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*Carbonite Availability and
Carbonite Migrate
PowerShell Scripting Guide*



Notices

Carbonite Availability and Carbonite Migrate PowerShell Scripting Guide, version 8.5.4, Friday, June 14, 2024

If you need technical assistance, you can contact Customer Support. All basic configurations outlined in the online documentation will be supported through Customer Support. Assistance and support for advanced configurations may be referred to a Pre-Sales Systems Engineer or to Professional Services.

Man pages are installed and available on Carbonite Availability and Carbonite Migrate Linux servers. These documents are bound by the same Carbonite, LLC. license agreement as the software installation.

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Chapter 1 Carbonite Availability and Carbonite Migrate PowerShell overview

Carbonite Availability and Carbonite Migrate includes Windows PowerShell cmdlets that you can use to control most Carbonite features. This guide includes all of the Carbonite cmdlets available and several sample scripts. However, this guide does not explain how to use Windows PowerShell. You should reference your Windows PowerShell documentation and the many web sites devoted to PowerShell to learn how to use and script with Windows PowerShell.



Carbonite legacy Reporting Service and Carbonite Replication Reporter do not support PowerShell. You cannot configure or manage your Carbonite legacy Reporting Service server or your Carbonite Replication Reporter server with any Carbonite PowerShell cmdlets.

The following terms and definitions will help you understand Carbonite basics. See the *User's Guide* for your Carbonite product for complete details on how that product works.

- **Source**—The source is the server that has the data you want to protect or migrate. Typically this is a machine on the production network that serves data to clients.
- **Target**—The target is the server that maintains the replicated copy of the data that is being protected on the source. Typically this is a backup server that may be local or in a remote data center. For migration jobs, this is the final destination for your data.
- **Workload**—A workload is a logical definition of the data that is being protected or migrated on the source. A workload can be a simple set of paths, for example, C:\Data or /usr. It may also be a more complex logical item that maps to multiple paths. For example, protecting a virtual machine means you are protecting multiple, specific virtual machine files, or protecting Microsoft SQL means you are protecting a SQL database and its related files.
- **Workload manager**—The workload manager is a web service that creates and configures the Carbonite workload.
- **Job**—A job is a logical unit that includes the source, target, and the workload. The job is what you create and monitor in order to protect or migrate your data.
- **Job manager**—The job manager is a web service that creates, monitors, and controls the Carbonite job.
- **Connection**—The engine connection is the underlying stream that sends the actual replicated data between the source and target servers. Jobs are higher-level objects that use the lower-level connection to protect data.
- **Architecture**—Each Carbonite installation has two services, the Management Service and Engine.
 - **Management Service**—This service is displayed as Double-Take Management Service in the Windows services list and jsvc on Linux. The service hosts the job manager and provides monitoring and control for all job types. For WCF clients, the service listens on port 6325. For non-WCF clients, the service listens on port 6326. This service offers a SOAP-based XML web services interface.
 - **Engine**—This service is displayed as Double-Take in the Windows service list and DT on Linux. The service transmits the replicated data between the source and target servers. By default this service listens on port 6320. You do not interact directly with this service.
- **Roles**—Any Carbonite installation can be a source, target, or both. The existence of a job between two servers and which direction data is being transmitted determines the server's role.

- **Security**—Carbonite enforces security by using local groups on each server where Carbonite is installed. There are two levels of security. Administrator access allows full control of Carbonite on a server, and monitor access allows read-only views of job information. When you connect to the job manager on a server, you will need to provide the credentials of a user who is a member of one of the local groups on that server.
- **Job creation**—To create a job, you will first communicate with the source to create a workload. You will then use that workload object and communicate with the target to create the job.
- **Monitoring and controlling jobs**—To monitor and control jobs, you will communicate with the job manager on the target of the job.
- **WCF client**—A Microsoft Windows client application created using Windows Communication Foundation, which is a framework for building distributed, service-oriented applications using Web services to send and receive data.

Carbonite PowerShell requirements

- **PowerShell version**—Carbonite requires Windows PowerShell version 4 or later.

If you are uncertain which version you have installed, check the `PSVersion` property of the `$PSVersionTable` automatic variable. This variable does not exist in PowerShell version 1, so if the variable returns nothing, you have version 1 installed. If you have version 2 or later installed, you will see a table of version information, showing your major and minor version numbers.



```

Administrator: Windows PowerShell
PS C:\> $PSVersionTable
Name                Value
-----
PSVersion           4.0
WSManStackVersion   3.0
SerializationVersion 1.1.0.1
CLRVersion          4.0.30319.42000
BuildVersion        6.3.9600.16406
PSCompatibleVersions {1.0, 2.0, 3.0, 4.0}
PSRemotingProtocolVersion 2.2
  
```

- **Security protocol**—If you are using Linux, you must have Tls12 enabled in PowerShell in order to communicate with your Linux servers. This is enabled by default on PowerShell version 5.0 and later. If you are using PowerShell version 4.x or earlier or if you have disabled Tls12 in PowerShell version 5.x or later, you will have to enable Tls12 each time you want to use PowerShell with your Linux servers.

To view your current enabled security protocols, enter the following command.

```
[Net.ServicePointManager]::SecurityProtocol
```

If you need to enable Tls12, use the following command, which will change the currently enabled security protocols to only Tls12.

```
[Net.ServicePointManager]::SecurityProtocol = "Tls12"
```

You can enable multiple security protocols by providing a comma-separated list. For example, if you want to enable Tls11 and Tls12, you would use the following command.

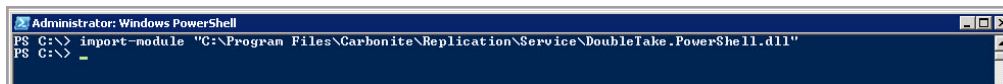
```
[Net.ServicePointManager]::SecurityProtocol = "Tls11, Tls12"
```

Installing the Carbonite PowerShell module

There are no additional steps required to install the Carbonite PowerShell module. It is automatically installed with all Carbonite installations.

