

SnapCenter® Software 4.1

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:

- Creating an storage virtual machine (SVM) connection and a Run As account
- Backing up SQL Server databases
- Restoring and recovering SQL Server databases
- Cloning SQL Server database backups

Creating a storage system connection and a Run As account using PowerShell cmdlets

You must create a storage virtual machine (SVM) connection and a Run As account before using PowerShell cmdlets to back up, restore, or clone SAP HANA databases, custom plug-in resources, SQL Server databases, or Windows file systems.

Before you begin

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

About this task

For information about PowerShell cmdlets, use the SnapCenter cmdlet help or see the cmdlet reference information.

Steps

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

   #### Example

   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.

   #### Example

   This example creates a new storage system connection:

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

3. Create a new Run As account by using the `Add-SmRunAs` cmdlet.

Example

This example creates a new Run As account named FinanceAdmin with Windows credentials:

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

Backing up resources using PowerShell cmdlets

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 Run As account.
- You must have added hosts and discovered resources.

About this task

For information about PowerShell cmdlets, use the SnapCenter cmdlet help or see the cmdlet reference information.

Steps

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

   #### Example

   ```
   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.

   #### Example

   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
   ```

   #### Example

   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.

Example

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
```

Example

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.

Example

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"
```

Example

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.

Example

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

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

Example

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?
```

Restoring and recovering 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.

About this task

For information about PowerShell cmdlets, use the SnapCenter cmdlet help or see the cmdlet reference information.

Steps

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

   #### Example

   ```
   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.

   #### Example

   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
   ```

   #### Example

   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.

Example

```
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
```

Example

```
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
```

Cloning 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.

About this task

For information about PowerShell cmdlets, use the SnapCenter cmdlet help or see the cmdlet reference information.

Steps

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

   #### Example

   ```
   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.

   #### Example

   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
   ```

   #### Example

   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
   ByPassRunAs : 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.

Example

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
```

Example

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.

Example

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}
```

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Add-SmCloneDataSet

Creates a new clone dataset.

Syntax

```
Add-SmCloneDataSet [-DataSetName] <String> [[-Description] <String>] [-PluginCode]
 <PluginCode> [[-Policies] <String>] [-CloneToInstance] <String> [-Resources] <Hashtable[]>
 [[-Suffix] <String>] [[-SchedulerRunAsName] <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)	
SchedulerRunAsName	Provides the Run As account information for the policies you have attached to the resource group. You can	false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
	only provide one Run As account per resource group, regardless of the number of policies. The Run As account information is not required if you do not include a schedule in the policy.			
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)	
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

```
PS C:\> 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

```
PS C:\> 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

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

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)	
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)	

Name	Description	Required?	Pipeline Input	Default Value
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)	
SchedulerRunAsName	Provides the Run As account information for the policies you have attached to the resource group. You can only provide one Run As account per resource group, regardless of the number of policies. The Run As account information is not required if you do not include a schedule in the policy.	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)	
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
```

Add-SmDomain

Register a domain with SnapCenter server.

Syntax

```
Add-SmDomain -Name <String> -FQDN <String> [-IPAddresses <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)	
FQDN	FQDN of the domain to be registered. When you provide the correct FQDN while adding or modifying the domain, the domain resolves and the IP address 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)	

Examples

Example 1: Register a trusted domain with SnapCenter Server.

```
PS C:\Users\administrator.NBSDSM> Add-SmDomain -Name mva -FQDN mva.gdl.netapp.com

Added the domain mva.


Id                              : 0
Name                            : mva
DomainFQDN                      : mva.gdl.netapp.com
DomainControllerHostNamesorIPs :
```

```
TrustedDomains                 :
CreatedOn                      :
ModifiedOn                     :
```

Example 2: Register an untrusted domain with SnapCenter Server.

```
PS C:\Users\administrator.E2010> Add-SmDomain -Name dom-newad -FQDN domdc0.gdl.netapp.com -
IPAddresses 10.111.111.68


Added the domain dom-newad.



Id                             : 0
Name                           : dom-newad
DomainFQDN                     : domdc0.gdl.netapp.com
DomainControllerHostNamesorIPs : 10.111.111.68
TrustedDomains                 :
CreatedOn                      :
ModifiedOn                     :
```

Add-SmGroupToRole

Adds a group to an existing role.

Syntax

```
Add-SmGroupToRole [-Domain <String>] -Group <String> -RoleName <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
Domain	Specifies the domain to which the group belongs.	false	true (ByPropertyName)	
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)	

Examples

Example 1: Adding a group to a role

```
PS C:> 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 -HostName <String> [-Port <UInt16>] -OSType <SmOperatingSystemType> [-ColoHost] [-
DiscoverPlugins] [-DoNotAddClusterNodes] [-RunAsName <String>] [-PluginCode <PluginCode>] [-
Plugin_GUID <String>] [-EndPointURI <String>] [-Skipprecheck] [-Force] [<CommonParameters>]

Add-SmHost -HostName <String> [-IsDAG] [-Port <UInt16>] -OSType <SmOperatingSystemType>
 [-ColoHost] [-DiscoverPlugins] [-DoNotAddClusterNodes] [-RunAsName <String>] [-PluginCode
 <PluginCode>] [-Plugin_GUID <String>] [-EndPointURI <String>] [-Skipprecheck] [-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
HostName	Specifies the name or IP of the cluster or standalone host you want to add.	true	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)	
OSType	Specifies the operating system of the host you are adding. Valid values are 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)	
ColoHost	Internal switch to specify that you want SnapCenter to use the host agent on the local host. The default is to use the host agent on the remote host.	false	true (ByPropertyName)	
DiscoverPlugins	Specifies the discovery of plug-in information for the host you are adding. The default value is False. If you set the parameter to True, discovery of the host plug-in information is triggered after the host is registered and added to SnapCenter. If set to false, the host plug-in information is updated along with other hosts on a schedule defined in web.config file.	false	true (ByPropertyName)	False
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	false	true (ByPropertyName)	False

Name	Description	Required?	Pipeline Input	Default Value
	when you provide a cluster name, all nodes in the cluster are added and managed by SnapCenter.			
RunAsName	Specifies the name of the Run As account with credentials required to perform application-specific operations in SnapCenter. You can use a Run As account to perform application-specific operations within SnapCenter, such as remotely installing plug-ins. Use the Add-SmRunAs cmdlet to create a Run As account.	false	true (ByPropertyName)	
PluginCode	Specifies that you want to remotely install a plug-in on a host, while that host is being added to SnapCenter. If the specified plug-in is already installed on the host, no changes are made. Valid values is are SCSQL, SCE, SCO, SCV, and custom plug-ins. After you execute this command, run the Install-SmHostPackage cmdlet to push install the plug-in.	false	true (ByPropertyName)	
Plugin_GUID	Specifies the plug-in installation package GUID you want to deploy on the host you are adding. Use the Get-SmDownloads cmdlet to list the plug-in the plug-in installation package GUID.	false	true (ByPropertyName)	
EndPointURI	Internal switch.	false	true (ByPropertyName)	
Skipprecheck	Specifies that host registration prechecks will not be triggered.	false	true (ByPropertyName)	
Force		false	true (ByPropertyName)	
IsDAG	Required parameter that enables SnapCenter to discover Microsoft Exchange Database Availability Groups (DAGs) when you use the SnapCenter Plug-in for Microsoft Exchange Server.	false	true (ByPropertyName)	

Examples

Example 1: Registering a host with SnapCenter

```
PS C:\> add-smhost -HostName localhost -OSType Windows -DiscoverPlugins -DoNotAddClusterNodes
 -RunAsName admin
```

This example syntax registers the specified Windows host with SnapCenter.

```
OsInfo                : SMCoreContracts.SmOperatingSystemInfo
HostName              : clab-a13-13.sddev.mycompany.com
IP                    : fe80::74c9:f899:bf3c:1b6a
%41,fe80::2da6:49bc:2476:bb22%27,fe80::7cb4:8cb2:4245:938f%35,fe80::a1

 a3:5461:e0c5:d6d3%29,fe80::a054:6d7e:317:d6c9%25,fe80::881d:8262:597f:52c6%38,fe80::e1f0:9047:f
```

```
                          ada:e4ef
%32,169.254.80.80,169.254.187.34,169.254.147.143,169.254.214.211,169.254.82.198,169.254
                          .228.239,172.17.168.127,fd20:8b1e:b255:322:a054:6d7e:317:d6c9
Description           :
HostId                : 4
DomainName            : sddev.lab.com
Version               :
Port                  : 8145
ClusterHost           : False
ClusterName           :
Members               : {}
HostStatus            : eHostUp
HostPluginInfos       : {}
ColoHost              : True
HostConfiguration     : SMCoreContracts.SmConfiguration
DiscoverPlugin        : False
HostUUID              :
HostInitiators        : {}
HostBIOSID            :
HostMaintenanceStatus : Production
IsNLBEnabled          : False
VerificationServers   :
Name                  :
Type                  :
Id                    :
Host                  :
UserName              :
Passphrase            :
Deleted               : False
Auth                  : SMCoreContracts.SmAuth
IsClone               : False
CloneLevel            : 0
```

Example 2: Registering a SnapCenter for VMware vSphere host with SnapCenter

```
Add-SmHost -HostName Win8-esx90.e12extest1.lab.com -Port 8144 -RunAsName vmware1 -OSType
 vSphere -PluginCode SCVM
```

This example syntax registers SnapCenter for VMware vSphere host with SnapCenter.

```
OsInfo                : SMCoreContracts.SmOperatingSystemInfo
HostName              : Win8-esx90.e12extest1.lab.com
IP                    : 10.225.230.34
Description           :
HostId                : 4
DomainName            : e12extest1.lab.com
Version               :
Port                  : 8144
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
Name                  :
Type                  :
Id                    :
Host                  :
UserName              :
Passphrase            :
Deleted               : False
Auth                  : SMCoreContracts.SmAuth
IsClone               : False
CloneLevel            : 0
Hosts                 : {}
```

Example 3: Registering an Exchange DAG with SnapCenter

```
Add-SmHost -HostName EXCH2016DAG -IsDAG -OSType Windows -RunAsName Administrator -Verbose
```

This example syntax registers the specified Exchange DAG with SnapCenter.

