Zerto

# Zerto Virtual Replication PowerShell Cmdlets Guide

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Zerto

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# ABOUT THIS GUIDE

Zerto Virtual Replication provides a business continuity (BC) and disaster recovery (DR) solution in a virtual environment, enabling the replication of mission-critical applications and data as quickly as possible, with minimal data loss. When devising a recovery plan, these two objectives, minimum time to recover and maximum data to recover, are assigned target values: the recovery time objective (RTO) and the recovery point objective (RPO). Zerto Virtual Replication enables a virtual-aware recovery with low values for both the RTO and RPO. In addition, Zerto Virtual Replication enables protecting virtual machines for extended, longer term recovery from an offsite backup.

This guide describes how to use the Zerto Virtual Replication cmdlets in Windows PowerShell to enable performing specific management functions via scripts, including retrieving information like the VPGs defined for a site, working with checkpoints and deleting a VPG.

## Intended Audience

This guide is for the use of Windows PowerShell users.

## Overview of Content in This Guide

This guide contains the following chapters:

| CHAPTER | TITLE | DESCRIPTION |
|---|---|---|
| 1 | Setting Up Zerto Virtual Replication Cmdlets | Describes how to set up Zerto Virtual Replication cmdlets. |
| 2 | Using the Cmdlets | Describes how to perform specific management functions via scripts, including retrieving information like the VPGs defined for a site, working with checkpoints and deleting a VPG. |
| 3 | Zerto Virtual Replication Cmdlets Reference | Provides reference material about the Zerto Virtual Replication cmdlets. |

## Support and Feedback

Please send suggestions to improve the documentation to Zerto support.

# CHAPTER 1: SETTING UP ZERTO VIRTUAL REPLICATION CMDLETS

Zerto Virtual Replication cmdlets in Windows PowerShell enable performing specific tasks using a script and not within the Zerto User Interface, such as retrieving information like the VPGs defined for a site, working with checkpoints and deleting a VPG.

This  describes how to set up Zerto Virtual Replication cmdlets.

The following topics are described in this :



## Windows PowerShell and Zerto Virtual Replication Cmdlets

Windows PowerShell is a command-line shell running under Windows operating systems for system administrators. The Windows PowerShell includes both an interactive command line prompt and a scripting environment that can be used independently or in combination.

Windows PowerShell is built on top of the .NET Framework common language runtime (CLR), enabling it to accept and return .NET Framework objects.

## Running PowerShell with Zerto Virtual Replication Cmdlets

To run the Zerto Virtual Replication cmdlets you must first run the installation package supplied by Zerto.

**Note:** You must have both Microsoft .NET Framework 4 and Windows PowerShell installed.

**To install the Zerto Virtual Replication cmdlets:**

1. Make sure that Windows PowerShell is closed.
2. Run the installation file.

After installing the Zerto Virtual Replication cmdlets, either add the cmdlets each time you open the Windows PowerShell, or create a Windows PowerShell profile. The following procedure describes how to add the Zerto Virtual Replication cmdlets for every Windows PowerShell session.

**To add the Zerto Virtual Replication cmdlets to the current session:**

- Open Windows PowerShell with the following arguments:

```
-NoExit -Command Add-PSSnapIn Zerto.PS.Commands
```

The `Add-PSSnapin` cmdlet adds registered Windows PowerShell snap-ins to the current session.

To add the Zerto Virtual Replication cmdlets to every session, in the *Properties* dialog for a PowerShell shortcut specify a `Target` value similar to the following:

```
C:\Windows\SysWOW64\WindowsPowerShell\v1.0\powershell.exe -NoExit -Command Add-PSSnapIn
Zerto.PS.Commands
```

**Note:** You can create a Windows PowerShell profile, as described in the Windows PowerShell Help, to add the snap-in to all future Windows PowerShell sessions.

Each Zerto Virtual Replication cmdlet includes help, accessed by entering the Windows PowerShell `get-help` command:

```
get-help <cmdlet-name>
```

# Defining Credentials to Run Zerto Virtual Replication Cmdlets

To run the Zerto Virtual Replication cmdlets you must specify a username and password that is valid for the Zerto Virtual Manager, against which the command is run.

Zerto provides a default username/password pair: `administrator/password`.

You specify usernames and passwords in the Zerto Virtual Replication installation folder on the machine with the Zerto Virtual Manager against which the cmdlet action is performed, in the `users.txt` file. You specify the username followed by a tab as a separator and then the SHA-1 hash of the password.

**Note:** After making any changes to the `users.txt` file, you do not have to restart the Zerto Virtual Manager service.

The SHA-1 hash for `password` is `5baa61e4c9b93f3f0682250b6cf8331b7ee68fd8`.

**Note:** On any Linux machine you can use the `sha1sum` command to generate the SHA-1 hash of a password, for example:

```
root@mymachine:~# echo -n mypassword | sha1sum 91dfd9ddb4198affc5c194cd8ce6d338fde470e2 -
```

# CHAPTER 2: USING THE CMDLETS

Zerto Virtual Replication cmdlets enable performing specific management functions via scripts.

The following management cmdlets are described in this :



## Using the Cmdlets in Recovery Scripts

Before and after executing a failover, move, test failover or committing or rolling back a failover or move, you can run executable scripts, such as Windows, .bat files or PowerShell scripts.

### Creating a Script Using Cmdlets

The following procedure uses a Windows PowerShell file (`.ps1`) file.

**To create a script:**

1. Create a file on the machine where the Zerto Virtual Manager that manages the recovery is installed.
2. Enter the script that you want to run in the file.
3. Save the file as a Windows PowerShell file (`.ps1`) file.

   When writing a PowerShell script, you can include the environment variables in the script. For example, the following code snippet shows the use of the `%ZertoOperation%` environment variable:

   ```
   If ($env:ZertoOperation -eq "FailoverBeforeCommit" -or "MoveBeforeCommit")
   { desired code here }
   else { alternative code here }
   ```

4. Update VPG definitions that you want to run the script: update `Command` to `run` and `Params` fields for all the VPG definitions that you want to run the script.

   **Command to run** – `powershell.exe`

   **Params** – *<script_including_path>*, for example, *C:\ZertoScripts\yourscript.ps1*.

**Note:** You might have to set the remote signed execution policy. For example, using the following:

```
##PowerCLI requires remote signed execution policy - if this is not enabled,
##it may be enabled here by uncommenting the line below.

##Set-ExecutionPolicy -ExecutionPolicy RemoteSigned -Force
```

**Note:** It is recommended to test a PowerShell script by running it from the command line, to ensure it runs correctly.

For full details about recovery scripts, refer to the *Zerto Virtual Manager Administration Guide*.

# Retrieving Information

You can retrieve Zerto Virtual Replication information from sites via the following cmdlets:

**Get-Checkpoints** – Retrieves the checkpoints in the journal for a specified VPG. This cmdlet is described in "Retrieving a List of Checkpoints", below.

**Get-VmsReplicatingToHost** – Retrieves all the protected virtual names being recovered to a specified target host. This cmdlet is described in "Retrieving a List of Virtual Machines Recovering to a Host", on page 10.

**Get-ProtectionGroups** – Retrieves all the names for the VPGs defined on a specified site and on any other site paired with the specified site. This cmdlet is described in "Retrieving a List of VPGs", on page 10.

**Get-Sites** – Retrieves the list of all the site names for sites paired with the site where the Zerto Virtual Manager is installed that is used to process the cmdlet. This cmdlet is described in "Retrieving a List of Sites", on page 11.

## Retrieving a List of Checkpoints

The `Get-Checkpoints` cmdlet retrieves all the checkpoints in the journal for a specified VPG and marks whether they were added manually, by including the tag used when the checkpoint was created or were added via the *ZertoVssAgent*, in which case the `Vss` entry for the checkpoint in the output is `True`.

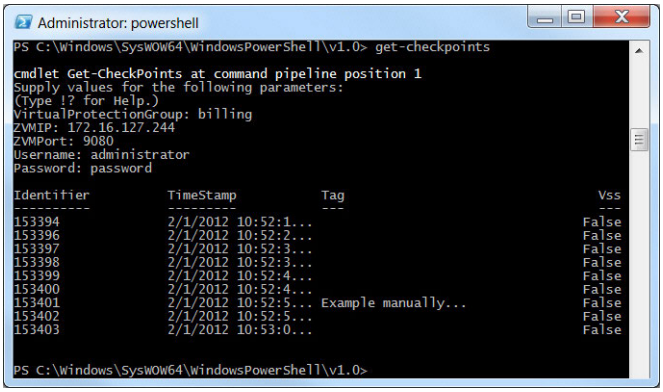
**To retrieve the list of checkpoints for a VPG:**

1. Run the `Get-Checkpoint` cmdlet from the PowerShell prompt.

   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Get-Checkpoints
   ```

2. You are prompted for the VPG which includes the checkpoints you want to retrieve. The VPG name is case-sensitive.
3. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

The `Get-Checkpoint` cmdlet completes, returning the list of checkpoints.




You can specify a single checkpoint from the list using a script similar to the following, which sets `$last_cp` to the last checkpoint retrieved:

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> $cp_list = Get-CheckPoints 127.0.0.1 9080
-Username usr -Password pswd -VirtualProtectionGroup 'MyVPG'
$last_cp = $cp_list[$cp_list.Count-1]
```

Note that the checkpoint list is zero-based.

