SnapManager® 2.1 for Hyper-V®

Cmdlet Reference Guide

NetApp, Inc.
495 East Java Drive
Sunnyvale, CA 94089
USA

Telephone: +1(408) 822-6000
Fax: +1(408) 822-4501
Support telephone: +1 (888) 463-8277
Web: www.netapp.com
Feedback: doccomments@netapp.com

Part number: 215-08968_A0
November 2014

Contents

Add-SMHVDataSet

This cmdlet enables you to create a dataset.

Syntax

```
Add-SMHVDataSet -DataSetName <String> [-Description <String>] [-VMs <Hashtable[]>] [-WhatIf]
 [-Confirm] [<CommonParameters>]
```

Detailed Description

Enables you to create datasets for virtual machine resources that share the same protection requirements.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
DataSetName	Name of the dataset to create.	true	true (ByPropertyName)	
Description	Description of the dataset.	false	true (ByPropertyName)	
VMs	Name of the virtual machine or machines to add. * specifies to include all virtual machine or machines, or you can specify particular VMs, separated by commas.	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Add a dataset to a resource

```
Add-SMHVDataSet -DataSetName Q1 -Description Test -VMs @{"Host"="localhost"; "Names"="*"}
This will add the specified dataset(s) to the resource.
Here, * specifies to include all virtual machine(s), or you can specify particular VMs
 separated by commas.



:Name           Description           Host          VirtualMachines
:Q1             Description_text_here {host_name}   {VM01, VM02}
```

Add-SMHVHost

This cmdlet enables you to add a host.

Syntax

```
Add-SMHVHost -HostName <String> [-Port <UInt16>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to add a host.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
HostName	Specifies the name or IP of the host to add.	true	true (ByPropertyName)	
Port	Specifies the port number to connect to the host.	false	true (ByPropertyName)	808
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Add a local host to a resource

```
Add-SMHVHost -HostName localhost
This will add  the specified local host to the resource.



Name                                : clab-a13-13
Domain                              : local.lab.com
HostStatus                          : eHostUp
Port                                : 808
SMCoreConfigured                    : False
Type                                : Host
SnapInfoDirectory                   :
ReportDirectory                     :
StorageType                         :
SMTPServer                          :
FromAddress                         :
ToAddress                           :
Subject                             :
EventstoStorageSystemLog            : False
SendAutoSupportNotification         : False
SendAutoSupportNotificationOnFailure : False
IncudeOperationReport               : False
SendNotificationOnOperationFail     : False
```

Add-SMHVPolicy

This cmdlet enables you to add a policy to a dataset.

Syntax

```
Add-SMHVPolicy -PolicyName <String> -DatasetName <String> [-Description <String>] [-
RetentionType <String>] [-BackupType <String>] [-DeleteBackupInExcess <String>] [-
DeleteBackupOlderThan <String>] [-PreScriptServer <String>] [-PreScriptCommand <String>]
 [-PreScriptArguments <String>] [-PostScriptServer <String>] [-PostScriptCommand
 <String>] [-PostScriptArguments <String>] [-AllowDefaults] [-EnableScheduler <String>]
 [-SchedulerJobName <String>] [-DateTime <DateTime>] [-Hour <Int16>] [-Minute <Int16>] [-
DaysInterval <Int16>] [-DaysOfTheWeek <String>] [-MonthofTheYear <String>] [-DaysoftheMonth
 <Int32[]>] [-Credentials <PSCredential>] [-SnapVaultEnabled] [-SnapVaultLabel <String>] [-
UpdateSnapMirrorAfterbackup <String>] [-AllowSavedStateBackup <String>] [-WhatIf] [-Confirm]
 [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to add a policy to a dataset.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
PolicyName	Name of the policy.	true	true (ByPropertyName)	
DatasetName	Name of the dataset to which the policy needs to be added.	true	true (ByPropertyName)	
Description	Description of the policy.	false	true (ByPropertyName)	
RetentionType	Name of the retention type. [Default: Hourly] [Possible values: Hourly, Daily, Weekly, Monthly, Unlimited]	false	true (ByPropertyName)	
BackupType	Name of the backup type. [Default: ApplicationConsistent] [Possible values: ApplicationConsistent,CrashConsistent]	false	true (ByPropertyName)	
DeleteBackupInExcess	Specifies to delete backup or backups exceeding the defined number of backups.	false	true (ByPropertyName)	
DeleteBackupOlderThan	Specifies to delete backup or backups older than the defined number of days.	false	true (ByPropertyName)	
PreScriptServer	Specifies the host on which the pre-script is to be run.	false	true (ByPropertyName)	
PreScriptCommand	Specifies the pre-program script path.	false	true (ByPropertyName)	
PreScriptArguments	Specifies the pre-program arguments.	false	true (ByPropertyName)	
PostScriptServer	Specifies the host on which the post-script is to be run.	false	true (ByPropertyName)	
PostScriptCommand	Specifies the post-program script path.	false	true (ByPropertyName)	
PostScriptArguments	Specifies the post-program arguments.	false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
AllowDefaults	Specifies the switch to set the default value for the scheduler. [Default value: current system time plus five minutes]	false	true (ByPropertyName)	
EnableScheduler	Specifies whether to enable the scheduler. [Possible values: true, false]	false	true (ByPropertyName)	
SchedulerJobName	Specifies the name of the scheduler job.	false	true (ByPropertyName)	
DateTime	Specifies the date and time if the retention type is hourly. The format should be "mm/dd/yyyy hh:mm:ss".	false	true (ByPropertyName)	
Hour	Specifies the hour, if the retention type is daily, weekly, or monthly.	false	true (ByPropertyName)	
Minute	Specify the minute, if the retention type is daily, weekly, or monthly.	false	true (ByPropertyName)	
DaysInterval	Specifies the interval of days, if the retention type is daily.	false	true (ByPropertyName)	
DaysOfTheWeek	Specifies which days of the week, if the retention type is weekly.	false	true (ByPropertyName)	
MonthofTheYear	Specifies which months of the year, if the retention type is monthly.	false	true (ByPropertyName)	
DaysoftheMonth	Specifies which days of the month, if the retention type is monthly.	false	true (ByPropertyName)	
Credentials	Specifies credential information for the scheduler by specifying the domain\username, scheduler, and password.	false	true (ByPropertyName)	
SnapVaultEnabled	Specifies the switch for enabling SnapVault. [Possible values: true, false]	false	false	
SnapVaultLabel	Specifies the label for SnapVault.	false	false	
UpdateSnapMirrorAfterbackup	Specifies whether to update SnapMirror after a backup. [Possible values: true, false]	false	true (ByPropertyName)	
AllowSavedStateBackup	Specifies whether to allow a saved state backup. [Possible values: true, false]	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Add a policy to a dataset

```
Retention Type: hourly

          Add-SMHVPolicy -DatasetName Q1 -PolicyName p1 -Description p1policy -
EnableScheduler true -RetenionType hourly -DateTime "02/13/2013 11:21:21" -
          SchedulerJobName t1 -Credentials domain\administrator

Retention Type: daily

          Add-SMHVPolicy -DatasetName Q1 -PolicyName p2 -Description p2policy -
EnableScheduler true -RetenionType daily -hour 9 -Minute 12 -DaysInterval 2 -
          SchedulerJobName t2 -Credentials domain\administrator

Retention Type: weekly

          Add-SMHVPolicy -PolicyName p3 -DatasetName Q1 -Description p3policy -
EnableScheduler true -RetenionType weekly -Hour 10 -Minute 13 -
          DaysOfTheWeek "monday,thursday" -SchedulerJobName t3 -Credentials domain
\administrator

Retention Type: monthly

          Add-SMHVPolicy -PolicyName p4 -DatasetName Q1 -Description p4policy -
EnableScheduler true -RetenionType monthly -Hour 10 -Minute 13 -DaysoftheMonth
```

```
          1,12 -MonthofTheYear "March,April"  -SchedulerJobName t4 -Credentials domain
\administrator
```