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> [-PluginCode] <UploadedPluginCode> [[-PluginVersions]
 <Hashtable>] [[-RunAsName] <String>] [<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)	
PluginCode	Specifies the plug-in you want to install or upgrade. Valid values is SCSQL. When you specify this parameter, the latest supported plug-in package is deployed. For example, if you want to install or upgrade SnapCenter Plug-in for Microsoft SQL Server, use plug-in code SCSQL.	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)	
RunAsName	Specifies the name of the Run As account.	false	true (ByPropertyName)	

Examples

Example 1: Installing SnapCenter Plugin for Microsoft Windows on a host

```
PS C:\> Add-SmPlugin -HostNames @("mywinsrvr2012r2.mycompany.com") -PluginCode SCW -
LicenseType Storage
```

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

Example 2: Installing SnapCenter Plugin for Microsoft SQL Server on a host

```
PS C:\> Add-SmPlugin -HostNames @("mywinsrvr2012r2.mycompany.com") -PluginCode SCSQL -
LicenseType Storage
```

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

Example 3: Installing SnapCenter Plugin for Microsoft SQL Server on multiple hosts

```
PS C:\> Add-SmPlugin -HostNames @("mywinsrvr2012r2.mycompany.com",
 "my2winsrvr2012r2.mycompany.com") -PluginCode SCSQL -LicenseType Storage
```

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

Example 4: Adding or upgrading a custom plugin

```
Add-SmPlugin -HostNames myhostname -PluginCode CustomPlugin @{"CustomPlugin"="1.0"} -
RunAsName root -Verbose
```

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

```
VERBOSE: Start Add-SmPlugin
Name                        : Plug-in Installation on host 'myhostname'
Id                              : 72
StartTime                   : 7/19/2016 1:41:57 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
VERBOSE: Add-SmPlugin ended successfully.
```

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)	
AGBackupReplicaType	Availability Group backup replica type. Possible values are Primary, Secondary and All.	false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
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)	
EnableLogFolderSnapshot Retention	Enables log folder Snapshot copy retention.	false	true (ByPropertyName)	
DeleteLogFolderSnapshotOlder Than	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)	
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)	

Name	Description	Required?	Pipeline Input	Default Value
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)	
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)	

Name	Description	Required?	Pipeline Input	Default Value
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)	
DeleteArchiveLogFromAll Destination	This parameter enables pruning of archive logs on a specified destination. If the value is True, archive logs are pruned on all destinations. If the option is False, archive logs are pruned only on backed up destinations.	false	true (ByPropertyName)	
DeleteArchiveLogBackupInExcess	Deletes archive log backup in excess of the specified backup count.	false	true (ByPropertyName)	
DeleteAchiveLogBackupOlder Than	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)	

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

Examples

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

```
PS C:\> 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

```
PS C:\Software> 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

```
PS C:\>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

```
PS C:\> 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
```

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, -Resource @{"Host"="host.example.com";"Type"="SQL Database";"Names"="NB-MVA-DEV054\newdb"}	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	pecifies the list of policies associated with the resource group. Multiple policies can be added as a comma-separated list.	false	true (ByPropertyName)	
SchedulerRunAsName	Provides the Run As account information for the policies you have attached to the resource group. You can only provide one Run As account per resource group, regardless of the number of policies. The Run As account information is not required if you do not include a schedule in the policy.	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		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)	
BackupArchiveLogsAfterRecent MissingOne		false	true (ByPropertyName)	
ExcludeArchiveLogPathsFrom Backup		false	true (ByPropertyName)	
ConsistencyGroupSnapshot		false	true (ByPropertyName)	
ConsistencyGroupWaflSync		false	true (ByPropertyName)	
ConsistencyGroupTimeOut		false	true (ByPropertyName)	
SnapShotCreateCommand		false	true (ByPropertyName)	
UseFileSystemConsistent Snapshot		false	true (ByPropertyName)	
UseSnapcenterWithoutFileSystem Consistency		false	true (ByPropertyName)	
PreAppQuiesceCmd		false	true (ByPropertyName)	
PostAppQuiesceCmd		false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
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: 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"="August,September";}
 -SchedulerRunAsName Administrator -SchedulerType Windows


This example syntax protects a resource.
```

Add-SmResource

Creates resource of custom plug-in to be protected.

Syntax

```
Add-SmResource -HostName <String> -PluginCode <PluginCode> [-RunAsName <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. 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-ins 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)	
RunAsName	The name of the Run As account you are using.	false	true (ByPropertyName)	
ResourceType	The type of application object. 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"})	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)	
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)	

Name	Description	Required?	Pipeline Input	Default Value
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		false	true (ByPropertyName)	
TenantDatabaseName	This is a SAP HANA database specific parameter. It is the name of the tenant database for SAP HANA MultipleContainers resource type.	true	true (ByPropertyName)	
TenantType	This is a SAP HANA database specific parameter. This specifies the tenant type of MultipleContainers SAP HANA database. Possible value is SingleTenant. MultiTenant is not supported.	true	true (ByPropertyName)	

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_scauto_secondary"},
 @{"VolumeName"="DB2_RECDB";"LunName"="DB2_RECDB";"StorageSystem"="vserver_scauto_primary"}))
```

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_primary"})
 -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 dummyplugin -ResourceType instance

-ResourceName mixedres -StorageFootPrint
 @(@{"storagesystem"="10.232.206.5";"volumename"="dummyvol"},@{"storagesystem"="10.232.206.5";"volumename"="du
\luninsideqtree"},@{"storagesystem"="10.232.206.5";"volumename"="dummyvol4";"qtreename"="qtreeinsidevol"})
```

Example 5: Adding a SAP HANA database of SingleContainer type

```
Add-SmResource -HostName 'scspr0204312001.gdl.englab.netapp.com' -PluginCode 'HANA' -SID
 'H01' -DatabaseName NonMDC_SN -ResourceType SingleContainer -userstorekeys 'KEY01' -
StorageFootPrint @(@{"storagesystem"="10.232.206.5";"volumename"="dummyvol"})
```

Example 6: Adding a SAP HANA database of MultipleContainers type

```
Add-SmResource -HostName 'scspr0204312001.gdl.englab.netapp.com' -PluginCode
 'HANA' -SID 'H11' -TenantDatabaseName 'abc' -TenantType SingleTenant -DatabaseName
 MDC_SN -ResourceType MultipleContainers -userstorekeys 'KEY01' -StorageFootPrint
 @(@{"storagesystem"="10.232.206.5";"volumename"="dummyvol"})
```

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\db1"} Valid Type values are: SQL Database, SQL Instance, SQL Availability Group. You can include comma-separated values for Names.	true	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
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)	
SchedulerRunAsName	Provides the Run As account information for the policies you have attached to the resource group. You can only provide one Run As account per resource group, regardless of the number of policies. The Run As account information is not required if you do not include a schedule in the policy.	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.	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)	
ConsistencyGroupSnapshot		false	true (ByPropertyName)	
ConsistencyGroupWaflSync		false	true (ByPropertyName)	
ConsistencyGroupTimeOut		false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
SnapShotCreateCommand		false	true (ByPropertyName)	
UseFileSystemConsistent Snapshot	Specifies that you want to use file system consistent Snapshot copy.	false	true (ByPropertyName)	
UseSnapcenterWithoutFileSystem Consistency		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)	
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.sccore.test.com";"Uid"="
 -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_SCHEDULED";"VerifyOnSecon
Jul-16 6:42:12 PM";"EndTime"="25-Jul-16 6:42:12
 PM"},@{"BackupScheduleType"="Daily";"DeferredBackupCount"="2";"VerificationType"="VERIFY_SCHEDULED";"VerifyOnS
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_SCHEDULED";"VerifyOnSecon
Jul-16 6:42:12 PM";"EndTime"="25-Jul-16 6:42:12
 PM"},@{"BackupScheduleType"="Monthly";"DeferredBackupCount"="2";"VerificationType"="VERIFY_AFTER_BACKUP";"Veri


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.
```

Add-SmResourceToUser

Adds resources to an existing user.

