



PowerShell Cmdlets for Disaster Recovery

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Connect-HXCluster Cmdlet

Syntax

```
Connect-HXCluster [-ClusterIP] <string> [[-Username] <string>] [[-Password] <string>] [-Credential <PSCredential>] [<CommonParameters>]
```

Description

Connects to the HyperFlex Cluster.

Required Parameters

```
-ClusterIP <string>
```

Specify the IP address of the HyperFlex cluster.

Aliases	-Cluster <string>
Position?	0
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Cluster <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	0
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters

-Credential <PSCredential>

Specify the user credentials for the HyperFlex cluster.

Aliases	-cred <PSCredential>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-cred <PSCredential>

Specify the user credentials for the HyperFlex cluster.

Aliases	-Credential <PSCredential>
Position?	Named
Default Value	
Accept Pipeline Input?	False

Accept Wildcard Characters?	False
-----------------------------	-------

-Username <string>

Specify the username for the HyperFlex cluster.

Aliases	-user <string>
Position?	1
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-user <string>

Specify the username for the HyperFlex cluster.

Aliases	-Username <string>
Position?	1
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Password <string>

Specify the password for the HyperFlex cluster.

Aliases	-pwd <string>
Position?	2
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-pwd <string>

Specify the password for the HyperFlex cluster.

Aliases	-Password <string>
Position?	2
Default Value	
Accept Pipeline Input?	False

Accept Wildcard Characters?	False
-----------------------------	-------

Example**Input**

```
Connect-HXCluster -ClusterIP 10.198.14.227 -Username root -Password abc
```

Output

```
10.198.14.227 is connected.
```

Related Commands

Disconnect-HXCluster

Get-HXCluster

Common Parameters

This cmdlet supports the common parameters: Verbose, Debug, ErrorAction, ErrorVariable, WarningAction, WarningVariable, OutBuffer, PipelineVariable, and OutVariable. For more information, see *About Common Parameters* in the [Microsoft PowerShell Core Guide](#).

Disconnect-HXCluster Cmdlet

Syntax

```
Disconnect-HXCluster [-ClusterIP] <string> [<CommonParameters>]
```

Description

Disconnects from the HyperFlex cluster.

Required Parameters

```
-ClusterIP <string>
```

Specify the IP address of the HyperFlex cluster.

Aliases	-Cluster <string>
Position?	0
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

```
-Cluster <string>
```

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
---------	------------------------

Position?	0
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example

Input

```
Disconnect-HXCluster -ClusterIP 10.198.14.2
```

Output

10.198.14.227 is disconnected.

Related Commands

Connect-HXCluster

Get-HXCluster

Common Parameters

This cmdlet supports the common parameters: *Verbose*, *Debug*, *ErrorAction*, *ErrorVariable*, *WarningAction*, *WarningVariable*, *OutBuffer*, *PipelineVariable*, and *OutVariable*. For more information, see *About Common Parameters* in the [Microsoft PowerShell Core Guide](#).

Get-HXCluster Cmdlet

Syntax

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

Description

Gets the list of connected HyperFlex clusters.

Example

Input

```
Get-HXCluster
```

Output

```
10.198.14.229  
10.198.14.227
```

Related Commands

Connect-HXCluster

Disconnect-HXCluster

Get-HXJobStatus Cmdlet

Syntax

```
Get-HXJobStatus -ClusterIP <string> -VMName <string> [-Brief <SwitchParameter>] [-JobID <string>]
[-TaskName <string>] [-TaskState <string>] [<CommonParameters>]
```

```
Get-HXJobStatus -ClusterIP <string> -VMID <string> [-Brief <SwitchParameter>] [-JobID <string>]
[-TaskName <string>] [-TaskState <string>] [<CommonParameters>]
```

Description

Gets the job status for the protected virtual machine.

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMID <string>

Specify the virtual machine ID for which the jobs have to be displayed.

Aliases	-VM <string>
Position?	Named

Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VM <string>

Specify the virtual machine ID for which the jobs have to be displayed.

Aliases	-VMID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMName <string>

Specify the name of the virtual machine for which the jobs have to be displayed.

Aliases	-name <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-name <string>

Specify the name of the virtual machine for which the jobs have to be displayed.

Aliases	-VMName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters

-JobID <string>

Indicates the job ID.

Aliases	-TaskID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-TaskID <string>

Indicates the job ID.

Aliases	-JobID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-TaskName <string>

Indicates the task name. Accepted values are All, Failover, TestFailover, PrepareFailover, PrepareReverseProtect, ReverseProtect.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-TaskState <string>

Indicates the task state. Accepted values are All, Running, Completed, Exception.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Brief <SwitchParameter>

Indicates that the command will return the brief formatted output.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example 1

Input

```
Get-HXJobStatus -ClusterIP 10.198.14.227 -VMName DemoVM1 -TaskState All
```

Output

This command uses the VMName and TaskState parameter to get the job status for all the tasks that have been performed for the VM given.

Example 2

Input

```
Get-HXJobStatus -ClusterIP 10.198.14.227 -VMName DemoVM1 -Brief
```

Output

```
State: COMPLETED
Method Name: prepareReverseProtectVm
Job ID: 8ae5d2d5-588e-46c1-95c6-08d4d271a5fa
Time Started: 7/15/2018 5:52:11 PM
Time Elapsed: 7/15/2018 5:52:12 PM
Time Submitted: 7/15/2018 5:52:11 PM
Lifetime After Exit: 1/8/1970 12:00:00 AM
Message: Successfully completed prepareReverseProtect for vm: %s
```

Related Commands

- Invoke-HXFailover
- Invoke-HXPrepareFailover
- Invoke-HXPrepareGroupRecovery
- Invoke-HXPrepareReverseProtect
- Invoke-HXTestFailover
- Invoke-HXReverseProtect

Get-HXProtectedVM Cmdlet

Syntax

```
Get-HXProtectedVM -ClusterIP <string> [-Brief <SwitchParameter>] [-Direction <string>] [-State <string>] [-VMID <string>] [<CommonParameters>]
```

```
Get-HXProtectedVM -ClusterIP <string> [-Brief <SwitchParameter>] [-Direction <string>] [-State <string>] [-VMName <string>] [<CommonParameters>]
```

Description

Retrieves the virtual machines in the HyperFlex cluster.

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters

-VMID <string>

Specify the virtual machine ID for which the jobs have to be displayed.

Aliases	-id <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-id <string>

Specify the virtual machine ID for which the jobs have to be displayed.

Aliases	-VMID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMName <string>

Specify the name of the virtual machine for which the jobs have to be displayed.

Aliases	-name <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-name <string>

Specify the name of the virtual machine for which the jobs have to be displayed.

Aliases	-VMName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Direction <string>

Specify the type of VM to limit the search. The valid values are All, Incoming, Outgoing.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-State <string>

Specify the state of VM to limit the search. The valid values are *Active*, *CreationInProgress*, *CreationFailed*, *FailoverStarted*, *FailoverFailed*, *FailoverCompleted*, *PrepareFailoverStarted*, *PrepareFailoverFailed*, *PrepareFailoverCompleted*, *PrepareReverseProtectStarted*, *PrepareReverseProtectFailed*, *PrepareReverseProtectCompleted*, *ReverseProtectStarted*, *ReverseProtectFailed*.

Aliases	-VMState <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMState <string>

Specify the state of VM to limit the search. The valid values are *Active*, *CreationInProgress*, *CreationFailed*, *FailoverStarted*, *FailoverFailed*, *FailoverCompleted*, *PrepareFailoverStarted*, *PrepareFailoverFailed*, *PrepareFailoverCompleted*, *PrepareReverseProtectStarted*, *PrepareReverseProtectFailed*, *PrepareReverseProtectCompleted*, *ReverseProtectStarted*, *ReverseProtectFailed*.