Importing the Carbonite PowerShell module

You will need to import the module before you can begin using it. Use the Windows PowerShell `import-module` cmdlet to import the `DoubleTake.PowerShell.dll` module. If you completed a server or client/server installation, the module will be located in the `\Service` subdirectory where you installed Carbonite. If you completed a client only installation, the module will be located in the `\Console` subdirectory where you installed Carbonite. By default, the installation location is `\Program Files\Carbonite\Replication`. For example, using the default server installation location, the cmdlet would be `import-module "C:\Program Files\Carbonite\Replication\Service\DoubleTake.PowerShell.dll"` or using the default client only installation location, the cmdlet would be `import-module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"`.



```
Administrator: Windows PowerShell
PS C:\> import-module "C:\Program Files\Carbonite\Replication\Service\DoubleTake.PowerShell.dll"
PS C:\> _
```

If nothing is returned, then the import cmdlet was successful.

The `import-module` cmdlet only imports a module into the current session. If you need to make the Carbonite PowerShell module available to all sessions, you will need to add an `import-module` cmdlet to your Windows PowerShell profile. See your PowerShell documentation for more information about profiles.

Chapter 2 Cmdlets

The following cmdlets are available in Carbonite.

- Add-DtEndpointMapping on page 17
- Add-DtPhysicalRule on page 18
- Add-DtUvraPhysicalRule on page 20
- Checkpoint-DtConnection on page 22
- Checkpoint-DtConnectionSourceQueue on page 24
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- Confirm-DtJobOptions on page 27
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- Edit-DtJob on page 31
- Get-DefaultSqlCredentials on page 33
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- `Resume-DtJob` on page 136
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Add-DtEndpointMapping

Adds a mapping for source communication

Syntax

```
Add-DtEndpointMapping [-ServiceHost] <Server> [-OriginalUri] <URI> [-MappedUri] <URI>
[<CommonParameters>]
```

Detailed Description

This cmdlet adds a mapping for the URL the target needs to use to communicate with the source to the URL the source is using to create a job. You can add additional mappings for additional source URLs.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-------------|--------------------|--|----------|----------------|
| ServiceHost | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| OriginalUri | URI | Specify the URI the source is using to create a job. | true | false |
| MappedUri | URI | Specify the URI the target needs to use to communicate with the source. | true | false |

Outputs

None

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
Add-DtEndpointMapping -ServiceHost $DtServerObjectBeta -OriginalUri "http://alpha:6325" -MappedUri
"http://172.10.10.56:9000"
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. A mapping is created from 172.10.10.56 port 9000 to the source server Alpha and port 6325. The target server Beta will use the mapped URL to communicate with the source and the source will use the original URL to create the job. The connections for the server object are then closed.

Add-DtPhysicalRule

Adds a physical rule to a workload

Syntax

```
Add-DtPhysicalRule [-ServiceHost] <Server> [-WorkloadId] <Guid> -Path <String> [-Exclude] [-NonRecursive] [<CommonParameters>]
```

```
Add-DtPhysicalRule [-ServiceHost] <Server> [-WorkloadId] <Guid> [-Rule] <PhysicalRule> [<CommonParameters>]
```

Detailed Description

This cmdlet adds a physical rule to the specified workload on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your source server. | true | false |
| WorkloadId | Guid on page 286 | Specify the workload GUID returned from the New-DtWorkload cmdlet using the workload type name parameter. See New-DtWorkload on page 118. | true | false |
| Exclude | Switch Parameter | Exclude the specified path from mirroring and replication. If you do not specify this option, the path will be included for mirroring and replication. | false | false |
| NonRecursive | Switch Parameter | Do not apply the rule to the subdirectories of the specified path. If you do not specify this option, the subdirectories of the specified path will be included/excluded. | false | false |
| Path | String | Specify the path on the source that contains the data that you want to protect | true | false |
| Rule | PhysicalRule on page 323 | Use the Windows PowerShell New-Object cmdlet to create a physical rule object from DoubleTake.Common.Contract.PhysicalRule. | true | false |

Outputs

ChangedItems on page 236

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName
FilesAndFolders
$DtPhysicalPath = New-Object DoubleTake.Common.Contract.PhysicalRule -Property @
{Path="C:\DirName"}
Add-DtPhysicalRule -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid -Rule
$DtPhysicalPath
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The script then creates a workload on the server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. A new object is created from Double-Take.Common.Contract.PhysicalRule to store the physical path C:\DirName in the variable DtPhysicalPath. Finally, the physical rule is added to the workload on the server. The connections for the server object are then closed.

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName
FilesAndFolders
Add-DtPhysicalRule -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid -Path
"C:\DirName"
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The script then creates a workload on the server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. A physical rule is then created for the path C:\DirName. The connections for the server object are then closed.