Syntax

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

Detailed Description

Adds resources to an existing user. The resources can be a dataset, 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 StorageConnection, Policy, Plugin, Host, and DataSet.	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 a user

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

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

Example 2: Adding a dataset resource to a user

```
PS C:> Add-SmResourceToUser -UserName sddev\administrator -ResourceNames FinanceDataset -
ResourceType DataSet
```

```
This example syntax assigns the FinanceDataset dataset object to the sddev\administrator
 user.
```

Add-SmRunAs

Creates a new Run As account with specified credentials.

Syntax

```
Add-SmRunAs -Name <String> [-AuthMode <SmAuthMode>] [-InstanceName <String>] -Credential
 <PSCredential> [-EnableSudoPrevileges [<Boolean>]] [<CommonParameters>]
```

Detailed Description

Creates a new Run As account with specified credentials. You can use a Run As account to perform application-specific operations within SnapCenter.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Name	Specifies the name of the Run As account.	true	true (ByPropertyName)	
AuthMode	Specifies authentication mode. Valid values are: SQL, Linux, OracleDatabase, OracleASM, and Windows.	false	true (ByPropertyName)	None
InstanceName	The name of the SQL instance.	false	true (ByPropertyName)	
Credential	Specifies either the SQL or Windows user name and password.	true	true (ByPropertyName)	
EnableSudoPrevileges		false	true (ByPropertyName)	

Examples

Example 1: Creating a new Run As account with Windows credentials

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

```
This example syntax creates a new Run As account named FinanceAdmin with Windows credentials.
```

Example 2: Creating a Run As account SQL credentials

```
PS C:> Add-SmRunAs -Name  FinanceAdmin -AuthMode SQL -InstanceName clab-a13-13\Test -
Credential sa.
```

```
This example syntax creates a new Run As account with SQL credentials on the specified SQL
 instance.
```

Example 3

Add-SmSite

Syntax

```
Add-SmSite [-Name] <String> [[-Description] <String>] [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Name		true	false	
Description		false	false	

Add-SmStorageConnection

Creates a new storage system connection.

Syntax

```
Add-SmStorageConnection [-SVM] <String> [[-Port] <UInt16>] [-Protocol] <ConnectProtocol>
 [[-Timeout] <Int32>] [-Credential] <PSCredential> [[-PreferredIP] <String>] [[-
DisableAsupOnFailure]] [[-DisableSysLog]] [-StorageType <StorageSystemType>] [-PlatformType
 <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
SVM	Specifies the name of the storage system to which you want to create the connection.	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		false	true (ByPropertyName)	
DisableSysLog		false	true (ByPropertyName)	
StorageType	Specifies the type of storage being added.	false	true (ByPropertyName)	
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 StorageType as ONTAP SVM as the storage connection type, and you do not specify PlatformType, the default value is set to Hardware.	false	true (ByPropertyName)	

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

Examples

Example 1: Creating a new storage system connection

```
PS C:\> 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
```

Add-SmUserToRole

Adds a user to a role.

Syntax

```
Add-SmUserToRole -UserName <String> -RoleName <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)	

Examples

Example 1: Adding a user to a role

```
PS C:> Add-SmUserToRole -UserName sddev\snapdrive -RoleName SnapCenterAdmin

This examples syntax adds the specified user to the SnapCenterAdmin role.
```

Add-SmVerificationServer

Adds a verification server.

Syntax

```
Add-SmVerificationServer -Name <String> [-HostName <String>] [-UseDriveLetter] -
MountPointPath <String> [-MaxJobCount <Int32>] [-RunAsName <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
RunAsName	Provides the Run As account name you want to use to run the verification job.	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

```
PS C:\Software> 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

Syntax

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

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
JobId		true	false	

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> [-DatabaseRunAsName <String>] [-
AsmRunAsName <String>] [-OracleRmanCatalogTnsName <String>] [-OracleRmanCatalogRunAsName
 <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)	
DatabaseRunAsName	Specifies the name of the Oracle Database Run As account which contains the credentials for the database. Provide 'None' if you want to use OS authentication.	false	true (ByPropertyName)	
AsmRunAsName	Specifies the name of the Oracle ASM Run As account which contains the credentials for the ASM instance. Provide 'None' if you want to use OS authentication.	false	true (ByPropertyName)	
OracleRmanCatalogTnsName	Specifies the TNS name of Oracle Recovery Manager (RMAN) catalog database.	false	true (ByPropertyName)	
OracleRmanCatalogRunAsName	Specifies the name of the Oracle Recovery Manager (RMAN) catalog database Run As account which contains the credentials for the catalog database. Provide 'None' if you want to use only controlfile for cataloging.	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.

```
PS C:> 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.

```
PS C:> 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

```
PS C:\> 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

```
PS C: 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

```
PS C:\> Enable-SmDataCollectionEms

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

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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:> 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-SmBackup

Gets information about one or more backups.

Syntax

```
Get-SmBackup [-BackupName <String>] [-BackupId <String>] [-AppObjectName <String>] [-
AppObjectId <String>] [-Secondary] [-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)	
Details		false	true (ByPropertyName)	

Examples

Example 1: Getting information about all backups

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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>] [<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".	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".	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, and warning.	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)	
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)	

Examples

Example 1: Getting a backup report for a date range

```
PS C:\> 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

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
```

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

```
PS C:\> 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

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
```

Example 3: Getting a detailed backup report

```
PS C:\> 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
```

Get-SmClone

Gets information about existing clones.

Syntax

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

Examples

Example 1: Retrieving information about all clones

```
PS C:\> 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

```
PS C:\> 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

```
PS C:> 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

```
PS C:\> 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

```
PS C:\> 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}
```

Get-SmCloneJob

Syntax

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

Detailed Description

Parameters

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

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>] [<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".	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".	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, and warning.	false	false	
HostName	Specifies the name of the host on which the clone resides.	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          :
```

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          :
```

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

```
PS C:\> 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 cannot specify multiple keys to display.	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

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

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

```
PS C: > 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

```
PS C: > 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

```
PS C:\> 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.

```
PS C:\Users\administrator.NBSDSM> Get-SmDomain

Id                              : 2
Name                            : dom-newad01
DomainFQDN                      : domdc01.gdl.englab.netapp.com
DomainControllerHostNamesorIPs : 10.111.111.68
TrustedDomains                  :
CreatedOn                       : 4/11/2018 10:19:49 PM
ModifiedOn                      : 4/13/2018 2:37:53 AM

Id                              : 1
Name                            : mva
DomainFQDN                      : mva.gdl.englab.netapp.com
DomainControllerHostNamesorIPs :
TrustedDomains                  :
CreatedOn                       : 4/11/2018 10:06:34 PM
ModifiedOn                      : 4/15/2018 6:05:29 AM
```

Example 2: Get a specific registered domain.

```
PS C:\Users\administrator.E2010> Get-SmDomain -Name mva

Id                              : 1
Name                            : mva
DomainFQDN                      : mva.gdl.englab.netapp.com
DomainControllerHostNamesorIPs :
TrustedDomains                  :
CreatedOn                       : 4/11/2018 10:06:34 PM
ModifiedOn                      : 4/15/2018 6:05:29 AM
```

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

```
PS O:> Get-SmDownloadRepository
```

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

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

Get-SmDownloads

Syntax

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

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value

Get-SmHost

Syntax

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

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
HostNames		false	true (ByPropertyName)	
IncludePluginInfo		false	true (ByPropertyName)	
IncludeVerificationServerInfo		false	true (ByPropertyName)	

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.	false	true (ByValue, ByPropertyName)	
JobId	To be deleted.	false	true (ByValue, ByPropertyName)	

Examples

Example 1: Initiating a job summary report for one day

```
PS C:\> 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

```
PS C:\> 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

```
PS c:\> 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

```
PS C:\> Get-SmLogs -AllLogs -Path C:\temp\allLogs.zip
```

This example syntax retrieves all log files.

Example 2: Retrieving SnapCenter Server logs

```
PS C:\> Get-SmLogs -Path C:\temp\serverLogs.zip ?ServerLogs
```

This example syntax retrieves all Server logs.

Example 3: Retrieving plugin instance logs

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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-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

```
PS > 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

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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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-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

```
PS C:\> 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-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-SmResourceRunAs

Gets the Run As account information for a resource.