Aliases	-State <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Brief <SwitchParameter>

Indicates that the command will return the brief formatted output.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example 1

Input

```
Get-HXProtectedVM -ClusterIP 10.198.14.227 -Brief
```

Output

```
VM Name: DemoVM1
```

```

VM ProtectionStatus: ACTIVE
VM ID: 421ffa79-7380-4b72-7bd8-6651b11def58
Source Cluster: skmsrc_711
Target Cluster: skmtgt_711
Replication Interval(in Minutes) : 5
Bios Uuid: 421ffa79-7380-4b72-7bd8-6651b11def58
Instance Uuid: 501ffa05-293f-0480-b4d3-3de146cb5d30
Start Time: 7/15/2018 12:33:58 PM
End Time: 7/15/2018 12:33:58 PM
BytesReplicated: 2446

```

Example 2

Input

```
Get-HXProtectedVM -ClusterIP 10.198.16.16 -VMName ash2 -Brief
```

Output

```

VM Name: ash2
VM ProtectionStatus: PREPAREFAILOVERCOMPLETED
VM ID: 422a9cb5-0fef-b30f-ad2d-1004755c50b4
Source Cluster: Sample-source
Target Cluster: Sample-target
Replication Interval(in Minutes) : 5
Bios Uuid: 422a9cb5-0fef-b30f-ad2d-1004755c50b4
Instance Uuid: 502a615b-36db-d624-fc97-4de6dbe30daa
Start Time: 7/15/2018 12:33:58 PM
End Time: 7/15/2018 12:33:58 PM

```

Example 3

Input

```
Get-HXProtectedVM -ClusterIP 10.198.16.16 -VMName ash* -Brief
```

Output

```

VM Name: ash1
VM ProtectionStatus: PREPAREFAILOVERCOMPLETED
VM ID: 422a9cb5-0fef-b30f-ad2d-1004755c50b4
Source Cluster: Sample-source
Target Cluster: Sample-target
Replication Interval(in Minutes) : 5
Bios Uuid: 422a9cb5-0fef-b30f-ad2d-1004755c50b4
Instance Uuid: 502a615b-36db-d624-fc97-4de6dbe30daa
Start Time: 7/15/2018 12:33:58 PM
End Time: 7/15/2018 12:33:58 PM
BytesReplicated: 2539
=====
VM Name: ash2
VM ProtectionStatus: ACTIVE
VM ID: 422a1745-5dc3-d1de-00f0-b50851bb970d
Source Cluster: Sample-source
Target Cluster: Sample-target
Replication Interval(in Minutes) : 5
Bios Uuid: 422a9cb5-0fef-b30f-ad2d-1004755c50b4
Instance Uuid: 502a615b-36db-d624-fc97-4de6dbe30daa
Start Time: 7/15/2018 12:33:58 PM
End Time: 7/15/2018 12:33:58 PM
BytesReplicated: 2539

```

Related Commands

Get-HXProtectionGroup

Get-HXProtectionGroup Cmdlet

Syntax

```
Get-HXProtectionGroup -ClusterIP <string> [-Brief <SwitchParameter>] [-GroupID <string>]
[<CommonParameters>]
```

```
Get-HXProtectionGroup -ClusterIP <string> [-Brief <SwitchParameter>] [-GroupName <string>]
[<CommonParameters>]
```

Description

Retrieves the protection groups in the HyperFlex cluster.

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters

-GroupID <string>

Specify the ID of specific protection group you want to retrieve.

Aliases	-Grpid <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Grpid <string>

Specify the ID of the specific protection group you want to retrieve.

Aliases	-Grpid <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GroupName <string>

Specify the specific protection group name you want to retrieve.

Aliases	-GrpName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GrpName <string>

Specify the specific protection group name you want to retrieve.

Aliases	-GroupName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Brief <SwitchParameter>

Indicates that the command will return the brief formatted output.

Aliases	—
Position?	Name
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example

Input

```
Get-HXProtectionGroup -ClusterIP 10.198.14.227 -GroupName ABC -Brief
```

Output

```
Group Name: Group1
Group ID: 6ed3920a-7fc4-4f92-8da5-814f98f05f5c
Group ProtectionStatus: ACTIVE
Group Members:
VM Name: vml
VM ProtectionStatus: ACTIVE
VM ID: 421f57c4-ebbd-a64e-a32b-426a251f9f43
Source Cluster: skmsrc_711
Start Time: 7/15/2018 1:11:05 PM
End Time: 7/15/2018 1:11:06 PM
BytesReplicated: 2426
-----
Source Cluster: skmsrc_711
Target Cluster: skmtgt_711
Replication Interval(in Minutes): 5
```

Example 2

Input

```
Get-HXProtectionGroup -ClusterIP 10.198.14.227 -Brief
```

Output

This example provides all the protection groups in the the cluster.

```
-----
Group Name: ABC
Group ID: 6ed3920a-7fc4-4f92-8da5-814f98f05f5c
Group ProtectionStatus: ACTIVE
Group Members:
VM Name: vml
VM ProtectionStatus: ACTIVE
VM ID: 421f57c4-ebbd-a64e-a32b-426a251f9f43
Source Cluster: skmsrc_711
Start Time: 7/15/2018 1:11:05 PM
End Time: 7/15/2018 1:11:06 PM
BytesReplicated: 2426
-----
Source Cluster: skmsrc_711
Target Cluster: skmtgt_711
Replication Interval(in Minutes): 5
=====
Group Name: Group1
Group ID: c2d26ade-7674-44ab-982e-3bc044292738
Group ProtectionStatus: ACTIVE
Group Members:
```



```

VM Name: shaz
VM ProtectionStatus: ACTIVE
VM ID: 421f57c4-ebbd-a64e-a32b-426a251f9f43
Source Cluster: skmsrc_711
Start Time: 7/15/2018 1:11:05 PM
End Time: 7/15/2018 1:11:06 PM
BytesReplicated: 2426
-----
Source Cluster: skmsrc_711
Target Cluster: skmtgt_711
Replication Interval(in Minutes): 5

```

Related Commands Get-HXProtectedVM

Invoke-HXTestFailover Cmdlet

Syntax

```
Invoke-HXTestFailover -ClusterIP <string> -VMName <string> [-Async <SwitchParameter>] [-Brief <SwitchParameter>] [-FolderID <string>] [-FolderName <string>] [-NetworkMap <string[>] [-NewName <string>] [-PowerOn <SwitchParameter>] [-ResourcePoolId <string>] [-ResourcePoolName <string>] [-TestNetwork <string>] [<CommonParameters>]
```

```
Invoke-HXTestFailover -ClusterIP <string> -VMId <string> [-Async <SwitchParameter>] [-Brief <SwitchParameter>] [-FolderID <string>] [-FolderName <string>] [-NetworkMap <string[>] [-NewName <string>] [-PowerOn <SwitchParameter>] [-ResourcePoolId <string>] [-ResourcePoolName <string>] [-TestNetwork <string>] [<CommonParameters>]
```

Description

Performs test failover of the protected virtual machine.

- Mutually exclusive optional parameters are ResourcePoolName/ResourcePoolId, FolderName/FolderId, and TestNetwork/Networkmap.
- If the source network map is invalid, the VM will failover to default network map setting(s).

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMID <string>

Specify the virtual machine ID for which the jobs have to be displayed.

Aliases	-VM <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VM <string>

Specify the virtual machine ID for which the jobs have to be displayed.

Aliases	-VMID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMName <string>

Specify the name of the virtual machine for which the jobs have to be displayed.

Aliases	-Name <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False

Accept Wildcard Characters?	False
-----------------------------	-------

-Name <string>

Specify the name of the virtual machine for which the jobs have to be displayed.

Aliases	-VMName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters

-ResourcePoolName <string>

Specify the name of the resource pool.

Aliases	-RPName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-RPName <string>

Specify the name of the resource pool.

Aliases	-ResourcePoolName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-ResourcePoolId <string>

Specify the ID of the resource pool.

Aliases	-RPId <string>
Position?	Named

Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-RPId <string>

Specify the ID of the resource pool.

Aliases	-ResourcePoolId <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-FolderName <string>

Specify the folder name.