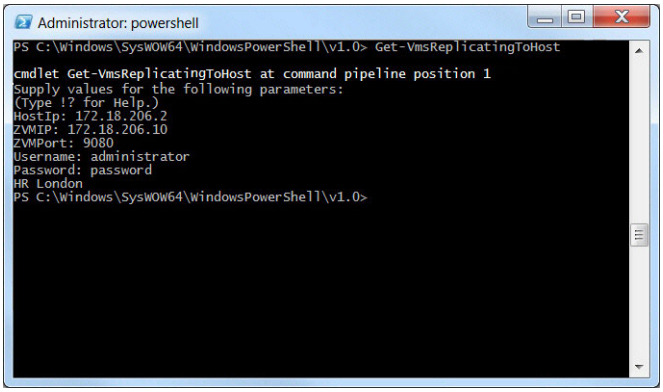
## Retrieving a List of Virtual Machines Recovering to a Host

You can retrieve a list of protected virtual machines being recovered to a specified host. The cmdlet to retrieve the list must be run on the recovery site.

**To retrieve the list of virtual machines:**

1. Run the `Get-VmsReplicatingToHost` cmdlet from the PowerShell prompt.
   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Get-VmsReplicatingToHost
   ```
2. You are prompted for the recovery host IP address or domain name. The value specified must align with how the host is registered in the VMware vCenter Server or Microsoft SCVMM.
3. You are prompted for the IP address of the Zerto Virtual Manager for the host, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

The `Get-VmsReplicatingToHost` cmdlet completes, returning the list of virtual machines recovered to the host.



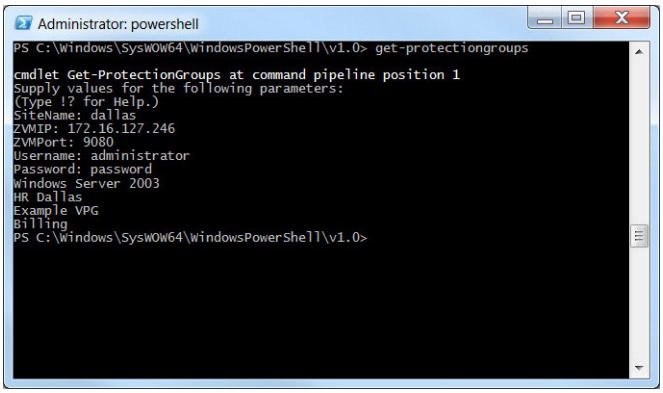

## Retrieving a List of VPGs

Whenever you retrieve information about VPGs at a site you can also retrieve information about any paired site.

**To retrieve the list of VPGs:**

1. Run the `Set-Checkpoint` cmdlet from the PowerShell prompt.
   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Get-ProtectionGroups
   ```
2. You are prompted for a site that includes the VPGs that you want listed, either because it is protecting a VPG or paired to a site that is protecting a VPG.
3. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

The `Get-ProtectionGroups` cmdlet completes, returning the list of VPGs.




**Note:** If you don't know the name of a site, you can retrieve it as described in "Retrieving a List of Sites", below.

## Retrieving a List of Sites

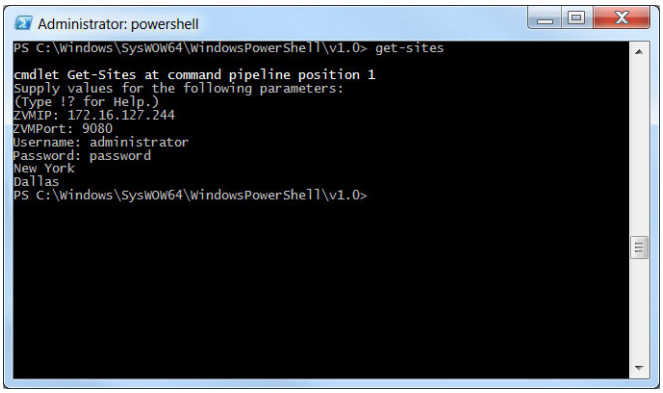
**To retrieve the list of sites:**

1. Run the `Get-Sites` cmdlet from the PowerShell prompt.

   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Get-Sites
   ```

2. You are prompted for the IP address of one of the Zerto Virtual Manager sites, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

The `Get-Sites` cmdlet completes, returning the list of sites paired with the site where the specified Zerto Virtual Manager runs.




# Working with Checkpoints

You can get or set checkpoints for a VPG via the following cmdlets:

**Get-Checkpoints** – Retrieves the checkpoints in the journal for a specified VPG. This cmdlet is described in "Retrieving a List of Checkpoints", on page 9, above.

**Set-Checkpoint** – Adds a new checkpoint with a description to the journal for a specified VPG. This cmdlet is described in "Adding a Checkpoint", below.

## Adding a Checkpoint

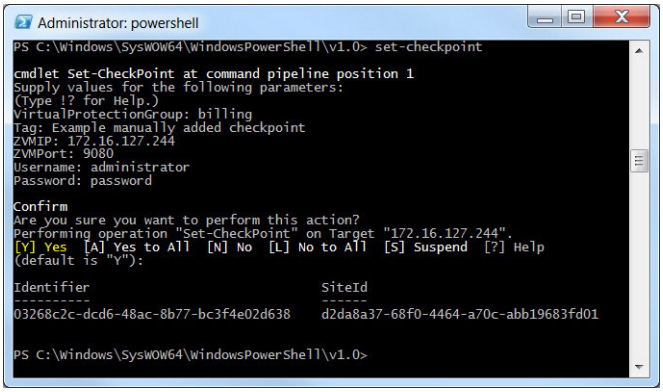
**To add a checkpoint for a VPG:**

1. Run the `Set-Checkpoint` cmdlet from the PowerShell prompt.

   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Set-Checkpoint
   ```

2. You are prompted for the VPG to which to add the checkpoint. The VPG name is case-sensitive.
3. You are prompted for the checkpoint tag, used to identify the checkpoint in the journal.
4. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and any a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

The `Set-Checkpoint` cmdlet completes, returning the command task identifier and site identifier.




Use the Get-Checkpoints, cmdlet described in "Retrieving a List of Checkpoints", on page 9, specifying the same VPG specified with this cmdlet to see the added checkpoint in the list of checkpoints returned.

# Testing VPGs

You can test the protection of the virtual machines in a VPG using the `Start-FailoverTest` and `Stop-FailoverTest` cmdlets.

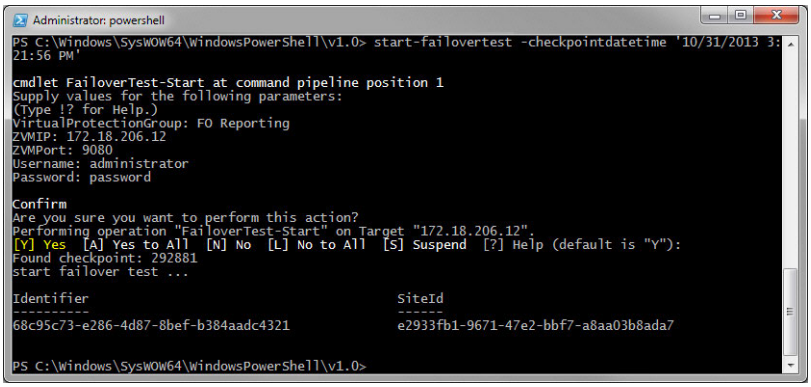
**To start a failover test on a VPG:**

1. Run the `Start-FailoverTest` cmdlet from the PowerShell prompt, specifying one of `CheckpointDateTime`, `CheckpointID` in the command line.

   ```
   PS C:\Users\Administrators> Start-FailoverTest -CheckpointDateTime '10/31/2013 3:21:56 PM'
   ```

2. You are prompted for the VPG to test. The VPG name is case-sensitive.
3. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

The `Start-FailoverTest` cmdlet completes, returning the command task identifier and site identifier.




The actual failover test takes time to start up and you can see the progress in the Zerto User Interface.