Syntax

```
Get-SmResourceRunAs [-HostName <String>] [-ResourceName <String>] [-ResourceId <String>]
 [<CommonParameters>]
```

Detailed Description

Gets the Run As account information for a resource. You can get the Run As account information for all resources, for a specific resource, or for a specific host.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
HostName	Specifies the name of the host for which you want resource Run As information. You can specify only one host at a time.	false	true (ByPropertyName)	
ResourceName	Specifies the name of the resource for which you want to get Run As information.	false	true (ByPropertyName)	
ResourceId		false	true (ByPropertyName)	

Examples

Example 1: Getting Run As account information

```
PS C:\> Get-SmResourceRunAs

This example syntax gets Run As account information all resources.
```

```
Name       : vise-f4\SQLEXPRESS
Type       : SQL Instance
Id         : 1
Host       : vise-f4.sddev.mycompany.com
```

```
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

Id                             : 1
RunAsName                      : os
AuthMode                       : Windows
UserName                       : sddev\administrator
Passpharse                     :
OwnerId                        :
HostName                       :
InstanceName                   :
TargetURL                      :
CheckforAdministratorPrivilage : False
```

Example 2: Getting the Run As account information associated with a specific resource

```
PS C:\> Get-SmResourceRunAs -ResourceName vise-f3\sqlexpress

This example syntax gets the Run As information association with the specified host.
```

```
Name       : vise-f4\SQLEXPRESS
Type       : SQL Instance
Id         : 1
Host       : vise-f4.sddev.mycompany.com
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0
```

```
Id                              : 1
RunAsName                       : os
AuthMode                        : Windows
UserName                        : sddev\administrator
Passpharse                      :
OwnerId                         :
HostName                        :
InstanceName                    :
TargetURL                       :
CheckforAdministratorPrivilage : False
```

Example 3: Getting Run As account information for resources on a specific host

```
PS C:\> Get-SmResourceRunAs -HostName vise-f4

This example syntax gets Run As account information




Name       : vise-f4\SQLEXPRESS
Type       : SQL Instance
Id         : 1
Host       : vise-f4.sddev.mycompany.com
UserName   :
Passphrase :
Deleted    : False
Auth       : SMCoreContracts.SmAuth
IsClone    : False
CloneLevel : 0

Id                              : 1
RunAsName                       : os
AuthMode                        : Windows
UserName                        : sddev\administrator
Passpharse                      :
OwnerId                         :
HostName                        :
InstanceName                    :
TargetURL                       :
```

```
CheckforAdministratorPrivilage : False
```

Get-SmResources

Discovers plug-in resources.

Syntax

```
Get-SmResources -PluginCode <PluginCode> [-HostName <String>] [-UseKnownResources] [-
AppObjectType <String>] [-IsDAG] [<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. 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":

Parameters

Name	Description	Required?	Pipeline Input	Default Value
PluginCode	The name of the plug-in associated with the resource you are adding. 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.	false	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.	false	true (ByPropertyName)	
AppObjectType	Specifies the type of application object. For example, instance, database, or a SAP HANA SingleContainer or MultipleContainers.	false	true (ByPropertyName)	
IsDAG	Required parameter that enables SnapCenter to discover Microsoft Exchange Database Availability Groups (DAGs) when you use the SnapCenter Plug-in for Microsoft Exchange Server.	false	true (ByPropertyName)	
DatabaseName	SAP HANA database name.	false	true (ByPropertyName)	
ListStorageFootprint		false	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.	false	true (ByPropertyName)	
ResourceType	Specifies the type of application object. For example, instance, database, or a SAP HANA SingleContainer or MultipleContainers.	false	true (ByPropertyName)	
TenantDatabaseName	This is a SAP HANA database specific parameter. It is the name of the tenant database for SAP HANA databases of MultipleContainers type.	false	true (ByPropertyName)	
ResourceName		false	true (ByPropertyName)	

Examples

Example 1: Discovering resources on a host

```
PS C:\> 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 Resouces: 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 -
AppObjectName 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+2hK0VNM8YOf8
          zAU58u24RZGTrLjcLZX0OeH0JwPgGZ5Ljml629LkU7ArBMfWXokq6Q==
          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 MultipleContainersadd

```
Get-SmResources -HostName 'scspr0204312001.gdl.englab.netapp.com' -PluginCode hana -
AppObjectName 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/bw24xEfTr1IUOuP8wXGP4t/DluFo4H
          fNIYIpEAQ9BuK9ehMQagGY9DwbsvtTrrueVzPCi0E4LAfV4+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         :
```

Get-SmRestoreReport

Initiates a restore report.

Syntax

```
Get-SmRestoreReport [-JobId] <Int64> [<CommonParameters>]
Get-SmRestoreReport [-FromDateTime <DateTime>] [-ToDateTime <DateTime>] [-Resource <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".	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".	false	false	
Resource	Provides the name of a specific resource for which you want to get a restore report.	false	true (ByPropertyName)	

Examples

Example 1: Getting a restore report

```
PS C:\> 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 :

SmJobId         : 2535
StartDateTime   : 2/5/2015 6:02:19 AM
EndDateTime     : 2/5/2015 6:03:13 AM
Status          : Completed
Resource        : SMCoreContracts.SmObject
RecoveryRequest :
```

Example 2: Getting a restore report for a specific resource

```
PS C:\> 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 :
```

Example 3: Getting a restore report for a specific host

```
PS C:\> 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 :

SmJobId         : 2535
StartDateTime   : 2/5/2015 6:02:19 AM
EndDateTime     : 2/5/2015 6:03:13 AM
Status          : Completed
Resource        : SMCoreContracts.SmObject
RecoveryRequest :
```

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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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-SmRunAs

Gets all the Run As accounts created in SnapCenter.

Syntax

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

Detailed Description

Gets all the Run As accounts created in SnapCenter. If you specify a Run As name, you receive information about the specified Run As account. Without a specified name, you receive information about all existing accounts.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Name	Specifies and individual Run As account for which you want to get information. If you omit this parameter, you retrieve information about all Run As accounts associated with SnapCenter.	false	true (ByPropertyName)	

Examples

Example 1: Getting information about a specific Run As account

```
PS C:\> Get-SmRunAs -Name Avatar

This example syntax retrieves information about a specific Run As account.
```

```
Id                              : 20021
RunAsName                       : Avatar
AuthMode                        : Windows
UserName                        : sddev\administrator
Passpharse                      :
```

```
OwnerId                         :
HostName                        :
InstanceName                    :
TargetURL                       :
CheckforAdministratorPrivilage : False
```

Example 2: Getting information about all Run As accounts

```
PS C:\> Get-SmRunAs

This example syntax gets information about all Run As accounts.




Id                              : 20021
RunAsName                       : Avatar
AuthMode                        : Windows
UserName                        : sddev\administrator
Passpharse                      :
OwnerId                         :
HostName                        :
InstanceName                    :
TargetURL                       :
CheckforAdministratorPrivilage : False

Id                              : 20022
RunAsName                       : Cliffhanger
AuthMode                        : Windows
UserName                        : mva\administrator
Passpharse                      :
OwnerId                         :
HostName                        :
InstanceName                    :
TargetURL                       :
CheckforAdministratorPrivilage : False
```

Get-SmSchedule

Syntax

```
Get-SmSchedule -HostName <String> [-DisableCurrentGenSchedule] -PluginCode <PluginCode> [-
SMSBaseUrl <String>] [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
HostName		true	true (ByPropertyName)	
DisableCurrentGenSchedule		false	true (ByPropertyName)	
PluginCode		true	true (ByPropertyName)	
SMSBaseUrl		false	true (ByPropertyName)	

Get-SmServerConfig

Syntax

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

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value

Get-SmSite

Syntax

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

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Name		false	false	

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-SmStorageConnection

Retrieves all storage system connections.

Syntax

```
Get-SmStorageConnection [-SVM <String>] [<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
SVM	Specifies the name of the storage system for which you want to get connection information.	false	true (ByPropertyName)	

Examples

Example 1: Getting storage system connections for a specified storage system

```
PS C:\> 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

```
PS C:\> 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
```

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.

```
PS C:\Users\administrator.NBSDSM>  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
DomainControllerHostNamesorIPs :
TrustedDomains                  :
 gdl.englab.netapp.com,GDL,nb.englab.netapp.com,NB,ict.englab.netapp.com,ICT,wbu.englab.netapp.com,WBU,eng.neta
                                  .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

```
PS C:\> 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-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

```
PS C:\Software> 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

```
PS C:\Software> 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> [[-HPP_Version] <String>] [[-ApplicationCode]
 <UploadedPluginCode>] [[-FilesystemCode] <PluginCode>] [[-PluginVersions] <Hashtable>] [[-
InstallPath] <String>] [[-RunAsName] <String>] [-Skipprecheck] [<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)	
HPP_Version	Specifies the version of the host plug-in package you want to install. The plug-in version must be entered inside quotation marks, for example: -HPP_Version "1.1.0.0"	false	true (ByPropertyName)	
ApplicationCode	Specifies the code for one or more plug-ins in the packages that you want to install. The following values are valid: SCSQL, SCO, SCV, SCE. 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.	false	true (ByPropertyName)	
FilesystemCode	Specifies the code for one or more plug-in packages that you want to install. The following values are valid: SCW, SCU.	false	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 different from the default.	false	true (ByPropertyName)	
RunAsName	Specifies the name of the Run As account. The Run As account should be a user who has administrative rights on the host where the plug-in is installed. The Run As account name must be entered inside quotation marks. For example: -RunAsName "domain_admin"	false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
Skipprecheck	Specifies that installation prechecks will not be triggered.	false	true (ByPropertyName)	
DoNotIncludeClusterNodes	Specifies not to install on all nodes in the cluster. If you set the parameter to True, then the host package is installed only on the specified host. The default value is False, which means that when you provide a cluster name, the host package is installed on all nodes in the cluster.	false	true (ByPropertyName)	
vCenterHost	Enables you to specify the vCenter host when installing SnapCenter Plug-in for VMware vSphere.	true	true (ByPropertyName)	
vCenterUserCredential	Enables you to specify the vCenter user credentials when you install SnapCenter Plug-in for VMware vSphere. When you include the -vCenterUserCredential parameter, a dialog box is displayed that enables you to enter the password for the user specified.	true	true (ByPropertyName)	
vCenterPort	When installing SnapCenter Plug-in for VMware vSphere, enables you to specify the vCenter port, if different from the default. The default port is 443.	false	true (ByPropertyName)	