Aliases	-FName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-FName <string>

Specify the folder name.

Aliases	-FolderName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-FolderID <string>

Specify the folder ID.

Aliases	-FId <string>
---------	------------------

Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-FId <string>

Specify the folder ID.

Aliases	-FolderID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-TestNetwork <string>

Specify the network to test.

Aliases	-TestNw <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-TestNw <string>

Specify the network to test.

Aliases	-TestNetwork <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-NetworkMap <string[]>

Specify the network mapping.

Aliases	-NwMap <string[]>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-NwMap <string[]>

Specify the network mapping.

Aliases	-NetworkMap <string[]>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-NewName <string>

To change the name of the virtual machine after failover is successful, specify a new name for the VM.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-PowerOn <SwitchParameter>

Indicates if the VM will be powered On or Off after Test failover.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Async <SwitchParameter>

Indicates that the command returns immediately without waiting for the task to complete. In this mode, the output of the cmdlet is a Job ID. To get the status of job, refer to the `Get-HXJobStatus` cmdlet.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Brief <SwitchParameter>

Indicates that the command will return the brief formatted output.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example 1

Input

```
Invoke-HXTestFailover -VMName DemoVM2 -ClusterIP 10.198.14.229 -ResourcePoolName DemoRP -Brief
```

Output

```
Test Failover of VM Completed
State: COMPLETED
Summary Step State: NOTSTARTED
Job ID: 5b1cdaf6-bca9-42a3-b6a8-b1f7d16e7d29
Method Name: failoverVm
Time Submitted: 7/15/2018 5:39:08 PM
Time Started: 7/15/2018 5:39:09 PM
Time Elapsed: 7/15/2018 5:39:23 PM
Message: Successfully completed %s recovery for VM %s
```

Example 2

Input

```
Invoke-HXTestFailover -VMName DemoVM2 -ClusterIP 10.198.14.229 -FolderName DemoFLDR -Async
```

Output

```
{"taskId":"d92559c6-2396-4757-a500-96ad11820bbd"}
```

Related Commands

- Invoke-HXPrepareFailover
- Invoke-HXPrepareGroupRecovery
- Invoke-HXPrepareReverseProtect
- Invoke-HXReverseProtect
- Invoke-HXTestFailover
- Get-HXJobStatus

Invoke-HXFailover Cmdlet

Syntax

```
Invoke-HXFailover [[-NetworkMap] <string[]>] [[-PowerOn] <SwitchParameter>] -ClusterIP <string>
-VMID <string> [-Async <SwitchParameter>] [-Brief <SwitchParameter>] [-FolderID <string>]
[-FolderName <string>] [-ResourcePoolID <string>] [-ResourcePoolName <string>]
[<CommonParameters>]
```

```
Invoke-HXFailover [[-NetworkMap] <string[]>] [[-PowerOn] <SwitchParameter>] -ClusterIP <string>
-VMName <string> [-Async <SwitchParameter>] [-Brief <SwitchParameter>] [-FolderID <string>]
[-FolderName <string>] [-ResourcePoolID <string>] [-ResourcePoolName <string>]
[<CommonParameters>]
```

Description

Performs test failover of the protected virtual machine.

- Mutually exclusive optional parameters are `ResourcePoolName/ResourcePoolId`, `FolderName/FolderId`, and `TestNetwork/Networkmap`.
- If the source network map is invalid, the VM will failover to default network map setting(s).

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False

Accept Wildcard Characters?	False
-----------------------------	-------

-VMID <string>

Specify the virtual machine ID for which the jobs have to be displayed.

Aliases	-VM <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VM <string>

Specify the virtual machine ID for which the jobs have to be displayed.

Aliases	-VMID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMName <string>

Specify the name of the virtual machine for which the jobs have to be displayed.

Aliases	-name <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-name <string>

Specify the name of the virtual machine for which the jobs have to be displayed.

Aliases	-VMName <string>
Position?	Named
Default Value	—

Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters

-ResourcePoolName <string>

Specify the name of the resource pool.

Aliases	-RPName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-RPName <string>

Specify the name of the resource pool.

Aliases	-ResourcePoolName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-ResourcePoolID <string>

Specify the ID of the resource pool.

Aliases	-RPID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-RPID <string>

Specify the ID of the resource pool.

Aliases	-ResourcePoolID <string>
---------	-----------------------------

Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-FolderName <string>

Specify the folder name.

Aliases	-FName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-FName <string>

Specify the folder name.

Aliases	-FolderName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-FolderID <string>

Specify the folder ID.

Aliases	-FID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-FID <string>

Specify the folder ID.

Aliases	-FolderID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-NetworkMap <string[]>

Specify the network mapping.

Format is SourceNetwork1:TargetNetwork1, SourceNetwork2:TargetNetwork2.

Aliases	-NwMap <string[]>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-NwMap <string[]>

Specify the network mapping.

Format is SourceNetwork1:TargetNetwork1, SourceNetwork2:TargetNetwork2.

Aliases	-NetworkMap <string[]>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-PowerOn <SwitchParameter>

Indicates if the VM will be powered On or Off after Test failover.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Async <SwitchParameter>

Indicates that the command returns immediately without waiting for the task to complete. In this mode, the output of the cmdlet is a Job ID. To get the status of job, refer to the `Get-HXJobStatus` cmdlet.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Brief <SwitchParameter>

Indicates that the command will return the brief formatted output.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example 1**Input**

```
Invoke-HXFailover -VMID 421ffa79-7380-4b72-7bd8-6651b11def58 -PowerOn -ClusterIP 10.198.14.229
-FolderName DemoFolder -NetworkMap "Storage Controller Data Network:VM Network" -Async
```

Output

```
{"taskId":"d92559c6-2396-4757-a500-96ad11820bbd"}
```

Example 2**Input**

```
Invoke-HXFailover -VMName DemoVM3 -ClusterIP 10.198.14.229 -Brief
```

Output

```
Failover of VM Completed
State: COMPLETED
Summary Step State: NOTSTARTED
Job ID: 2c611807-260d-45cf-9294-4f93a84204a1
Method Name: failoverVm
Time Submitted: 7/15/2018 5:44:00 PM
Time Started: 7/15/2018 5:44:00 PM
Time Elapsed: 7/15/2018 5:44:05 PM
Message: Successfully completed %s recovery for VM %s
```

Example 3**Input**

```
Invoke-HXFailover -ClusterIP 10.198.5.221 -VMName testvm2 -ResourcePoolName RPName -PowerOn
```

Output

```
Failover of VM Completed in the Resource Pool provided.
```

Related Commands

Invoke-HXPrepareFailover
 Invoke-HXPrepareGroupRecovery
 Invoke-HXPrepareReverseProtect
 Invoke-HXReverseProtect
 Invoke-HXTestFailover
 Get-HXJobStatus

Invoke-HXPrepareFailover Cmdlet

Syntax

```
Invoke-HXPrepareFailover -ClusterIP <string> -VMName <string> [-Async <SwitchParameter>]
[-Brief <SwitchParameter>] [<CommonParameters>]
Invoke-HXPrepareFailover -ClusterIP <string> -VMID <string> [-Async <SwitchParameter>] [-Brief
<SwitchParameter>] [<CommonParameters>]
```

Description

Prepares the protected VM for the failover on the protected site.

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False

Accept Wildcard Characters?	False
-----------------------------	-------

-VMID <string>

Specify the virtual machine ID for which the jobs have to be displayed.

Aliases	-VM <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VM <string>

Specify the virtual machine ID for which the jobs have to be displayed.

Aliases	-VMID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMName <string>

Specify the name of the virtual machine for which the jobs have to be displayed.

Aliases	-name <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-name <string>

Specify the name of the virtual machine for which the jobs have to be displayed.

