\fileserver\sqlshare2" -Snapshot
 "sql_snap"


This example syntax backs up the SMB shares by creating Snapshot copies of the corresponding
 volumes using Snapshot name sql_snap.
```

### Example 2: Backing up the specified disk

```
PS C:\> New-SdSnapshot -Path E: -Snapshot "sql_snap"


This example syntax backs up the disk drive by creating Snapshot copies of the corresponding
 volumes using Snapshot name sql_snap.
```

# New-SdStorage

Provisions a Windows volume or disk on a LUN.

## Syntax

```
New-SdStorage [-Path <String>] -Size <String> -LunPath <String> -StorageSystem <String>
 [-FileSystemLabel <String>] [-SharedDisk] [-ClusteredSharedVolume] [-Igroup <String>]
 [-InitiatorInfo <HostInitiatorInfo>] [-PortSet <String>] [-AutopickMountPoint] [-
PartitionStyle <PartitionStyle>] [-ResourceGroup <String>] [-Thin] [-AllocationUnitSize
 <String>] [-RawDeviceMapping] [-Datastore <String>] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Provisions dedicated disks, shared disks and clustered shared volumes on a LUN.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies the drive letter or mount point: D:, D:\Mount | false | true (ByPropertyName) | |
| Size | Specifies size of the new Windows disk you are provisioning. Supported units: G, T, K, M | true | true (ByPropertyName) | |
| LunPath | Specifies your LUN path in the following format: /vol/volx/lunx | true | true (ByPropertyName) | |
| StorageSystem | Specifies the target virtual storage machine you want to use for provisioning. | true | true (ByPropertyName) | |
| FileSystemLabel | Specifies the label you want to attach to your new Windows volume. | false | true (ByPropertyName) | |
| SharedDisk | Indicates whether you need to provision your Windows disk as a shared disk. | false | true (ByPropertyName) | |
| ClusteredSharedVolume | Indicates whether you will provision your Windows disk as a Clustered Shared Volume. | false | true (ByPropertyName) | |
| Igroup | Specifies the igroup you want to use for mapping the LUN. If not specified, SnapCenter Plug-in for Mcrsoft Windows automatically manages the igroup for mapping the LUN. | false | true (ByPropertyName) | |
| InitiatorInfo | Specifies the initiators you want to add to your Igroup. | false | true (ByPropertyName) | |
| PortSet | Specifies the portset you want to use for binding your Igroup. If yourIgroup is already bound to a different portset, specifying this parameter unbinds your Igroup and then binds it to the portset specified here. | false | true (ByPropertyName) | |
| AutopickMountPoint | Specifies that the mount point for the new LUN is assigned automatically. | false | true (ByPropertyName) | |
| PartitionStyle | Indicates whether you want to use GPT or MBR partition style. | false | true (ByPropertyName) | |
| ResourceGroup | Specifies a Cluster Resource Group for your shared Windows disk. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Thin | Indicates whether you want the LUN to be thin provisioned. | false | false | |
| AllocationUnitSize | Specifies the custom NTFS allocation unit size. Possible values are: 4 KB, 8 KB, 16 KB, 24 KB, 32 KB, and 64 KB. The minimum allocation size is 4 KB, and the maximum is 64 KB. The default value is 4 KB. | false | true (ByPropertyName) | |
| RawDeviceMapping | Indicates whether the LUN is raw device mapping for VMWare. | false | true (ByPropertyName) | |
| Datastore | Specifies the Name of the datastore. | false | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies your target host. | false | true (ByPropertyName) | |

# Examples

## Example 1: Provisioning a dedicated Windows disk

```
PS C:\> new-sdstorage -StorageSystem  172.17.165.31 -path V: -LunPath /
vol/santest/b09 -size 1G -InitiatorInfo ®{Host="R505143C1AAV1.HNK2.COM";
 Initiators="iqn.1991-05.com.microsoft:r505143c1aav1.hnk2.com"}
```

This example syntax creates a new dedicated Windows disk.

## Example 2: Provisioning a shared Windows disk

```
PS C:\> new-sdstorage -StorageSystem  172.17.165.31 -path V: -LunPath /vol/santest/b09 -size
 1G -SharedDisk  -Igroup Windows2012_igroup
```

In this example syntax, you provision a shared disk in "Available storage" resource group.

## Example 3: Provisioning a shared Windows disk in an alternate resource group

```
PS C:\> new-sdstorage -StorageSystem  172.17.165.31 -path V: -LunPath /vol/santest/b09 -size
 1G -SharedDisk -ResourceGroup prod  -Igroup SqlAG_igroup
```

In this example syntax, you provision a shared disk in prod resource group.

## Example 4: Provisioning a new Cluster shared volume

```
PS C:\> new-sdstorage -StorageSystem  172.17.165.31 -LunPath /vol/santest/b09 -size 1G  -
ClusteredSharedVolume -Igroup Windows2012_igroup
```

In this example syntax, you provision a clustered shared volume.

## Example 5: Provisioning a RDM disk with other options:(Datastore, FileSystemLabel, filesystemlablename)

```
PS new-sdstorage -storagesystem autof7f8_vsvr1 -path K:\ -LunPath /vol/
C227030162240_1_MDML_Log_Vol/Lun1 -size 3G -igroup C227030162240_1 -Thin -RawDeviceMapping -
Datastore C227030162240_1VMFS_DS -FileSystemLabel filesystemlablename -PartitionStyle GPT
```

In this example syntax, you provision a RDM disk.

```
TotalSizeInGB           : 3.00287246704102 GB
UsedSpaceInGB           : 3.00287246704102 GB
Name                    : K:\
FileSystemIdentifier    : autof7f8_vsvr1:/vol/C227030162240_1_MDML_Log_Vol/Lun1
FileSystemType          : ntfs
MountedFromSnapshot     : False
TotalSize               : 3224309760
UsedSpace               : 3224309760
BlockSize               : 4096
Clustered               : False
Expandable              : True
OwnerNode               : False
MountOptions            :
MountPaths              : {K:\}
parents                 :
Message                 :
ClusterAttributes       :
BootFileSystem          : False
BootFileSystemSpecified : False
bIsPathOnCSV            : False
bIsPathOnCSVSpecified   : True
CSVReparsePointPath     :
```

## Example 6: Provisioning a RDM disk

```
New-SdStorage -LunPath /vol/Vol_VM180_FC/L2 -Size 1GB -StorageSystem 10.225.21.111 -Igroup
 Sab_FC_ESX -Path M: -RawDeviceMapping
```

In this example syntax, you provision a RDM disk.

```
TotalSizeInGB           : 1.00351095199585 GB
UsedSpaceInGB           : 1.00351095199585 GB
Name                    : M:\
FileSystemIdentifier    : sce_svm_1:/vol/Vol_VM180_FC/L2
FileSystemType          : ntfs
MountedFromSnapshot     : False
TotalSize               : 1077511680
UsedSpace               : 1077511680
BlockSize               : 4096
Clustered               : False
Expandable              : True
OwnerNode               : False
MountOptions            :
MountPaths              : {M:\}
parents                 :
Message                 :
ClusterAttributes       :
BootFileSystem          : False
BootFileSystemSpecified : False
bIsPathOnCSV            : False
bIsPathOnCSVSpecified   : True
CSVReparsePointPath     :
```

## Example 7: Provisioning a RDM/Windows disk with InitiatorInformation

```
$initiatorlist = New-Object Collections.Generic.List[string]
                        $initiatorlist.Add("10:00:00:90:fa:a6:32:63")
                        $hostName = "Bay8-21264"
                        $initiatorInfo = New-Object SMCoreContracts.HostInitiatorInfo -
ArgumentList $hostName, $initiatorlist
                        New-SdStorage -LunPath /vol/Abhi_FCOE_VOl1/L5 -Size 1GB -
StorageSystem vs_21264 -Igroup ig_21264 -Path U:\ -InitiatorInfo $initiatorInfo
```

In this example syntax, you provision a RDM disk.

```
TotalSizeInGB           : 1.00351095199585 GB
UsedSpaceInGB           : 1.00351095199585 GB
Name                    : U:\
FileSystemIdentifier    : vs_21264:/vol/Abhi_FCOE_VOl1/L5
FileSystemType          : ntfs
MountedFromSnapshot     : False
TotalSize               : 1077511680
UsedSpace               : 1077511680
BlockSize               : 4096
Clustered               : False
Expandable              : True
OwnerNode               : False
MountOptions            :
MountPaths              : {U:\}
parents                 :
Message                 :
ClusterAttributes       :
BootFileSystem          : False
BootFileSystemSpecified : False
bIsPathOnCSV            : False
bIsPathOnCSVSpecified   : True
CSVReparsePointPath     :
```

# New-SdVolume

Provisions volumes using templates that encapsulate best practices for provisioning volumes for different types of applications.