Examples

Example 1: Installing SnapCenter Plugin for Microsoft SQL Server and SnapCenter Plugin for Microsoft Windows on a Windows host

```
PS> Install-SmHostPackage -HostNames @("host2012r2.mycompany.com") -HPP_Version "1.1.0.0"
 -ApplicationCode SCSQL -FilesystemCode SCW -FilesystemLicenseType Storage -RunAsName
 "domain_admin"


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 Plugin for Microsoft SQL Server and SnapCenter Plugin for Microsoft Windows on multiple hosts

```
PS C:> Install-SmHostPackage -HostNames @("sql-1.mycompany.com", "sql-2.mycompany.com") -
ApplicationCode SCSQL -FilesystemCode SCW -RunAsName "domain_admin"


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 plugin with SnapCenter Plugin for Oracle and SnapCenter Plugin for Unix on a Linux host

```
Install-SmHostPackage -HostNames("scspr0098708001.englab.mycompany.com") -ApplicationCode
 CustomPlugin1,SCO -FilesystemCode SCU -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 Plugin for VMware vSphere

```
Install-SmHostPackage -HostNames Win8-esx90.e12extest1.lab.com -InstallPath 'C:\Program
 Files' -ApplicationCode SCV -RunAsName vmware1 -vCenterHost scvsc1.e12extest1.lab.com -
vCenterUser e12extest1\1 -vCenterPort 443
```

This example syntax installs SnapCenter Plugin for VMware vSphere on the specified host.

```
Name                : Package Installation on host 'Win8-esx90.e12extest1.lab.com'
Id                  : 13
StartTime           : 9/7/2016 5:00:10 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 5: Installing SnapCenter Plugin for Microsoft Exchange Server

```
Install-SmHostPackage -HostNames Exchange2016DAG -ApplicationCode SCE -FilesystemCode SCW -
RunAsName Administrator -Verbose
```

This example syntax installs SnapCenter Plugin for Microsoft Exchange Server on the specified host.

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

Syntax

```
Invoke-SmBackupMigration -HostName <String> -PluginCode <PluginCode> [-SMSBaseUrl <String>]
 [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
HostName		true	true (ByPropertyName)	
PluginCode		true	true (ByPropertyName)	
SMSBaseUrl		false	true (ByPropertyName)	

Invoke-SmBackupVerification

Initiates a verification job.

Syntax

```
Invoke-SmBackupVerification [-DatasetName] <String> [-VerificationPolicy] <String> [-
BackupPolicies <String>] [-ScheduleOnly] [-SchedulerRunAsName <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)	
SchedulerRunAsName	Provides the Run As account name used for running scheduled verification jobs.	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	

Name	Description	Required?	Pipeline Input	Default Value
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 verification checks, without altering the verification policy.	false	false	
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

```
PS C:\Software> 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

```
PS C:\Software> 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

```
PS C:\Software> 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

```
PS C:\Software> 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

```
PS C:\Software> 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 or vice versa.

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 or vice versa. 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)	

Name	Description	Required?	Pipeline Input	Default Value
DBCC_PHYSICALONLY		false	true (ByPropertyName)	
UpdateTableStatsBeforeDetach		false	true (ByPropertyName)	
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

```
PS C:> 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

```
PS C:> Invoke-SmConfigureResources -Resources
 @{"Host"="nfs1";"Type"="SQLDatabase";"Name"="nfs1\SQL12INST1\new1";"Files"=@{"LogicalName"="new1";"Destinatio
\"},@{"LogicalName"="new1_log";"Destination"="E:\"},@{"LogicalName"="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

```
PS C:> Invoke-SmConfigureResources -Resources
 @{"Host"="nfs1";"Type"="SQLDatabase";"Name"="nfs1\SQL12INST1\newnfs";"Files"=@{"LogicalName"="newnfs";"Destina
\"},@{"LogicalName"="newnfs_log";"Destination"="E:
\"}},@{"Host"="nfs1";"Type"="SQLDatabase";"Name"="nfs1\SQL12INST1\chk1";"Files"=@{"LogicalName"="chk1";"Destina
\"},@{"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

```
PS C:> 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";"Destinatio
\"},@{"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-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	
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 MDC 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 MDC 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 MDC 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-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] <SmScheduleType>] [-Guid1 <String>] [-Guid2 <String>] [-SnapShotLabel
 <SmSPSnapShotLabel>] [-HostName <String>] [-VerifyOnSecondary] [-EnableVerification]
 [<CommonParameters>]
```

Detailed Description

Initiates a new Snapshot copy job on the provided resouce or the resources mapped to the provided resource group.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Resources		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.

New-SmClone

Initiates a clone operation.

Syntax

```
New-SmClone [-DatasetName] <String> [-Policy] <String> [-AppPluginCode] <PluginCode>
 [-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>
 [-CloneToInstance] <String> [[-AutoAssignMountPoint]] [[-AssignMountPointUnderPath]
 <String>] [[-Suffix] <String>] [[-ArchivedLocators] <Hashtable[]>] [-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>] [<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	
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,	false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
	the latest log backup having archive logs prior to pruning is selected for recovery.			
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"= "/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)	
OracleVersion	Specifies the Oracle version. Example: -OracleVersion 12.1.0.2	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/	false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
	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.			
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)	
DatabaseRunAs		false	true (ByPropertyName)	
AsmRunAs		false	true (ByPropertyName)	
SkipNIDCreation	To skip new DBID creation for the cloned Oracle Database.	false	true (ByPropertyName)	
EmailBody		false	true (ByPropertyName)	
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. You can include comma-separated values for Names.	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.	true	true (ByPropertyName)	
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)	

Name	Description	Required?	Pipeline Input	Default Value
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)	
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)	
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 a date/time in LogRestoreType, you can use LogCutOffDateTime to indicate the cut off time.	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	
CloneName	Enables you to specify a new name for the cloned database. 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)	
ScriptTimeOut	Specifies the maximum time to wait for the script to complete before timing out.	false	true (ByPropertyName)	

Examples

Example 1: Creating a clone from a dataset

```
PS C:\> 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

```
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


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

```
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-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

```
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-
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

```
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"


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_sccorelinux61_08-21-2016_19.04.14
 -Resources
 @(@{"Host"="sccorelinux61.sccore.test.com";"Uid"="Inst1\DB1"},@{"Host"="sccorelinux61.sccore.test.com";"Uid"="
  -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_sccorelinux61_08-21-2016_19.04.1
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_pri
 -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";"BlockSize"="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 host IP addresses or
 names reachable from the cluster node on which the cloned volumes are exported
```

Example 12: 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 host IP
 addresses or names reachable from the cluster node on which the cloned volumes are exported
```

Example 1: 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";"TotalSize"="50";"BlockSize"="512"},@{"FilePath"="/
MntPt_StaDB/Data_Clon32/Clon32/redolog/
redo02.log";"RedologNumber"="2";"TotalSize"="50";"BlockSize"="512"},@{"FilePath"="/
MntPt_StaDB/Data_Clon32/Clon32/redolog/
redo03.log";"RedologNumber"="1";"TotalSize"="50";"BlockSize"="512"} -
CustomParameters @{"Key" = "audit_file_dest";"Value"="/var/test"} -archivedlocators
 @{Primary="10.225.118.251:auto_nfs_data";Secondary="ongqathree_man:ongqaone_man_auto_nfs_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 14: 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.
```

New-SmMountBackup

Initiates a mount operation for a given backup.

Syntax

```
New-SmMountBackup -BackupName <String> -HostName <String> -AppObjectId <String>
 [-ArchivedLocators <Hashtable[]>] [-AsmRunAsName <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)	
AsmRunAsName	Specifies the ASM Run As account name to use when connecting to an Oracle ASM instance.	false	false	
AsmPort	Specifies the port on which the Oracle ASM instance is available.	false	false	

Examples

Example 1: Mounting a backup

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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-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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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,
 crea
te; 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

```
PS C:\Users\administrator> 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

```
PS C:\> 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

Syntax

```
Refresh-SmBackup [-AppObjectList <String>] [-CleanupAllObjects] [-Auth <String>]
 [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
AppObjectList		false	true (ByPropertyName)	
CleanupAllObjects		false	true (ByPropertyName)	
Auth		false	true (ByPropertyName)	

Remove-SmBackup

Removes one or more backup.

Syntax