Aliases	-VMName <string>
Position?	Named
Default Value	—

Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Async <SwitchParameter>

Indicates that the command returns immediately without waiting for the task to complete. In this mode, the output of the cmdlet is a Job ID. To get the status of job, refer to the `Get-HXJobStatus` cmdlet.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Brief <SwitchParameter>

Indicates that the command will return the brief formatted output.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example 1**Input**

```
Invoke-HXPrepareFailover -ClusterIP 10.198.14.227 -VMID 421fcaff-8592-428a-61a7-0181bf0314a3
-Async
```

Output

```
{"taskId":"99a18c1d-23e8-4cf9-aedf-845dc9c832fb"}
```

Example 2**Input**

```
Invoke-HXPrepareFailover -ClusterIP 10.198.14.227 -VMID 421f8bbb-540f-11e1-038a-4e66c2ebcc70
-Brief
```

Output

```
State: COMPLETED
Summary Step State: NOTSTARTED
Job ID: 2d6c7d49-1ac9-4bc1-9bb7-8a0efa112d1c
Method Name: prepareFailoverVm
Time Submitted: 7/15/2018 7:02:47 PM
Time Started: 7/15/2018 7:02:47 PM
Time Elapsed: 7/15/2018 7:02:53 PM
Message: Successfully completed prepareFailover for VMID %s
```

Related Commands

Invoke-HXFailover

Invoke-HXPrepareGroupRecovery
 Invoke-HXPrepareReverseProtect
 Invoke-HXReverseProtect
 Invoke-HXTestFailover
 Get-HXJobStatus

Invoke-HXPrepareGroupRecovery Cmdlet

Syntax

```
Invoke-HXPrepareGroupRecovery -ClusterIP <string> -GroupId <string> [<CommonParameters>]
```

```
Invoke-HXPrepareGroupRecovery -ClusterIP <string> -GroupName <string> [<CommonParameters>]
```

Description

Prepares the protection group for recovery.

As the ProtectionGroup does not have a failover functionality, it first moves out the VMs from the protection group and then performs prepare group recovery on the individual protected VMs.

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False

Accept Wildcard Characters?	False
-----------------------------	-------

-GroupId <string>

Specify the group ID on which you want to perform prepare group recovery.

Aliases	-Id <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Id <string>

Specify the group ID on which you want to perform prepare group recovery.

Aliases	-GroupId <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GroupName <string>

Specify the group name on which you want to perform prepare group recovery.

Aliases	-Name <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Name <string>

Specify the group name on which you want to perform prepare group recovery.

Aliases	-GroupName <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False

Accept Wildcard Characters?	False
-----------------------------	-------

Example

Input

```
Invoke-HXPrepareGroupRecovery -ClusterIP 10.198.14.229 -GroupId
6ed3920a-7fc4-4f92-8da5-814f98f05f5c
```

Output

```
ProtectionStatusV2 : FAILOVERCOMPLETED
Er : class EntityRef {
  Name: Group1
  Type: DPVMGROUP
  Id: 6ed3920a-7fc4-4f92-8da5-814f98f05f5c
  Idtype:
  Confignum: 0
}
Description :
PrimaryEr : class EntityRef {
  Name: skmsrc_711
  Type: CLUSTER
  Id: 316711787155901742:8013209598152688184
  Idtype:
  Confignum: 0
}
Members : {}
Schedule : {class ReplicationClusterErToSchedule {
  TargetClusterEr: class EntityRef {
    Name: skmtgt_711
    Type: CLUSTER
    Id: 196170859791797843:6439004119086246008
    Idtype:
    Confignum: 0
  }
  Schedule: class ReplicationSchedule {
    Enabled: True
    IntervalInMinutes: 5
    StartTime: 1531297344621
    QuiesceType: NONE
  }
}
}
```

Related Commands Get-HXProtectionGroup

Invoke-HXPrepareReverseProtect Cmdlet

Syntax

```
Invoke-HXPrepareReverseProtect -ClusterIP <string> -VMName <string> [-Async <SwitchParameter>]
[-Brief <SwitchParameter>] [<CommonParameters>]
```

```
Invoke-HXPrepareReverseProtect -ClusterIP <string> -VMID <string> [-Async <SwitchParameter>]
[-Brief <SwitchParameter>] [<CommonParameters>]
```

Description

Prepares virtual machines for reverse protect on the primary site.

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMName <string>

Specify the name of the virtual machine on which Prepare Reverse Protect has to be performed.

Aliases	-name <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-name <string>

Specify the name of the virtual machine on which Prepare Reverse Protect has to be performed.

Aliases	-VMName <string>
---------	---------------------

Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMID <string>

Specify the virtual machine ID on which Prepare Reverse Protect has to be performed.

Aliases	-vm <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-vm <string>

Specify the virtual machine ID on which Prepare Reverse Protect has to be performed.

Aliases	-VMID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters

-Async <SwitchParameter>

Indicates that the command returns immediately without waiting for the task to complete. In this mode, the output of the cmdlet is a Job Id. To get the status of job, refer to Get-HXJobStatus.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Brief <SwitchParameter>

Indicates that the command will return the brief formatted output.

Aliases	—
Position?	Name
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example 1

Input

```
Invoke-HXPrepareReverseProtect -ClusterIP 10.198.14.227 -VMID
421f0f84-0b3f-fe3a-311c-763f409b3665 -Async
```

Output

```
{"taskId":"99a18c1d-23e8-4cf9-aedf-845dc9c832fb"}
```

Example 2

Input

```
Invoke-HXPrepareReverseProtect -ClusterIP 10.198.14.227 -VMName DemoVM2 -Brief
```

Output

```
Method Name: prepareReverseProtectVm
Time Submitted: 7/15/2018 5:52:27 PM
Time Started: 7/15/2018 5:52:27 PM
Time Elapsed: 7/15/2018 5:52:28 PM
Message: Successfully completed prepareReverseProtect for vm: %s
```

Related Commands

- Invoke-HXFailover
- Invoke-HXPrepareGroupRecovery
- Invoke-HXReverseProtect
- Invoke-HXTestFailover
- Get-HXJobStatus

Invoke-HXReverseProtect Cmdlet

Syntax

```
Invoke-HXReverseProtect -ClusterIP <string> -VMName <string> [-Async <SwitchParameter>] [-Brief
<SwitchParameter>] [<CommonParameters>]
```

```
Invoke-HXReverseProtect -ClusterIP <string> -VMID <string> [-Async <SwitchParameter>] [-Brief
<SwitchParameter>] [<CommonParameters>]
```

Description

Reverse protects the virtual machines on the recovery site after the failover is complete.

Required Parameters**-ClusterIP <string>**

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMName <string>

Specify the name of the virtual machine on which Reverse Protect has to be performed.

Aliases	-name <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-name <string>

Specify the name of the virtual machine on which Reverse Protect has to be performed.

Aliases	-VMName <string>
Position?	Named
Default Value	—

Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMID <string>

Specify the virtual machine ID on which Reverse Protect has to be performed.

Aliases	-id <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-id <string>

Specify the virtual machine ID on which Reverse Protect has to be performed.

Aliases	-VMID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters**-Async <SwitchParameter>**

Indicates that the command returns immediately without waiting for the task to complete. In this mode, the output of the cmdlet is a Job ID. To get the status of job, refer to Get-HXJobStatus.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Brief <SwitchParameter>

Indicates that the command will return the brief formatted output.

Aliases	—
---------	---

Position?	Name
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example 1**Input**

```
Invoke-HXReverseProtect -ClusterIP 10.198.14.229 -VMID 421f0f84-0b3f-fe3a-311c-763f409b3665
-Async
```

Output

```
{"taskId":"8d26dfba-ed64-4768-9960-62d40865e51e"}
```

Example 2**Input**

```
Invoke-HXReverseProtect -ClusterIP 10.198.14.229 -VMName DemoVM1 -Brief
```

Output

```
Reverse Protect of VM Completed
State: COMPLETED
Summary Step State: NOTSTARTED
Job ID: 5d154cf0-ff85-482a-ae7c-252c0ca324b8
Method Name: reverseProtectVm
Time Submitted: 7/15/2018 5:57:49 PM
Time Started: 7/15/2018 5:57:49 PM
Time Elapsed: 7/15/2018 5:57:49 PM
Message: Successfully completed reverseProtect for vm: %s
```

Related Commands

```
Invoke-HXFailover
Invoke-HXPrepareFailover
Invoke-HXPrepareGroupRecovery
Invoke-HXPrepareReverseProtect
Invoke-HXTestFailover
Get-HXJobStatus
```

New-HXProtectionGroup Cmdlet

Syntax

```
New-ProtectionGroup -ClusterIP <string> -GroupName <string> -Interval <string> [-QuiesceUsingTools
<SwitchParameter>] [-StartTime <string>] [<CommonParameters>]
```

Description

Creates the new HyperFlex protection group with a schedule.