## Syntax

```
New-SdVolume [[-Name] <String>] [[-Aggregate] <String>] [[-Size] <String>] [[-JunctionPath]
 <String>] [[-StorageSystem] <String>] [-TemplateName <String>] [-Comment <String>] [-
AntivirusOnAccessPolicy <String>] [-ExportPolicy <String>] [-FlexCacheCachePolicy <String>]
 [-FlexCacheFillPolicy <String>] [-FlexCacheOriginVolume <String>] [-GroupId <Int32>]
 [-IndexDirectoryFormat [<Boolean>]] [-JunctionActive [<Boolean>]] [-MaxDirectorySize
 <Decimal>] [-NvFailEnabled [<Boolean>]] [-SecurityStyle <String>] [-SnapshotPolicy <String>]
 [-State <String>] [-Type <String>] [-UnixPermissions <String>] [-UserId <Int32>] [-
VirtualStorageServerRoot [<Boolean>]] [-QosPolicyGroup <String>] [-SnapshotCloneDependency
 [<Boolean>]] [-EnableSnapdiff [<Boolean>]] [-SchedSnapName <String>] [-SpaceGuarantee
 <String>] [-SnapReserve <Int32>] [-FractionalReserve <Int32>] [-SpaceMgmtTryFirst
 <String>] [-SpaceNearlyFullThresholdPercent <Int32>] [-SpaceFullThresholdPercent
 <Int32>] [-Files <Int32>] [-FilesysSizeFixed] [-ExtentEnabled <String>] [-ReadRealloc
 <String>] [-ExternalCache <String>] [-VmAlignSector <Int32>] [-VmAlignSuffix <String>]
 [-AutoSizeMode <String>] [-MaxAutosize <String>] [-AutosizeIncrement <String>] [-
AutosizeIncrementPercent <Int32>] [-MinAutosize <String>] [-AutosizeGrowThresholdPercent
 <Int32>] [-AutosizeShrinkThresholdPercent <Int32>] [-AutoDeleteEnabled] [-Commitment
 <String>] [-DeferDelete <String>] [-Deleteorder <String>] [-DeferDeletePrefix <String>] [-
TargetFreeSpace <Int32>] [-Trigger <String>] [-DestroyList <String>] [-Session <String>] [-
Host <String>] [<CommonParameters>]
```

## Detailed Description

Provisions volumes using templates that encapsulate best practices for provisioning volumes for different types of applications. Gets the provisioning templates from the "templates" folder in your install directory. This cmdlet is supported in clustered Data ONTAP 8.2 and later. Related cmdlets: Remove-SdVolume