Add-DtUvraPhysicalRule

Adds a physical rule to a workload

Syntax

```
Add-DtUvraPhysicalRule [-ServiceHost] <Server> [-Workload] <Workload> -Path <String> [-Recurse] [-Exclude] [<CommonParameters>]
```

```
Add-DtUvraPhysicalRule [-ServiceHost] <Server> [-Workload] <Workload> [-Rule] <PhysicalRule> [<CommonParameters>]
```

Detailed Description

This cmdlet adds a physical rule to the specified full server to ESX appliance workload on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtUvraServer cmdlet. See New-DtUvraServer on page 115. For this cmdlet, the -ServiceHost should be your source server. | true | false |
| Workload | Workload on page 400 | Specify the workload object returned from the Get-DtWorkload cmdlet. See Get-DtWorkload on page 89. | true | false |
| Path | String | Specify the path on the source that contains the data that you want to protect | true | false |
| Recurse | Switch Parameter | Apply the rule to the subdirectories of the specified path. If you do not specify this option, the subdirectories of the specified path will not be included/excluded. | false | false |
| Exclude | Switch Parameter | Exclude the specified path from mirroring and replication. If you do not specify this option, the path will be included for mirroring and replication. | false | false |
| Rule | PhysicalRule on page 323 | Use the Windows PowerShell New-Object cmdlet to create a physical rule object from DoubleTake.Common.Contract.PhysicalRule. | true | false |

Outputs

Workload on page 400

Examples

```
$DtServerObjectAlpha= New-DtUvraServer -Name alpha -UserName domain\administrator -Password password -Port 6325
$DtApplianceObject = New-DtUvraServer -Name beta -UserName root -Password password -Port 6325
$DtApplianceHost = New-DtUvraServer -Name gamma -UserName root -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName Lvra
$DtWorkload = Get-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid
$DtRecommendedJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtApplianceObject -Source $DtServerObjectAlpha -JobType Lvra -Workload $DtWorkload
Add-DtUvraPhysicalRule -ServiceHost $DtApplianceObject -Workload $DtRecommendedJobOptions.JobOptions.Workload -Path "/home"
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
Disconnect-DtServer -ServiceHost $DtApplianceObject
Disconnect-DtServer -ServiceHost $DtApplianceHost
```

Three server objects are created for the source, the appliance, and the ESX server hosting the appliance, assigning the server objects to the `DtServerObjectAlpha`, `DtApplianceObject`, and `DtApplianceHost` variables, respectively. Then proxy and host information is retrieved for those server objects, storing the information in `DtProxyInfo` and `DtVmHostInfo`, respectively. That information is then used to retrieve the recommended job options. A rule for the path `C:\Documents and Settings` is added to the recommended job options. The connections for the server object are then closed.

Checkpoint-DtConnection

Creates a snapshot

Syntax

Checkpoint-DtConnection [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]

Checkpoint-DtConnection [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]

Detailed Description

This cmdlet creates a snapshot of the source replica data on the target. The snapshot of the source replica data is taken immediately on the target when the snapshot is requested.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Checkpoint-DtConnection -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name

stored in the variable `DtServerObjectAlpha` is retrieved. That information is then stored in the variable `DtJobForAlpha`. Then a snapshot of the replica data on the target is taken. The connections for the server object are then closed.

Checkpoint-DtConnectionSourceQueue

Creates a coordinated snapshot

Syntax

```
Checkpoint-DtConnectionSourceQueue [-ServiceHost] <Server> [-CorrelationId] <Guid> [-JobIds] <IEnumerable> [<CommonParameters>]
```

Detailed Description

This cmdlet creates a coordinated snapshot of the source replica data on the target. This type of snapshot is not taken immediately. It is queued on the source at the time the snapshot is requested. The snapshot request operation will be transmitted in order with any other pending operations. When the snapshot operation is processed on the target, the snapshot will then be taken. This feature allows you to take a snapshot at the source time, rather than the target time. In the case of multiple servers, you can coordinate the snapshot time on the multiple source servers, rather than the varying times of the replica data on the target.

Keep in mind, since coordinated snapshots will not be taken until all of the operations ahead of the snapshot request in the source queue have been processed on the target, coordinated snapshots may be in a pending state for a while. Also the source must be accessible in order for the coordinated snapshot to be taken.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| CorrelationId | Guid | Specify a unique GUID which coordinates snapshots across jobs. This GUID is required even if you are only using one job. The GUID must be 32 hexadecimal digits and 4 dashes in the format xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxx, which is format 8-4-4-4-12. You can create this GUID on your own or use the PowerShell New-Guid cmdlet to generate one for you. | true | false |
| JobIds | IEnumerable | Specify an array of job GUIDs. A job GUID is returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |

Outputs

None

Examples

```
$CorId=New-Guid
$Source1Uri = "dtms://112.42.7.63:6325/"
$Source2Uri = "dtms://112.42.7.71:6325/"
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJob1 = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object { $_.SourceHostUri -eq
$Source1Uri}
$DtJob2 = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object { $_.SourceHostUri -eq
$Source2Uri}
$DtJobsArray = New-Object "System.Collections.Generic.List[Guid]"
$DtJobsArray.Clear()
$DtJobsArray.Add($DtJob1.Id)
$DtJobsArray.Add($DtJob2.Id)
Checkpoint-DtConnectionSourceQueue -ServiceHost $DtServerObjectBeta -CorrelationId $CorId -JobIds
$DtJobsArray.ToArray()
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

Several variables are set including a unique correlation ID for the snapshots that will be taken as well as URI identifiers for the source servers of existing jobs. A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The jobs are retrieved from DtServerObjectBeta, and the job information is inserted into unique variables. An array of job IDs is then created. A coordinated snapshot is taken using the specified correlation ID and the jobs stored in the array. Only those jobs will have coordinated snapshots. The connections for the server object are then closed.

Close-DtWorkload

Closes the workload

Syntax

```
Close-DtWorkload [-ServiceHost] <Server> [-WorkloadId] <Guid> [<CommonParameters>]
```

Detailed Description

This cmdlet closes the workload creation process on the specified server and removes all resources associated with the workload creation process.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your source server. | true | false |
| WorkloadId | Guid on page 286 | Specify the workload GUID returned from the New-DtWorkload cmdlet using the workload type name parameter. See New-DtWorkload on page 118. | true | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName
FilesAndFolders
Close-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The script then creates a workload on the server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. The workload is then closed on the server. The connections for the server object are then closed.

Confirm-DtJobOptions

Starts job validation

Syntax

```
Confirm-DtJobOptions [-ServiceHost] <Server> [-JobId] <Guid> [-JobOptions] <JobOptions>
[<CommonParameters>]
```