Required Parameters**-ClusterIP <string>**

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GroupName <string>

Specify the group name for the protection group to be created. The group name parameter must not contain special characters.

Aliases	-Name <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GrpName <string>

Specify the group name for the protection group to be created. The group name parameter must not contain special characters.

Aliases	-GrpName <string>
Position?	Named

Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Interval <string>

Specify the Interval after which the VM will be replicated. Valid values are "5 min", "15 min", "30 min", "1 hr", "90 min", "2 hr", "4 hr", "8 hr", "12 hr", and "24 hr".

Aliases	
Position?	
Default Value	
Accept Pipeline Input?	
Accept Wildcard Characters?	

Optional Parameters**-QuiesceUsingTools <SwitchParameter>**

Specify the flag if the Quiesce has to be done using tools.

Aliases	—
Position?	Name
Default Value	False
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-StartTime <string>

Specify the Start Time after which the virtual machine will be protected. Valid format is M/d/yyyy HH:mm.

Aliases	—
Position?	Name
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example 1**Input**

```
New-HXProtectionGroup -ClusterIP 10.198.14.227 -GroupName DemoGroup1 -Interval '1 hr'
```

Output

```
Protection Group has been created.
```

Example 2**Input**

```
New-HXProtectionGroup -ClusterIP 10.198.14.114 -GroupName mittul -Interval '5 min' -StartTime
"08/05/2018 23:53
```

Output

```
Protection Group has been created.
```

Related Commands Remove-HXProtectionGroup

Protect-HXVM Cmdlet

Syntax

```
Protect-HXVM -ClusterIP <string> -Interval <string> -VMName <string[]> [-QuiesceUsingTools
<SwitchParameter>] [-StartTime <string>] [<CommonParameters>]
```

```
Protect-HXVM -ClusterIP <string> -GroupName <string> -VMName <string[]> [<CommonParameters>]
```

```
Protect-HXVM -ClusterIP <string> -GroupId <string> -VMName <string[]> [<CommonParameters>]
```

```
Protect-HXVM -ClusterIP <string> -Interval <string> -VMId <string[]> [-QuiesceUsingTools
<SwitchParameter>] [-StartTime <string>] [<CommonParameters>]
```

```
Protect-HXVM -ClusterIP <string> -GroupName <string> -VMId <string[]> [<CommonParameters>]
```

```
Protect-HXVM -ClusterIP <string> -GroupId <string> -VMId <string[]> [<CommonParameters>]
```

Description

Protects an independent virtual machine or a list of virtual machines by adding it to the protection group.

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMName <string[]>

Specify the VM Name to protect an independent VM or a list of VM Names to protect a group of VMs by adding them to a protection group.

Aliases	-Name <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Name <string>

Specify the VM Name to protect an independent VM or a list of VM Names to protect a group of VMs by adding them to a protection group.

Aliases	-VMName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMID <string>

Specify the virtual machine ID on which Reverse Protect has to be performed.

Aliases	-Id <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Id <string>

Specify the virtual machine ID on which Reverse Protect has to be performed.

Aliases	-VMID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GroupName <string>

Specify the existing protection group name to which the list of virtual machines has to be added.

Aliases	-GrpName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GrpName <string>

Specify the existing protection group name to which the list of virtual machines has to be added.

Aliases	-GroupName <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GroupId <string>

Specify the group ID on which you want to perform prepare group recovery.

Aliases	-GrpId <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False

Accept Wildcard Characters?	False
-----------------------------	-------

-GrpId <string>

Specify the group ID on which you want to perform prepare group recovery.

Aliases	-GroupId <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Interval <string>

Specify the Interval after which the VM will be replicated. Valid values are "5 min", "15 min", "30 min", "1 hr", "90 min", "2 hr", "4 hr", "8 hr", "12 hr", and "24 hr".

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters**-QuiesceUsingTools <SwitchParameter>**

Specify the flag if the Quiesce has to be done using tools.

Aliases	—
Position?	Named
Default Value	False
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-StartTime <string>

Specify the Start Time after which the virtual machine will be protected. Valid format is M/d/yyyy HH:mm.

Aliases	—
Position?	Named
Default Value	—

Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example 1**Input**

```
Protect-HXVM -ClusterIP 10.198.14.227 -VMName DemoVM2 -Interval '12 hr'
```

Output

```
VM has been protected.
```

Example 2**Input**

```
Protect-HXVM -ClusterIP 10.198.14.227 -VMId 421f0f84-0b3f-fe3a-311c-763f409b3665 -Interval '5 min'
```

Output

```
VM has been protected.
```

Example 3**Input**

```
Protect-HXVM -ClusterIP 10.198.14.227 -VMId 421f0f84-0b3f-fe3a-311c-763f409b3665 -Interval '5 min' -QuiesceUsingTools -StartTime '08/07/2018 13:40'
```

Output

```
VM has been protected.
```

Example 4**Input**

```
Protect-HXVM -ClusterIP 10.198.16.56 -VMName testvm3,testvm4 -GroupName Grp1
```

Output

```
VM has been protected.
```

Related Commands Unprotect-HXVM

Add-HXProtectedVMToGroup Cmdlet

Syntax

```
Add-HXProtectedVMToGroup -ClusterIP <string> -GroupId <string> -VMId <string[]> [-Brief <SwitchParameter>] [<CommonParameters>]
```

```
Add-HXProtectedVMToGroup -ClusterIP <string> -GroupName <string> -VMName <string[]> [-Brief <SwitchParameter>] [<CommonParameters>]
```

```
Add-HXProtectedVMToGroup -ClusterIP <string> -GroupName <string> -VMId <string[]> [-Brief <SwitchParameter>] [<CommonParameters>]
```

```
Add-HXProtectedVMToGroup -ClusterIP <string> -GroupId <string> -VMName <string[]> [-Brief <SwitchParameter>] [<CommonParameters>]
```


Description

Adds HyperFlex protected virtual machines to a specified group.

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GroupId <string>

Specify the existing protection group ID to which you want to add the virtual machines.

Aliases	Group <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Group <string>

Specify the existing protection group ID to which you want to add the virtual machines.

Aliases	-GroupId <string>
---------	----------------------

Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GroupName <string>

Specify the existing protection group name to which you want to add the virtual machines.

Aliases	—
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMName <string[]>

Specify the list of virtual machine names you want to add to the protected group.

Aliases	-Name <string[]>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Name <string[]>

Specify the list of virtual machine names you want to add to the protected group.

Aliases	-VMName <string[]>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMID <string>

Specify the list of virtual machine ID you want to add to the protected group.

Aliases	-Id <string>
---------	--------------

Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Id <string []>

Specify the list of virtual machine ID you want to add to the protected group.