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Indicates the name of the new volume. | false | true (ByPropertyName) | |
| Aggregate | Specifies the name of the containing aggregate. | false | true (ByPropertyName) | |
| Size | Designates the size of the new volume. | false | true (ByPropertyName) | |
| JunctionPath | Specifies the junction path at which this volume is to be mounted. | false | true (ByPropertyName) | |
| StorageSystem | Specifies the storage virtual machine for provisioning the storage volume. | false | true (ByPropertyName) | |
| TemplateName | Indicates the name of the provisioning template. You should qualify path to the template if the template resides in a folder other than SnapDrive Templates folder. | false | true (ByPropertyName) | |
| Comment | Provides a description for the volume being created. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| AntivirusOnAccessPolicy | Specifies the name of the Anti-Virus On-Access policy. The default policy name is 'default'. | false | true (ByPropertyName) | |
| ExportPolicy | Specifies the name of the export policy to be used by NFS/SMB protocols. The default policy name is 'default'. | false | true (ByPropertyName) | |
| FlexCacheCachePolicy | Specifies the name of the FlexCache cache policy. The default policy name is 'default'. | false | true (ByPropertyName) | |
| FlexCacheFillPolicy | Specifies the name of the FlexCache prefill policy. The default policy name is 'default' | false | true (ByPropertyName) | |
| FlexCacheOriginVolume | Specifies the name of the origin volume that contains the authoritative data. | false | true (ByPropertyName) | |
| GroupId | Specifies the UNIX group ID for the volume. The default value is 0 ('root'). | false | true (ByPropertyName) | |
| IndexDirectoryFormat | Indicates whether you want to enable the index directory format. If true, index directory format is enabled. The default is false. | false | true (ByPropertyName) | |
| JunctionActive | Indicates whether the mounted volume is accessible. The default is true. | false | true (ByPropertyName) | |
| MaxDirectorySize | Specifies the maximum size in bytes, to which any directory in this volume can grow. | false | true (ByPropertyName) | |
| NvFailEnabled | Indicates whether you want the controller to identify and attempt to correct NVRAM failure errors. If true, the controller performs additional work at startup and takeover times, if it finds that there has been any potential data loss in this volume due to an NVRAM failure. | false | true (ByPropertyName) | |
| SecurityStyle | Designates a volume security style. Possible values are: mixed, ntfs, unix. | false | true (ByPropertyName) | |
| SnapshotPolicy | Specifies the Snapshot copy policy. Default policy is 'default'. | false | true (ByPropertyName) | |
| State | Indicates the desired state of the volume after it is created. Possible values are: online\|restricted\|offline\|force-online\|force-offline\|mixed | false | true (ByPropertyName) | |
| Type | Specifies the volume type. Possible values are: rw, ls, dp, dc. | false | true (ByPropertyName) | |
| UnixPermissions | Indicates the UNIX permission bits in an octal string format. | false | true (ByPropertyName) | |
| UserId | Specifies the UNIX user ID for the volume. The default value is 0 ('root'). | false | true (ByPropertyName) | |
| VirtualStorageServerRoot | Indicates whether you want this value to be the namespace root volume. If true, this volume is the namespace root volume of the virtual storage server which owns this volume. The default value is false. | false | true (ByPropertyName) | |
| QosPolicyGroup | Optionally specifies which QoS policy group to apply to the volume. This policy group defines measurable service level objectives (SLOs) that apply to the storage objects with which the policy group is associated. If you do not assign a policy group to a volume, the system monitors and controls the traffic to the volume. To remove this volume from a policy group, enter the reserved keyword 'none'. This parameter is not supported on Infinite Volumes. | false | true (ByPropertyName) | |
| SnapshotCloneDependency | {on\|off}] - Snapshot Cloning Dependency Specifies whether the LUN clone dependancy on Snapshot copies is enabled. If set to on, LUN clone dependency on Snapshot copies is enabled. This parameter is not supported on Infinite Volumes. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| EnableSnapdiff | {true\|false}] - Create Namespace Mirrors For Snapdiff Use | false | true (ByPropertyName) | |
| SchedSnapName | {create_time\|ordinal}] - Naming Scheme for Automatic Snapshots Specifies the naming convention for automatic Snapshot copies. If set to create-time, automatic Snapshot copies are named using the format <schedule_name>.yyyy-mm-dd_hhmm. Example: hourly.2010-04-01_0831. If set to ordinal, automatic Snapshot copies are named using the format <schedule_name>.<n>. Example: hourly.3 This parameter is not supported on Infinite Volumes. | false | true (ByPropertyName) | |
| SpaceGuarantee | Specifies the type of volume guarantee the new volume uses. Possible values: none, file, volume. This option controls whether the volume is guaranteed some amount of space in the aggregate. The default is volume, and file and none can be set by the administrator. Volume guaranteed means that the entire size of the volume is preallocated. The file value means that space is preallocated for all the space-reserved files and LUNs within the volume. Storage is not preallocated for files and LUNs that are not space-reserved. Writes to these can fail if the underlying aggregate has no space available to store the written data. This value can be set if fractional reserve is 100. The none value means that no space is preallocated, even if the volume contains space-reserved files or LUNs. If the aggregate is full, space is not available even for space-reserved files and LUNs within the volume. Setting this parameter to file or none enables you to provision more storage than is physically present in the aggregate (thin provisioning). When you use thin provisioning for a volume, it can run out of space even if it has not yet consumed its nominal size and you should carefully monitor space utilization to avoid unexpected errors due to the volume running out of space. For flexible root volumes, to ensure that system files, log files, and cores can be saved, the space-guarantee must be volume. This ensures technical support for the storage system, if a problem occurs. Disk space is preallocated when the volume is brought online and, if not used, returned to the aggregate when the volume is brought offline. It is possible to bring a volume online even when the aggregate has insufficient free space to preallocate to the volume. In this case, no space is preallocated, just as if the none option had been selected. In this situation, the vol options and vol status command display the actual value of the space-guarantee option, but indicate that it is disabled. | false | true (ByPropertyName) | |
| SnapReserve | Optionally specifies the amount of space reserved on the volume for Snapshot copies. The default setting is 5 percent. | false | true (ByPropertyName) | |
| FractionalReserve | This option changes the amount of space reserved for overwrites of reserved objects (LUNs, files) in a volume. This parameter is not supported on Infinite Volumes. The option is set to 100 by default with guarantee set to volume or file. A setting of 100 means that 100 percent of the required reserved space is actually reserved, so the objects are fully protected for overwrites. The value is set to 0 by default with guarantee set to none. The value can be either 0 or 100 when guarantee is set to | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | volume or none. If guarantee is set to file, 100 is the only allowed value. Using a value of 0 indicates that no space will be reserved for overwrites. This returns the extra space to the available space for the volume, decreasing the total amount of space used. However, this does leave the protected objects in the volume vulnerable to out of space errors. If the percentage is set to 0%, the administrator must monitor the space usage on the volume and take corrective action. | | | |
| SpaceMgmtTryFirst | {volume_grow\|snap_delete}] - Primary Space Management Strategy A flexible volume can be configured to automatically reclaim space in case the volume is about to run out of space, by either increasing the size of the volume using autogrow or deleting Snapshot copies in the volume using Snapshot autodelete. If this option is set to volume_grow the system will try to first increase the size of volume before deleting Snapshot copies to reclaim space. If the option is set to snap_delete the system first automatically deletes Snapshot copies and in case of failure to reclaim space tries to grow the volume. This parameter is not supported on Infinite Volumes. | false | true (ByPropertyName) | |
| SpaceNearlyFullThresholdPercent | Optionally specifies the percentage at which the volume is considered nearly full, and above which an EMS warning is generated. The default value is 95%. Setting this threshold to 0 disables the volume nearly full space alerts. This parameter is not supported on Infinite Volumes. | false | true (ByPropertyName) | |
| SpaceFullThresholdPercent | Optionally specifies the percentage at which the volume is considered full, and above which a critical EMS error is generated. The default value is 98%. Setting this threshold to 0 disables the volume full space alerts. This parameter is not supported on Infinite Volumes. | false | true (ByPropertyName) | |
| Files | Optionally specifies the total number of files permitted on the volume. The default setting is 629. This value can be raised but cannot be lowered; the new value must be larger than the current value. | false | true (ByPropertyName) | |
| FilesysSizeFixed | This option causes the file system to remain the same size and not grow or shrink when a SnapMirrored volume relationship is broken, or when a volume add is performed on it. It is automatically set to true when a volume becomes a SnapMirrored volume. It stays set to true after the SnapMirror break command is issued for the volume. This allows a volume to be SnapMirrored back to the source without needing to add disks to the source volume. If the volume is a traditional volume and the size is larger than the file system size, setting this option to false forces the file system to grow to the size of the volume. If the volume is a flexible volume and the volume size is larger than the file system size, setting this option to false forces the volume size to equal the file system size. The default setting is false. | false | true (ByPropertyName) | |
| ExtentEnabled | Setting this option to on or space-optimized enables extents in the volume. This causes application writes to be written in the volume as a write of a larger group of related data blocks called an extent. Using extents may help workloads that perform many small random writes followed by large sequential reads. However, using extents may increase the amount of disk operations | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | performed on the controller, so this option should only be used where this trade-off is desired. If the option is set to space-optimized then the reallocation update will not duplicate blocks from Snapshot copies into the active file system, and will result in conservative space utilization. Using space-optimized may be useful when the volume has Snapshot copies or is a SnapMirror source, when it can reduce the storage used in the volume and the amount of data that SnapMirror must move on the next update. The space-optimized value can result in degraded read performance of Snapshot copies. The default value is off; extents are not used. | | | |
| ReadRealloc | Setting this option to on or space-optimized enables read reallocation in the volume. This results in the optimization of file layout by writing some blocks to a new location on disk. The layout is updated only after the blocks have been read because of a user read operation, and only when updating their layout will provide better read performance in the future. Using read reallocation may help workloads that perform a mixture of random writes and large sequential reads. If the option is set to space-optimized then the reallocation update will not duplicate blocks from Snapshot copies into the active file system, and will result in conservative space utilization. Using space-optimized may be useful when the volume has Snapshot copies or is a SnapMirror source, when it can reduce the storage used in the volume and the amount of data that SnapMirror must move on the next update. The space-optimized value can result in degraded read performance of Snapshot copies. The default value is off. | false | true (ByPropertyName) | |
| ExternalCache | Optionally specifies which WAFL external cache policy to apply to the volume. This parameter is not supported on Infinite Volumes. A WAFL external cache policy defines how the data blocks are cached for this volume. If an external cache policy is not assigned to this volume, the system uses the external cache policy that is assigned to the containing virtual storage server. If an external cache policy is not assigned to the containing virtual storage server, the system uses the default cluster-wide policy. The available WAFL external cache policies are: o Uncached - Caches nothing. o Metadata_Only - Caches indirect blocks and system metafiles. o Normal_Data - Caches indirect blocks, system metafiles, and randomly read user data. o Random_Write_Data - Caches normal data blocks and any blocks read as a result of random writes. o Readahead_Data - Caches normal data blocks and any sequentially read user data blocks. o Most_Data - Caches normal data blocks and any blocks read as a result of random writes or sequential reads. o Lopri_Data - Caches everything. o Default - Current cluster-wide default, which is Normal_Data. | false | true (ByPropertyName) | |
| VmAlignSector | | false | true (ByPropertyName) | |
| VmAlignSuffix | | false | true (ByPropertyName) | |
| AutoSizeMode | {off\|grow\|grow_shrink}] - Autosize Mode Specifies the autosize mode for the volume. The allowed values are grow, grow_shrink, and off. If this parameter is not | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | specified, the existing autosize mode remains in effect. This parameter is not supported in Infinite Volumes. The various autosize modes are explained below: o off - The volume will not grow or shrink in size in response to the amount of used space. o grow - The volume will automatically grow when used space in the volume is above the grow threshold. o grow_shrink - The volume will grow or shrink in size in response to the amount of used space. | | | |
| MaxAutosize | Specifies the maximum size to which a flexible volume can grow. The default is 120% of the volume size at creation for a flexible volume, and the greater of the origin volume's size and the current value of max-autosize for a FlexCache volume if a size is not specified upon creation. This parameter is not supported in Infinite Volumes. | false | true (ByPropertyName) | |
| AutosizeIncrement | The size of the volume is increased by the increment size specified by autosize-increment each time the volume is autogrown. A volume does not automatically grow if the current size of the volume is greater than or equal to the maximum size specified by the max-auto-size. The default is 5% of the volume size at the time autosize was enabled for the volume. This parameter is not supported in Infinite Volumes. | false | true (ByPropertyName) | |
| AutosizeIncrementPercent | The increment percent specified with autosize-increment-percent is converted to a fixed increment size in bytes based on the volume size when volautosize -increment-percent is issued. The size of the volume is increased by the computed increment size each time the volume is autogrown. A volume will not automatically grow if the current size of the volume is greater than or equal to the maximum size specified with the max-autosize parameter. The default is 5% of volume size at the time autosize was enabled for the volume. This parameter is not supported in Infinite Volumes. | false | true (ByPropertyName) | |
| MinAutosize | {<integer>[KB\|MB\|GB\|TB\|PB]}] - Minimum Autosize Specifies the minimum automatic size to which the volume shrinks. The default value is the volume size at the time when the grow_shrink autosize mode was enabled for the volume. If the volume was created with the grow_shrink autosize mode enabled, then the default minimum size will be equal to the initial volume size. This parameter is not supported in Infinite Volumes. | false | true (ByPropertyName) | |
| AutosizeGrowThresholdPercent | Specifies the used space threshold for the automatic growth of the volume. When the volume used space becomes greater than this threshold, the volume will be grown unless it has reached the maximum autosize. This parameter is not supported in Infinite Volumes. | false | true (ByPropertyName) | |
| AutosizeShrinkThresholdPercent | Specifies the used space threshold for the automatic shrink of the volume. When the volume used space becomes less than this threshold, the volume will be shrunk unless it has reached the minimum autosize. This parameter is not supported in Infinite Volumes. | false | true (ByPropertyName) | |
| AutoDeleteEnabled | Specifies whether automatic deletion of Snapshot copies is enabled or disabled. If set to true, automatic deletion of Snapshot copies is enabled. If set to false automatic deletion of Snapshot copies is disabled. | false | true (ByPropertyName) | |
| Commitment | Specifies which Snapshot copies can be automatically deleted to reclaim back space. When set to try, the | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | Snapshot copies which are not locked by any application are deleted. When set to disrupt, the Snapshot copies which are not locked by Data Backing Functionalities (Volume Clones, LUN Clones, File Clones) are deleted. In disrupt mode, Snapshot locked by Data Protection Utilities like SnapMirror or Volume Move can be deleted. If such a locked Snapshot copy is deleted during the data transfer, the transfer is aborted. When set to destroy, Snapshot copies locked by even the Data Backing Functionalities are deleted. | | | |
| DeferDelete | {scheduled\|user_created\|prefix\|none}] - Defer Delete Specifies which kind of Snapshot copies are deleted in the end. When set to scheduled, scheduled Snapshot copies are deleted in the end. When set to user_created, user Snapshot copies are deleted in the end. When set to prefix, Snapshot copies matching a certain prefix are deleted in the end. When set to none no defer deletion order is honored. | false | true (ByPropertyName) | |
| Deleteorder | {newest_first\|oldest_first}] - Delete Order. Specifies whether if the oldest Snapshot copy or the newest Snapshot copy is deleted first. | false | true (ByPropertyName) | |
| DeferDeletePrefix | Specifies the prefix string for the -defer-delete prefix parameter. | false | true (ByPropertyName) | |
| TargetFreeSpace | Specifies when you want automatic deletion of Snapshot copies to stop. Depending on the -trigger Snapshot copies are deleted till you reach the target free space percentage. | false | true (ByPropertyName) | |
| Trigger | {volume\|snap_reserve\|space_reserve}] - Trigger Specifies the condition which starts the automatic deletion of Snapshot copies. Setting this option to volume triggers automatic deletion of Snapshot copies when the volume reaches threshold capacity and the volume's space reserved for Snapshot copies has been exceeded. Setting the option to snap_reserve triggers automatic deletion of Snapshot copies when the space reserved for Snapshot copies reaches threshold capacity. Setting the option to space_reserve triggers automatic deletion of Snapshot copies when reserved space in the volume reaches threshold capacity and the volume's space reserved for Snapshot copies has been exceeded. | false | true (ByPropertyName) | |
| DestroyList | Specifies a comma-separated list of data backing functions which are affected if automatic deletion of the Snapshot copy backing that service is triggered. Possible values for this option are: vol_clone, lun_clone, file_clone, sfsr, cifs_share, or none. With the exception of none, all options can be combined as a comma-separated list. If you specify vol_clone, the cloned volume backed by the Snapshot copy is deleted. If you specify lun_clone, and the LUN is in the process of being cloned when autodelete is triggered, the cloning operation is aborted. Any access to this LUN results in an error being reported to the client. If you specify file_clone, and the file cloning operation is in progress when autodelete is triggered, the cloning operation is aborted. Any access to this file results in an error being reported to the client. If you specify sfsr, and the file restore is in progress when autodelete is triggered, the restore operation is aborted. If the Snapshot copy | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | is locked either by a lun_clone or file_clone or both, the -destroy-list must be set to lun_clone,file_clone. If the Snapshot copy is locked either by a lun_clone or sfsr operation or both, -destroy-list must be set to lun_clone, file_clone. The options file_clone and sfsr are equivalent to each other. If you set -destroy-list to lun_clone, file_clone and the Snapshot copy is backing a file clone or sfsr operation, both the operations are aborted. This is also the case when you set -destroy-list to lun_clone, sfsr. | | | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