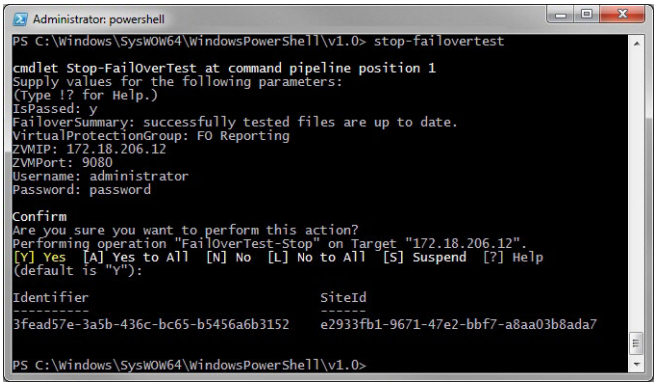
**To stop a failover test:**

1. Run the `Stop-FailoverTest` cmdlet from the PowerShell prompt.

   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Stop-FailoverTest
   ```

2. You are prompted whether the test was successful and then for free text summarizing the test.
3. You are prompted for the VPG to stop testing. The VPG name is case-sensitive.
4. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

The `Stop-FailoverTest` cmdlet completes, returning the command task identifier and site identifier.




## Cloning VPGs

You can clone the virtual machines in a VPG using the `Clone-VPG` cmdlet. One of the parameters required to clone a VPG is the checkpoint to use for the cloned virtual machines. You use the `Get-CheckPoint` cmdlet to get the list of checkpoints and then select a specific checkpoint from the returned list to use with the `Clone-VPG` cmdlet.

**To clone a VPG:**

1. Run the `Get-CheckPoint` cmdlet from the PowerShell prompt saving the result in a list.

   ```
   PS C:\Users\Administrators> $cp_list = Get-CheckPoints 172.18.206.10 9080 -Username a
   -Password a -VirtualProtectionGroup 'billing'
   ```

   The list of checkpoints is written to the variable `$cp_list`.

2. Extract the last checkpoint from the list.

```
PS C:\Users\Administrators> $last_cp = $cp_list[$cp_list.Count-1]
```

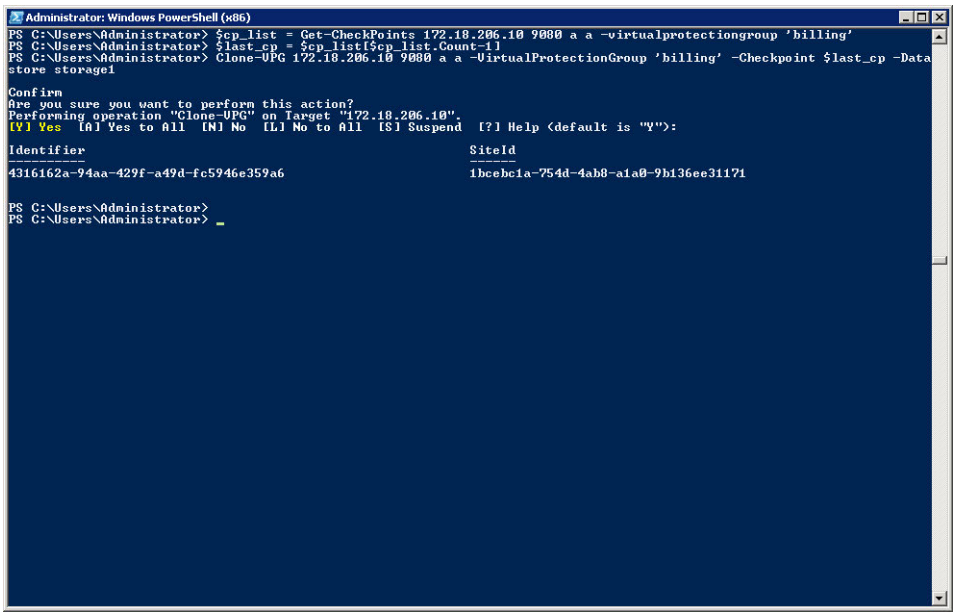
**Note:** The list of checkpoints is zero-based, so the last checkpoint is the total count minus one.

3. Run the `Clone-VPG` cmdlet to start the clone operation.

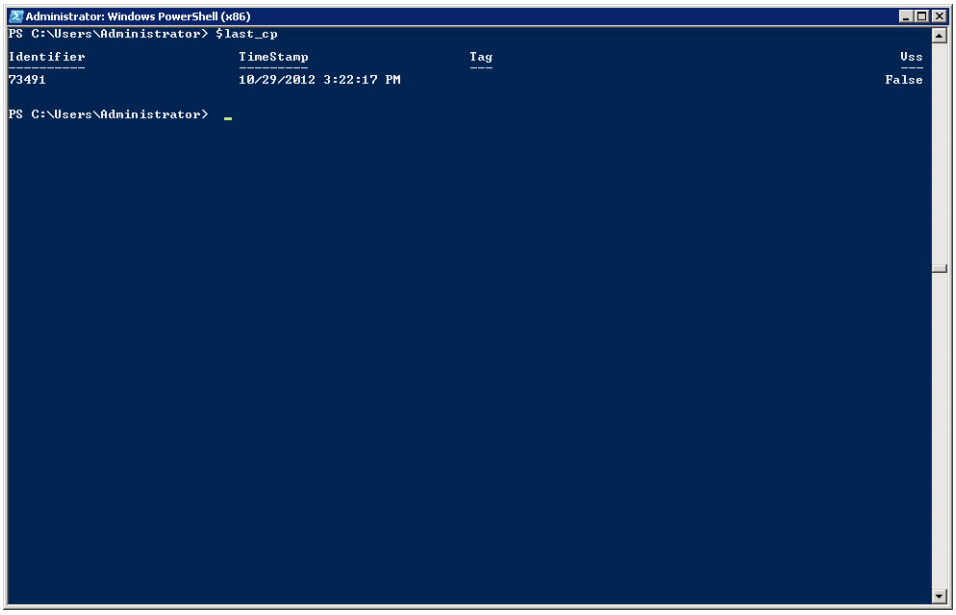
```
PS C:\Users\Administrators> Clone-VPG 172.18.206.10 9080 a a
-VirtualProtectionGroup 'billing' -Checkpoint $last_cp -Datastore storage1
```

**Note:** You cannot prompt for the checkpoint since the prompt accepts strings or integers and the `Checkpoint` parameter value is neither. In order to use the cmdlet prompts, you can use either the `CheckpointDateTime` or `CheckpointID` parameters in the command line.

After the `Clone-VPG` cmdlet completes, returning the command task identifier and site identifier, some time might still be needed before the VPG is fully cloned. You can monitor the progress in the vSphere Client console.




**Note:** You can see the details of the last checkpoint by specifying the variable, which returns its contents:



# Starting and Aborting an Offsite Backup

You can start an offsite backup for a VPG defined with extended recovery using the `Start-Backup` cmdlet. You can also abort a running backup using the `Stop-Backup` cmdlet.

**Note:** The backup can only be started or aborted for a VPG and not via a repository.

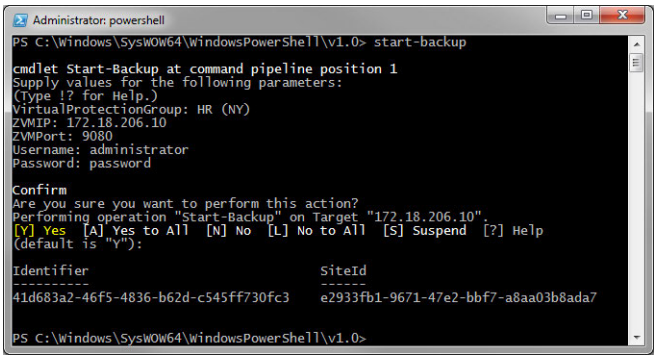
### To start an offsite backup:

1. Run the `Start-Backup` cmdlet from the PowerShell prompt.

   ```
   PS C:\Users\Administrators> Start-Backup
   ```

2. You are prompted for the VPG to backup. The VPG name is case-sensitive.
3. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

The `Start-Backup` cmdlet completes, returning the command task identifier and site identifier.




The actual backup takes time and you can see the progress in the Zerto User Interface.

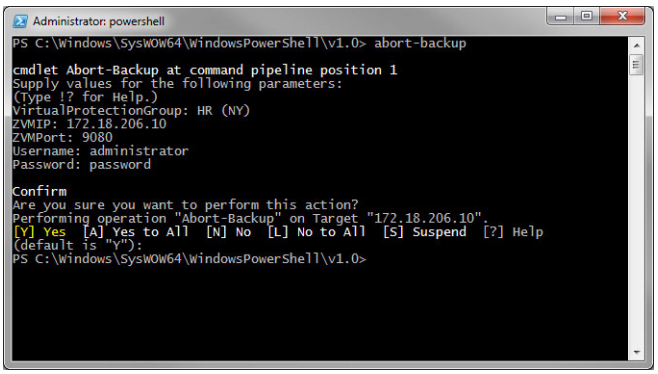
### To abort a backup:

1. Run the `Abort-Backup` cmdlet from the PowerShell prompt.

   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> abort-backup
   ```

2. You are prompted whether the test was successful and then for free text summarizing the test.
3. You are prompted for the VPG to abort the backup. The VPG name is case-sensitive.
4. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

The `Abort-Backup` cmdlet completes.



# Pausing and Resuming Protection of a VPG

During periods when the WAN bandwidth is utilized to its maximum, you can pause the protection of a VPG, to free-up some of this bandwidth. After pausing the protection, the VPG can still be recovered, to the last checkpoint written to the journal before the pause operation.