Aliases	-VMID <string []>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters

-Brief <SwitchParameter>

Indicates that the command will return the brief formatted output.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example 1

Input

```
Add-HXProtectedVMToGroup -ClusterIP 10.198.14.227 -GroupId
cc4d1fb0-ce87-4550-a32f-2ed28ead4dad -VMId 421f008c-ee7a-b74a-559c-ad481c119b72 -Brief
```

Output

```
Group Name: DemoGroup
Group ID: cc4d1fb0-ce87-4550-a32f-2ed28ead4dad
Group ProtectionStatus: ACTIVE
Group Members:
VM Name: 11
VM ProtectionStatus: ACTIVE
VM ID: 421fa002-e68b-a95c-9dbe-ae721b7b2112
Source Cluster: skmsrc_711
Start Time: 7/15/2018 7:11:54 PM
End Time: 7/15/2018 7:11:54 PM
BytesReplicated: 2421
-----
```

```

VM Name: 22
VM ProtectionStatus: ACTIVE
VM ID: 421f008c-ee7a-b74a-559c-ad481c119b72
Source Cluster: skmsrc_711
Start Time: 7/15/2018 7:11:54 PM
End Time: 7/15/2018 7:11:54 PM
BytesReplicated: 2505
-----
Source Cluster: skmsrc_711
Target Cluster: skmtgt_711
Replication Interval(in Minutes): 5
=====
BytesReplicated: 2446

```

Example 2

Input

```
Add-HXProtectedVMToGroup -ClusterIP 10.198.5.221 -GroupName grp1 -VMName newvm1
```

Output

```
VM is added to the Group provided.
```

Related Commands Remove-HXProtectedVMFromGroup

Remove-HXProtectedVMFromGroup Cmdlet

Syntax

```
Remove-ProtectedVMFromGroup -ClusterIP <string> -GroupName <string> -VMName <string[]> [-Brief <SwitchParameter>] [<CommonParameters>]
```

```
Remove-ProtectedVMFromGroup -All <SwitchParameter> -ClusterIP <string> -GroupName <string> [-Brief <SwitchParameter>] [<CommonParameters>]
```

```
Remove-ProtectedVMFromGroup -ClusterIP <string> -GroupName <string> -VMId <string[]> [-Brief <SwitchParameter>] [<CommonParameters>]
```

```
Remove-ProtectedVMFromGroup -ClusterIP <string> -GroupId <string> -VMId <string[]> [-Brief <SwitchParameter>] [<CommonParameters>]
```

```
Remove-ProtectedVMFromGroup -All <SwitchParameter> -ClusterIP <string> -GroupId <string> [-Brief <SwitchParameter>] [<CommonParameters>]
```

```
Remove-ProtectedVMFromGroup -ClusterIP <string> -GroupId <string> -VMName <string[]> [-Brief <SwitchParameter>] [<CommonParameters>]
```

Description

Removes HyperFlex protected virtual machines from a specified group.

Required Parameters

```
-ClusterIP <string>
```

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GroupId <string>

Specify the existing protection group ID to which you want to add the virtual machines.

Aliases	Group <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GroupName <string>

Specify the existing protection group name to which you want to add the virtual machines.

Aliases	—
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMName <string[]>

Specify the list of virtual machine names you want to add to the protected group.

Aliases	-Name <string[]>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Name <string[]>

Specify the list of virtual machine names you want to add to the protected group.

Aliases	-VMName <string[]>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMID <string>

Specify the list of virtual machine ID you want to add to the protected group.

Aliases	-Id <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Id <string []>

Specify the list of virtual machine ID you want to add to the protected group.

Aliases	-VMID <string []>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-All <SwitchParameter>

Indicates that the command will remove all the VMs that exist in the protection group.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters**-Brief <SwitchParameter>**

Indicates that the command will return the brief formatted output.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example**Input**

```
Remove-HXProtectedVMFromGroup -ClusterIP 10.198.14.227 -GroupName Group1 -All
```

Output

```
ProtectionStatus : ACTIVE
ProtectionStatusV2 : ACTIVE
Er : class EntityRef {
  Name: Group1
  Type: DPVMGROUP
  Id: 6ed3920a-7fc4-4f92-8da5-814f98f05f5c
  Idtype:
  Confignum: 0
}
Description :
PrimaryEr : class EntityRef {
  Name: skmsrc_711
  Type: CLUSTER
  Id: 316711787155901742:8013209598152688184
  Idtype:
  Confignum: 0
}
Members : {}
Schedule : {class ReplicationClusterErToSchedule {
  TargetClusterEr: class EntityRef {
  Name: skmtgt_711
  Type: CLUSTER
  Id: 196170859791797843:6439004119086246008
  Idtype:
```

```

    Confignum: 0
  }
  Schedule: class ReplicationSchedule {
    Enabled: True
    IntervalInMinutes: 5
    StartTime: 1531297344621
    QuiesceType: NONE
  }
}
}
}

```

Related Commands Add-HXProtectedVMToGroup

Remove-HXProtectionGroup Cmdlet

Syntax

```
Remove-HXProtectionGroup -ClusterIP <string> -GroupID <string> [<CommonParameters>]
```

```
Remove-HXProtectionGroup -ClusterIP <string> -GroupName <string> [<CommonParameters>]
```

Description

Removes the protection group by deleting it. All the member virtual machines become unprotected.

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False

Accept Wildcard Characters?	False
-----------------------------	-------

-GroupID <string>

Specify the existing protection group ID to which you want to add the virtual machines.

Aliases	Grpid <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Grpid <string>

Specify the existing protection group ID to which you want to add the virtual machines.

Aliases	-GroupID <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GroupName <string>

Specify the existing protection group name to which you want to add the virtual machines.

Aliases	-GrpName <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-GrpName <string>

Specify the existing protection group name to which you want to add the virtual machines.

Aliases	-GroupName <string>
Position?	Named
Default Value	
Accept Pipeline Input?	False

Accept Wildcard Characters?	False
-----------------------------	-------

Example 1**Input**

```
Remove-HXProtectionGroup -ClusterIP 10.198.14.227 -GroupName DemoGroup1
```

Output

This command deletes the Group and the member VMs are unprotected.

Example 2**Input**

```
Remove-HXProtectionGroup -ClusterIP 10.198.14.227 -GroupID  
421f57c4-ebbd-a64e-a32b-426a251f9f43
```

Output

This command deletes the Group and the member VMs are unprotected.

Related Commands New-HXProtectionGroup

Unprotect-HXVM Cmdlet

Syntax

```
Unprotect-HXVM -ClusterIP <string> -VMName <string> [<CommonParameters>]
```

```
Unprotect-HXVM -ClusterIP <string> -VMID <string> [<CommonParameters>]
```

Description

Removes a standalone Protected virtual machine and makes it unprotected.

Required Parameters

-ClusterIP <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-Server <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Server <string>

Specify the IP address of the HyperFlex cluster.

Aliases	-ClusterIP <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMName <string>

Specify the name of the virtual machine which has to be removed or unprotected from the protection group.

Aliases	-Name <string[]>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Name <string>

Specify the name of the virtual machine which has to be removed or unprotected from the protection group.

Aliases	-VMName <string[]>
Position?	Named
Default Value	
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-VMID <string>

Specify the name of the virtual machine which has to be removed or unprotected from the protection group.

Aliases	-Id <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-Id <string>

Specify the name of the virtual machine which has to be removed or unprotected from the protection group.

Aliases	-VMID <string>
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Example 1

Input

```
Unprotect-HXVM -ClusterIP 10.198.14.229 -VMName DemoVM1
```

Output

```
VM :DemoVM1 has been unprotected.
```

Example 2

Input

```
Unprotect-HXVM -ClusterIP 10.198.14.227 -VMID 421f57c4-ebbd-a64e-a32b-426a251f9f43
```

Output

```
VM :DemoVM2 has been unprotected.
```

Related Commands Protect-HXVM

New-HXRunbook Cmdlet

Syntax

Syntax to generate Runbook for a specific recovery mode to run in parallel, by passing all the mandatory and optional parameters.

```
New-HXRunbook -RecoveryMode <String> -ProtectedSiteClusterIP <IPAddress>
-ProtectedSiteClusterCreds <PSObject[]> -RecoverySiteClusterIP <IPAddress>
-RecoverySiteClusterCreds <PSObject[]> -ProtectedSiteVCenterIP <IPAddress>
-ProtectedSiteVCenterCreds <PSObject[]> -RecoverySiteVCenterIP <IPAddress>
-RecoverySiteVCenterCreds <PSObject[]> [-ParallelRecoveryLimit <Int32>] [-DelayBetweenRecovery
<Int32>] [-RunbookFolder <String>] [-ResourcePoolName <String>] [-FolderName <String>]
[-TestNetwork <String>] [-NetworkMap <PSObject[]>] <CommonParameters>
```