```
Remove-SmBackup [-BackupNames <String>] [-BackupIds <String>] [-DeleteSecondaryMetadata] [-
CleanupSecondaryBackups] [-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)	
CleanupBackups		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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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
```

Remove-SmClone

Removes an existing clone.

Syntax

```
Remove-SmClone [[-CloneName] <String>] [-PluginCode] <PluginCode> [[-CloneAppObjectId]
 <String>] [[-Force]] [<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)	

Examples

Example 1: Removing a clone

```
PS C:\> 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

```
PS C:\> 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
```

Remove-SmCloneJob

Syntax

```
Remove-SmCloneJob [-CloneJobName] <String> [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
CloneJobName		true	true (ByPropertyName)	

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.

```
PS C:\Users\administrator.NBSDSM> 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-SmGroupFromRole

Removes a group from a specified role.

Syntax

```
Remove-SmGroupFromRole [-Domain <String>] -Group <String> -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

```
PS C:> 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

```
PS C:> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:> 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

```
PS C:> 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 a specified plug-in on one or more hosts.

Syntax

```
Remove-SmPlugin [-HostNames] <String> [-PluginCode] <PluginCode> [<CommonParameters>]
```

Detailed Description

Removes a specified plug-in 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 a plug-in.	true	true (ByPropertyName)	
PluginCode	Provides the code for the plug-in you want to uninstall. Valid plug-in codes include SCSQL and SCO. For example, if you want to uninstall SnapCenter Plug-in for Microsoft SQL Server, the plug-in code is SCSQL.	true	true (ByPropertyName)	

Examples

Example 1: Uninstalling SnapCenter Plugin for Microsoft Windows plugin from a host

```
PS C:\> Remove-SmPlugin -HostNames localhost -PluginCode SCW
```

```
This example syntax uninstalls SnapCenter Plug-in for Microsoft Windows from the specified
 host.
```

```
Remove-SmPlugin
               Are you sure you want to uninstall SCW 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: Uninstalling SnapCenter Plugin for Microsoft SQL Server from a host

```
PS C:\> Remove-SmPlugin -HostNames localhost -PluginCode 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 SCSQL plugin(s) from the host(s)?
[Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help (default is "Y"):
```

Uninstall single plugin from a single host without a confirmation dialogue

```
Remove-SmPlugin -HostNames host.example.com -PluginCode DB2 -Verbose -Confirm:$false

Uninstall single Plugin 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
```

Uninstall multiple plugins form multiple hosts without confirm dialogue

```
Remove-SmPlugin ?Hostnames myhostname1,myhostname2 ?PluginCode 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 plug-in from the host.
```

Unknown

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

```
PS C:\> 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

```
PS C:\> 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.	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";}
```

Remove-SmRepositoryProtection

Syntax

```
Remove-SmRepositoryProtection [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value

Remove-SmResource

Removes a custom plug-in resource.

Syntax

```
Remove-SmResource -HostName <String> -PluginCode <PluginCode> [<CommonParameters>]
```

Detailed Description

Enables you to delete a custom plug-in 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	The name of the plug-in associated with the resource you are removing. Possible inputs include SCSQL, SCW, SCO, HANA, and SCU.	true	true (ByPropertyName)	
ResourceType	The type of application object. For example, instance, database, or a SAP HANA SingleContainer or MultipleContainers.	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 databases of MultipleContainers type.	true	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 MultipleContainers SAP HANA Database

```
Remove-SmResource -HostName 'scspr0204312001.gdl.englab.netapp.com' -PluginCode 'hana' -
ResourceType MultipleContainers -SID NBC -TenantDatabaseName ttt


Remove MultipleContainers 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: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
```

Remove-SmResourceFromUser

Removes a SnapCenter resource assigned to specified user.

Syntax

```
Remove-SmResourceFromUser -UserName <String> -ResourceNames <String> -ResourceType
 <PSUnAssignResourceToUser+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, dataset name, storage connection name, host name or IP address, or plug-in name created by the user.	true	true (ByPropertyName)	
ResourceType	Type of resource. The possible values are StorageConnection, Policy, Plugin, Host, DataSet. The SnapCenter resource types are Host, DataSet, Policy, StorageConnection or Plugin.	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: Removing a specific resource from a user

```
PS C:\> Remove-SmResourceFromUser -ResourceNames PayrollDataset -ResourceType DataSet -
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

```
PS C:\> Remove-SmResourceFromUser -ResourceNames PayrollDataset -ResourceType DataSet -
UserName mva\administrator -Confirm:$false
```

This example syntax removes the specified resource name from the user indicated.

Remove-SmResourceGroup

Syntax

```
Remove-SmResourceGroup -ResourceGroupNames <String> [-Force] [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
ResourceGroupNames		true	true (ByPropertyName)	
Force		false	true (ByPropertyName)	

Remove-SmResourceRunAs

Removes a Run As account from a resource.

Syntax

```
Remove-SmResourceRunAs -ResourceName <String> [<CommonParameters>]
```

Detailed Description

Removes a Run As account from a resource.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
ResourceName	Specifies the name of the resource from which you want to remove Run As credentials.	true	true (ByPropertyName)	

Examples

Example 1: Removing Run As account from a resource

```
PS C:\> Remove-SmResourceRunAs -ResourceName vise-f6

This example syntax removes Run As credentials from the specified resource.
```

```
Remove-SmResourceRunAs
               Are you sure want to remove the resource runAs?
               [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
 (default is "Y"):y
```

Example 2: Removing Run As account from a resource without confirmation dialogue

```
PS C:\> Remove-SmResourceRunAs -ResourceName vise-f6 -Confirm:$false
```

This example syntax removes Run As credentials from the specified resource.

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

```
PS C:\> 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

```
PS C:\> Remove-SmRole -Name BackupAdmin -Confirm:$false

This example syntax removes the specified role from SnapCenter.
```

Remove-SmRunAs

Removes an existing Run As account.

Syntax

```
Remove-SmRunAs -Name <String> [<CommonParameters>]
```

Detailed Description

Removes an existing Run As account.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Name	Name of RunAs account to be removed.	true	true (ByPropertyName)	

Examples

Example 1: Removing an existing Run As account

```
PS C:\> Remove-SmRunAs -Name sddev_admin -Verbose

This example syntax removes the sddev_admin Run As account.




VERBOSE: Start Remove-SmRunAs
               VERBOSE: Remove-SmRunAs ended successfully.
```

Example 1: Removing an existing Run As account without confirmation dialogue

```
PS C:\> Remove-SmRunAs -Name sddev_admin -Verbose

This example syntax removes the sddev_admin Run As account.
```

```
VERBOSE: Start Remove-SmRunAs
                Remove-SmRunAs
                Are you sure want to remove the runAs?
                [Y] Yes  [A] Yes to All  [N] No  [L] No to All  [S] Suspend  [?] Help
 (default is "Y"): y
                VERBOSE: Remove-SmRunAs ended successfully.
```

Remove-SmSite

Syntax

```
Remove-SmSite [-Name] <String> [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Name		true	true (ByValue, ByPropertyName)	

Remove-SmStorageConnection

Removes a storage system connection.

Syntax

```
Remove-SmStorageConnection -Name <String> [<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
Name		true	true (ByPropertyName)	

Examples

Example 1: Removing a storage system connection

```
PS C:\> 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

```
PS C:\> Remove-SmStorageConnection -SVM 172.17.168.13 -Confirm:$false
```

```
This example syntax removes a storage system connection




Remove Storage connection successful
```

Remove-SmUserFromRole

Deletes a user from an RBAC role.

Syntax

```
Remove-SmUserFromRole -UserName <String> -RoleName <String> [<CommonParameters>]
```

Detailed Description

Deletes a user from an RBAC role.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
UserName	Specifies the domain\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)	

Examples

Example 1: Deleting a role from a specific user

```
PS C:\> Remove-SmUserFromRole  -UserName "mva\administrator" -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

```
PS C:\> Remove-SmUserFromRole  -UserName "mva\administrator" -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

Syntax

```
Reseed-SmBackup [[-PluginCode] <PluginCode>] [-AppObjectId] <String> [[-BackupName] <String>]
 [<CommonParameters>]
```

Detailed Description

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