**Note:** It is recommended to add a checkpoint to the VPG to pause, if you might want to recover the VPG to the latest point in time before being paused. For details, see "Adding a Checkpoint", on page 12.

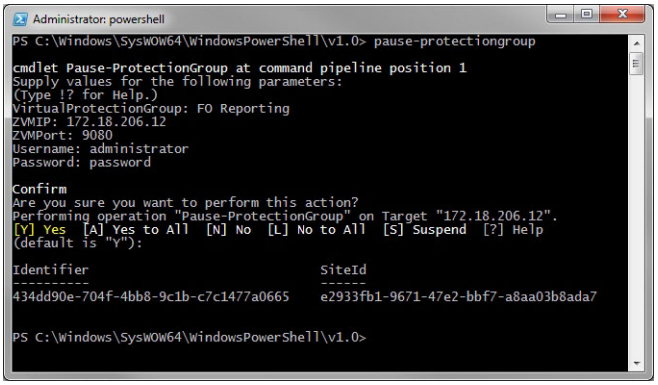
**To pause the protection of a VPG:**

1. Run the `Pause-ProtectionGroup` cmdlet from the PowerShell prompt.

   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Pause-ProtectionGroup
   ```

2. You are prompted for the VPG to pause. The VPG name is case-sensitive.
3. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

The `Pause-ProtectionGroup` cmdlet completes, returning the command task identifier and site identifier.



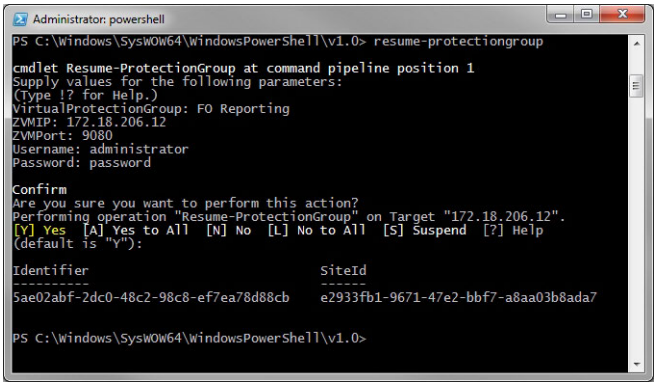

**To resume the protection of a VPG:**

1. Run the `Resume-ProtectionGroup` cmdlet from the PowerShell prompt.

   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Resume-ProtectionGroup
   ```

2. You are prompted for the VPG to resume protecting. The VPG name is case-sensitive.
3. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

The `Resume-ProtectionGroup` cmdlet completes, returning the command task identifier and site identifier. After the protection resumes, a `Bitmap Sync` will most probably be performed to synchronize the protection and recovery sites.




## Synchronizing a VPG

You can synchronize the protected virtual machines in a VPG with the mirror replicated virtual machines on the recovery site.

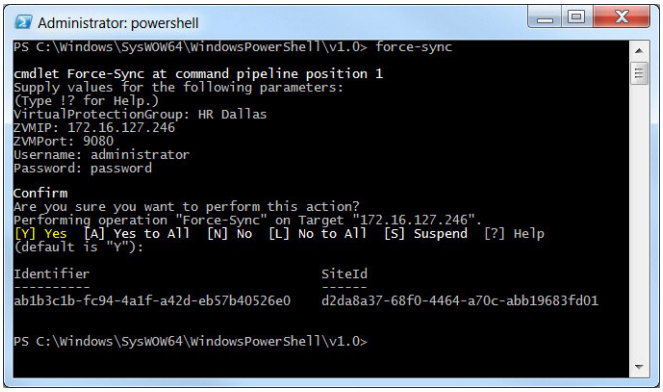
**To forcibly synchronize a VPG:**

1. Run the `Force-Sync` cmdlet from the PowerShell prompt.

   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Force-Sync
   ```

2. You are prompted for the VPG to synchronize. The VPG name is case-sensitive.
3. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

After the `Force-Sync` cmdlet completes, returning the command task identifier and site identifier, some time might still be needed before the VPG is fully resynchronized. You can monitor the progress in the vSphere Client console.



# Deleting VPGs

You can delete VPGs from a site via the following cmdlets:

**Unprotect-Vpg** – Deletes the VPG, leaving the virtual machines that comprised the VPG unprotected. This cmdlet is described in "Deleting a VPG", below.

**ForceRemove-ProtectionGroup** – Deletes the VPG regardless of its state, for example when the `Unprotect-Vpg` cmdlet failed. This cmdlet is described in "Forcibly Deleting a VPG", on page 18.

Deleting VPGs protecting virtual machines that are also protected in other VPGs, will not affect the virtual machines in the other VPGs.

## Deleting a VPG

You can remove a VPG using the `Unprotect-Vpg` cmdlet or from within the Zerto User Interface.

**To delete a VPG:**

1. Run the `Unprotect-Vpg` cmdlet from the PowerShell prompt.

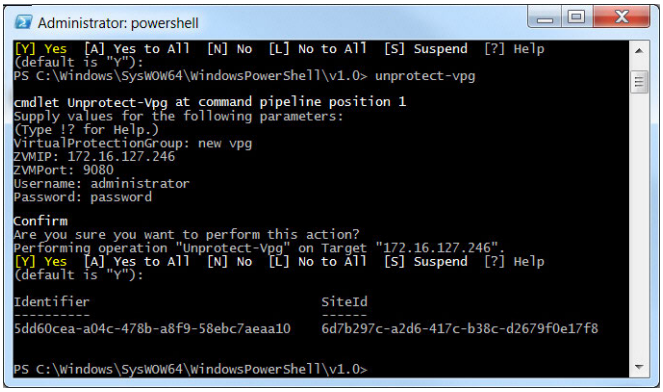
   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Unprotect-Vpg
   ```

2. You are prompted for the VPG to remove, thus unprotecting all the virtual machines specified in the VPG. The VPG name is case-sensitive.

   By default, the target disks used to replicate the virtual machines in the peer site are saved, so that if you decide to reprotect the virtual machines in the VPG the synchronization is faster. If you also want to delete these target disks, specify the `DeleteTargetDisks` parameter when running the command:
   `Unprotect-Vpg -DeleteTargetDisks`

3. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

After the `Unprotect-Vpg` cmdlet completes, returning the command task identifier and site identifier, some time might still be needed before the VPG is actually fully removed. You can monitor the progress in the vSphere Client console.




## Forcibly Deleting a VPG

When attempting to remove a VPG fails after using the `Unprotect-Vpg` cmdlet, described above, or from within the Zerto User Interface, the virtual machines are left unprotected, but marked by Zerto Virtual Replication as being protected. To protect these virtual machines, the VPG must be removed so that the virtual machines can be added to a new VPG.

Zerto Virtual Replication includes the `ForceRemove-ProtectionGroup` cmdlet that enables you to removes the VPG regardless of its state.