Syntax to generate Runbook for a specific recovery mode to run in parallel, by letting the system to get credentials while executing the command.

```
New-HXRunbook -RecoveryMode <String> -ProtectedSiteClusterIP <IPAddress>
-RecoverySiteClusterIP <IPAddress> -ProtectedSiteVCenterIP <IPAddress> -RecoverySiteVCenterIP
<IPAddress> [-ParallelRecoveryLimit <Int32>] [-DelayBetweenRecovery <Int32>] [-RunbookFolder
<String>] [-ResourcePoolName <String>] [-FolderName <String>] [-TestNetwork <String>]
[-NetworkMap <PSObject[]>] <CommonParameters>
```

Syntax to generate Runbook for a specific recovery mode to run in sequential order, by passing all the mandatory and optional parameters.

```
New-HXRunbook -RecoveryMode <String> -ProtectedSiteClusterIP <IPAddress>  
-ProtectedSiteClusterCreds <PSObject[]> -RecoverySiteClusterIP <IPAddress>  
-RecoverySiteClusterCreds <PSObject[]> -ProtectedSiteVCenterIP <IPAddress>  
-ProtectedSiteVCenterCreds <PSObject[]> -RecoverySiteVCenterIP <IPAddress>  
-RecoverySiteVCenterCreds <PSObject[]> -SequentialRecovery [-DelayBetweenRecovery <Int32>]  
[-RunbookFolder <String>] [-ResourcePoolName <String>] [-FolderName <String>] [-TestNetwork  
<String>] [-NetworkMap <PSObject[]>] <CommonParameters>
```

Syntax to generate Runbook for a specific recovery mode to run in sequential order, by letting the system to get credentials while executing the command.

```
New-HXRunbook -RecoveryMode <String> -ProtectedSiteClusterIP <IPAddress>  
-RecoverySiteClusterIP <IPAddress> -ProtectedSiteVCenterIP <IPAddress> -RecoverySiteVCenterIP  
<IPAddress> -SequentialRecovery [-DelayBetweenRecovery <Int32>] [-RunbookFolder <String>]  
[-ResourcePoolName <String>] [-FolderName <String>] [-TestNetwork <String>] [-NetworkMap  
<PSObject[]>] <CommonParameters>
```

Syntax to regenerate Runbook for a specific recovery mode by passing parameters through JSON file.

```
New-HXRunbook -JsonInputFile <String> [-RunbookFolder <String>] <CommonParameters>
```

Syntax to regenerate Runbook for a specific recovery mode by passing JSON configuration variable.

```
New-HXRunbook -JsonConfigVariable <PSObject> [-RunbookFolder <String>] <CommonParameters>
```

Description

Generates runbook for various recovery scenarios. The New-HXRunbook cmdlet supports the following workflows: Test Recovery, Planned Migration, and Disaster Recovery.

Required Parameters

```
-RecoveryMode <String>
```

Specify the recovery mode for which the runbook has to be generated. The valid recovery modes are: 'TestRecovery', 'DisasterRecovery', and 'PlannedMigration'.

Aliases	Mode
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

```
-ProtectedSiteClusterIP <IPAddress>
```

Specify the IP address of the protected site cluster.

Aliases	PriCluIP
---------	----------

Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-ProtectedSiteClusterCreds <PObject[]>

Specify the credentials of the protected site cluster.

Aliases	PriCluCred
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-RecoverySiteClusterIP <IPAddress>

Specify the IP address of the recovery site cluster.

Aliases	SecCluIP
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-RecoverySiteClusterCreds <PObject[]>

Specify the credentials of the recovery site cluster.

Aliases	SecCluCred
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-ProtectedSiteVCenterIP <IPAddress>

Specify the IP address of the protected site vCenter server.

Aliases	PriVCIP
Position?	Named

Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-ProtectedSiteVCenterCreds <PSObject[]>

Specify the credentials of the protected site vCenter server.

Aliases	PriVCCred
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-RecoverySiteVCenterIP <IPAddress>

Specify the IP address of the recovery site vCenter server.

Aliases	SecVCIP
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-RecoverySiteVCenterCreds <PSObject[]>

Specify the credentials of the recovery site vCenter server

Aliases	SecVCCred
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-JsonInputFile <String>

If you want to regenerate a runbook with some updates to the variables in the JSON file of the generated runbook, do required updates in the JSON file and specify path of the customized JSON input file to regenerate the runbook.

Aliases	—
Position?	Named

Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-JsonConfigVariable <PSObject>

If you want to regenerate a runbook with some updates to the variables in the JSON file of the generated runbook, specify JSON config variable (\$HXJsonConfig) to regenerate the runbook.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Optional Parameters

-ParallelRecoveryLimit <Int32>

Specify the maximum limit for executing multiple recovery jobs in parallel at once. The default value is 10. The passed value must be lesser than or equal to 10.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-SequentialRecovery [<SwitchParameter>]

Switch to enable recovery of VMs in a sequential order.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-DelayBetweenRecovery <Int32>

Specify the duration in seconds to delay the recovery operation of subsequent VMs when recovery operation is run in parallel or sequential order.

Aliases	—
Position?	Named
Default Value	0
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-RunbookFolder <String>

Specify the path of a new output folder in which the generated runbook files have to be saved. The default path is `C:\Runbooks`.

Aliases	—
Position?	Named
Default Value	"C:\Runbooks"
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-ResourcePoolName <String>

Specify the target resource pool name where all the VMs have to be recovered or migrated. This pool name is applicable for all the protected VMs.

Aliases	RPool
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-FolderName <String>

Specify the folder name where all the VMs have to be recovered or migrated. This folder name is applicable for all the protected VMs.

Aliases	FName
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-TestNetwork <String>

Specify the test network for test recovery.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

-NetworkMap <PSObject[]>

Specify the network mapping. in the following format:

```
"SourceNetwork1:TargetNetwork1", "SourceNetwork2:TargetNetwork2"
```

Aliases	NMap
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Common Parameters

The New-HXRunbook cmdlet supports the following common parameters: **Verbose**, **Debug**, **ErrorAction**, **ErrorVariable**, **WarningAction**, **WarningVariable**, **OutBuffer**, **PipelineVariable**, and **OutVariable**

For more information, see [About CommonParameters](#).

Example 1

Generate a runbook for all the protected VMs for the Test Recovery scenario.

Input

```
New-HXRunbook -RecoveryMode 'TestRecovery' -ProtectedSiteClusterIP "10.10.10.0"
-ProtectedSiteClusterCreds "user","password" -RecoverySiteClusterIP "10.10.10.1"
-RecoverySiteClusterCreds "user","password" -ProtectedSiteVCenterIP "10.10.10.11"
-ProtectedSiteVCenterCreds "user","password" -RecoverySiteVCenterIP "10.10.10.12"
-RecoverySiteVCenterCreds "user","password" -All
```

Output

```
INFO: Generating 'TestRecovery' runbook.
INFO: Runbook has been successfully generated.
INFO: Target Folder:'C:\Runbooks\Runbook-TestRecovery-Parallel_(13-Feb-2019_15-32) '
INFO: Runbook file:'Runbook-TestRecovery-(13-Feb-2019_15-32).ps1'
INFO: Json file:'Json-TestRecovery-(13-Feb-2019_15-32).json'
INFO: Json Configuration Variable:$HXJsonConfig
INFO: Cleanup file:'CleanupScript-TestRecovery-(13-Feb-2019_15-32).ps1'
```



Note The `Cleanup` file is generated only for the test recovery mode. The `Cleanup` file is used to cleanup the secondary site.

Example 2

Generate a runbook for all the protected VMs for the Disaster Recovery scenario.