```
Confirm-DtJobOptions [-ServiceHost] <Server> [-Source] <Server> [-JobType] <String> [-JobOptions]
<JobOptions> [-OtherServers <Server[]>] [<CommonParameters>]
```

```
Confirm-DtJobOptions [-ServiceHost] <Server> [-CreateOptions] <CreateOptions> [<CommonParameters>]
```

Detailed Description

This cmdlet starts the job validation process, confirming the job options returned from the `Get-DtRecommendedJobOptions` cmdlet are compatible with the source and target servers you are using. View the details of the validation by using `Get-DtVerificationStatus`. See `Get-DtRecommendedJobOptions` on page 67 and `Get-DtVerificationStatus` on page 87. Do not confuse this process with the verification process that confirms if the data between the source and target are synchronized.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-------------|------------------------|--|----------|----------------|
| ServiceHost | Server on page 342 | Specify the server object returned from the <code>New-DtServer</code> cmdlet. See <code>New-DtServer</code> on page 110. For this cmdlet, the <code>-ServiceHost</code> should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the <code>New-DtJob</code> cmdlet or the <code>Id</code> within the job information returned from the <code>Get-DtJob</code> cmdlet. See <code>New-DtJob</code> on page 107 and <code>Get-DtJob</code> on page 48. | true | false |
| JobOptions | JobOptions on page 292 | Specify the <code>JobOptions</code> returned from the <code>Get-DtRecommendedJobOptions</code> cmdlet. See <code>Get-DtRecommendedJobOptions</code> on page 67. | true | false |
| Source | Server on page 342 | Specify the server object returned from the <code>New-DtServer</code> cmdlet. See <code>New-DtServer</code> on page 110. | true | false |
| JobType | String | This value is the job type name. <ul style="list-style-type: none">• Availability for Windows jobs<ul style="list-style-type: none">• FilesAndFolders—Files and folders• ClusterAwareFilesAndFolders—Cluster-aware files and folders | true | false |

| Name | Type | Description | Required | Pipeline Input |
|----------------|--------------------|--|----------|----------------|
| | | <ul style="list-style-type: none"> • SQL—SQL • ClusterAwareSql—Cluster-aware SQL • FullServerFailover—Full server • VRA—Full server to ESX or full server to Hyper-V • Availability for Linux jobs <ul style="list-style-type: none"> • LinuxFilesAndFolders—Files and folders • LinuxFullServerFailover—Full server • Lvra—Full server to ESX • Migrate for Windows jobs <ul style="list-style-type: none"> • MoveDataOnlyMigration—Files and folders migration • SqlMigration—SQL migration • ClusterAwareSqlMigration—Cluster-aware SQL migration • MoveServerMigration—Full server migration • VraMove—Full server to ESX migration or full server to Hyper-V migration • Migrate for Linux jobs <ul style="list-style-type: none"> • LinuxMoveDataOnlyMigration—Files and folders migration • LinuxMoveServerMigration—Full server migration • LinuxSapHanaMigration—SAP HANA migration • MoveLvra—Full server to ESX migration • Other jobs <ul style="list-style-type: none"> • Diagnostics—Throughput Diagnostic Utility | | |
| Other Servers | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. Specify multiple server objects in an array using the format @(\$server1, \$server2). | false | false |
| Create Options | Create Options | Specify the create options available in | true | false |

| Name | Type | Description | Required | Pipeline Input |
|------|------|---|----------|----------------|
| | | DoubleTake.Jobs.Contract.CreateOptions. Use the Windows PowerShell New-Object cmdlet to create this object. | | |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
$DtValidation = Confirm-DtJobOptions -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -
JobOptions $DtJob.Options
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The job options used by the job are confirmed, and the validation result is stored in DtValidation. The connections for the server object are then closed.

Disconnect-DtServer

Closes WCF connections

Syntax

```
Disconnect-DtServer [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed description

This cmdlet closes all WCF (Windows Communication Foundation) connections that have been opened during use of the server object.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The connections for the server object are then closed.

Edit-DtJob

Edits a job

Syntax

Edit-DtJob [-ServiceHost] <Server> [-JobId] <Guid> [-JobOptions] <JobOptions> [<CommonParameters>]

Edit-DtJob [-ServiceHost] <Server> [-JobOptions] <JobOptions> -JobInfo <JobInfo> [<CommonParameters>]

Detailed Description

This cmdlet allows you to edit an existing job that is stopped or running, using a JobOptions object that has been modified with your edited job settings.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobOptions | JobOptions on page 292 | Specify the JobOptions returned from the Get-DtRecommendedJobOptions cmdlet. See Get-DtRecommendedJobOptions on page 67. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. See Get-DtJob on page 48. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. Specify multiple job information objects in an array using the format @(\$JobInfo1, \$JobInfo2). | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
$_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
```

```
$DtJobForAlpha.Options.CoreMonitorOptions.TotalTimeAllowed="00:10:00"
```

```
Edit-DtJob -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -JobOptions  
$DtJobForAlpha.Options
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. A job option is changed. In this case, the total time before failover is triggered is set to 10 minutes. Finally, the job options are used to edit the specified job. The connections for the server object are then closed.

Get-DefaultSqlCredentials

Returns SQL Server authentication credentials

Syntax

```
Get-DefaultSqlCredentials [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the credentials that Carbonite is currently using for SQL Server authentication. You need to have used Set-DefaultSqlCredentials on page 145 or have an existing SQL job in order for credentials to be returned.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |

Outputs

PSCredential on page 330

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DefaultSqlCredentials -ServiceHost $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the credentials that Carbonite is currently using for SQL Server authentication are returned. The connections for the server object are then closed.

Get-DtAccessLevel

Returns the security access level

Syntax

```
Get-DtAccessLevel [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the Carbonite security access level for the credentials stored in the specified server object.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |

Outputs

AccessLevel on page 407

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DtAccessLevel -ServiceHost $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the Carbonite security access level for that server is returned. The connections for the server object are then closed.