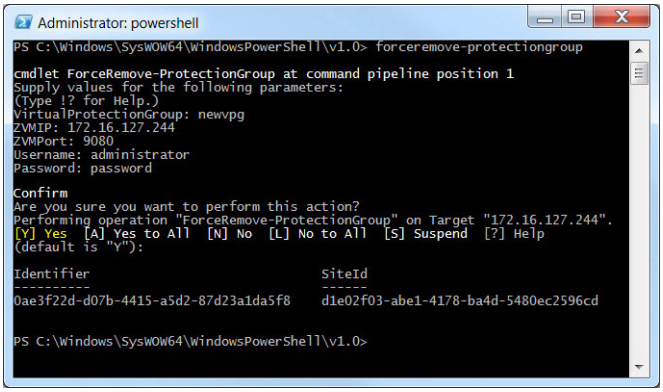
**To forcibly delete a VPG:**

1. Run the `ForceRemove-ProtectionGroup` cmdlet from the PowerShell prompt.

   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> ForceRemove-ProtectionGroup c:\VPGs.xml
   ```

2. You are prompted for the VPG to remove, thus unprotecting all the virtual machines specified in the VPG. The VPG name is case-sensitive.
3. You are prompted for the IP address of one of the Zerto Virtual Manager sites, either where the virtual machines in the VPG are protected or recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

After the `ForceRemove-ProtectionGroup` cmdlet completes, returning the command task identifier and site identifier, some time might still be needed before the VPG is actually fully removed. You can monitor the progress in the vSphere Client console.




After the VPG has been removed, you can create a new VPG in the Zerto User Interface to protect the virtual machines.

## Changing the Target Host for a Protected Virtual Machine

You can change the host used to recover protected virtual machines when the host cannot continue to be used, for example when it requires maintenance. If you don't know which virtual machines are being recovered to a specific host, you can retrieve this information using the `Get-VmsReplicatingToHost` cmdlet, described in "Retrieving a List of Virtual Machines Recovering to a Host", on page 10.

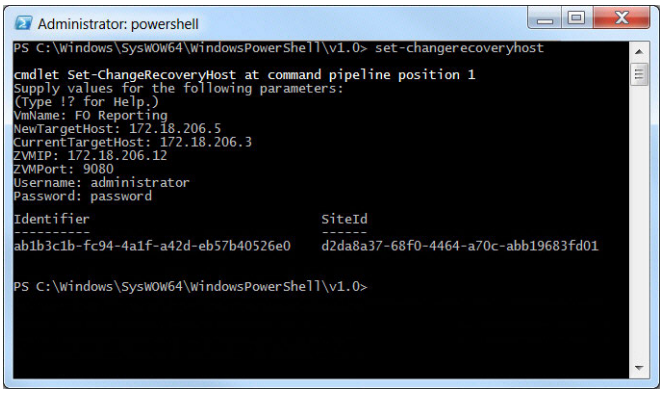
**To change a target host:**

1. Run the `Set-ChangeRecoveryHost` cmdlet from the PowerShell prompt.

   ```
   PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Set-ChangeRecoveryHost
   ```

2. You are prompted for the virtual machine for which to change the recovery host.
3. You are prompted for the new recovery host IP or domain name.
4. You are prompted for the current recovery host IP or domain name.
5. You are prompted for the IP address of the Zerto Virtual Manager site where the virtual machine is recovered, for the HTTP port used for inbound communication with that Zerto Virtual Manager and a valid username and password, defined in the `users.txt` file for the Zerto Virtual Manager where the cmdlet is run, as described in "Defining Credentials to Run Zerto Virtual Replication Cmdlets", on page 7.

After the `Set-ChangeRecoveryHost` cmdlet completes the command task identifier and site identifier are returned.



# CHAPTER 3: ZERTO VIRTUAL REPLICATION CMDLETS REFERENCE

This section provides reference material about the Zerto Virtual Replication cmdlets.



## Abort-Backup

Aborts a specified offsite backup.

### Syntax

```
Abort-Backup [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String>
[-VirtualProtectionGroup] <String> [-Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Abort-Backup` cmdlet aborts a running offsite backup job for a specified VPG. When the Zerto Virtual Manager is paired with multiple sites the VPGs can be from any of these paired sites, as long as they were either protected or recovered to the site of the Zerto Virtual Manager where the cmdlet is run.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-VirtualProtectionGroup] <String>

The name of the VPG being backed up which needs to be aborted. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 6 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Wait <Int32>]

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

### Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Abort-Backup` returns the task identifier for the command and the site identifier where the VPG is defined. |

### See Also

Start-Backup

### Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Abort-Backup 182.24.123.123 9080 -Username usr
-Password pswd -VirtualProtectionGroup 'Back Office'
```

The `Back Office` VPG backup currently running is aborted. The Zerto Virtual Manager site used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifier and site identifier. For example:

```
Identifier                              SiteId
----------                              ------
5e81d46e-c49e-4b2c-b65a-d742a4939192    d2da8a37-68f0-4464-a70c-abb19683fd01
```

## Clone-VPG

Clones the virtual machines in the VPG in the recovery site.

### Syntax

```
Clone [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String>
[-VirtualProtectionGroup] <String> [[-Checkpoint] <CheckPoint>]
[[-CheckpointDateTime] <DateTime>] [[-CheckpointID] <UInt64>] [-Datastore] <String>
[-Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Clone-VPG` clones the virtual machines in the specified VPG in the recovery site. When the Zerto Virtual Manager is paired with multiple sites the VPG can be from any of these paired sites, as long as they were either protected or recovered to the site of the Zerto Virtual Manager where the cmdlet is run.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-VirtualProtectionGroup] <String>

The name of the VPG to which to clone. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [[-Checkpoint] Zerto.Zvm.Common.CheckPoint]

The checkpoint object which is used to create the clone to. This object is returned by the `Get-Checkpoints` cmdlet. You must specify one of: `Checkpoint`, `CheckpointDateTime`, `CheckpointID`.

| | |
|---|---|
| Required? | False |
| Position? | 6 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [[-CheckpointDateTime] <DateTime>]

The checkpoint date and time which is used to create the failover test machines to. The format is `DD/MM/YYYY hh:mm:ss AM/PM`. If there is no exact match for the specified time, a value within one second of the specified time is used, otherwise an error is returned. This value is part of the object returned by the `Get-Checkpoints` cmdlet. You must specify one of: `Checkpoint`, `CheckpointDateTime`, `CheckpointID`.

| | |
|---|---|
| Required? | False |
| Position? | 7 or named |

| | |
|---|---|
| Default Value | None |
| Accept Wildcard Characters? | False |

[[-CheckpointID] <UInt64>]

The checkpoint ID which is used to create the failover test machines to. This value is part of the object returned by the `Get-Checkpoints` cmdlet. You must specify one of: `Checkpoint`, `CheckpointDateTime`, `CheckpointID`.

| | |
|---|---|
| Required? | False |
| Position? | 8 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

[-datastore] string

The name of the storage used for the recovery.

| | |
|---|---|
| Required? | True |
| Position? | 9 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

[-Wait <Int32>]

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

<Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Clone-VPG` returns the task identifier for the command and the site identifier where the VPG is defined. |

**Note:** The `Clone-VPG` cmdlet must be used in conjunction with the `Get-Checkpoints` cmdlet. See the example below.

## See Also

Get-Checkpoints

### Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> $cp_list = Get-CheckPoints 182.24.123.123 9080
-Username usr -Password pswd -VirtualProtectionGroup 'Back Office'
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> $last_cp = $cp_list[$cp_list.Count-1]
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Clone-VPG 182.24.123.123 9080 -Username usr
-Password pswd -VirtualProtectionGroup 'Back Office' -Checkpoint $last_cp -Datastore ds1
```

The list of checkpoints for the `Back Office` VPG is retrieved and then the last checkpoint taken for the clone. The `Back Office` VPG is cloned using the last checkpoint from the list and using the `ds1` storage. The Zerto Virtual Manager site used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifier and site identifier. For example:

```
Identifier                           SiteId
----------                           ------
ab1b3c1b-fc94-4a1f-a42d-eb57b40526e0  d2da8a37-68f0-4464-a70c-abb19683fd01
```

## Export-Settings

Exports the VPG details for both the Zerto Virtual Manager where the cmdlet is run and for its paired site.

### Syntax

```
Export-Settings [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String>
[-Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Export-Settings` cmdlet exports the details of all the VPGs, either protected or recovered to the site of the Zerto Virtual Manager where the cmdlet is run. When the Zerto Virtual Manager is paired with multiple sites the VPGs can be from any of these paired sites, as long as they were either protected or recovered to the site of the Zerto Virtual Manager where the cmdlet is run.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Wait <Int32>]

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | XML formatted text describing the exported VPGs from both the local and peer sites. |

## Notes

- To enable the result of the `Export-Settings` to be usable after upgrading Zerto Virtual Replication, you can pipe the output of the cmdlet to a file. This file will contain all the VPGs' details in XML format, which can be imported later with the Zerto Diagnostics utility or the `import-settings` cmdlet.
- When restoring the protection to the virtual machines, the target disks are used and, thus, the synchronization process is faster. The faster synchronization occurs because the recovery and protection disks are compared through the MD5 checksum and only changes are synchronized.

## See Also

Import-Settings
Unprotect-Vpg

### Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Export-Settings 182.24.123.123 9080 administrator
password > C:\ZertoUpgrade\Export.xml
```

This command exports the details of every VPG on the site where the cmdlet is run and with its paired site. The details are exported to a file `Export.xml` in `C:\ZertoUpgrade` on the local computer where the cmdlet is run. The Zerto Virtual Manager site used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

## Force-Sync

Forcibly synchronizes the VPG.

### Syntax

```
Force-Sync [-ZVMIP] <String>[-ZVMPort] <Int32> [-Username] <String> [-Password] <String>
[-VirtualProtectionGroup] <String> [-Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Force-Sync` cmdlet synchronizes the VPG from scratch, using the MD5 Message-Digest Algorithm. This cmdlet is used when the replicated disks are no longer synchronized with the protected disks, for example, after rolling back from a VMware snapshot.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet. The VPG to synchronize can be defined on this Zerto Virtual Manager site or a paired site.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

[-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

[-VirtualProtectionGroup] <String>

The name of the VPG to synchronize. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

-Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

<Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Force-Sync` returns the task identifier for the command and the site identifier where the VPG is defined. |

## Notes

- Use this cmdlet if there is a change to the virtual machines in the VPG that warrants a synchronization, such as rolling back to a VMware snapshot.
- The command returns a result even when the actual removal of the VPG has not completed.

## Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Force-Sync 182.24.123.123 9080 administrator
password -VirtualProtectionGroup 'Back Office'
```

This command forcibly synchronizes the `Back Office` VPG. The Zerto Virtual Manager used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifier and site identifier. For example:

```
Identifier                           SiteId
----------                           ------
ab1b3c1b-fc94-4a1f-a42d-eb57b40526e0 d2da8a37-68f0-4464-a70c-abb19683fd01
```

# ForceRemove-ProtectionGroup

Forcibly removes the VPG.

## Syntax

```
ForceRemove-ProtectionGroup[-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password]
<String> [-VirtualProtectionGroup] <String> [-Wait <int32>] [<Common&RiskParameters>]
```

## Description

The `ForceRemove-ProtectionGroup` cmdlet deletes the VPG regardless of its state. The target disks for the VPG managed by the VRA on the recovery site are kept when the VPG is removed

## Parameters

### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet. The VPG to be deleted can be defined on this Zerto Virtual Manager site or a paired site.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

[-VirtualProtectionGroup] <String>

The name of the VPG to delete. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

-Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

<Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `ForceRemove-ProtectionGroup` returns the task identifier for the command and the site identifier where the VPG is defined. |

## Notes

- Use this cmdlet if the VPG cannot be removed using the Unprotect-Vpg cmdlet or from within the Zerto User Interface.
- The command returns a result even when the actual removal of the VPG has not completed.

## See Also

Unprotect-Vpg

## Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> ForceRemove-ProtectionGroup -ZVMIP 182.24.123.123
-ZVMPort 9080 -Username administrator -Password password -VirtualProtectionGroup 'Back Office'
```

This command forcibly removes the `Back Office` VPG. The Zerto Virtual Manager used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command identifier and the site identifier. For example:

```
Identifier                           SiteId
----------                           ------
aec9135f-5ec6-4b4a-9344-aacb6f29c337 0664463d-0c82-4b3a-96dc-66e0a2e696c5
```

# Get-Checkpoints

Gets all the checkpoints from the journal for the specified VPG.

## Syntax

```
Get-Checkpoints [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String>
[-VirtualProtectionGroup] <String> [-Wait <int32>] [<Common&RiskParameters>]
```

## Description

The `Get-Checkpoints` cmdlet gets all the checkpoints from the journal for the specified VPG.

## Parameters

### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet. The VPG for the checkpoints can be defined on this Zerto Virtual Manager site or a paired site.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-VirtualProtectionGroup] <String>

The name of the VPG for which you want the checkpoints. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### -Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | String<br><br>The name of a VPG. |
| **Outputs** | `Get-Checkpoints` returns the list of checkpoints for the specified VPG, including the checkpoint identifier, timestamp, tag for manually added checkpoints and whether it was added using the ZertoVssAgent. |

## See Also

Set-Checkpoint

## Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Get-Checkpoints 182.24.123.123 9080 administrator
password -VirtualProtectionGroup 'Back Office'
```

This command get the checkpoints defined for the `Back Office` VPG. The Zerto Virtual Manager used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the checkpoints:

```
Identifier     TimeStamp                Tag                  Vss
----------     ---------                ---                  ---
19399          1/24/2012 3:42:1...                           False
19400          1/24/2012 3:42:1...                           False
19401          1/24/2012 3:42:2...                           False
...
19419          1/24/2012 3:43:5...                           False
19420          1/24/2012 3:43:5...      Example checkpoint   False
19421          1/24/2012 3:44:0...                           False
```

### Example 2

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> $cp_list = Get-CheckPoints 127.0.0.1 9080
-Username usr -Password pswd -VirtualProtectionGroup 'Back Office'
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> $last_cp = $cp_list[$cp_list.Count-1]
```

This command get the checkpoints defined for the `Back Office` VPG and saves them in `cp_list`. `last_cp` is then set to the last checkpoint in `cp_list`. The Zerto Virtual Manager used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

## Get-LicenseInfo

Get Zerto Virtual Manager license information.

### Syntax

```
Get-LicenseInfo [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String> [-
Wait <int32>] [<Common&RiskParameters>]
```

### Description

Get Zerto Virtual Manager license information.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet. The `SiteName` parameter can be this Zerto Virtual Manager site or a paired site.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### -Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Get-ProtectionGroups

Gets all the VPGs for a specified site and for all sites paired with the specified site.

### Syntax

```
Get-ProtectionGroups [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password]
<String> [-SiteName] <String> [-Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Get-ProtectionGroups` cmdlet gets all the VPGs defined on a specified site and on any other site paired with the specified site.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet. The `SiteName` parameter can be this Zerto Virtual Manager site or a paired site.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |

| | |
|---|---|
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-SiteName] <String>

The name of the site to use as the root to get the VPGs. All VPGs defined on this site are returned. To return all VPGs defined on this site and on any other site paired with this site specify `all` as the site name

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### -Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | String<br><br>A site name, as a string. |
| **Outputs** | `Get-ProtectionGroups` returns the list of VPG names for the specified site. |

### See Also

Get-Sites

### Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Get-ProtectionGroups 182.24.123.123 9080
administrator password -SiteName 'New York'
```

This command get the VPGs for the `New York` site. The Zerto Virtual Manager used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the VPG names:

```
Windows Server 2003
HR Dallas
Example VPG
Billing
```

## Get-Sites

Gets all the sites from the journal for the specified VPG.

### Syntax

```
Get-Sites [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String>
[-Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Get-Sites` cmdlet gets all the sites paired with the site where the Zerto Virtual Manager is installed that is used to process the cmdlet.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### -Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Get-Sites` returns the list of paired sites for the Zerto Virtual Manager that is used to process the cmdlet. |

## Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Get-Sites 182.24.123.123 9080 administrator
password
```

This command gets the sites defined for the Zerto Virtual Manager used to process the cmdlet, which runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the site names:

```
Dallas
London
New York
```

# Get-VmsReplicatingToHost

Gets the list of all the protected virtual machines for the specified host.

## Syntax

```
Get-VmsReplicatingToHost [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String>
[-Password] <String> [-HostIp] <String> [-Wait <int32>] [<Common&RiskParameters>]
```

## Description

The `Get-VmsReplicatingToHost` cmdlet gets the list of all the protected virtual machines for which the specified host VRA is being used to manage the replication and recovery.

## Parameters

### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet. The host must be defined in the hypervisor management tool, VMware vCenter Server or Microsoft SCVMM, or in VMware vCD, connected to this Zerto Virtual Manager site.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-HostIp] <String>

The host IP address or domain name of the target host where the VRA manages the recovery of protected virtual machines. The value specified must align with how the host is registered in VMware vCenter Server or Microsoft SCVMM.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### -Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | String<br><br>The IP address of a host used for the recovery of protected virtual machines. |
| **Outputs** | `Get-VmsReplicatingToHost` returns the list of protected virtual machines being replicated to the host. |

## See Also

Set-ChangeRecoveryHost

## Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Get-VmsReplicatingToHost 182.24.123.123 9080
administrator password -VirtualProtectionGroup 182.24.123.03
```

This command gets the list of virtual machines replicating to the host 182.24.123.04. The Zerto Virtual Manager used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

# Import-Settings

Imports details of all the VPGs for both the Zerto Virtual Manager where the cmdlet is run and for the VPGs on the paired site.

## Syntax

```
Import-Settings [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password]
<String> [-FilePath] <String> [[LegacyImport]] [-Wait <int32>]
[<Common&RiskParameters>]
```

## Description

The `Import-Settings` cmdlet imports details of all the VPGs, either protected or recovered to the site of the Zerto Virtual Manager where the cmdlet is run. When the Zerto Virtual Manager is paired with multiple sites the VPGs can be from any of these paired sites, as long as they were either protected or recovered to the site of the Zerto Virtual Manager where the cmdlet is run. The details are imported from an XML file that was previously exported using the `Export-Settings` cmdlet run from the same Zerto Virtual Manager site as the import is run.

## Parameters

### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |

| | |
|---|---|
| Default Value | None |
| Accept Wildcard Characters? | False |

[-FilePath] <String>

The file name and path where the site settings are saved.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

[LegacyImport] <String>

Whether the import is for versions of Zerto Virtual Replication prior to version 1.0U8. By default the value is false and can be ignored.

| | |
|---|---|
| Required? | False |
| Position? | 6 or named |
| Default Value | False |
| Accept Wildcard Characters? | False |

-Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

<Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Import-Settings` returns the task identifiers for the command and the site identifiers where the VPGs are restored. |

**Note:** The cmdlet output contains the details of all the VPGs from both the site where the cmdlet is run and from the peer site in XML format.

## See Also

Export-Settings
Unprotect-Vpg

### Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Import-Settings 182.24.123.123 9080
administrator password -FilePath 'C:\ZertoUpgrade\Export.xml'
```

This command imports the details of every VPG to both the site where the cmdlet is run and with its paired site. The details are imported from the file `Export.xml` in `C:\ZertoUpgrade` on the local computer where the cmdlet is run. The Zerto Virtual Manager site used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifiers and site identifiers for the restored VPGs. For example, the following shows that three VPGs were restored, two on site `a251dfb0-d3be-410b-882c-dfef29002b04` and one on site `6d7b297c-a2d6-417c-b38c-d2679f0e17f8`:

```
Identifier                             SiteId
----------                             ------
4ce4821d-f269-434e-94fa-46e86083463d   a251dfb0-d3be-410b-882c-dfef29002b04
3f7dc72a-af8b-453e-bbe2-0c183e46b703   a251dfb0-d3be-410b-882c-dfef29002b04
5e81d46e-c49e-4b2c-b65a-d742a4939192   6d7b297c-a2d6-417c-b38c-d2679f0e17f8
```

## Pause-ProtectionGroup

Pauses protection of a specified VPG.