This will add the specified policy to the dataset.

```
DataSetName       : Q1
            PolicyName        : p4
            Description       : p4policy
            RetentionType     : monthly
            BackupType        : Application consistent
            SchedulerName     : t4
            TaskStatus        : NeverRun
            NextRunTime       : 3/12/2013 10:13:00 AM
            MostRecentRunTime : Never
            Account           : domain\administrator
            Creator           : domain\administrator
            TriggerName       : At 10:13 AM on day 1, etc. of Mar, Apr, starting 2/7/2013
            WorkingDirectory  : C:\directory\SnapManager for Hyper-V
```

Delete-Backup

This cmdlet enables you to delete individual backups.

Syntax

```
Delete-Backup [-Server <String>] [-backup <String>] [-dataset <String>] [-ResourceId
 <String>] [-ResourceName <String>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to delete individual dataset backups. The output from get-backup can be piped to this cmdlet.

Related Commands

- new-backup
- get-backup

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Server	Specifies the name of the server. You can connect to a remote server using this parameter. It will default to the local machine name. Short form: -svr	false	true (ByPropertyName)	
backup	Name of the backup to be deleted. Short form: -bk	false	true (ByPropertyName)	
dataset	Specifies the name of the dataset to delete. When you use this option to delete a dataset, you also delete all the virtual machine backups associated with the dataset. Short form: -ds	false	true (ByPropertyName)	
ResourceId	Specifies the GUID of the virtual machine to which the backups belong. The resource ID is a unique identifier and is therefore preferable to the resource name of the backup. If you specify either the resource ID or resource name, only the backup for that virtual machine is deleted. The corresponding backup for other members of the dataset is not deleted. Short form: -resid	false	true (ByPropertyName)	
ResourceName	Specifies the name of the virtual machine to which the backups belong. If the resource name is not unique, the command fails with an error. Short form: -resname	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Prompts you for confirmation before executing the cmdlet.	false	false	

Examples

Delete a specific backup from a whole dataset

```
delete-backup -dataset "engineering" -backup "engineering_03-14-2013_23.07.43" -verbose -
confirm
```

```
This will delete the specified backup for the entire "engineering" dataset.
```

Get-Backup

This cmdlet enables you to get the dataset backups for the specified criteria.

Syntax

```
Get-Backup [-Server <String>] [-dataset <String>] [-ResourceId <String>] [-ResourceName
 <String>] [-LatestBackup <Int32>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to retrieve dataset backups, depending on the input criteria specified.

Related Commands

- new-backup

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Server	Specifies the name of the server. You can connect to a remote server by using this parameter. When you do not specify the name of the server to which you want to connect, you connect to the local server by default. Short form: -svr	false	true (ByPropertyName)	
dataset	Name of the dataset. If the dataset is specified, SnapManager for Hyper-V will get the consolidated backups for all the resources in the group. This parameter and "resourcename" are mutually exclusive. Short form: -ds	false	true (ByPropertyName)	
ResourceId	Specifies the GUID of the virtual machine to which the backups belong. The resource ID is a unique identifier and is therefore preferable to the resource name of the backup; "resourceid" will be preferred over "resourcename" for uniquely identifying the VM. Short form: -resid	false	true (ByPropertyName)	
ResourceName	Specifies the name of the virtual machine to which the backups belong. If the name does not uniquely resolve to a VM, the command will error out. Short form: resname	false	true (ByPropertyName)	
LatestBackup	Retrieves the nth most recent backup for the dataset or virtual machine specified. -latestbackup 1 will retrieve the most recent backup. Short form: -lb	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Retrieve backups for a dataset

```
get-backup -dataset "engineering" -verbose -confirm
```

This will retrieve the backups for the specified dataset and dump them into the out pipe.