Get-DtActivationStatus

Returns license key validation information

Syntax

```
Get-DtActivationStatus [-ServiceHost] <Server> [[-Code] <String[]>] [[-AdditionalCode] <String[]>]
[<CommonParameters>]
```

Detailed Description

This cmdlet returns the Carbonite license key validation information for the specified server. If you do not provide the code parameter, the license key currently in use will be returned. Specifying the key will return what the activation status would be if the key was applied using Set-DtActivationCode on page 147.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-----------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Code | String | Specify the 24-character, alpha-numeric license key which applies the appropriate Carbonite license to your Carbonite server. Specify multiple keys in an array using the format @(code1, code2). | false | false |
| Additional Code | String | Specify any additional keys. Specify multiple keys in an array using the format @(code1, code2). | false | false |

Outputs

ActivationStatus on page 224

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Get-DtActivationStatus -ServiceHost $DtServerObjectAlpha
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the validation information for the Carbonite license key assigned to the server is returned. The connections for the server object are then closed.

Get-DtAllFailoverReports

Returns all failover reports

Syntax

```
Get-DtAllFailoverReports [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

Detailed Description

This cmdlet returns all of the failover reports for the specified job, sorted from newest to oldest. The report will be located on a Windows target in the \Service\Reports directory where Carbonite is installed and on a Linux target in /opt/dbtk/var/lib/failoverreports.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |

Outputs

FailoverReport on page 276

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobInfo = Get-DtJob -ServiceHost $DtServerObjectBeta
Get-DtAllFailoverReports -ServiceHost $DtServerObjectBeta -JobId $DtJobInfo.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. All job information for all of the jobs on the server beta are stored in the variable DtJobInfo. This type of usage is common when the jobs were created in the past or if you did not store or do not know a job's ID. All failover reports for the job \$DtJobInfo.Id are returned. The connections for the server object are then closed.

Get-DtBandwidthLimit

Returns bandwidth limiting configuration

Syntax

```
Get-DtBandwidthLimit [-ServiceHost] <Server> [-JobId] <Guid> [-ConnectionId <Guid>]
[<CommonParameters>]
```

```
Get-DtBandwidthLimit [-ServiceHost] <Server> -JobInfo <JobInfo> [-ConnectionId <Guid>]
[<CommonParameters>]
```

Detailed Description

This cmdlet returns the bandwidth limiting configuration for the specified job .

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

BandwidthLimit on page 231

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
$_ .Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
```

```
Get-DtBandwidthLimit -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id  
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The bandwidth limiting configuration is then returned. The connections for the server object are then closed.

Get-DtConnectionIds

Returns connection ID

Syntax

```
Get-DtConnectionIds [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the connection ID associated with the specified job .

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |

Outputs

ConnectionId on page 243

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
$DtConIdForAlpha = Get-DtConnectionIds -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The connection ID for the job is then stored in DtConIdForAlpha. The connections for the server object are then closed.

Get-DtDiagnostics

Collects support diagnostics

Syntax

```
Get-DtDiagnostics [-ServiceHost] <Server> [-OutputDirectory] <String> [<CommonParameters>]
```

Detailed Description

This cmdlet collects configuration data for use when reporting problems to technical support. Because the diagnostics are gathering several pieces of information, potentially across the network to the machine where you are running the cmdlet, it may take several minutes to complete the information gathering and sending the resulting zip file to the cmdlet machine.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|------------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Output Directory | String | Specify the full path on the machine where you are running the Get-DtDiagnostics cmdlet, to store the resulting zip file containing the diagnostics information. The specified path must already exist. | true | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DtDiagnostics -ServiceHost $DtServerObjectAlpha "C:\Diagnostics"  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then diagnostics are collected for the server and stored in C:\Diagnostics. The connections for the server object are then closed.

Get-DtDnsOptions

Returns DNS options

Syntax

```
Get-DtDnsOptions [-ServiceHost] <Server> [-Source] <Server> [-JobType] <String> [-Workload] <Workload> [-DnsCredentials] <PSCredential> [<CommonParameters>]
```

Detailed Description

This cmdlet returns DNS options available between the specified source and target servers.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| Source | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. | true | false |
| JobType | String | <p>This value is the job type name.</p> <ul style="list-style-type: none">• Availability for Windows jobs<ul style="list-style-type: none">• FilesAndFolders—Files and folders• ClusterAwareFilesAndFolders—Cluster-aware files and folders• SQL—SQL• ClusterAwareSql—Cluster-aware SQL• FullServerFailover—Full server• VRA—Full server to ESX or full server to Hyper-V• Availability for Linux jobs<ul style="list-style-type: none">• LinuxFilesAndFolders—Files and folders• LinuxFullServerFailover—Full server• Lvra—Full server to ESX• Migrate for Windows jobs<ul style="list-style-type: none">• MoveDataOnlyMigration—Files and folders migration | true | false |

| Name | Type | Description | Required | Pipeline Input |
|----------------|--------------------------|--|----------|----------------|
| | | <ul style="list-style-type: none"> • SqlMigration—SQL migration • ClusterAwareSqlMigration—Cluster-aware SQL migration • MoveServerMigration—Full server migration • VraMove—Full server to ESX migration or full server to Hyper-V migration • Migrate for Linux jobs <ul style="list-style-type: none"> • LinuxMoveDataOnlyMigration—Files and folders migration • LinuxMoveServerMigration—Full server migration • LinuxSapHanaMigration—SAP HANA migration • MoveLvra—Full server to ESX migration • Other jobs <ul style="list-style-type: none"> • Diagnostics—Throughput Diagnostic Utility | | |
| Workload | Workload on page 400 | Specify the workload object returned from the Get-DtWorkload cmdlet. See Get-DtWorkload on page 89. | true | false |
| DnsCredentials | PSCredential on page 330 | Specify the credential object returned from the Windows PowerShell Get-Credential cmdlet. This password will not be visible because Windows stores an encrypted password. See Hiding your password in a PowerShell script on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions. | true | false |