String, Int32, Boolean, Decimal, SwitchParameter

## Return Values

SnapDrive.Nsf.Interfaces.SDStorageVolume SnapDrive.Nsf.Interfaces.SDStorageVolume returns the volume that was provisioned.

## Examples

### Example 1: Provisioning a storage system volume using a template

```
PS C:\> New-SdVolume -Name sqldbvolume -Aggregate sqldbaggregate -JunctionPath /sqldbvolume
-TemplateName C:\Program Files\SnapDrive\Templates\HyperVVHDxProvTemplate.xml -Size 128GB -
StorageSystem sqlvirtualstorageserver
```

```
This example provisions a storage system volume using the specified template.
```

```
Name               : sqldbvolume
Vserver            : sqlvirtualstorageserver
FullPath           : sqlvirtualstorageserver:/vol/sqldbvolume
JunctionPath       : /sqldbvolume
JunctionParentName :
SizeTotal          :
```

```
SizeUsed           :
SnapMirrorSource   :
SnapMirrorDest     :
SnapVaultPrimary   :
SnapVaultSecondary :
FlexCloneEnabled   :
IsFlexClone        :
Style              : ntfs
ResourceType       : SDStorageVolume
ResourceName       : sqlvirtualstorageserver:/vol/sqldbvolume
Ranges             :
```

# Remove-SdBackup

## Syntax

```
Remove-SdBackup [-Snapshot] <String> [-ResourceName] <String> [[-RestApiURL] <String>] [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Snapshot | | true | true (ByValue, ByPropertyName) | |
| ResourceName | | true | true (ByPropertyName) | |
| RestApiURL | | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Remove-SdIgroup

Removes an igroup from your storage system.

## Syntax

```
Remove-SdIgroup [-Name] <String> -StorageSystem <String> [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Removes an igroup from your storage system.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name of the igroup you want to remove from your storage system. | true | true (ByPropertyName) | |
| StorageSystem | Specifies the storage system from which you want to remove the igroup. | true | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Examples

### Example 1: Removing an igroup

```
PS C:\> Remove-SdIgroup -Name IG_Demo -StorageSystem 172.17.168.13
```

```
This example syntax removes the a specific igroup from the specified storage system.
```

# Remove-SdLun

Removes a LUN from your storage system.

## Syntax

```
Remove-SdLun [-StorageSystem] <String> [-LunPath] <String> [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

Removes a LUN from your storage system.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | Specifies the storage system on which your LUN is located. | true | true (ByPropertyName) | |
| LunPath | Specifies the path of the LUN on your storage system. If you are working in an ONTAP environment, specify the path to your LUN. If you are working in a Flashray, specify the LUN name. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# Remove-SdLunMap

Unmaps your LUN from your igroup.

## Syntax

```
Remove-SdLunMap [-StorageSystem] <String> [-LunPath] <String> [-Igroup] <String> [-Session
 <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Unmaps your LUN from your igroup.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | Specifies the storage system on which the igroup, to which your LUN is mapped, resides. | true | true (ByPropertyName) | |
| LunPath | Specifies the path of the LUN on your storage system. If you are working in an ONTAP environment, specify the path to your LUN. If you are working in a Flashray, specify the LUN name. | true | true (ByPropertyName) | |
| Igroup | Specifies the igroup from which you want to unmap your LUN. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# Remove-SdPortSet

Deletes a portset.

## Syntax

```
Remove-SdPortSet [-PortSetName] <String> [[-ForceDestroy]] -StorageSystem <String> [-Session
 <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Deletes a portset.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PortSetName | Specifies the name of the portset you want to delete. | true | true (ByPropertyName) | |
| ForceDestroy | Specifies that you want to forcibly delete a portset. | false | true (ByPropertyName) | |
| StorageSystem | Specifies the name of the storage system on which the portset you want delete resides. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# Remove-SdPortSetPort

Deletes a specified port from your portset.

## Syntax

```
Remove-SdPortSetPort [-PortSetName] <String> [-Port] <String> [-StorageSystem] <String> [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Deletes a specified port from your portset.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| PortSetName | Specifies the name of the portset from which you want to delete a port. | true | true (ByPropertyName) | |
| Port | Specifies the port you want to delete from your portset. | true | true (ByPropertyName) | |
| StorageSystem | Specifies the storage system on which your portset resides. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# Remove-SdSMBShare

Removes one or more SMB shares from your storage system.

## Syntax

```
Remove-SdSMBShare [-Path] <Object[]> [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Removes one or more SMB shares from your storage system. This cmdlet is supported in clustered Data ONTAP 8.2 and later.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies a comma-separated list of SMB shares. | true | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

Object [], String, SwitchParameter Comma-separated list of SMB shares.

## Return Values

N/A

## Examples

### Example 1: Removing an SMB share

```
PS C:\> Remove-SdSMBShare -Path \\JENKINS-CIFS\RemoveShare03 -Verbose

This example syntax removes SMB share "RemoveShare03" from your storage system.
```

### Example 2: Removing multiple SMB shares

```
PS C:\> Remove-SdSMBShare -Path \\JENKINS-CIFS\RemoveShare01,\\172.17.165.40\RemoveShare02 -
Verbose
```

This example syntax removes SMB share "RemoveShare01," and "RemoveShare02" from the your storage system.

# Remove-SdSnapMirrorPolicyRule

Removes the rules from the SnapMirror policy associated with the SnapVault relationship.

## Syntax

```
Remove-SdSnapMirrorPolicyRule [-SourceStorageSystem] <String> [-SourceStorageSystemVolume]
 <String> [-DestinationStorageSystem] <String> [-DestinationStorageSystemVolume] <String> [-
SnapMirrorLabel] <String[]> [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Removes the rules from the SnapMirror policy associated with the SnapVault relationship. Related cmdlets: Set-SdSnapMirrorPolicyRule, Get-SdSnapMirrorPolicyRule

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SourceStorageSystem | Specifies the primary storage system name containing the source volumes of the SnapMirror relationship for which you want to remove the SnapMirror policy rules. IP addresses are not supported. | true | true (ByValue, ByPropertyName) | |
| SourceStorageSystemVolume | Specifies the source volume of the SnapMirror relationship for which you want to remove the SnapMirror policy rules. | true | true (ByPropertyName) | |
| DestinationStorageSystem | Specifies the secondary storage system name containing the destination volumes of the SnapMirror relationship for which you want to remove the SnapMirror policy rules. IP addresses are not supported. | true | true (ByValue, ByPropertyName) | |
| DestinationStorageSystemVolume | Specifies the destination volume of the SnapMirror relationship for which you want to remove the SnapMirror policy rules. | true | true (ByPropertyName) | |
| SnapMirrorLabel | Specifies the SnapMirror policy rule which you want to remove. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

String, String[], SwitchParameter

## Return Values

SnapDrive.Nsf.Interfaces.RetentionPolicyRule

## Examples

### Example 1: Removing SnapMirror policy rule information from the policy for a SnapMirror relationship

```
PS C:\> Remove-SdSnapMirrorPolicyRule -SourceStorageSystem vs01 -SourceStorageSystemVolume
 src_vol01 -DestinationStorageSystem vs02 -DestinationStorageSystemVolume dest_vol01 -
SnapMirrorLabel myWeekly,myMonthly -verbose -Confirm:$false


Removes the SnapMirror policy rules (myWeekly, myMonthly) from the policy on the specified
 relationship.
```

# Remove-SdSnapshot

Removes Snapshot copies created on Windows disks, SMB shares, or storage system volumes.