Retrieve backups for a specific VM

```
get-backup -resourcename "vm_engineering" -verbose -confirm
```

This will retrieve the backups for the specified VM and dump them into the out pipe.

Get-SMHVDataSet

This cmdlet enables you to list a single dataset, or all datasets.

Syntax

```
Get-SMHVDataSet [-DataSetName <String>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to list a single dataset, or all datasets. If a specific dataset is not defined, this cmdlet will list all datasets.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
DataSetName	Name of the dataset to list. If a specific dataset is not defined, the cmdlet will list all datasets.	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

List a dataset from a resource

```
Get-SMHVDataSet  -DataSetName ds1
This will list the specified dataset from the resource.


:Name                          Description                  Host
 VirtualMachines
            :ds1                          Test                                {clab-a13-13}
           {win_8, vm-jk}
```

Get-SMHVHost

This cmdlet enables you to list a single host, or all hosts.

Syntax

```
Get-SMHVHost [-HostName <String>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to list a single host, or all hosts. If a specific hostname is not defined, this cmdlet will list all the registered hosts.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
HostName	Name of the host to list. If a specific hostname is not defined, the cmdlet will list all the registered hosts.	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

List a specific host

```
Get-SMHVHost -HostName localhost
This will list the specified localhost on the resource.
```

```
Name                                : clab-a13-13
Domain                              : local.lab.com
HostStatus                          : eHostUp
Port                                : 808
SMCoreConfigured                    : True
Type                                : Host
SnapInfoDirectory                   : \\172.17.175.81\root\snapinfodir
ReportDirectory                     : C:\directory\SnapManager For Hyper-V\Reports
StorageType                         : NAS
SMTPServer                          : email.company.com
FromAddress                         : fromsomeone@org.com
ToAddress                           : tosomeone@org.com
Subject                             : Hi
EventstoStorageSystemLog            : False
SendAutoSupportNotification         : False
SendAutoSupportNotificationOnFailure : False
IncudeOperationReport               : False
SendNotificationOnOperationFail     : False
```

Get-SMHVPolicy

This cmdlet enables you to list a specific policy, or all policies.

Syntax

```
Get-SMHVPolicy [-PolicyName <String>] [-DatasetName <String>] [-WhatIf] [-Confirm]
 [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to list a specific policy, or all policies. If a specific policy is not defined, this cmdlet will list all the policies in all dataset. If a specific dataset is specified, this cmdlet will list all the policies associated with the dataset.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
PolicyName	Name of the policy to list.	false	true (ByPropertyName)	
DatasetName	Name of the dataset to list.	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

List the policy on a specific dataset

```
Get-SMHVPolicy -DataSetName dataset_name -PolicyName policy_name
This will get the specified policy from a specified dataset.



DataSetName       : dataset_name
PolicyName        : policy_name
Description       : description
RetentionType     : hourly
BackupType        : Application consistent
SchedulerName     : daily_scheduler
TaskStatus        : NeverRun
NextRunTime       : 2/14/2013 11:11:00 AM
MostRecentRunTime : Never
Account           : domain\administrator
Creator           : domain\administrator
TriggerName       : At 11:11 AM on 7/26/2013
WorkingDirectory  : C:\directory\snapmanager for hyper-v
```

Get-VMsFromBackup

This cmdlet enables you to retrieve virtual machines that are present in the backup metadata on a specified server.

Syntax

```
Get-VMsFromBackup [-Server <String>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

Detailed Description

This command enables you to retrieve VMs from the metadata in the SnapInfo directory of the specified server. These virtual machines might or might not exist, but they are present in the backup copy. You can use Get-VMsFromBackup to retrieve VMs from backup on the secondary or disaster recovery site after failover, so that they can be restored.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Server	Specifies the name of the server to which you want to connect. The default is the local machine name. Short form: -svr	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Retrieve backed up VMs that are present on a specific server

```
Get-VMsFromBackup -server secondary-host
This will retrieve the backed up VMs present in the SnapInfo of server 'secondary-host'.
```

Invoke-SMHVConfigureHost

This cmdlet enables you to modify or configure a host.

Syntax

```
Invoke-SMHVConfigureHost -HostName <String> [-SnapInfoDirectoryPath <String>] [-
ReportDirectoryPath <String>] [-StorageType <String>] [-EnableEmailNotifications
 <String>] [-SMTPServer <String>] [-From <String>] [-To <String>] [-Subject <String>]
 [-IncludeOperationReport <String>] [-SendNotificationOnOperationFail <String>] [-
LogEventstoStorageSysLog <String>] [-SendAutoSupportNotification <String>] [-OnFailureOnly
 <String>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to modify or configure a host.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
HostName	Name or IP of the host to configure.	true	true (ByPropertyName)	
SnapInfoDirectoryPath	SnapInfo directory path.	false	true (ByPropertyName)	
ReportDirectoryPath	Report directory path.	false	true (ByPropertyName)	
StorageType	The storage type. [Possible values: NAS, SAN]	false	true (ByPropertyName)	
EnableEmailNotifications	Enables the email notification. [Possible values: true, false]	false	true (ByPropertyName)	
SMTPServer	The SMTP server name.	false	true (ByPropertyName)	
From	The email from address.	false	true (ByPropertyName)	
To	The email to address.	false	true (ByPropertyName)	
Subject	The email subject.	false	true (ByPropertyName)	
IncludeOperationReport	Determines whether to include operation report while emailing. [Possible values: true, false]	false	true (ByPropertyName)	
SendNotificationOnOperationFail	Determines whether to send a notification upon operation failure. [Possible values: true, false]	false	true (ByPropertyName)	
LogEventstoStorageSysLog	Determines whether to log events to the storage system log. [Possible values: true, false]	false	true (ByPropertyName)	
SendAutoSupportNotification	Determines whether to send AutoSupport (ASUP) notification. [Possible values: true, false]	false	true (ByPropertyName)	
OnFailureOnly	Determines whether to send notifications only when AutoSupport fails. [Possible values: true, false]	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Configure a host