Outputs

DnsOptions on page 264

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha-WorkloadTypeName
FullServerFailover
$DtWorkload = Get-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid
```

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtCredentialEncrypted = Get-Credential
Get-DtDnsOptions -ServiceHost $DtServerObjectBeta -Source $DtServerObjectAlpha -JobType
FullServerFailover -Workload $DtWorkload -DnsCredentials $DtCredentialEncrypted
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The script then creates a workload on the server for a full sever job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. The workload definition for the workload type and the server is then stored in the DtWorkload variable. A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. Credentials are stored in a variable called \$DtCredential. The script will prompt you to supply the username and password and the credentials will be encrypted. The DNS options for the two servers are then retrieved. The connections for the server object are then closed.

Get-DtEmailNotificationOptions

Returns e-mail notification settings

Syntax

```
Get-DtEmailNotificationOptions [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the current e-mail notification settings for the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |

Outputs

EmailNotificationOptions on page 267

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DtEmailNotificationOptions -ServiceHost $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the current e-mail notification settings for that server are returned. The connections for the server object are then closed.

Get-DtEndpointMapping

Returns the source communication mapping

Syntax

```
Get-DtEndpointMapping [-ServiceHost] <Server> [-OriginalUrl] <URI> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the URL the target is using to communicate with the source for the specified URL.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| OriginalUrl | URI | Specify the URI the source is using to create a job. | true | false |

Outputs

Uri on page 378

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
Get-DtEndpointMapping -ServiceHost $DtServerObjectBeta -OriginalUrl "http://alpha:6325"  
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The mapping the target server Beta is using to communicate with the source server Alpha and port 6325 is returned. The connections for the server object are then closed.

Get-DtEndpointMappingCount

Returns the number of source communication mappings for the specified target server

Syntax

```
Get-DtEndpointMappingCount [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the number of mappings the target has for source communications.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |

Outputs

Int32

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
Get-DtEndpointMappingCount -ServiceHost $DtServerObjectBeta  
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The number of mappings on the target server Beta is using to communicate with all source servers is returned. The connections for the server object are then closed.

Get-DtEventLogEntry

Returns a list of event log entries.

Syntax

```
Get-DtEventLogEntry [-ServiceHost] <Server> [-LastIndex <Int32>] [-ChunkSize <Int32>]
[<CommonParameters>]
```

Detailed Description

This cmdlet returns a list of Carbonite event log entries for the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| LastIndex | Int32 | Specify an index entry. The next index entry after the number you specify will be the starting point for the log entries returned. For example, if you specify 144 then the first log entry retrieved will be index 145. | false | false |
| ChunkSize | Int32 | Specify the number of entries that will be returned at one time. The default number of entries is 1024. | false | false |

Outputs

EventLogEntry on page 271

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Get-DtEventLogEntry -ServiceHost $DtServerObjectAlpha -ChunkSize 25
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the Carbonite event entries are displayed, in groups of 25. The connections for the server object are then closed.

Get-DtJob

Returns job information and status for the specified job on the specified server

Syntax

```
Get-DtJob [-ServiceHost] <Server> [[-JobId] <Guid>] [<CommonParameters>]
```

Detailed Description

Returns job information and status for the specified job on the specified server. To change the options of an existing job, use Edit-DtJob on page 31.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet. See New-DtJob on page 107. Specify multiple GUID objects in an array using the format @(\$JobGuid1, \$JobGuid2). | false | false |

Outputs

JobInfo [] on page 289

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName
FilesAndFolders
$DtWorkload = Get-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtServerObjectBeta -Source
$DtServerObjectAlpha -JobType FilesAndFolders -Workload $DtWorkload
$DtFnFJobGuid = New-DtJob -ServiceHost $DtServerObjectBeta -Source $DtServerObjectAlpha -JobType
FilesAndFolders -JobOptions $DtJobOptions.JobOptions
$DtJobInfo = Get-DtJob -ServiceHost $DtServerObjectBeta -JobId $DtFnFJobGuid
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```


A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The script then creates a workload on the server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. The workload definition for the workload type and the server is then stored in the DtWorkload variable. The recommended job options for the servers and the workload type are then stored in the variable DtJobOptions. A new files and folders job is created using the servers and the job options. The job ID is stored in the variable DtFnFJobGuid. Finally, the job information for the job is stored in the variable DtJobInfo. The connections for the server object are then closed.

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobInfo = Get-DtJob -ServiceHost $DtServerObjectBeta
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. All job information for all of the jobs on the server beta are stored in the variable DtJobInfo. This type of usage is common when the jobs were created in the past or if you did not store or do not know a job's ID. The connections for the server object are then closed.

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. This usage is common for servers that have more than one job, but you only want job information for one specific job. The connections for the server object are then closed.

Get-DtJobActionStatus

Returns the status of a job action

Syntax

```
Get-DtJobActionStatus [-ServiceHost] <Server> [[-JobId] <Guid>] [<CommonParameters>]
```

```
Get-DtJobActionStatus [-ServiceHost] <Server> [-Action] <ActivityToken> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the status of a job action that has been queued for job. The first syntax returns the status of all of the actions queued for the specified job. The second syntax returns the status for the job action object specified.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | false | false |
| Action | ActivityToken on page 226 | Specify a Carbonite job action object. | true | false |

Outputs

ActivityStatusEntry on page 225

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Get-DtJobActionStatus -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. A server object is created for the server beta using the

domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. Finally, the status of the job action is returned. The connections for the server object are then closed.

Get-DtLatestFailoverReport

Returns the latest failover report

Syntax

```
Get-DtLatestFailoverReport [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the latest failover report for the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |

Outputs

FailoverReport on page 276

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobInfo = Get-DtJob -ServiceHost $DtServerObjectBeta
Get-DtLatestFailoverReport -ServiceHost $DtServerObjectBeta -JobId $DtJobInfo.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. All job information for all of the jobs on the server beta are stored in the variable DtJobInfo. This type of usage is common when the jobs were created in the past or if you did not store or do not know a job's ID. The latest failover report for the job \$DtJobInfo.Id is returned. The connections for the server object are then closed.