## Syntax

```
Remove-SdSnapshot [-Path] <Object[]> [-Snapshot] <String[]> [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

Removes Snapshot copies created on Windows disks, SMB shares, or storage system volumes. Related cmdlets: New-SdSnapshot, Rename-SdSnapshot, and Restore-SdSnapshot

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies the SMB shares, volume, or logical disk for the Snapshot copies you want to delete. You cannot mix a logical disk or mount point with SMB shares in the same input path. | true | true (ByPropertyName) | |
| Snapshot | Specifies the list of Snapshot copies you want to delete. | true | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

Object[], String, String[], SwitchParameter You can specify the input type as a list of the resources belonging to the Snapshot copy you want to delete. The resources must be SMB shares, volumes, or logical disks. You can specify resources as a list of strings or objects. The following types are allowed: string; SnapDrive.Nsf.Interfaces.SDCIFSShare; SDStorageResource

## Return Values

SnapDrive.Nsf.Interfaces.SDSnapshot The object corresponding to the Snapshot copies you want to delete.

## Examples

## Example 1: Removing a Snapshot copy on a SMB share

```
PS C:\> Remove-SdSnapshot -Path "\\172.17.12.101\share" -Snapshot "snapshot_1"
```

This example syntax removes the Snapshot copy snapshot_1 created on SMB share \\172.17.12.101\share.

## Example 2: Removing specified Snapshot copies on multiple SMB shares

```
PS C:\> Remove-SdSnapshot -Path "\\172.17.12.101\share1","\\172.17.12.101\share2" -Snapshot
 "snapshot_1","snapshot_2"
```

This example removes Snapshot copies snapshot_1 and snapshot_2 created on SMB shares \\172.17.12.101\share1 and \\172.17.12.101\share2.

## Example 3: Removing a new Snapshot copy on a SMB share

```
PS C:\> New-SdSnapshot -Path "\\172.17.12.101\share" | Remove-SdSnapshot
```

This example removes the new Snapshot copy on SMB share \\172.17.12.101\share.

## Example 4: Removing a Snapshot copy on a disk

```
PS C:\> Remove-SdSnapshot -Path D: -Snapshot "snapshot_1"
```

This example syntax removes the Snapshot copy snapshot_1 created on the disk drive D:.

# Remove-SdStorage

Deletes a LUN and everything associated with it.

## Syntax

```
Remove-SdStorage [-Path] <String> [[-IgnoreVolumeMountPoint]] [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

Deletes a LUN and everything associated with it.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies you LUN share path using this format: :D | true | true (ByPropertyName) | |
| IgnoreVolumeMountPoint | | false | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Examples

### Example 1: Deleting a LUN

```
PS C:\> Remove-SdStorage -Path V:
```

```
This example syntax deletes the specified LUN.
```

# Remove-SdStorageConnectionSetting

Removes the storage connection, transport, and credential settings from the configuration repository for one or more storage system or virtual storage server.

## Syntax

```
Remove-SdStorageConnectionSetting [-StorageSystem] <String[]> [-HostOnly] [-PassThru] [-LegacyContext] [-Session <String>] [-Host <String>] [<CommonParameters>]
```

```
Remove-SdStorageConnectionSetting -All [-HostOnly] [-PassThru] [-LegacyContext] [-Session <String>] [-Host <String>] [<CommonParameters>]
```

```
Remove-SdStorageConnectionSetting -DefaultSetting [-HostOnly] [-PassThru] [-LegacyContext] [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Removes the storage connection, transport and credential settings from the configuration repository for one or more storage system or virtual storage server. Related cmdlets: Set-SdStorageConnectionSetting and Get-SdStorageConnectionSetting

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | Specifies the name or IP address of the storage system (storage controller or virtual storage server) for which you want to retrieve connection settings. | true | true (ByPropertyName) | |
| HostOnly | Specifies that you want to remove the storage system credentials only on the cluster node you specify. The default behavior is that HostOnly is not specified, and your storage credential settings are removed from all the nodes in a cluster. | false | true (ByPropertyName) | |
| PassThru | Indicates the output setting objects that you removed from the configuration. These objects are written to the pipeline for further processing. | false | true (ByPropertyName) | false |
| LegacyContext | For internal use only. | false | false | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| All | Indicates that you want to remove all connection settings, including the default settings, from the configuration repository. | true | true (ByPropertyName) | |
| DefaultSetting | Indicates that you want to remove the default storage system connection settings. | true | false | |

## Input Type

String, String[], SwitchParameter

## Return Values

SnapDrive.Nsf.Interfaces.SDStorageConnectionSetting, SnapDrive.Nsf.Interfaces.SDStorageConnectionSettingBase Settings for a storage system connection removed from the configuration repository. Processed default settings return SnapDrive.Nsf.Interfaces.SDStorageConnectionSettingBase while processed named connection settings return SnapDrive.Nsf.Interfaces.SDStorageConnectionSetting.

## Examples

### Example 1: Removing named connection settings

```
PS C:\> Remove-SdStorageSystemSetting -StorageSystem vmStorageServer,sqlServer -PassThru


This example syntax removes the specified vmStorageServer and sqlServer storage system
 connection settings.
```

### Example 2: Removing all connection settings

```
PS C:\> Remove-SdStorageConnectionSetting -All -PassThru


This example syntax removes all the connection settings, including the default connection
 settings.
```

### Example 3: Removing default storage connection settings

```
PS C:\> Remove-SdStorageConnectionSetting -DefaultSetting -PassThru


This example syntax removes the default storage system connection settings. You can use the
 default settings to attempt a connection to any system that is not explicitly configured.
```

### Example 4: Removing pipeline storage connection settings

```
PS C:\> $settings = Get-SdStorageConnectionSetting
$settings | Remove-SdStorageConnectionSetting -PassThru -confirm:$false


This example syntax retrieves the existing storage connection settings. In this case,
 they are "vmStorageServer" and "sharePointServer". Then the example pipes those names as
 the connection settings to be removed. Because the confirm value is false, there is no
 confirmation prompt and the PassThru switch means it outputs the objects removed.
```

# Remove-SdVolume

Removes a volume from your storage system.

## Syntax

```
Remove-SdVolume [-Volume] <String> [-StorageSystem] <String> [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

Removes a volume from your storage system. When you remove a volume using this cmdlet, Remove-SdVolume dismounts your volume, brings it offline, and deletes it. You can remove one volume at a time, only. You cannot remove volumes that are in a SnapMirror relationship. When you remove volumes, any active LUNs or shares on the volume are also removed. This cmdlet is supported in clustered Data ONTAP 8.2 and later. Related cmdlets: New-SdVolume

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Volume | Specifies the name of the volume you want to delete. | true | true (ByValue, ByPropertyName) | |
| StorageSystem | Specifies the name of the storage system from which you want to delete the volume. You can use the administration interface or the storage system name. | true | true (ByValue, ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

String, SwitchParameter

## Return Values

N/A

## Examples

### Example 1: Removing a volume

```
PS C:\> Remove-SdVolume -Volume TestRemoval01 -StorageSystem 172.17.165.39 -Verbose
```

This example syntax removes volume TestRemoval01 from storage system 172.17.165.39.

```
VERBOSE: volume 'TestRemoval01' will be removed

Remove-SdVolume
volume 'TestRemoval01' will be removed Do you want to continue?
[Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help (default is "Y"): y
VERBOSE: Removing volume: TestRemoval01
VERBOSE: Operation Successful.
```

# Remove-SdVsphereSetting

## Syntax

```
Remove-SdVsphereSetting [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Rename-SdIgroup

Renames your specified igroup.

## Syntax

```
Rename-SdIgroup [-Name] <String> [-NewName] <String> -StorageSystem <String> [-Session
 <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Renames your specified igroup.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Name | Specifies the name of the igroup you want to rename. | true | true (ByPropertyName) | |
| NewName | Specifies the new name of the igroup you are renaming. | true | true (ByPropertyName) | |
| StorageSystem | Specifies the storage system on which the igroup you want to rename is located. | true | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Examples

### Example 1: Renaming an igroup

```
PS C:\> Rename-SdIgroup -Name IG_Demo -NewName IG_Demo_Renamed -StorageSystem  172.17.168.13
```

```
This examples syntax renames an existing igroup.
```

# Rename-SdSnapshot

Renames Snapshot copies created on a Windows disk or SMB share.