```
Invoke-SMHVConfigureHost -HostName localhost -StorageType NAS -SnapInfoDirectoryPath \
\127.0.0.1\root\snapinfodir -EnableEmailNotifications true -SMTPServer email.org.com -From
 fromsomeone@org.com -To tosomeone@org.com -Subject reportdata
```

```
This will configure the specified localhost.
```

```
Name                                    : clab-a13-13
Domain                                  : local.lab.com
HostStatus                              : eHostUp
Port                                    : 808
SMCoreConfigured                        : True
Type                                    : Host
SnapInfoDirectory                       : \\172.17.175.81\root\snapinfodir
ReportDirectory                         : C:\directory\SnapManager For Hyper-V\Reports
StorageType                             : NAS
SMTPServer                              : email.company.com
FromAddress                             : fromsomeone@org.com
ToAddress                               : tosomeone@org.com
Subject                                 : Hi
EventstoStorageSystemLog                : False
SendAutoSupportNotification             : False
SendAutoSupportNotificationOnFailure    : False
IncudeOperationReport                   : False
SendNotificationOnOperationFail         : False
```

Invoke-SMHVRemoteHostInstall

This cmdlet enables you to remotely install SnapManager for Hyper-V and SnapDrive for Windows on a host or cluster.

Syntax

```
Invoke-SMHVRemoteHostInstall -Host <String> [-SDWLicensekey <String>] [-SMHVLicensekey
 <String>] [-InstallPerStorage] [-ConfigureHostOnly] -Credential <PSCredential>
 [-X64SMHVMSILocation <String>] [-X64SDWMSILocation <String>] [-WhatIf] [-Confirm]
 [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to remotely install SnapManager for Hyper-V and SnapDrive for Windows on a host or cluster.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Host	Specifies the name or IP of the host or cluster on which to install SnapManager for Hyper-V.	true	true (ByPropertyName)	
SDWLicensekey	Specifies the SnapDrive for Windows license key.	false	true (ByPropertyName)	
SMHVLicensekey	Specifies the SnapManager for Hyper-V license key.	false	true (ByPropertyName)	
InstallPerStorage	If you specify this parameter, you do not need the -SDWLicensekey and -SMHVLicensekey parameters.	false	true (ByPropertyName)	
ConfigureHostOnly	Determines whether to only configure the host. [Possible values: true, false]	false	true (ByPropertyName)	
Credential	Specifies the host credentials.	true	true (ByPropertyName)	
X64SMHVMSILocation	Specifies the SnapManager for Hyper-V MSI package location.	false	true (ByPropertyName)	
X64SDWMSILocation	Specifies the SnapDrive for Windows MSI package location.	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Remotely install SnapManager for HyperV on a host or cluster

```
Invoke-SMHVRemoteHostInstall -host host_name -SDWlicensekey [license_key] -SMHVlicensekey
 [license_key]
```

```
This example shows a remote installation on a host or cluster.
```

[Cmdlet status bar indicating the progress of the remote installation]

Invoke-SMHVRemoteHostUninstall

This cmdlet enables you to remotely uninstall SnapManager for Hyper-V and SnapDrive for Windows from a host or cluster.

Syntax

```
Invoke-SMHVRemoteHostUninstall -Host <String> [-ConfigureHostOnly] [-WhatIf] [-Confirm]
 [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to remotely uninstall SnapManager for Hyper-V and SnapDrive for Windows from a host or cluster.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Host	Specifies the host from which to remotely uninstall SnapManager for Hyper-V and SnapDrive for Windows.	true	true (ByPropertyName)	
ConfigureHostOnly	Determines whether to configure only the host. [Possible values: true, false]	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Remotely uninstall SnapManager for HyperV from a host or cluster

```
Invoke-SMHVRemoteHostUninstall -Host host_name -Credential domain\administrator
```

```
This example shows uninstalling SnapManager for Hyper-V and SnapDrive for Windows from a host
 or cluster.
```

New-Backup

This cmdlet enables you to create a backup of a dataset.

Syntax

```
New-Backup [-Server <String>] [-Dataset <String>] [-PolicyId <String>] [-UpdateMirror] [-
RetentionType <String>] [-RetainBackups <Int32>] [-RetainDays <Double>] [-Host <String>]
 [-SchedulerJobid <String>] [-PreScriptServer <String>] [-PreScriptCommand <String>] [-
PreScriptArguments <String>] [-PostScriptServer <String>] [-PostScriptCommand <String>]
 [-PostScriptArguments <String>] [-BackupName <String>] [-AllowSavedStateBackup] [-
CrashConsistentBackup] [-DisableDistributedBackup] [-SnapVaultEnabled] [-SnapVaultLabel
 <String>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

Detailed Description

This command enables you to initiate a backup of dataset, with all of the options available through the SnapManager for Hyper-V GUI. The Get-Backup command lists dataset or virtual machine (VM) backups that match specified criteria, such as the resource ID or server name.