Get-DtLogicalItem

Returns workload logical items

Syntax

```
Get-DtLogicalItem [-ServiceHost] <Server> [-WorkloadId] <Guid> [-RefItem <LogicalItem>]  
[<CommonParameters>]
```

Detailed Description

This cmdlet returns the logical items associated with the specified workload.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your source server. | true | false |
| WorkloadId | Guid on page 286 | Specify the workload GUID returned from the New-DtWorkload cmdlet using the workload type name parameter. See New-DtWorkload on page 118. | true | false |
| RefItem | LogicalItems on page 300 | Specify an object returned from a previous Get-DtLogicalItem call. | false | false |

Outputs

LogicalItems [] on page 300

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha-WorkloadTypeName  
FullServerFailover  
$DtLogicalItem = Get-DtLogicalItem -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGUID  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The script then creates a workload on the server for a full sever job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. The logical items associated with the workload type and the server are then stored in the variable DtLogicalItem. The connections for the server object are then closed.

Get-DtLogMessage

Returns log messages

Syntax

```
Get-DtLogMessage [-ServiceHost] <Server> [-Source <String>] [-LastSequenceNumber <Int32>] [-LastTimeStamp <DateTimeOffset>] [-ChunkSize <Int32>] [<CommonParameters>]
```

Detailed Description

This cmdlet returns messages from the Double-Take service log file and the Double-Take Management Service log file.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|----------------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Source | String | Specify source of the log message. If no source is specified, both Double-Take Management Service messages and Double-Take service messages will be returned. To have only Double-Take Management Service messages displayed, specify MS for the string value. To have only Double-Take service messages displayed, specify EN for the string value. | false | false |
| Last Sequence Number | Int32 | Specify a sequence number to be the starting point to retrieve the log messages. | false | false |
| LastTime Stamp | DateTime Offset | Specify a date and time stamp to be the starting point to retrieve the log messages. Specify the date in mm/dd/yyyy format. Specify the time in hh:mm:ss format with AM or PM. You can specify a time zone offset, for example, -04:00. If you do not specify a time zone offset, the time zone of the machine you are running from will be used. If you do not specify a time, 12:00:00 AM will be used. | false | false |
| ChunkSize | Int32 | Specify the number of entries that will be returned at one time. The default number of entries is 1024. | false | false |

Outputs

LogMessage [] on page 304

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DtLogMessage -ServiceHost $DtServerObjectAlpha -source MS -LastTimeStamp "01/15/2020 05:19:00  
PM" -ChunkSize 25  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the Double-Take Management Service log messages after 5:19pm on January 15, 2020 are displayed in groups of 25. The connections for the server object are then closed.

Get-DtOnlineActivationRequest

Returns the server information that is required to activate a license

Syntax

```
Get-DtOnlineActivationRequest [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet returns server information, unique to a specific, single server, that is required to activate a Carbonite license. The server must already have a license key on the server in order to get the server information.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |

Outputs

ServerActivationInformation on page 344

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DtOnlineActivationRequest -ServiceHost $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The server information for the online activation process is returned. The connections for the server object are then closed.

Get-DtOption

Returns job or server value

Syntax

```
Get-DtOption [-ServiceHost] <Server> [[-Name] <String[]>] [<CommonParameters>]
```

Detailed Description

This cmdlet returns the value of the specific job or server option from the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Name | String | Specify the name of the job or server option. Specify multiple strings in an array using the format @(string1, string2). See Server and job settings on page 541 details on job and server options. | false | false |

Outputs

Hashtable

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DtOption -ServiceHost $DtServerObjectAlpha -Name MirrorChunkSize  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the value of the server option called MirrorChunkSize is returned from the server. The connections for the server object are then closed.

Get-DtPathBlocking

Returns the blocked paths

Syntax

```
Get-DtPathBlocking [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the paths that are blocked on the specified target server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |

Outputs

PathBlocking on page 319

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DtPathBlocking -ServiceHost $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the paths that are blocked on the server are returned. The connections for the server object are then closed.

Get-DtPhysicalItem

Returns files system information

Syntax

This cmdlet returns file system information for the specified server. A physical item can be used to specify a specific file, folder, or volume to return file system information for.

Detailed Description

Get-DtPhysicalItem [-ServiceHost] <Server> [-Ref <PhysicalItem>] [<CommonParameters>]

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Ref | PhysicalItem on page 321 | Specify an object returned from a previous Get-DtPhysicalItem call. | false | false |

Outputs

PhysicalItem [] on page 321

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtVolumes = Get-DtPhysicalItem -ServiceHost $DtServerObjectAlpha
$DtVolume1Root = Get-DtPhysicalItem -ServiceHost $DtServerObjectAlpha -Ref $DtVolumes[0]
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the volumes on the server are stored in the variable DtVolumes. Finally, the files and folders at the root of the first volume in DtVolumes is stored in the variable DtVolume1Root. The connections for the server object are then closed.