### Syntax

```
Pause-ProtectionGroup [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password]
<String> [-VirtualProtectionGroup] <String> [-Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Pause-ProtectionGroup` cmdlet pauses protection of a specified VPG, but recovery to the last checkpoint is still possible. A VPG can be paused when the available bandwidth between the protected and recovery sites is needed for other purposes.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet. The VPG to pause protection can be defined on this Zerto Virtual Manager site or a paired site.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-VirtualProtectionGroup] <String>

The name of the VPG for which you want to pause protection. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### -Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Pause-ProtectionGroup` returns the task identifier for the command and the site identifier. |

## See Also

Resume-ProtectionGroup

### Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Pause-ProtectionGroup 182.24.123.123 9080
administrator password -VirtualProtectionGroup 'Back Office'
```

This command pauses protection for the specified VPG. The Zerto Virtual Manager used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifier and site identifier.

```
Identifier                              SiteId
----------                              ------
8508c8b7-4da4-43c2-a12c-bbfb4754270d    1bcebc1a-754d-4ab8-a1a0-9b136ee31171
```

## Resume-ProtectionGroup

Resumes protection of a specified VPG.

### Syntax

```
Resume-ProtectionGroup [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password]
<String> [-VirtualProtectionGroup] <String> [-Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Resume-ProtectionGroup` cmdlet resumes the protection of a specified VPG. Resuming protection increases bandwidth usage between the protected and recovery sites. A Bitmap Sync will probably occur after the protection is resumed.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet. The VPG to resume protection can be defined on this Zerto Virtual Manager site or a paired site.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |

| | |
|---|---|
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-VirtualProtectionGroup] <String>

The name of the VPG for which you want to resume protection. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### -Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Resume-ProtectionGroup` returns the task identifier for the command and the site identifier. |

## See Also

Pause-ProtectionGroup

## Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Resume-ProtectionGroup 182.24.123.123 9080
administrator password -VirtualProtectionGroup 'Back Office'
```

This command resumes protection for the specified VPG. The Zerto Virtual Manager used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifier and site identifier.

```
Identifier                           SiteId
----------                           ------
ce7db6ad-c947-4293-aea6-d40a304ea419 ce7db6ad-c947-4293-aea6-d40a304ea419
```

## Set-ChangeRecoveryHost

Sets the host used to recover the specified protected virtual machine.

### Syntax

```
Set-ChangeRecoveryHost [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password]
<String> [-VmName] <String> [-NewTargetHost] <string> [-CurrentTargetHost] <string> [-Wait
<int32>] [<Common&RiskParameters>]
```

### Description

The `Set-ChangeRecoveryHost` cmdlet sets the host used to recover the specified protected virtual machine to the specified new host, as long as the specified new host can access that storage used by the VRA in the old host.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet. The host must be defined in the hypervisor management tool, VMware vCenter Server or Microsoft SCVMM, or in VMware vCD, connected to this Zerto Virtual Manager site.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-VmName] <String>

The name of the protected virtual machine for which the host needs to be changed. The name is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-NewTargetHost] <String>

The IP address or domain name of the host which will be used to recover the specified virtual machine. The storage of the original host used to recover the virtual machine must be accessible to the new host.

| | |
|---|---|
| Required? | True |
| Position? | 6 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-CurrentTargetHost] <String>

The IP address or domain name of the host where the virtual machine is currently being recovered.

| | |
|---|---|
| Required? | True |
| Position? | 6 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### -Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

### Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Set-ChangeRecoveryHost` returns the task identifier for the command and the site identifier for the recovery host. |

**Note:** This cmdlet is used when the current host will not be available for recovery, for example when it will undergo maintenance.

### See Also

Get-VmsReplicatingToHost

### Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Set-ChangeRecoveryHost 182.24.123.123 9080
administrator password -vmname 'MS SQL Server' -newtargethost 182.24.123.11 -currenttargethost
182.24.123.17
```

This command sets the host for the `MS SQL Server` virtual machine. The Zerto Virtual Manager used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifier and site identifier. For example:

```
Identifier                              SiteId
----------                              ------
b4eba428-9b53-4e96-9e39-ba363bfb2e41    d2da8a37-68f0-4464-a70c-abb19683fd01
```

## Set-Checkpoint

Sets a checkpoint in the journal for the specified VPG.

### Syntax

```
Set-Checkpoint [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String>
[-VirtualProtectionGroup] <String> [-Tag] <String> [-Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Set-Checkpoint` cmdlet sets a checkpoint for the specified VPG.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet. The VPG can be defined on this Zerto Virtual Manager site or a paired site.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-VirtualProtectionGroup] <String>

The name of the VPG to which to add a checkpoint. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Tag] <String>

The name used to identify the checkpoint in the list of checkpoints.

| | |
|---|---|
| Required? | True |
| Position? | 6 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### -Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Set-Checkpoint` returns the task identifier for the command and the site identifier where the VPG was defined to which the checkpoint was added. |

## See Also

Get-Checkpoints

### Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Set-Checkpoint 182.24.123.123 9080 administrator
password -VirtualProtectionGroup 'Back Office' -Tag '24 hour power outage'
```

This command sets a checkpoint for the `Back Office` VPG. The Zerto Virtual Manager used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifier and site identifier. For example:

```
Identifier                              SiteId
----------                              ------
b4eba428-9b53-4e96-9e39-ba363bfb2e41    d2da8a37-68f0-4464-a70c-abb19683fd01
```

## Set-License

Adds a license to a site.

### Syntax

```
Set-license [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String>
[-LicenseKey] <String> -Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Set-License` cmdlet adds a license to a site.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-LicenseKey <String>]

The license key to be set..

| | |
|---|---|
| Required? | True |
| Position? | 5 or Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Wait <Int32>]

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Set-Pair

Pairs a site.

### Syntax

```
Set-pair [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String>
[-PeerSiteIp] <String> [-PeerSitePort] <Int32> -Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Set-Pair` cmdlet pairs the current site with another, peer site.

### Parameters

### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-PeerSiteIp] <String>

The IP address of the Zerto Virtual Manager peered site.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-PeerSitePort] <Int32>

The HTTP port of the Zerto Virtual Manager peered site. The default port is 9081.

| | |
|---|---|
| Required? | True |
| Position? | 6 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Wait <Int32>]

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

### Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `SetPair` returns the task identifier for the command and the site identifier. |

## Start-Backup

Starts a backup.

### Syntax

```
Start-Backup [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String>
[-VirtualProtectionGroup] <String> -Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Start-Backup` cmdlet starts an offsite backup for a specified VPG. When the Zerto Virtual Manager is paired with multiple sites the VPGs can be from any of these paired sites, as long as they were either protected or recovered to the site of the Zerto Virtual Manager where the cmdlet is run.

The backup can only be specified for a VPG and not for a repository.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |

| | |
|---|---|
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-VirtualProtectionGroup] <String>

The name of the VPG for which to start an offsite backup. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 6 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-Wait <Int32>]

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Start-Backup` returns the task identifier for the command and the site identifier where the VPG is defined. |

## See Also

Abort-Backup

## Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Start-Backup 182.24.123.123 9080 -Username usr
-Password pswd -VirtualProtectionGroup 'Back Office'
```

The `Back Office` VPG is backed up to a repository at the recovery site. The Zerto Virtual Manager site used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifier and site identifier. For example:

```
Identifier                           SiteId
----------                           ------
41d683a2-46f5-4836-b62d-c545ff730fc3 e2933fb1-9671-47e2-bbf7-a8aa03b8ada7
```

## Start-FailoverTest

Starts a failover test.

### Syntax

```
Start-FailoverTest [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password]
<String> [-VirtualProtectionGroup] <String> [[-ZertoOrganization] <String>]
[[-CheckpointDateTime] <DateTime>] [[-CheckpointID] <UInt64>] [[-IsContinueOnPreScriptFailure]
[<Boolean>]] -Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Start-FailoverTest` cmdlet starts a failover test for a specified VPG using a specific checkpoint. If the VPG belongs to a ZORG, then you can specify the ZORG as well. When the Zerto Virtual Manager is paired with multiple sites the VPGs can be from any of these paired sites, as long as they were either protected or recovered to the site of the Zerto Virtual Manager where the cmdlet is run.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-VirtualProtectionGroup] <String>

The name of the VPG for which to start a failover test. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 6 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [[-ZertoOrganization] <String>]

The Zerto organization, ZORG, used by a cloud service provider to identify a customer. When a Zerto Organization is specified, the VPG in the VirtualProtectionGroup parameter belongs to this ZORG.

| | |
|---|---|
| Required? | False |
| Position? | 7 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [[-CheckpointDateTime] <DateTime>]

The checkpoint date and time which is used to create the failover test machines to. The format is `DD/MM/YYYY hh:mm:ss AM/PM`. If there is no exact match for the specified time, a value within one second of the specified time is used, otherwise an error is returned. This value is part of the object returned by the `Get-Checkpoints` cmdlet.

| | |
|---|---|
| Required? | False |
| Position? | 8 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [[-CheckpointID] <UInt64>]

The checkpoint ID which is used to create the failover test machines to. This value is part of the object returned by the `Get-Checkpoints` cmdlet.

| | |
|---|---|
| Required? | False |
| Position? | 9 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [[-IsContinueOnPreScriptFailure] [<Boolean>]]

When set to true, continues the failover test if a script runs at the start of the operation and times out or fails. When set to false, aborts the operation if the script fails or times out. The default is false.

| | |
|---|---|
| Required? | False |
| Position? | 10 or named |

| | |
|---|---|
| Default Value | None |
| Accept Wildcard Characters? | False |

[-Wait <Int32>]

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

<Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Start-FailoverTest` returns the task identifier for the command and the site identifier where the VPG is defined. |

**Note:** When using prompts the latest checkpoint is used. When using the command line, if neither `checkpointDateTime` nor `CheckpointID` is specified, the latest checkpoint is used.