Related Commands

- get-backup

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Server	Specifies the name of the server. You can connect to a remote server by using this parameter. It will default to the local machine name. Short form: -svr	false	true (ByPropertyName)	
Dataset	Specifies the name or ID of the dataset to backup. Short form: -ds	false	true (ByPropertyName)	
PolicyId	Specifies the name of the policy to apply to the backup job. If you use -PolicyId to specify a policy for a backup, other New-Backup policy attribute parameters are ignored. Instead, the attributes of the specified policy are applied. Short form: -pid	false	true (ByPropertyName)	
UpdateMirror	Specifies whether to initiate a SnapMirror update after the backup. Short form: -updmir	false	false	
RetentionType	Retention type for the backup. [Possible values: hourly, daily, weekly, monthly, unlimited] Short form: -rt	false	false	hourly
RetainBackups	Determines the number of backup copies to retain. This parameter cannot be used with -RetainDays. Short form: -rtbackups	false	false	
RetainDays	Specifies the number of days to retain backup copies. This parameter cannot be used with -RetainBackups. Short form: -rtdays	false	false	
Host	Specifies the host to create the new backup on.	false	false	
SchedulerJobid	Specifies the scheduler job ID.	false	false	

Name	Description	Required?	Pipeline Input	Default Value
PreScriptServer	Specifies the server for running pre-scripts before the backup job takes place. Short form: -presvr	false	false	
PreScriptCommand	Specifies the command to run before the backup job. Short form: -precmd	false	false	
PreScriptArguments	Specifies the arguments for the pres-cript. Short form: -preargs	false	false	
PostScriptServer	Specifies the server for running post-scripts. Short form: -possvr	false	false	
PostScriptCommand	Specifies the command to run after the backup job. Short form: -poscmd	false	false	
PostScriptArguments	Specifies the arguments for the post-script. Short form: -posargs	false	false	
BackupName	Specifies the name of the backup copy. If this parameter is not specified, the default backup name will be used. Short form: -bk	false	false	
AllowSavedStateBackup	Specifies whether to allow saved state virtual machine backup. The default is false. This parameter is ignored if -CrashConsistentBackup is set. [Possible values: true, false] Short form: -assb	false	false	false
CrashConsistentBackup	Determines whether to make a crash-consistent backup of a dataset. This value is set to false by default, which means that the backup is application consistent. Crash-consistent backups are faster than application-consistent backups, but they do not guarantee consistency of application data in the VM. [Possible values: true, false] Short form: -ccb	false	false	false
DisableDistributedBackup	Specifies whether to perform a distributed application-consistent backup of dataset. Default behavior is distributed application-consistent backup when backing up VMs running on CSV 2.0 volumes in Windows 2012. The backup job is performed on the individual VM owner node serially. [Possible values: true, false] Short form: -ddb	false	false	false
SnapVaultEnabled	Determines whether to enable SnapVault. [Possible values: true, false]	false	false	
SnapVaultLabel	Specifies the SnapVault label.	false	false	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Create a backup copy using a policy

```
C:\PS>New-Backup -Dataset "engineering" -policy "daily_backup_with_mirror_update" -Verbose -
Confirm
```

```
This command creates a backup copy using the dataset engineering that uses the policy
 daily_backup_with_mirror_update.
```

Create an ondemand, applicationconsistent backup copy

```
C:\PS>New-Backup -Dataset engineering -RetentionType weekly -UpdateMirror
```

```
This command creates an on-demand application-consistent backup copy of dataset engineering
 with retention type weekly. A SnapMirror update is performed after the backup job.
```

Create an ondemand, crashconsistent backup copy

```
C:\PS>New-Backup -Dataset engineering -RetentionType hourly -CrashConsistentBackup
```

This command creates an on-demand crash-consistent backup copy of dataset engineering with retention type hourly:

Remove-SMHVDataSet

This cmdlet enables you to remove a single dataset, or all datasets.

Syntax

```
Remove-SMHVDataSet [-DataSetName <String>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to remove a single dataset, or all datasets. If a specific dataset name is not defined, this cmdlet will remove all the datasets.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
DataSetName	Name of the dataset to remove.	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	This parameter is redundant for this cmdlet; it is implicitly implemented. You will be prompted for confirmation regardless of whether you specify this parameter.	false	false	

Examples

Remove a specific dataset from a resource

```
Remove-SMHVDataSet -DataSetName dataset_name
This will remove the specified dataset from the resource.
```

Remove-SMHVHost

This cmdlet enables you to remove a single host, or all hosts.

Syntax

```
Remove-SMHVHost [-HostName <String>] [-DeleteAllBackups] [-WhatIf] [-Confirm]
 [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to remove a single host, or all hosts. If the hostname is not specified, this cmdlet will remove all the registered hosts.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
HostName	Specifies the name of the host to remove. If a hostname is not specified, the cmdlet will remove all the registered hosts.	false	true (ByPropertyName)	
DeleteAllBackups	Delete all the SnapManager for Hyper-V backups on the host.	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	This parameter is redundant for this cmdlet; it is implicitly implemented. You will be prompted for confirmation regardless of whether you specify this parameter.	false	false	

Examples

Remove a specific host from a resource

```
Remove-SMHVHost -HostName localhost
This will remove the specified localhost from the resource.
```

Remove-SMHVPolicy

This cmdlet enables you to remove a single policy, or all policies.