Input

```
New-HXRunbook -RecoveryMode 'DisasterRecovery' -ProtectedSiteClusterIP "10.10.10.0"
-ProtectedSiteClusterCreds "user","password" -RecoverySiteClusterIP "10.10.10.1"
-RecoverySiteClusterCreds "user","password" -ProtectedSiteVCenterIP "10.10.10.11"
-ProtectedSiteVCenterCreds "user","password" -RecoverySiteVCenterIP "10.10.10.12"
-RecoverySiteVCenterCreds "user","password" -All
```

Output

```
INFO: Generating 'DisasterRecovery' runbook.
INFO: Runbook has been successfully generated.
INFO: Target Folder: 'C:\Runbooks\Runbook-DisasterRecovery-Parallel_(13-Feb-2019_15-32)'
INFO: Runbook file: 'Runbook-DisasterRecovery-(13-Feb-2019_15-32).ps1'
INFO: Json file: 'Json-DisasterRecovery-(13-Feb-2019_15-32).json'
INFO: Json Configuration Variable: $HXJsonConfig
INFO: ReverseProtect file: 'ReverseProtect_Script_(13-Feb-2019_15-32).ps1'
```



Note The `ReverseProtect` file is generated only for the disaster recovery mode. The `ReverseProtect` file is used to recover the secondary site after disaster.

Example 3

Generate a runbook for all the protected VMs for the Planned Migration scenario.

Input

```
New-HXRunbook -RecoveryMode 'PlannedMigration' -ProtectedSiteClusterIP "10.10.10.0"
-ProtectedSiteClusterCreds "user","password" -RecoverySiteClusterIP "10.10.10.1"
-RecoverySiteClusterCreds "user","password" -ProtectedSiteVCenterIP "10.10.10.11"
-ProtectedSiteVCenterCreds "user","password" -RecoverySiteVCenterIP "10.10.10.12"
-RecoverySiteVCenterCreds "user","password" -All
```

Output

```
INFO: Generating 'PlannedMigration' runbook.
INFO: Runbook has been successfully generated.
INFO: Target Folder:'C:\Runbooks\Runbook-PlannedMigration-Parallel_(13-Feb-2019_15-31)'
INFO: Runbook file:'Runbook-PlannedMigration-(13-Feb-2019_15-31).ps1'
INFO: Json file:'Json-PlannedMigration-(13-Feb-2019_15-31).json'
INFO: Json Configuration Variable: $HXJsonConfig
```

Example 4

Generate a runbook for all the protected VMs for the Planned Migration scenario by passing additional parameters such as `FolderName` and `NetworkMap`.

Input

```
New-HXRunbook -RecoveryMode 'PlannedMigration' -ProtectedSiteClusterIP "10.10.10.0"
-ProtectedSiteClusterCreds "user","password" -RecoverySiteClusterIP "10.10.10.1"
-RecoverySiteClusterCreds "user","password" -ProtectedSiteVCenterIP "10.10.10.11"
-ProtectedSiteVCenterCreds "user","password" -RecoverySiteVCenterIP "10.10.10.12"
-RecoverySiteVCenterCreds "user","password" -All -NetworkMap "SourceNetwork1:TargetNetwork1",
"SourceNetwork2:TargetNetwork2" -FolderName "Recovery_Folder"
```

Output

```
INFO: Generating 'PlannedMigration' runbook.
INFO: Runbook has been successfully generated.
INFO: Target Folder:'C:\Runbooks\Runbook-PlannedMigration-Parallel_(13-Feb-2019_15-31)'
INFO: Runbook file:'Runbook-PlannedMigration-(13-Feb-2019_15-31).ps1'
```

```
INFO: Json file:'Json-PlannedMigration-(13-Feb-2019_15-31).json'
INFO: Json Configuration Variable: $HXJsonConfig
```

Example 5

Generate a runbook by passing the modified JSON file with customized VM details.

Input

```
New-HXRunbook -JsonInputFile "C:\Runbooks\Runbook-TestRecovery-Parallel_(08-Nov-2018_13-28)\Json-TestRecovery-Parallel_(08-Nov-2018_13-28).json"
```

Output

```
INFO: Generating 'TestRecovery' runbook.
INFO: Runbook has been successfully generated.
INFO: Target Folder:'C:\Runbooks\Runbook-TestRecovery-Parallel_(13-Feb-2019_15-32) '
INFO: Runbook file:'Runbook-TestRecovery-(13-Feb-2019_15-32).ps1'
INFO: Json file:'Json-TestRecovery-(13-Feb-2019_15-32).json'
INFO: Json Configuration Variable:$HXJsonConfig
INFO: Cleanup file:'CleanupScript-TestRecovery-(13-Feb-2019_15-32).ps1'
```

Related Commands Get-HXJsonConfig

Get-HXJsonConfig Cmdlet

Syntax

```
Get-HXJsonConfig [-JsonInputFile] <string> [<CommonParameters>]
```

Description

Customize the JSON file of runbook through PowerShell.

Required Parameters

-JsonInputFile <String>

If you want to regenerate a runbook by updating the variables in the JSON file of the generated runbook through powershell, specify path of the JSON input file of the runbook.

Aliases	—
Position?	Named
Default Value	—
Accept Pipeline Input?	False
Accept Wildcard Characters?	False

Common Parameters

The Get-HXJsonConfig cmdlet supports the following common parameters: **Verbose**, **Debug**, **ErrorAction**, **ErrorVariable**, **WarningAction**, **WarningVariable**, **OutBuffer**, **PipelineVariable**, and **OutVariable**

For more information, see [About CommonParameters](#).

Example 1

Update the JSON variable using the Get-HXJsonConfig cmdlet.

```
Input Get-HXJsonConfig -JsonInputFile 'C:\Runbooks\Runbook-DisasterRecovery-Parallel_(13-Feb-2019_15-25)\Json-DisasterRecovery-Parallel_(13-Feb-2019_15-25).json'
```

Output

```
Imported Json File : 'C:\Runbooks\Runbook-DisasterRecovery-Parallel_(13-Feb-2019_15-25)\Json-DisasterRecovery-Parallel_(13-Feb-2019_15-25).json'
Json Configuration Variable : $HXJsonConfig
```

Steps to follow:

- (1) Update properties of the variable : \$HXJsonConfig
- (2) Run following cmdlet to generate new Runbook : New-HXRunbook -JsonConfigVariable \$HXJsonConfig

Run the following code to see the content of the JSON file.

Input

```
$HXJsonConfig
```

Output

```

JsonVersion           : 1.0
RecoveryMode          : DisasterRecovery
RecoveryExecutionMode : Parallel
ProtectedSiteClusterIP : 10.198.15.9
ProtectedSiteVCenterIP : 10.198.11.158
RecoverySiteClusterIP : 10.198.15.11
RecoverySiteVCenterIP : 10.198.12.17
ResourcePoolName      :
FolderName            :
NetworkMap            :
DelayBetweenRecovery  : 0
ParallelRecoveryLimit : 10
BootOrderGroup1       : {tgtVM2, tgtVm1, srcVmW1, srcVM1...}
BootOrderGroup2       : {srcVm2}
VMPParams              : @{WinvVM2=; srcVmW1=; srcVm2=; tgtVm1=; tgtVM2=; srcVM1=}

```

Run the following command to update the recovery mode.

Input

```
$HXJsonConfig.RecoveryMode = "PlannedMigration"
$HXJsonConfig
```

Output

```

JsonVersion           : 1.0
RecoveryMode          : PlannedMigration
RecoveryExecutionMode : Parallel
ProtectedSiteClusterIP : 10.198.15.9
ProtectedSiteVCenterIP : 10.198.11.158
RecoverySiteClusterIP : 10.198.15.11
RecoverySiteVCenterIP : 10.198.12.17
ResourcePoolName      :
FolderName            :
NetworkMap            :
DelayBetweenRecovery  : 0
ParallelRecoveryLimit : 10
BootOrderGroup1       : {tgtVM2, tgtVm1, srcVmW1, srcVM1...}
BootOrderGroup2       : {srcVm2}
VMPParams              : @{WinvVM2=; srcVmW1=; srcVm2=; tgtVm1=; tgtVM2=; srcVM1=}

```