```
PS C:\> 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

Syntax

```
Reseed-SmDagReplicaCopy [-ReplicaHost] <String> [-Database] <String> [[-BackupHost] <String>]
 [[-PreScriptCommand] <String>] [[-PreScriptArguments] <String>] [[-PostScriptCommand]
 <String>] [[-PostScriptArguments] <String>] [[-ScriptTimeOut] <Int32>] [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
ReplicaHost		true	false	
Database		true	false	
BackupHost		false	false	
PreScriptCommand		false	true (ByPropertyName)	
PreScriptArguments		false	true (ByPropertyName)	
PostScriptCommand		false	true (ByPropertyName)	
PostScriptArguments		false	true (ByPropertyName)	
ScriptTimeOut		false	true (ByPropertyName)	

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[]>] [[-AlternatePath] <Hashtable[]>]
 [[-LogCount] <Int32>] [[-LogCutOffDateTime] <DateTime>] [[-FailOnLogBackupFailure]]
 [[-SceRecoveryModel] <SCERecoveryModel>] [[-ExistingFiles]] [[-TargetHost] <String>]
 [[-NoVerify]] [[-PreScriptCommand] <String>] [[-PreScriptArguments] <String>] [[-
SQLInstanceName] <String>] [[-DatabaseName] <String>] [[-CustomLogDirectory] <String>]
 [[-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	
FailOnTransactionLogBackup Failure	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	

Name	Description	Required?	Pipeline Input	Default Value
LogCutOffDateTime	Specifies the cutoff time to restore the database.	false	false	
FailOnLogBackupFailure		false	false	
SceRecoveryModel		false	false	
ExistingFiles	Restore from Existing files specified in AlternatePath.	false	false	
TargetHost		false	false	
NoVerify		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	
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	
OracleOpenDatabaseAfter Recovery	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	
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	

Name	Description	Required?	Pipeline Input	Default Value
OracleOpenPluggableDatabases AfterRecovery	Specifies that the pluggable databases must be opened after recovery is performed.	false	false	
OracleOpenTablespacesAfter Recovery	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	
PluginCreatorCustomRestore Params		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_log.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.ldf';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_p
```

```
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_log.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 MDC 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 MDC 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.
```

Example 15: 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              :
```

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-SmCloneDataSet

Modifies an existing clone dataset.

Syntax

```
Set-SmCloneDataSet [-DataSetName] <String> [[-Description] <String>] [[-Policies] <String>]
 [-PluginCode] <PluginCode> [-CloneToInstance] <String> [-Resources] <Hashtable[]> [[-
Suffix] <String>] [[-SchedulerRunAsName] <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)	
SchedulerRunAsName	Modifies the Run As account information for the policies you have attached to the dataset. You can only provide one Run As account per dataset, regardless of the number of policies. The Run As account information is not required if you do not include a schedule in the policy.	false	true (ByPropertyName)	
ArchivedLocators		false	true (ByPropertyName)	
EnableEmail	Specifies whether to enable or disable e-mail.	false	false	

Name	Description	Required?	Pipeline Input	Default Value
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)	
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

```
PS C:\> 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

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

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

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)	
SchedulerRunAsName		false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
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)	
EmailFrom		true	true (ByPropertyName)	
EmailTo		true	true (ByPropertyName)	
EmailSubject		true	true (ByPropertyName)	
EnableEmailAttachment		false	true (ByPropertyName)	

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

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

Sets your EMS data collection schedule.

Syntax

```
Set-SmDataCollectionEmsSchedule [-RunAs] <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
RunAs	Specifies the Run As account you want to use to run your EMS data collection. The Run As account must have Windows Administrator privileges on the SnapCenter Server host.	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

```
PS C: > 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

```
PS C:\> 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

```
PS C:\> Set-SmDatasetMaintenance -DatasetName Payroll_Dataset -MaintenanceStatus Production

This example syntax set the specified dataset to production mode.
```

Set-SmDomain

Modify a domain registered with SnapCenter Server.

Syntax

```
Set-SmDomain -Name <String> [-FQDN <String>] [-IPAddresses <String>] [<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)	
FQDN	FQDN of the domain to be modified. When you provide the correct FQDN while adding or modifying the domain, the domain resolves and the IP address 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)	

Examples

Example 1: Modify a domain registered with SnapCenter Server.

```
PS C:\Users\administrator.NBSDSM> Set-SmDomain -Name dom-newad01 -FQDN domdc01.gdl.netapp.com
 -IPAddresses 10.111.111.6


Modified the domain dom-newad01.
```

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

```
PS c:\> 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

```
PS C:\> 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-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	Indicates the name of the host on which the log files are captured. The host name 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	

Name	Description	Required?	Pipeline Input	Default Value
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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> 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

```
PS C:\> Set-SmMaintenanceMode -HostNames @("SQL_Host", "Verification_Host") -
MaintenanceStatus UnderMaintenance
```

```
This example syntax sets the specified hosts to maintenance mode.
```

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

```
PS C:\> 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

```
PS C:\> 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)	
CreateLogFolderSnapshot	Create Log folder Snapshot copy.	false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
EnableLogFolderSnapshot Retention	Enable Log folder Snapshot copy retention.	false	true (ByPropertyName)	
DeleteLogFolderSnapshotOlder Than	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)	
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)	

Name	Description	Required?	Pipeline Input	Default Value
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)	
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)	

Name	Description	Required?	Pipeline Input	Default Value
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)	
DeleteArchiveLogFromAll Destination	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)	
DeleteAchiveLogBackupOlder Than	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

```
PS C:\> 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

```
PS C:\Software> 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

```
PS C:\> Set-SmPolicy -PolicyName hana_snapshotbased -PolicyType Backup -PluginPolicyType HANA
 -BackupType SnapShotBasedBackup -UpdateSnapMirrorAfterbackup -UpdateSnapVaultAfterbackup -
SnapVaultLabel slabel


This example syntax modifies an existing SAP HANA backup policy of type SnapshotBasedBackup.
```

Example 5: Modifying the Snapshot copy log retention

```
Set-SMPolicy -PolicyName 'Log_policy_1' -PolicyType 'Backup'
 -Description 'log backup Policy'  -retentionsettings
 @{"BackupType"="DATA";"RetentionCount"="2"},@{"BackupType"="LOG";"RetentionCount"="2"},@{"BackupType"="LOG_SNA
 -pluginpolicytype 'SCSQL' -sqlbackuptype 'logbackup'


This example modifies the Snapshot copy log retention. When you change the retention setting,
 you must also specify all the other cmdlet parameters, otherwise, the default settings are
 used.
```

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		false	true (ByPropertyName)	
ExcludeArchiveLogPathsFromBackup		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"}	true	true (ByPropertyName)	
Description	Modifies policies and schedules of the resource.	false	true (ByPropertyName)	
Tag	Enables you to apply a unique tag to help identify the resources.	false	true (ByPropertyName)	
Policies	pecifies the list of policies associated with the resource group. Multiple policies can be added as a comma-separated list.	false	true (ByPropertyName)	
SchedulerRunAsName	Provides the Run As account information for the policies you have attached to the resource group. You can	false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
	only provide one Run As account per resource group, regardless of the number of policies. The Run As account information is not required if you do not include a schedule in the policy.			
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		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"="tr 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)	
ConsistencyGroupTimeOut		false	true (ByPropertyName)	
SnapShotCreateCommand		false	true (ByPropertyName)	
UseFileSystemConsistent Snapshot		false	true (ByPropertyName)	
UseSnapcenterWithoutFileSystem Consistency		false	true (ByPropertyName)	
PreAppQuiesceCmd		false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
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_Timeout
 -PluginCode 'DummyPlugin' -consistencygrouptimeout 'Medium'
```

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-SmResource

Modifies custom plug-in 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. 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	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)	

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"="vserver_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 MultipleContainers database

```
Set-SmResource -HostName 'scspr0204312001.gdl.englab.netapp.com' -ResourceId
 'scspr0204312001.gdl.englab.netapp.com\hana\MBC\ -PluginCode' 'hana' -DatabaseName  'newname
 ' -ResourceType  'MultipleContainers' -SID 'MBC' -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                    : MBC\tpp
          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\MBC\tpp
          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
```

Undo SmResource deletion

```
Set-SmResource -HostName 'sccorelinux188.sccore.test.com' -PluginCode 'DB2' -ResourceName
 Database1 -UndoDelete


Re adds the delete resouce back and from now on is available for protection
```

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)	
BackupServers		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"} Valid Type values are: SQL Database, SQL Instance, SQL Availability Group. You can include comma-separated values for Names.	true	true (ByPropertyName)	
Description	Specifies an optional description for the new resource group.	false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
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)	
SchedulerRunAsName	Provides the Run As account information for the policies you have attached to the resource group. You can only provide one Run As account per resource group, regardless of the number of policies. The Run As account information is not required if you do not include a schedule in the policy.	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.	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 (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"="tr 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)	
ConsistencyGroupTimeOut		false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
SnapShotCreateCommand		false	true (ByPropertyName)	
UseFileSystemConsistent Snapshot		false	true (ByPropertyName)	
UseSnapcenterWithoutFileSystem Consistency		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 a custom Snapshot copy format

```
PS C:\> Set-SmResourceGroup -ResourceGroupName PayrollDataset -CustomSnapShotFomat
 '$CustomText
$Dataset$Policy$HostName' -CustomText NetApp


This example syntax modifies a custom Snapshot copy format.
```

Example 2: Deleting associated backups when detaching a policy from a resource group

```
PS C:\> 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.
```

Set-SmResourceRunAs

Configures Run As accounts for multiple SQL instances.