Syntax

```
Remove-SMHVPolicy [-PolicyName <String>] [-DatasetName <String>] [-WhatIf] [-Confirm]
 [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to remove a single policy, or all policies. If the dataset name is not specified, this cmdlet will remove all the policies from all datasets.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
PolicyName	Name of the policy to be removed.	false	true (ByPropertyName)	
DatasetName	Name of the dataset to be removed. If the dataset name is not specified, the cmdlet will remove all the policies from all datasets.	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	This parameter is redundant for this cmdlet; it is implicitly implemented. You will be prompted for confirmation regardless of whether you specify this parameter.	false	false	

Examples

Remove a specific policy from a dataset

```
Remove-SMHVPolicy -DataSetName -Q1 -PolicyName P1
This will remove specified policy from specified dataset.
```

Restore-Backup

This cmdlet enables you to restore a VM from an SnapManager for Hyper-V backup.

Syntax

```
Restore-Backup [-Server <String>] [-ResourceId <String>] [-ResourceName <String>]
 [-BackupName <String>] [-RestoreLastBackup <Int32>] [-OnlineAfterRestore] [-
DisableVerifySnapshot] [-PostScriptCommand <String>] [-PostScriptArguments <String>] [-
RestoreToAlternateHost] [-VirtualMachinePath <String>] [-SnapshotFilePath <String>] [-VHDs
 <Hashtable>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to restore a VM from an SnapManager for Hyper-V backup. If the configuration of the VM has changed since the time of the backup, SnapManager for Hyper-V will prompt whether to continue with the restore. You can also use the -Force parameter to force the operation with out any interactive prompt.

Related Commands

- get-backup

Parameters

Name	Description	Required?	Pipeline Input	Default Value
Server	Specifies the name of the server. You can connect to a remote server using this parameter. It will default to the local machine name. Short form: -svr	false	true (ByPropertyName)	
ResourceId	Specifies the GUID of the virtual machine to which the backups belong. The resource ID is a unique identifier and is therefore preferable to the resource name of the backup; "resourceid" will be preferred over "resourcename" for uniquely identifying the VM. Either ID or name must be explicitly specified. Short form: -resid	false	true (ByPropertyName)	
ResourceName	Specifies the name of the virtual machine to which the backup copies belong. If the name does not uniquely resolve to a VM, the command will fail with an error. Short form: -resname	false	true (ByPropertyName)	
BackupName	Specifies the name of the backup copy. Short form: -bk	false	true (ByPropertyName)	
RestoreLastBackup	Restores the nth most recent successful backup. This parameter cannot be used with the Backup command, but either -BackupName or -restorelastbackup must be explicitly specified. Short form: -rstlast	false	false	
OnlineAfterRestore	Specifies whether to bring the virtual machine online after restoring it. [Possible values: true, false] Short form: -online	false	false	true

Name	Description	Required?	Pipeline Input	Default Value
DisableVerifySnapshot	Disables Snapshot copy verification before the restore operation. You must specify this option when restoring to an alternate host using the -RestoreToAlternateHost switch. [Possible values: true, false] Short form: -disableverifysnap	false	false	
PostScriptCommand	Specifies the command to run after the backup operation. Short form: -poscmd	false	false	
PostScriptArguments	Specifies the arguments for the post-script. Short form: -posargs	false	false	
RestoreToAlternateHost	Restores a VM to an alternate host. Alternate host is specified using -Server parameter. The switch 'DisableVerifySnapshot' must be specified when using this option. Short form: -rsttoalthost	false	false	
VirtualMachinePath	Specifies the VM path.	false	false	
SnapshotFilePath	Specifies the Snapshot copy file path.	false	false	
VHDs	Specifies the Virtual Hard Disks (VHDs).	false	false	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Restore a VM

```
C:\PS&gt;Restore-Backup -ResourceId "{B18A9D82-E95F-4C3F-9047-17162323A9BD}" -
OnlineAfterRestore -Backup "engineering_03-14-2013_23.07.43" -Verbose -Confirm
```

```
The example restores a VM with the GUID {B18A9D82-E95F-4C3F-9047-17162323A9BD}, using the
 backup copy named engineering_03-14-2013_23.07.43.
```

Restore a VM to a secondary host

```
C:\PS&gt;Restore-Backup -Server DRServer -ResourceName TestVM -Backup
 engineering_05-24-2013_13.37.04 -RestoreToAlternateHost -DisableVerifySnapshot
```

```
This command restores a VM named TestVM on secondary host DRServer from backup copy
 engineering_05-24-2013_13.37.04 after failover.
```

Restore a VM for SAN to a secondary alternate path

```
Restore-Backup -ResourceId 9D27B70A-A4D2-4CCD-B3FE-EA63407209D7 -RestoreToAlternateHost -
DisableVerifySnapshot -BackupName SAN-DS_06-28-2013_20.30.40 -Verbose -VirtualMachinePath "E:
\sn-dr-01" -SnapshotFilePath "E:\sn-dr-01" -VHDs @(@{"SourceFilePath" = "G:\sn-dr-01\w2k8r2-
gold.vhd"; "DestinationFilePath" = "E:\sn-dr-01\w2k8r2-gold.vhd"}, @{"SourceFilePath" = "G:
\sn-dr-01\Virtual Hard Disks\harddisk1.vhd"; "DestinationFilePath" = "E:\sn-dr-01\Virtual
 Hard Disks\harddisk1.vhd"}, @{"SourceFilePath" = "G:\VirtualHarddisks\harddisk2.vhd";
 "DestinationFilePath" = "E:\VirtualHarddisks\harddisk2.vhd"},@{"SourceFilePath" = "G:
\harddisk3.vhd"; "DestinationFilePath" = "E:\harddisk3.vhd"})
```

```
This example shows restoring a SAN VM to a secondary host via an alternate path.
```