## Syntax

```
Rename-SdSnapshot [-Path] <Object[]> [-Snapshot] <String> [-NewName] <String> [-Session
 <String>] [-Host <String>] [<CommonParameters>]
```

```
Rename-SdSnapshot [-StorageSystem] <String> [-VolumeName] <String> [-Snapshot] <String> [-
NewName] <String> [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Renames Snapshot backups created on a Windows disk or SMB share. Related cmdlets: New-SdSnapshot and Remove-SdSnapshot

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies a list of SMB shares or Windows volumes. You cannot mix a logical disk or mount point with SMB shares in the same input path. | true | true (ByPropertyName) | |
| Snapshot | Specifies the name of the Snapshot copy you want to rename. | true | true (ByPropertyName) | |
| NewName | Indicates the new name of the Snapshot copy. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| StorageSystem | Specifies the name of storage system name for the Snapshot copy you are renaming. | true | true (ByPropertyName) | |
| VolumeName | Specifies the storage system volume name for the Snapshot copy. | true | true (ByPropertyName) | |

## Input Type

Object[], String, SwitchParameter SMB share or Windows disk for which a Snapshot copy is to be renamed.

## Return Values

SnapDrive.Nsf.Interfaces.Snapshot SDSnapshot object which is a result of rename operation.

## Examples

### Example 1: Rename a single Snapshot copy

```
PS C:\> Rename-SdSnapshot -Path \\SQLCIFSServer\SalesDBShare -Snapshot MySnap -NewName
 MyNewSnap
```

This example renames a Snapshot copy from MySnap to MyNewSnap.

```
SnapshotName     AccessPoint                   StorageSystemName    Volume
------------     -----------                   -----------------    ------
MyNewSnap        \\SQLCIFSServer\SalesDBShare  MyStorageSystem1     vol1
```

### Example 2: Rename a Snapshot copy on two SMB shares

```
PS C:\> Rename-SdSnapshot -Path \\SQLCIFSServer1\SalesDBShare,\\SQLCIFSServer2\MarketDBShare
 -Snapshot MySnap -NewName MyNewSnap
```

This example renames a Snapshot copy located two SMB shares.

```
SnapshotName     AccessPoint                    StorageSystemName    Volume
------------     -----------                    -----------------    ------
MyNewSnap        \\SQLCIFSServer1\SalesDBShare  MyStorageSystem1     vol1
MyNewSnap        \\SQLCIFSServer2\MarketDBShare MyStorageSystem2     vol2
```

### Example 3: Rename a Snapshot copy on a specified storage system and volume

```
PS C:\> Rename-SdSnapshot -StorageSystem MyStorageSystem1 -VolumeName vol1 -Snapshot MySnap -
NewName MyNewSnap
```

This example renames a Snapshot copy from MySnap to MyNewSnap on a specified storage system
 and volume.

```
SnapshotName     AccessPoint         StorageSystemName    Volume
------------     -----------         -----------------    ------
MyNewSnap                            MyStorageSystem1     vol1
```

## Example 4: Renames a single Snapshot copy on a disk

```
PS C:\> Rename-SdSnapshot -Path F: -Snapshot MySnap -NewName MyNewSnap
```

This example renames a Snapshot copy on the disk drive :F from MySnap to MyNewSnap.

# Repair-SdAluaPaths

Repairs disks with no active/optimized ALUA paths.

## Syntax

```
Repair-SdAluaPaths [-Paths <String[]>] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Repairs disks with no active/optimized ALUA paths.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Paths | Specifies the drive letter or mount point of the file system to fix a path. | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name of the host. | false | true (ByPropertyName) | |

## Examples

### Example 1: Repairing disks with no optimized ALUA paths

```
PS C:\> Repair-SdAluaPaths
```

```
This example syntax repairs disks with no optimized ALUA paths.
```

# Restore-SdPlugInResource

## Syntax

```
Restore-SdPlugInResource -SnapInfo <SnapInfo> -MappingInfo <MappingInfo> [-Context <String>]
 [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SnapInfo | | true | true (ByPropertyName) | |
| MappingInfo | | true | true (ByPropertyName) | |
| Context | | false | false | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Restore-SdSnapshot

Restores files and directories from a primary or secondary Snapshot copy, on Windows disks or SMB shares.

## Syntax

```
Restore-SdSnapshot [-Path] <Object[]> [-Snapshot] <String> [[-StorageSystem] <String>]
 [[-VolumeName] <String>] [-ForceRestore] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Restores files and directories from a primary or secondary Snapshot copy, on Windows disks or SMB shares. When you are restoring from a Snapshot copy on a share, you can restore everything from that Snapshot copy. When you are restoring from a Snapshot copy in a SAN environment, you can restore disks only. When you are restoring from the secondary Snapshot copy, you must have a CIFS server on the secondary server. When you are restoring multiple files or directories under the same SMB share from your SnapVault secondary, you cannot specify the CIFS server name in the path by referring to IP/Name/Fully qualified domain name (FQDN.) You must speciy the CIFS server name using only IP or Name or FQDN. Related cmdlets: New-SdSnapshot and Get-SdSnapshot

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies the location of the files, directories, and disks for the Snapshot copies you want to restore. You cannot mix a logical disk or mount point with SMB shares in the same input path. | true | true (ByPropertyName) | |
| Snapshot | Specifies the Snapshot copy name you want to restored. | true | true (ByPropertyName) | |
| StorageSystem | Name of the storage system in which the Snapshot copy specified for the restore operation is located. | false | true (ByPropertyName) | |
| VolumeName | Name of the storage system volume in which the Snapshot copy specified for the restore operation is located. | false | true (ByPropertyName) | |
| ForceRestore | Indicates whether the Snapshot copy should be forcibly restored. If you want to overwrite existing versions of the files or directories you are restoring, this parameter is required. | false | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

Object[], String, SwitchParameter The the Snapshot copy resource. The resource should be files or directories on an SMB share, volume, or logical disk. The following types are allowed: string; SnapDrive.Nsf.Interfaces.SDCIFSShare; SDStorageResource;

## Return Values

SnapDrive.Nsf.Interfaces.SDSnapshot

## Examples

### Example 1: Restoring a Snapshot copy on a SMB share from a Snapshot copy

```
PS C:\> Restore-SdSnapshot -Path "\\172.17.12.101\share\files.txt" -Snapshot "snapshot_1"


This example restores the file named file.txt on SMB share "\\172.17.12.101\share" from
 specified Snapshot copy "snapshot_1".
```

### Example 2: Restoring a file under a subfolder of a SMB share from a Snapshot copy

```
PS C:\> Restore-SdSnapshot -Path "\\172.17.12.101\share\dir1\file1.txt" -Snapshot snapshot_1


This example restores the file on "\\172.17.12.101\share\dir1\file1.txt" from Snapshot copy
 snapshot_1.
```

### Example 3: Restoring a directory with its contents under a SMB share from a Snapshot copy

```
PS C:\> Restore-SdSnapshot -Path "\\172.17.12.101\share\folder1\*" -Snapshot "snapshot_1"


This example restores the directory named "folder1" and its contents from the specified
 Snapshot copy "snapshot_1".
```

### Example 4: Restoring multiple files and directories under a SMB share from a Snapshot copy

```
PS C:\> Restore-SdSnapshot -Path "\\172.17.12.101\share\file0.txt","\\172.17.12.101\share
\dir1\file1.txt","\\172.17.12.101\share\dir2\*","\\172.17.12.101\share\dir3\*" -Snapshot
 snapshot_1


This example restores a file named "file0.txt" under the root of the SMB share, a named
 "file1.txt" under directory "dir1", directory named "dir2" and "dir3" and their contents,
 from the Snapshot copy named "snapshot_1".
```

## Example 5: Restoring a file on a SMB share from a Snapshot copy on the SnapVault secondary

```
PS C:\> Restore-SdSnapshot -Path "\\172.17.12.101\share\dir1\file1.txt" -Snapshot
 "snapshot_1" -StorageSystem 172.17.165.29 -VolumeName vaultdest_vol


This example restores a file named "file1.txt" under directory "dir1" from the Snapshot copy
 named "shapshot_1" on the SnapVault secondary storage system.
```

## Example 6: Restoring a Snapshot copy on a disk from a Snapshot copy

```
PS C:\> Restore-SdSnapshot -Path E: -Snapshot "snapshot_1"


This example restores the Snapshot named file.txt on disk drive E: from specified Snapshot
 copy "snapshot_1."
```

# Set-SdAluaStateMonitor

Sets the interval for monitoring ALUA path optimization.

## Syntax

```
Set-SdAluaStateMonitor -TimerInterval <UInt32> [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Sets the interval for monitoring ALUA path optimization.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| TimerInterval | Sets the time interval, in minutes, for the ALUA state monitor thread. Depending on the interval set, the system performs an optimization check for ALUA paths and repairs the paths as needed. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

## Examples

### Example 1: Setting ALUA state monitor with timer interval

```
PS C:\> Set-SdAluaStateMonitor -TimerInterval 10
```

```
This example syntax sets the ALUA state monitor with the specified timer interval.
```

# Set-SdSettings

## Syntax

```
Set-SdSettings [[-EnableUnsupportedCommands]] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| EnableUnsupportedCommands | | false | false | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

# Set-SdSnapMirrorPolicyRule

Sets the rules for managing Snapshot retention on the SnapVault secondary storage system.