Syntax

```
Set-SmResourceRunAs -ResourceAuths <Hashtable[]> [<CommonParameters>]
```

Detailed Description

Configures Run As accounts for multiple SQL instances. You can configure multiple Run As accounts with a semicolon, ";". as the delimiter.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
ResourceAuths	Specifies, in a hashtable, the Run As ID and the resource to which you want to assign the Run As authority. For example: -ResourceAuths @{"RunAsId"="sddev_admin";"Names"="csmdev-smsql-02\SQL2012";}	true	true (ByPropertyName)	

Examples

Example 1: Configuring the Run As credentials using the Run As ID

```
PS C:\> Set-SmResourceRunAs -ResourceAuths @{"RunAsId"="sddev_admin";"Names"="csmdev-
smsql-02\SQL2012";} -Verbose


This example syntax configures the Run As credentials by using the Run As ID and the SQL
 Instance as an array to the hash table.
```

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

```
PS C:\> 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-SmRunAs

Modifies an existing Run As account.

Syntax

```
Set-SmRunAs -Name <String> -AuthMode <SmAuthMode> [-InstanceName <String>] -Credential
 <PSCredential> [<CommonParameters>]
```

Detailed Description

Modifies an existing Run As account. You can use a Run As account to perform application-specific operations within SnapCenter.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Name	Specifies the name of the Run As account.	true	true (ByPropertyName)	
AuthMode	Specifies authentication mode. Valid values are: SQL Authentication and Windows Authentication.	true	true (ByPropertyName)	
InstanceName	Specifices the SQL Instance name.	false	true (ByPropertyName)	
Credential	Specifies either the SQL or Windows user name and password.	true	true (ByPropertyName)	

Examples

Example 1: Modifying an existing Run As account authentication mode

```
PS C:\> Set-SmRunAs -Name sddev_admin -Credential sa -AuthMode SQL -InstanceName csmdev-
smsql-02\SQL2012 -Verbose
```

```
This example syntax modifies the existing Run As account authentication mode from Windows to
 SQL.
```

```
VERBOSE: Start Set-SmRunAs
VERBOSE: Set-SmRunAs ended successfully.
```

Example 2: Modifying an existing Run As account authentication mode

```
PS C:> Set-SmRunAs -Name sddev_admin -Credential sddev\administrator -AuthMode Windows -
Verbose


This example syntax modifies the existing Run As account authentication mode from SQL to
 Windows.









VERBOSE: Start Set-SmRunAs
VERBOSE: Set-SmRunAs ended successfully.
```

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-SmSite

Syntax

```
Set-SmSite [-Name] <String> [[-NewName] <String>] [[-Description] <String>]
 [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Name		true	false	
NewName		false	false	
Description		false	false	

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

Creates storage system connections or modifies your existing storage system connections.

Syntax

```
Set-SmStorageConnection [-SVM] <String> [[-Port] <UInt16>] [-Protocol] <ConnectProtocol>
 [[-Timeout] <Int32>] [-Credential] <PSCredential> [[-PreferredIP] <String>] [[-
DisableAsupOnFailure]] [[-DisableSysLog]] [-PlatformType <String>] [-IsSecondary]
 [<CommonParameters>]
```

Detailed Description

Creates storage system connections or 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
SVM	Specifies the name of the storage system to which you want to modify the connection.	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.	true	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.	true	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)	
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 StorageType 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: Modifying a storage system connection

```
PS C:\> 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
```

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

```
PS C:> Stop-SmJob -JobId 1002
```

```
This example syntax stops a job for the job ID specified.
```

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

```
PS> 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

```
PS C:> 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

```
PS C:> 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

```
PS C:\> 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 with the indicated plug-ins package version.

Syntax

```
Update-SmHostPackage [-HostNames] <String> [[-HPP_Version] <String>] [[-ApplicationCode]
 <UploadedPluginCode>] [-Skipprecheck] [-Force] [<CommonParameters>]
```

Detailed Description

Updates existing host plug-ins package for one or more specified hosts with the indicated 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)	
HPP_Version	Specifies the host plug-in package version to which you want to update on the specified host.	false	true (ByPropertyName)	
ApplicationCode	Specifies the application code being upgraded on the host. The valid value is SCO. 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, only one RAC node is upgraded.	false	true (ByPropertyName)	
Skipprecheck	Specifies that installation prechecks will not be triggered.	false	true (ByPropertyName)	
Force		false	true (ByPropertyName)	
DoNotIncludeClusterNodes	Specifies that host plug-ins packages are not updated on cluster nodes.	false	true (ByPropertyName)	

Examples

Example 1: Updating the host plugins package on a host

```
PS C:> Update-SmHostPackage -HostNames @("host2012r2.mycompany.com") -HostPackageVersion
 1.1.0.1
```

```
This example syntax updates an existing host plug-ins package on a host to the specified
 version.
```

Example 2: Updating the host plugin package on multiple hosts

```
PS C:> Update-SmHostPackage -HostNames @("sql-1.mycompany.com", "sql-2.mycompany.com") -
HostPackageVersion 1.1.0.1


This example syntax updates existing host plug-in packages on multiple hosts to the specified
 version.
```

Example 3: Updating the host plugins package on an Oracle RAC

```
PS C:> Update-SmHostPackage -HostNames host.example.com -ApplicationCode SCO


This example syntax updates the host plug-ins package on the specified host using the SCO
 application code to ensure that all RAC nodes are updated.
```

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

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

```
PS C:\Users\administrator.E2010> 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

              installating 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

Syntax

```
Dismount-SdClone [-ClonePath] <String[]> [-ResourceType <ResourceType>] [-Session <String>]
 [-Host <String>] [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
ClonePath		true	true (ByValue, ByPropertyName)	
ResourceType		false	true (ByPropertyName)	
Session		false	true (ByPropertyName)	
Host		false	true (ByPropertyName)	

Dismount-SdSnapshot

Facilitates dismounting a list of SMB shares that are mounted from the specified Snapshot copy as a different set of shares. You can use this cmdlet during backup verification operations. First, you can use Mount-SdSnapshot to mount database and log shares from the Snapshot copy. Next, you perform verification operations. When you have completed your backup verification, you can use this cmdlet to dismount your shares.

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. You can use this cmdlet during backup verification operations. First, you can use Mount-SdSnapshot to mount database and log shares from the Snapshot copy. Next, you perform verification operations. When you have completed your backup verification, you can use this cmdlet to dismount your shares. Related cmdlets: Mount-SdSnapshot

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Path	Specifies a comma-separated list of SMB shares 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. The default is your local machine.	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"


You can use this example syntax to dismount your Snapshot copies mounted on the specified
 shares.
```

Example 2

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 SnapDrive for Windows instance 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: Geting detailed information about a SnapDrive for 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 syntax, 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

Syntax

```
Mount-SdClone [-SourcePath] <String[]> [-Snapshot] <String> [-Igroup <String>] [-Initiators
 <String>] [-IgroupProtocol <IgroupProtocolEnum>] [-IgroupOsType <IgroupOSTypeEnum>] [-
CheckInitiatorSession] [-ResourceType <ResourceType>] [-Session <String>] [-Host <String>]
 [<CommonParameters>]
```

Detailed Description

Parameters

Name	Description	Required?	Pipeline Input	Default Value
SourcePath		true	true (ByValue, ByPropertyName)	
Snapshot		true	true (ByPropertyName)	
Igroup		false	true (ByPropertyName)	
Initiators		false	true (ByPropertyName)	
IgroupProtocol		false	true (ByPropertyName)	
IgroupOsType		false	true (ByPropertyName)	
CheckInitiatorSession		false	true (ByPropertyName)	
ResourceType		false	true (ByPropertyName)	
Session		false	true (ByPropertyName)	
Host		false	true (ByPropertyName)	

Mount-SdSnapshot

Facilitates mounting SMB shares from the specified Snapshot copy as a different set of shares.

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 a SMB shares from the specified Snapshot copy as a different set of shares. You can use this cmdlet to perform backup verification. Mount the database and log shares from the Snapshot copy and perform your verification operations. The mounted share names are automatically appended with a unique identifier. For example, if the original share is \\SQLFileServer \DBShare, the mounted share name is \\SQLFileServer\DBShare-GUID. (\\SQLFileServer \DBShare-73111E50-E7C2-49B7-8A63-7279512CB09B) The ACLs on the mounted share are the same as the original share. To mount the shares 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. 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. 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. 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. 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.	false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
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. The default is your local machine.	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
```

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
```

```
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
```

```
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
```

```
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
```

```
In this example syntax, you provision a clustered shared volume.
```

Example 5: Provisioning a new RDM disk using an iSCSI initiator on the ESX server

```
New-SdStorage -size 1G -lunpath /vol/vol1/rdm_lun -storagesystem SVM_1 -path P:
 -InitiatorInfo@{Host="mvaqa-esx-01"; Initiators="iqn.1998-01.com.vmware:mvaqa-
esx-01-675d55d0"} -RawDeviceMapping -Datastore RDM_DS_1 -Verbose
```

This example syntax provisions an RDM disk using an iSCSI initiator.

Example 6: Provisioning a new RDM disk using an ESX iGroup

```
New-SdStorage -size 1G -lunpath /vol/vol1/rdm_lun -storagesystem SVM_1 -path P: -Igroup
 ESXiGroup -RawDeviceMapping -Datastore RDM_DS_1 -Verbose
```

This example syntax provisions an RDM disk using an ESX iGroup.

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 "snapshot_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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