Restore a VM for NAS to a secondary host

```
Restore-Backup -ResourceId 9C0D1478-AF74-45E0-BCF6-E3F2C4CC7881 -RestoreToAlternateHost
 -DisableVerifySnapshot -VirtualMachinePath "\\192.168.162.121\nas_dr_vms\nas-dr-01"
 -SnapshotFilePath "\\192.168.162.121\nas_dr_vms\nas-dr-01" -VHDs @(@{"SourceFilePath"
 = "\\192.168.124.67\nas_dr_vms\nas-dr-01\w2k8r2-gold.vhd"; "DestinationFilePath"
 = "\\192.168.162.121\nas_dr_vms\nas-dr-01\w2k8r2-gold.vhd"}, @{"SourceFilePath"
 = "\\192.168.124.67\nas_dr_vms\nas-dr-01\Virtual Hard Disks\harddisk1.vhd";
 "DestinationFilePath" = "\\192.168.162.121\nas_dr_vms\nas-dr-01\Virtual Hard Disks
\harddisk1.vhd"}, @{"SourceFilePath" = "\\192.168.124.67\nas_dr_vms\VirtualHarddisks
\harddisk2.vhd"; "DestinationFilePath" = "\\192.168.162.121\nas_dr_vms\VirtualHarddisks
\harddisk2.vhd"},@{"SourceFilePath" = "\\192.168.124.67\nas_dr_vms\harddisk3.vhd";
```

```
 "DestinationFilePath" = "\\192.168.162.121\nas_dr_vms\harddisk3.vhd"}) -BackupName nas-dr-
ds_06-29-2013_09.55.32 -Verbose
```

This example shows restoring a NAS VM to a secondary host.

Set-SMHVDataSet

This cmdlet enables you to modify a dataset.

Syntax

```
Set-SMHVDataSet -DataSetName <String> [-Description <String>] [-VMs <Hashtable[]>] [-WhatIf]
 [-Confirm] [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to modify a dataset.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
DataSetName	Name of the dataset to modify.	true	true (ByPropertyName)	
Description	Description of the dataset.	false	true (ByPropertyName)	
VMs	Name of the virtual machines to modify. * specifies to modify all virtual machines, or you can specify individual VMs, separated by commas.	false	true (ByPropertyName)	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Modify a specific dataset on a resource

```
Set-SMHVDataSet -DataSetName Q1 -Description TestModified
          Here * specified include all the VM's from that host. User can also specify comma
 seperated VM's also.
This will modify the specified dataset in the resource.



:Name          Description          Host          VirtualMachines
:host_name     Test-Modified        host_name}    {VM01, VM02}
```

Set-SMHVPolicy

This cmdlet enables you to modify a policy on a dataset.

Syntax

```
Set-SMHVPolicy -PolicyName <String> -DatasetName <String> [-Description <String>] [-
RetentionType <String>] [-BackupType <String>] [-DeleteBackupInExcess <String>] [-
DeleteBackupOlderThan <String>] [-PreScriptServer <String>] [-PreScriptCommand <String>]
 [-PreScriptArguments <String>] [-DisablePreProgramScript] [-DisablePostProgramScript]
 [-PostScriptServer <String>] [-PostScriptCommand <String>] [-PostScriptArguments
 <String>] [-AllowDefaults] [-EnableScheduler <String>] [-SchedulerJobName <String>]
 [-DateTime <DateTime>] [-Hour <Int16>] [-Minute <Int16>] [-DaysInterval <Int16>] [-
DaysOfTheWeek <String>] [-MonthofTheYear <String>] [-DaysoftheMonth <Int32[]>] [-Credentials
 <PSCredential>] [-UpdateSnapMirrorAfterbackup <String>] [-AllowSavedStateBackup <String>] [-
SnapVaultEnabled] [-SnapVaultLabel <String>] [-WhatIf] [-Confirm] [<CommonParameters>]
```

Detailed Description

This cmdlet enables you to modify a policy on a dataset.

Parameters

Name	Description	Required?	Pipeline Input	Default Value
PolicyName	Name of the policy.	true	true (ByPropertyName)	
DatasetName	Name of the dataset to which the policy needs to be modified.	true	true (ByPropertyName)	
Description	Description of the policy.	false	true (ByPropertyName)	
RetentionType	Name of the retention type. [Default: Hourly] [Possible Values: Hourly, Daily, Weekly, Monthly, Unlimited]	false	true (ByPropertyName)	
BackupType	Name of the backup type. [Default: ApplicationConsistent] [Possible Values: ApplicationConsistent, CrashConsistent]	false	true (ByPropertyName)	
DeleteBackupInExcess	Specifies to delete backup or backups exceeding the defined number of backups.	false	true (ByPropertyName)	
DeleteBackupOlderThan	Specifies to delete backup or backups older than the defined number of days.	false	true (ByPropertyName)	
PreScriptServer	Specifies the host on which the pre-script is to be run.	false	true (ByPropertyName)	
PreScriptCommand	Specifies the pre-program script path.	false	true (ByPropertyName)	
PreScriptArguments	Specifies the pre-program arguments.	false	true (ByPropertyName)	
DisablePreProgramScript	Determines whether to disable the pre-program script. [Possible values: true, false]	false	true (ByPropertyName)	
DisablePostProgramScript	Determines whether to disable the post-program script. [Possible values: true, false]	false	true (ByPropertyName)	
PostScriptServer	Specifies the host on which post-script will be run.	false	true (ByPropertyName)	
PostScriptCommand	Specifies the post-program script path.	false	true (ByPropertyName)	

Name	Description	Required?	Pipeline Input	Default Value
PostScriptArguments	Specify the post-program arguments.	false	true (ByPropertyName)	
AllowDefaults	Specifies the switch to set the default value for the scheduler.	false	true (ByPropertyName)	
EnableScheduler	Determines whether to enable the scheduler. [Possible values: true, false]	false	true (ByPropertyName)	
SchedulerJobName	Specifies the name of the scheduler.	false	true (ByPropertyName)	
DateTime	Specifies the date and time if retention type is hourly. The format should be "mm/dd/yyyy hh:mm:ss".	false	true (ByPropertyName)	
Hour	Specifies the hour if the retention type is daily, weekly, or monthy.	false	true (ByPropertyName)	
Minute	Specifies the minute if the retention type is daily, weekly, or monthy.	false	true (ByPropertyName)	
DaysInterval	Specifies the interval of days if the retention type is daily.	false	true (ByPropertyName)	
DaysOfTheWeek	Specifies the days of the week if the retention type is weekly.	false	true (ByPropertyName)	
MonthofTheYear	Specifies the months of the year if the retention type is monthly.	false	true (ByPropertyName)	
DaysoftheMonth	Specifies the days of the month if retention type is monthly.	false	true (ByPropertyName)	
Credentials	Specifies the credential information to set the scheduler, username, and password.	false	true (ByPropertyName)	
UpdateSnapMirrorAfterbackup	Determines whether to update SnapMirror after a backup. [Possible values: true, false]	false	true (ByPropertyName)	
AllowSavedStateBackup	Determines whether to allow a saved-state backup. [Possible values: true, false]	false	true (ByPropertyName)	
SnapVaultEnabled	Determines whether to enable SnapVault. [Possible values: true, false]	false	false	
SnapVaultLabel	Specifies the label for SnapVault.	false	false	
WhatIf	Not applicable to this cmdlet.	false	false	
Confirm	Not applicable to this cmdlet.	false	false	

Examples

Modify a specific policy on a dataset