## See Also

Stop-FailoverTest
Get-Checkpoints

## Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Start-FailoverTest 182.24.123.123 9080 -Username
usr -Password pswd -VirtualProtectionGroup 'Back Office' -CheckpointDateTime '07/12/2013 4:52:29
PM'
```

The `Back Office` VPG is tested at the recovery site using a checkpoint within one second of `07/12/2013 4:52:29 PM`. The Zerto Virtual Manager site used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifier and site identifier. For example:

```
Identifier                           SiteId
----------                           ------
ab1b3c1b-fc94-4a1f-a42d-eb57b40526e0 d2da8a37-68f0-4464-a70c-abb19683fd01
```

# Stop-FailoverTest

Stops a specified failover test.

## Syntax

```
Stop-FailoverTest [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String>
[IsPassed] [Boolean] [-FailoverSummary] <String> [-VirtualProtectionGroup] <String>
[[-ZertoOrganization] <String>] [-Wait <int32>] [<Common&RiskParameters>]
```

## Description

The `Stop-FailoverTest` cmdlet stops a failover test for a specified VPG. When the Zerto Virtual Manager is paired with multiple sites the VPGs can be from any of these paired sites, as long as they were either protected or recovered to the site of the Zerto Virtual Manager where the cmdlet is run.

## Parameters

### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

[-IsPassed] [<Boolean>]

A Boolean value specifying whether the failover test passed successfully or not.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

[-FailoverSummary] <String>

Free text summary notes describing what was performed during the test.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

[-VirtualProtectionGroup] <String>

The name of the VPG being tested to stop the test. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 6 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

[[-ZertoOrganization] <String>]

The Zerto organization, ZORG, used by a cloud service provider to identify a customer. When a Zerto Organization is specified, the VPG in the VirtualProtectionGroup parameter belongs to this ZORG.

| | |
|---|---|
| Required? | False |
| Position? | 7 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

[-Wait <Int32>]

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

<Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

## Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Stop-FailoverTest` returns the task identifier for the command and the site identifier where the VPG is defined. |

### See Also

Start-FailoverTest

### Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Stop-FailoverTest 182.24.123.123 9080 -Username
usr -Password pswd -VirtualProtectionGroup 'Back Office'
```

The `Back Office` VPG failover test is stopped. The Zerto Virtual Manager site used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifier and site identifier. For example:

```
Identifier                              SiteId
----------                              ------
5e81d46e-c49e-4b2c-b65a-d742a4939192    d2da8a37-68f0-4464-a70c-abb19683fd01
```

## Unprotect-Vpg

Deletes the VPG after unprotecting all the virtual machines being protected by the VPG.

### Syntax

```
Unprotect-Vpg [-ZVMIP] <String> [-ZVMPort] <Int32> [-Username] <String> [-Password] <String> [-
VirtualProtectionGroup] <String> [-DeleteTargetDisks] [-Wait <int32>] [<Common&RiskParameters>]
```

### Description

The `Unprotect-Vpg` cmdlet unprotects all the virtual machines being protected by the VPG by removing the VPG definition. The cmdlet cannot be executed when the VPG is being created or during the initial synchronization nor during a test failover, an actual failover, or a move operation, on the VPG.

### Parameters

#### [-ZVMIP] <String>

The IP address of the machine where the Zerto Virtual Manager is installed that is used to process the cmdlet. The VPG can be defined on this Zerto Virtual Manager site or a paired site.

| | |
|---|---|
| Required? | True |
| Position? | 1 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

#### [-ZVMPort] <Int32>

The HTTP port used for inbound communication with the Zerto Virtual Manager for APIs and cmdlets, specified during the installation. The default port recommended during installation is 9080.

| | |
|---|---|
| Required? | True |
| Position? | 2 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Username] <String>

A username defined in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run.

| | |
|---|---|
| Required? | True |
| Position? | 3 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-Password] <String>

The password for the specified username, in the `users.txt` file in the Zerto Virtual Replication installation folder, for the Zerto Virtual Manager where the cmdlet is run, encrypted using SHA-1.

| | |
|---|---|
| Required? | True |
| Position? | 4 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### [-VirtualProtectionGroup] <String>

The name of the VPG to delete. The value specified is case-sensitive.

| | |
|---|---|
| Required? | True |
| Position? | 5 or named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### -DeleteTargetDisks

Whether the target disks for the VPG managed by the VRA on the recovery site are kept or not. The default, when this parameter is not specified, is that these disks are saved when the VPG is removed.

| | |
|---|---|
| Required? | False |
| Position? | Named |
| Default Value | False |
| Accept Wildcard Characters? | False |

### -Wait <Int32>

The number of seconds to wait before timing out.

| | |
|---|---|
| Required? | True |
| Position? | Named |
| Default Value | None |
| Accept Wildcard Characters? | False |

### <Common&RiskParameters>

This cmdlet supports the parameters described in "Optional PowerShell Parameters", on page 63.

### Inputs and Outputs

The input type is the type of the objects that you can pipe to the cmdlet. The return type is the type of the objects that the cmdlet returns.

| | |
|---|---|
| **Inputs** | None. |
| **Outputs** | `Unprotect-Vpg` returns the task identifier for the command and the site identifier where the VPG was defined. |

**Note:** The command returns a result even when the actual removal of the VPG has not completed.

### See Also

Export-Settings
ForceRemove-ProtectionGroup
Import-Settings

### Example 1

```
PS C:\Windows\SysWOW64\WindowsPowerShell\v1.0> Unprotect-Vpg 182.24.123.123 9080
administrator password -VirtualProtectionGroup 'Back Office'
```

This command removes the `Back Office` VPG definition and keeps the disks used by the paired site VRA to recover the virtual machines that were protected by the VPG. The Zerto Virtual Manager used to process the cmdlet runs on IP 182.24.123.123 and port 9080.

The cmdlet returns the command task identifier and site identifier. For example:

```
Identifier                              SiteId
----------                              ------
dcea5d1e-4449-42de-b7c7-7f6ac5c8cb99    6d7b297c-a2d6-417c-b38c-d2679f0e17f8
```

## Optional PowerShell Parameters

This section describes the common and risk management parameters, which are standard with Windows PowerShell, that you can use with all the Zerto Virtual Replication cmdlets.

The common and risk management parameters affect only the commands in which they are used.

The following table lists the common parameters.

| PARAMETER | DESCRIPTION | DEFAULT VALUE | POSITION |
|---|---|---|---|
| **Debug** | Displays programmer-level detail about the operation performed by the command. This parameter works only when the command generates a debugging message, for example, when a command contains the `Write-Debug` cmdlet. | true | named |
| **ErrorAction** | Determines how the cmdlet responds to a non-terminating error from the command. This parameter works only when the command generates a debugging message, for example, when a command contains the `Write-Error` cmdlet. | Continue | named |
| **ErrorVariable** | Stores error messages about the command in the specified variable and in the $Error automatic variable. | - | named |
| **OutBuffer** | Determines the number of objects to accumulate in a buffer before any objects are sent through the pipeline. | Objects are sent through the pipeline as they are generated. | named |
| **OutVariable** | Stores output objects from the command in the specified variable and displays it at the command line. | - | named |

| PARAMETER | DESCRIPTION | DEFAULT VALUE | POSITION |
|---|---|---|---|
| **Verbose** | Displays detailed information about the operation performed by the command. This information resembles the information in a trace or in a transaction log. This parameter works only when the command generates a verbose message, for example, when a command contains the `Write-Verbose` cmdlet. | true | named |
| **WarningAction** | Determines how the cmdlet responds to a warning from the command. This parameter works only when the command generates a warning message, for example, when a command contains the `Write-Warning` cmdlet. | Continue | named |
| **WarningVariable** | Stores warnings about the command in the specified variable. | - | named |

The following table lists the risk management parameters.

| PARAMETER | DESCRIPTION | DEFAULT VALUE | POSITION |
|---|---|---|---|
| **Confirm** | Prompts for confirmation before executing the command. | true | named |
| **WhatIf** | Displays a message that describes the effect of the command, instead of executing the command. | true | named |

For more details about both the common and risk management parameters, refer to the Windows PowerShell Help.