## Syntax

```
Set-SdSnapMirrorPolicyRule [-SourceStorageSystem] <String> [-SourceStorageSystemVolume]
 <String> [-DestinationStorageSystem] <String> [-DestinationStorageSystemVolume] <String> [-
SnapMirrorLabel] <String> [-Retention] <Int32> [[-Preserve]] [[-WarnThreshold] <Int32>] [-
Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Sets the rules for managing Snapshot retention on the SnapVault secondary storage system. You can create new rules for customizing your virtual storage server level SnapMirror policy. Each SnapMirror policy can have up to 10 rules managing Snapshot copy retention. The default policy rules are daily or weekly Snapshot copy retention, or you can define your own retention rule. You cannot modify cluster-level SnapMirror or SnapVault policies with virtual storage server credentials. Related cmdlets: Remove-SdSnapMirrorPolicyRule, Get-SdSnapMirrorPolicyRule

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| SourceStorageSystem | Specifies the primary storage system name containing the source volumes of the SnapMirror relationship for which you want to create or modify the SnapMirror policy rules. IP addresses are not supported. | true | true (ByValue, ByPropertyName) | |
| SourceStorageSystemVolume | Specifies the source volume of the SnapMirror relationship for which you want to create or modify the SnapMirror policy rules. | true | true (ByPropertyName) | |
| DestinationStorageSystem | Specifies the secondary storage system name containing the destination volumes of the SnapMirror relationship for which you want to create or modify the SnapMirror policy rules. IP addresses are not supported. | true | true (ByValue, ByPropertyName) | |
| DestinationStorageSystemVolume | Specifies the destination volume of the SnapMirror relationship for which you want to create or modify the SnapMirror policy rules. | true | true (ByPropertyName) | |
| SnapMirrorLabel | Specifies the SnapMirror policy rule which you want to create or modify. | true | true (ByPropertyName) | |
| Retention | Specifies the Snapshot copy retention count. | true | true (ByPropertyName) | |
| Preserve | Specifies whether Snapshot copy preserve is enabled, which determines the behavior when the Snapshot copy retention count is reached on the SnapMirror Vault destination. | false | true (ByPropertyName) | |
| WarnThreshold | Specifies the warning threshold count. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

String, Int32, SwitchParameter

## Return Values

SnapDrive.Nsf.Interfaces.RetentionPolicyRule

## Examples

### Example 1: Setting SnapMirror policy rule information on the policy for a SnapMirror relationship

```
PS C:\> Set-SdSnapMirrorPolicyRule -SourceStorageSystem vs01 -SourceStorageSystemVolume
 src_vol01 -DestinationStorageSystem vs02 -DestinationStorageSystemVolume dest_vol01 -
SnapMirrorLabel myWeekly -Retention 8 -Preserve -WarnThreshold 3 -verbose -Confirm:$false
```

```
Create or modify the SnapMirror policy rule "myWeekly" on the policy of the specified
 relationship.
```

```
PS C:\Users\administrator.NEXTGEN> Set-SdSnapMirrorPolicyRule -SourceStorageSystem vserver1 -
SourceStorageSystemVolume snapvault_source -DestinationStorageSyst
em vserver1 -DestinationStorageSystemVolume snapvault_dest -SnapMirrorLabel test -Retention 8
 -Preserve -WarnThreshold 3 -Verbose
```

```
Set-SdSnapMirrorPolicyRule
Set SnapMirror policy rule on vserver1 : snapvault_source ==> vserver1 : snapvault_dest.
Do you want to continue?
[Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help (default is "Y"):
VERBOSE: Setting SnapMirror policy rules.
The setting SnapMirror policy rules operation is successful.
VERBOSE: Operation successful.
```

# Set-SdSnapshot

Enables backup administrators to more easily attach labels to Snapshot copies and then select the secondary retention bucket by specifying the appropriate label.

## Syntax

```
Set-SdSnapshot [-Snapshot] <String> [-Path] <Object[]> [-SnapMirrorLabel] <String> [-Session
 <String>] [-Host <String>] [<CommonParameters>]
```

```
Set-SdSnapshot [-Snapshot] <String> [-StorageSystem] <String> [-VolumeName] <String[]> [-
SnapMirrorLabel] <String> [-Session <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Enables backup administrators to more easily attach labels to Snapshot copies and then select the secondary retention bucket by specifying the appropriate label. You can manage the secondary Snapshot copy retention using SnapMirror policies. A SnapMirror policy defines secondary retention buckets using various rules. A policy can have a maximum of 10 rules. These rules define how many Snapshot copies must be retained for a given Snapshot label and the behavior when the threshold is reached. You can also use rules to define what happens when you reach your Snapshot copy threshold. Based on your rule definitions, either the older Snapshot copies are deleted or your updates fail. You can use this cmdlet to set the Snapshot copy label based on the secondary retention requirements. You can use this cmdlet in clustered Data ONTAP 8.2 and later. Relate cmdlets: Restore-SdSnapshot, Remove-SdSnapshot, Rename-SdSnapshot, New-SdSnapshot

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Snapshot | Indicates the name name of the Snapshot copy to which you want the label to be attached. The Snapshot copy must exist in all the specified volumes. | true | true (ByPropertyName) | |
| Path | Specifies a volumes, logical disks, or a comma-separated list of SMB shares. You cannot mix a logical disk or mount point with SMB shares in the same input path. | true | true (ByPropertyName) | |
| SnapMirrorLabel | Specifies the label you want to attach to the Snapshot copy. If you specify an empty string, existing labels are removed. | true | true (ByPropertyName) | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | Indicates the name of the storage system in which the Snapshot copy resides. | true | true (ByPropertyName) | |
| VolumeName | Specifies a comma-separated list of the volumes in which the specified Snapshot copy resides. | true | true (ByPropertyName) | |

## Input Type

String[], String

## Return Values

SnapDrive.Nsf.Interfaces.SDSnapshot Snapshots for which the label is set

## Examples

### Example 1: Attaching a label to the specified Snapshot copy

```
PS C:\> Get-SdSnapshot -storagesystem prodvserver -volume voldb,vollog -snapshot
 salesdb_backup | Set-Sdsnapshot -label monthly


In this example syntax, you attach labels to the specified Snapshot copies.
```

### Example 2: Making a Snapshot copy and attaching a label to it

```
PS C:\> New-SdSnapshot \\SQLFileserver\DBShare,\\SQLFileserver\LogShare -Snapshot salesbackup
 -UpdateMirror | set-Sdsnapshot -Label weekly


In this example, you make a Snapshot copy of the specified shares, attach a weekly retention
 label, and update the mirror relationship.
```

### Example 3: Getting secondary backups and changing their retention label

```
PS C:\> Get-SdSnapshot \\SQLFileserver\DBShare,\\SQLFileserver\LogShare -
GetSecondarySnapshots | set-Sdsnapshot -label  monthly


In this example, you get secondary backups and change their retention labels.
```

# Set-SdStorageConnectionSetting

Sets up the storage system transport protocols and credential settings.