```
Retention Type: hourly

          Set-SMHVPolicy -DatasetName dataset_name -PolicyName policy_name -Description
 p1policy -EnableScheduler true -RetenionType hourly -DateTime "02/13/2013 11:21:21" -
          SchedulerJobName job1 -Credentials domain\administrator

          Retention Type: daily

          Set-SMHVPolicy -DatasetName dataset_name -PolicyName policy_name -Description
 p2policy -EnableScheduler true -RetenionType daily -hour 9 -Minute 12 -DaysInterval 2 -
          SchedulerJobName job2 -Credentials domain\administrator

          Retention Type: weekly

          Set-SMHVPolicy -PolicyName policy_name -DatasetName dataset_name -Description
 p3policy -EnableScheduler true -RetenionType weekly -Hour 10 -Minute 13 -
          DaysOfTheWeek "monday,thursday" -SchedulerJobName job3 -Credentials domain
\administrator

          Retention Type: monthly

          Set-SMHVPolicy -PolicyName policy_name -DatasetName dataset_name -Description
 p4policy -EnableScheduler true -RetenionType monthly -Hour 10 -Minute 13 -DaysoftheMonth
```

```
          1,12 -MonthofTheYear "March,April"  -SchedulerJobName job4 -Credentials domain
\administrator
```

This will modify the specified policy on a dataset.

```
DataSetName               : Q1
PolicyName                  : p4
Description                   : p4policy
RetentionType              : monthly
BackupType                : Application consistent
SchedulerName           : t4
TaskStatus                  : NeverRun
NextRunTime              : 3/12/2013 10:13:00 AM
MostRecentRunTime   : Never
Account                     : domain\administrator
Creator                      : domain\administrator
TriggerName              : At 10:13 AM on day 1, etc. of Mar, Apr, starting 2/7/2013
WorkingDirectory        : C:\directory\SnapManager for Hyper-V
```

Copyright

Trademarks

NetApp, the NetApp logo, Network Appliance, the Network Appliance logo, Akorri, ApplianceWatch, ASUP, AutoSupport, BalancePoint, BalancePoint Predictor, Bycast, Campaign Express, ComplianceClock, Cryptainer, CryptoShred, CyberSnap, Data Center Fitness, Data ONTAP, DataFabric, DataFort, Decru, Decru DataFort, DenseStak, Engenio, Engenio logo, E-Stack, ExpressPod, FAServer, FastStak, FilerView, Flash Accel, Flash Cache, Flash Pool, FlashRay, FlexCache, FlexClone, FlexPod, FlexScale, FlexShare, FlexSuite, FlexVol, FPolicy, GetSuccessful, gFiler, Go further, faster, Imagine Virtually Anything, Lifetime Key Management, LockVault, Mars, Manage ONTAP, MetroCluster, MultiStore, NearStore, NetCache, NOW (NetApp on the Web), Onaro, OnCommand, ONTAPI, OpenKey, PerformanceStak, RAID-DP, ReplicatorX, SANscreen, SANshare, SANtricity, SecureAdmin, SecureShare, Select, Service Builder, Shadow Tape, Simplicity, Simulate ONTAP, SnapCopy, Snap Creator, SnapDirector, SnapDrive, SnapFilter, SnapIntegrator, SnapLock, SnapManager, SnapMigrator, SnapMirror, SnapMover, SnapProtect, SnapRestore, Snapshot, SnapSuite, SnapValidator, SnapVault, StorageGRID, StoreVault, the StoreVault logo, SyncMirror, Tech OnTap, The evolution of storage, Topio, VelocityStak, vFiler, VFM, Virtual File Manager, VPolicy, WAFL, Web Filer, and XBB are trademarks or registered trademarks of NetApp, Inc. in the United States, other countries, or both.

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. A complete and current list of other IBM trademarks is available on the web at www.ibm.com/legal/copytrade.shtml.

Apple is a registered trademark and QuickTime is a trademark of Apple, Inc. in the United States and/or other countries. Microsoft is a registered trademark and Windows Media is a trademark of Microsoft Corporation in the United States and/or other countries. RealAudio, RealNetworks, RealPlayer, RealSystem, RealText, and RealVideo are registered trademarks and RealMedia, RealProxy, and SureStream are trademarks of RealNetworks, Inc. in the United States and/or other countries.

All other brands or products are trademarks or registered trademarks of their respective holders and should be treated as such.

NetApp, Inc. is a licensee of the CompactFlash and CF Logo trademarks. NetApp, Inc. NetCache is certified RealSystem compatible.