## Syntax

```
Set-SdStorageConnectionSetting [-StorageSystem] <String> [-HostOnly] [-Protocol
 <ConnectProtocol>] [-Port <UInt16>] -Credential <PSCredential> [-StorageSystemOSType
 <String>] [-PreferredIP <String>] [-Timeout <Int32>] [-Force] [-LegacyContext] [-Session
 <String>] [-Host <String>] [<CommonParameters>]

Set-SdStorageConnectionSetting [-StorageSystem] <String> -UseDefaultSetting [-HostOnly]
 [-StorageSystemOSType <String>] [-PreferredIP <String>] [-Timeout <Int32>] [-Force] [-
LegacyContext] [-Session <String>] [-Host <String>] [<CommonParameters>]

Set-SdStorageConnectionSetting -SyncClusterNodes [-HostOnly] [-Protocol <ConnectProtocol>] [-
Port <UInt16>] [-StorageSystemOSType <String>] [-PreferredIP <String>] [-Timeout <Int32>] [-
Force] [-LegacyContext] [-Session <String>] [-Host <String>] [<CommonParameters>]

Set-SdStorageConnectionSetting -DefaultSetting [-HostOnly] [-Protocol <ConnectProtocol>]
 [-Port <UInt16>] -Credential <PSCredential> [-StorageSystemOSType <String>] [-PreferredIP
 <String>] [-Timeout <Int32>] [-Force] [-LegacyContext] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Sets up the storage system transport protocols and credential settings. so that you can make connections to a storage system or a virtual storage server later. These settings include the storage system name, port, transport type, user login, password, and timeout. If the settings already exist in the configuration repository for a specified storage system, those settings are replaced. When you are running this parameter in a clustered Data ONTAP environment, you only need to configure your storage connection settings once, rather than on each node of the cluster. If you want to set storage credentials only on a specific host, use the -HostOnly parameter. Related cmdlets: Get-SdStorageConnectionSetting and Remove-SdStorageConnectionSetting

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| StorageSystem | Specifies the name or IP address of the storage system (storage controller or virtual storage server) for which you want to set connection settings. | true | true (ByPropertyName) | |
| HostOnly | Specifies that you want to set the storage system credentials only on the cluster node you specify. The default behavior is that HostOnly is not specified, and your storage credential settings are pushed to all the nodes in a cluster. | false | true (ByPropertyName) | |
| Protocol | Specifies the protocol type you want to use. By default, connections are attempted with a secure HTTPS connection to the storage controller, but it falls back to HTTP if necessary. Specify HTTPS, or HTTP to only | false | true (ByPropertyName) | DefaultWithFallback |

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| | use those protocols without any fallback to another protocol. Possible values are: HTTP, HTTPS, RPC. RPC is supported in 7-mode Data ONTAP version 8.0 and 8.1 storage systems only. | | | |
| Port | Specifies the port on which you want to connect to the storage controller. If you do not set this value, the default is 80 for HTTP and 443 for HTTPS. This parameter only applies to HTTP and HTTPS protocols. | false | true (ByPropertyName) | 80/443 |
| Credential | Designates the username and password you want to used to authenticate your connection to the storage system. Credentials are not required for the RPC protocol. You may specify credentials, but they will not be saved. | true | true (ByPropertyName) | |
| StorageSystemOSType | Indicates the storage system OS type. The available types are DataONTAP and Flashray. If no OS type is specified, SnapCenter Plug-in for Microsoft Windows attempts first to connect to a Data ONTAP storage system. If that attempt fails, it then attempts to connect to a FlashRay storage controller. This parameter is optional. | false | true (ByPropertyName) | |
| PreferredIP | | false | true (ByPropertyName) | |
| Timeout | | false | true (ByPropertyName) | |
| Force | Indicates that you want to override existing storage system connection settings. If -Force is not specified and storage system connection settings already exist, you will be prompted to indicate whether you want to overwrite existing settings. | false | true (ByPropertyName) | |
| LegacyContext | For internal use only. | false | false | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| UseDefaultSetting | Indicates that you want to use the default storage system connection settings for setting up a new storage system connection. To set up storage storage system connection using the default settings, enter: Set-StorageConnectionSetting -UseDefaultSetting -StorageSystem | true | true (ByPropertyName) | |
| SyncClusterNodes | | true | false | |
| DefaultSetting | Sets the default credentials, protocol and port. To specify default values, run: Set-SdStorageConnectionSetting -DefaultSetting -Protocol <HTTPS> -Port <443> -Credential <name> | true | true (ByPropertyName) | |

## Input Type

String, SwitchParameter, SnapDrive.Nsf.Interfaces.ConnectProtocol, UInt16, PSCredential, Int32 All storage connection settings to save.

## Return Values

SnapDrive.Nsf.Interfaces.SDStorageConnectionSetting, SnapDrive.Nsf.Interfaces.SDStorageConnectionSettingBase Returns settings for a storage system connection saved to the configuration repository. Processed default settings return SnapDrive.Nsf.Interfaces.SDStorageConnectionSettingBase while processed named connection settings return SnapDrive.Nsf.Interfaces.SDStorageConnectionSetting, types.

## Examples

### Example 1: Setting up named storage system connection settings

```
PS C:\> Set-SdStorageConnectionSetting -StorageSystem 'VirtualStorageServer1' -Protocol https
 -Credential vsadmin -Port 443


This example saves the specified storage system connection settings into the configuration
 repository. These settings are later used to connect to the VirtualStorageServer1 virtual
 storage server storage system. You are prompted for the password using the given login of
 'vsadmin'.









Storage System Name/IP  : VirtualStorageServer1
User                    : vsadmin
Port                    : 443
Protocol                : Https
```

### Example 2: Saving default connection settings using PowerShell script code

```
PS C:\> $password = ConvertTo-SecureString "p@ssword" -AsPlainText -Force
$vserver_cred = New-Object -TypeName System.Management.Automation.PSCredential -ArgumentList
 "vsadmin", $password


Set-SdStorageConnectionSetting -DefaultSetting -Credential $vserver_cred -protocol http


This example saves the default settings for later connections to a storage system. It uses a
 previously configured credential, the HTTP protocol, and the default port.
```

```
User       : vsadmin
Port       : 80
Protocol   : Http
```

## Example 3: Modifying existing settings for a new port and protocol

```
PS C:\> $setting = Get-SdStorageConnectionSetting -StorageSystem 'vmStorageServer'

$setting.Port = 443
$setting.Protocol = "Https"
$setting | Set-SdStorageConnectionSetting
```

This example reads the existing settings for "vmStorageServer" and then saves the storage system connection settings back to the configuration with a new port.

```
Storage System Name/IP   : 10.53.41.214
Name                     : vmStorageServer
Port                     : 443
Protocol                 : Https
```

## Example 4: Modifying existing connection settings based on default settings

```
PS C:\> $settingDef = Get-SdStorageConnectionSetting -DefaultSetting

$settingDef.port = 443
$settingDef | Set-SdStorageConnectionSetting -StorageSystem "exchangeStorageServer"
```

This example retrieves the original default settings and changes the port to 443. Then, it saves the storage system connection settings back to the configuration repository as the new settings used to connect to the "exchangeStorageServer" storage system.

```
Storage System Name/IP   : exchangeStorageServer
User                     : vsadmin
Port                     : 443
Protocol                 : Https
```

## Example 5: Setting default storage system connection settings using DefaultSetting

```
PS C:\> Set-SdStorageConnectionSetting -DefaultSetting -Protocol http -Credential vsadmin
```

In this example syntax, you use the -DefaultSetting parameter to set your protocol to HTTP, and your user name to "vsadmin".

```
User         : vsadmin
Port         : 80
Protocol     : Http
```

## Example 6: Using the default settings to establish a storage system connection

```
PS C:\> Set-SdStorageConnectionSetting -UseDefaultSetting -StorageSystem 172.17.165.33
```

In example syntax, you use the -UseDefaultSetting parameter to apply the default credentials, protocol, and port to your storage system.

```
Storage System Name/IP   : 172.17.165.33
User                     : vsadmin
Port                     : 80
Protocol                 : Http
```

# Set-SdStorageSize

Expands or shrinks the size of a Windows disk.

## Syntax

```
Set-SdStorageSize -Path <String> -Size <String> [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Expands or shrinks the size of a Windows disk.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies the drive letter or mount point of the file system you want to resize. | true | true (ByPropertyName) | |
| Size | Specifies the size to which you want to expand or shrink your Windows disk. | true | false | |
| Session | Specifies the session ID from Open-SmConnection. | false | true (ByPropertyName) | |
| Host | Specifies the name of the computer or host on which the SnapDrive service you want to perform the operation runs. The default is your local machine. | false | true (ByPropertyName) | |

## Input Type

System.String

## Return Values

SnapDrive.Nsf.Interfaces.SDFileSystem

## Examples

### Example 1: Resizing a CSV

```
PS C:\> Set-SdStorageSize -path C:\ClusterStorage\Volume1\ -Size 1.1G -Verbose
```

```
This example syntax resizes a CSV.
```

### Example 2: Resizing a disk without a mount point

```
PS C:\> Set-SdStorageSize -Path D:\Mount -Size 10G -Shrink -Verbose
```

This example syntax resizes a drive without a mount point.

## Example 3: Resize a drive

```
PS C:\> Set-SdStorageSize -Path M:\ -Size 10G -Verbose
```

This example syntax resizes a drive.

# Set-SdVsphereSetting

Sets your vSphere user credentials, if vSphere is enabled.

## Syntax

```
Set-SdVsphereSetting [-VsphereOrEsxHost] <String> [-Credential] <PSCredential> [-Session
 <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

Sets your vSphere user credentials, if vSphere is enabled.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| VsphereOrEsxHost | Specifies your vSphere or ESX host, on which you want to set your vSphere credentials. | true | true (ByValue, ByPropertyName) | |
| Credential | Specifies the user name and password you want to use to access vSphere. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# Start-SdVolumeCloneSplit

Starts your clone volume splitting operation.

## Syntax

```
Start-SdVolumeCloneSplit -Path <Object[]> [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

## Detailed Description

Starts your clone volume splitting operation.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| Path | Specifies the path to the clone volume you want to split. | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |

# Stop-SdVolumeCloneSplit

Stops your clone volume splitting operation.

## Syntax

```
Stop-SdVolumeCloneSplit [[-JobId] <String[]>] -StorageSystem <String> [-Session <String>] [-
Host <String>] [<CommonParameters>]
```

```
Stop-SdVolumeCloneSplit [[-JobId] <String[]>] -Path <Object[]> [-Session <String>] [-Host
 <String>] [<CommonParameters>]
```

## Detailed Description

Stops your clone volume splitting operation.

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| JobId | | false | true (ByPropertyName) | |
| StorageSystem | | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | Specifies the name or IP address of the host on which you execute the operation. The default is your local machine. | false | true (ByPropertyName) | |
| Path | Specifies the path to the clone volume you want to stop splitting. | true | true (ByPropertyName) | |

# UnMap-SdLUNS

## Syntax

```
UnMap-SdLUNS [-LunPath] <String[]> [-Initiators] <String> [-RestApiURL] <String> [-Session
 <String>] [-Host <String>] [<CommonParameters>]
```

## Detailed Description

## Parameters

| Name | Description | Required? | Pipeline Input | Default Value |
|---|---|---|---|---|
| LunPath | | true | true (ByValue, ByPropertyName) | |
| Initiators | | true | true (ByPropertyName) | |
| RestApiURL | | true | true (ByPropertyName) | |
| Session | | false | true (ByPropertyName) | |
| Host | | false | true (ByPropertyName) | |

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