Get-DtProductInfo

Returns Carbonite product information

Syntax

```
Get-DtProductInfo [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet returns Carbonite product information for the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |

Outputs

ProductInfo on page 327

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DtProductInfo -ServiceHost $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the Carbonite product information for the server is returned. The connections for the server object are then closed.

Get-DtQualificationResults

Returns the qualification results

Syntax

```
Get-DtQualificationResults [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Get-DtQualificationResults [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the qualification results for the specified job type. You may want to use these results for job options when editing a job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | false |

Outputs

JobQualificationResults on page 295

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Get-DtQualificationResults -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name

stored in the variable `DtServerObjectAlpha` is retrieved. That information is then stored in the variable `DtJobForAlpha`. The qualification results for the job are then returned. The connections for the server object are then closed.

Get-DtRecommendedFailbackOptions

Returns the recommended failback options

Syntax

```
Get-DtRecommendedFailbackOptions [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Get-DtRecommendedFailbackOptions [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the recommended failback options for the specified job on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | false |

Outputs

RecommendedFailbackOptions on page 331

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Get-DtRecommendedFailbackOptions -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable

DtJobForAlpha. Then the recommended failback options for the specified job and server are returned. The connections for the server object are then closed.

Get-DtRecommendedFailoverOptions

Returns the recommended failover options

Syntax

```
Get-DtRecommendedFailoverOptions [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Get-DtRecommendedFailoverOptions [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>
```

Detailed Description

This cmdlet returns the recommended failover options for the specified job on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | false | false |

Outputs

RecommendedFailoverOptions on page 332

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Get-DtRecommendedFailoverOptions -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable

DtJobForAlpha. Then the recommended failover options for the specified job and server are returned. The connections for the server object are then closed.

Get-DtRecommendedJobOptions

Returns recommended job options

Syntax

```
Get-DtRecommendedJobOptions [-ServiceHost] <Server> [-Source] <Server> [-JobType] <String> [-Workload] <Workload> [-OtherServers <Server[]>] [<CommonParameters>]
```

Detailed Description

This cmdlet returns the recommended job options for the specified job type.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| Source | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. | true | false |
| JobType | String | <p>This value is the job type name.</p> <ul style="list-style-type: none">• Availability for Windows jobs<ul style="list-style-type: none">• FilesAndFolders—Files and folders• ClusterAwareFilesAndFolders—Cluster-aware files and folders• SQL—SQL• ClusterAwareSql—Cluster-aware SQL• FullServerFailover—Full server• VRA—Full server to ESX or full server to Hyper-V• Availability for Linux jobs<ul style="list-style-type: none">• LinuxFilesAndFolders—Files and folders• LinuxFullServerFailover—Full server• Lvra—Full server to ESX• Migrate for Windows jobs<ul style="list-style-type: none">• MoveDataOnlyMigration—Files and folders migration• SqlMigration—SQL migration• ClusterAwareSqlMigration—Cluster-aware SQL migration | true | false |

| Name | Type | Description | Required | Pipeline Input |
|---------------|----------------------|--|----------|----------------|
| | | <ul style="list-style-type: none"> • MoveServerMigration—Full server migration • VraMove—Full server to ESX migration or full server to Hyper-V migration • Migrate for Linux jobs <ul style="list-style-type: none"> • LinuxMoveDataOnlyMigration—Files and folders migration • LinuxMoveServerMigration—Full server migration • LinuxSapHanaMigration—SAP HANA migration • MoveLvra—Full server to ESX migration • Other jobs <ul style="list-style-type: none"> • Diagnostics—Throughput Diagnostic Utility | | |
| Workload | Workload on page 400 | Specify the workload object returned from the Get-DtWorkload cmdlet. See Get-DtWorkload on page 89. | true | false |
| Other Servers | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. Specify multiple server objects in an array using the format @(\$server1, \$server2). | false | false |

Outputs

RecommendedJobOptions on page 333

Examples

```

$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName
FilesAndFolders
$DtWorkload = Get-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtServerObjectBeta -Source
$DtServerObjectAlpha -JobType FilesAndFolders -Workload $DtWorkload
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
Disconnect-DtServer -ServiceHost $DtServerObjectBeta

```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The script then creates a workload on the server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. The workload definition for the workload type and the server is then stored in the DtWorkload variable. The recommended job options for the servers and the workload type are then stored in the variable DtJobOptions. The connections for the server object are then closed.

Get-DtRecommendedPathTransform

Returns the recommended mappings

Syntax

This cmdlet returns the recommended mapping between the location of the data on the source and the location of the replica data on the target for the specific type of workload .

Detailed Description

Get-DtRecommendedPathTransform [-ServiceHost] <Server> [-WorkloadId] <Guid> [-BasePath <String>] [<CommonParameters>]

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your source server. | true | false |
| WorkloadId | Guid on page 286 | Specify the workload GUID returned from the New-DtWorkload cmdlet using the workload type name parameter. See New-DtWorkload on page 118. | true | false |
| BasePath | String | Specify the location on the target where the replica of the source data will be stored. By default, the replica source data will be stored in the same directory structure on the target, in a one-to-one configuration. | false | false |

Outputs

PathTransformation [] on page 320

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha-WorkloadTypeName
FullServerFailover
Get-DtRecommendedPathTransform -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The script then creates a workload on the server for a full sever job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. The recommended mapping of the data on the source and the replica data on the target is then returned. The connections for the server object are then closed.

Get-DtRecommendedRestoreOptions

Returns the recommended restoration options

Syntax

```
Get-DtRecommendedRestoreOptions [-ServiceHost] <Server> [-JobId] <Guid> [-RestoreTarget <Server>] [-RequestCanClearRestoreRequired] [<CommonParameters>]
```

```
Get-DtRecommendedRestoreOptions [-ServiceHost] <Server> -JobInfo <JobInfo> [-RestoreTarget <Server>] [-RequestCanClearRestoreRequired] [<CommonParameters>]
```

Detailed Description

Returns the recommended restoration options for the specified job on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-----------------------------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Restore Target | Server on page 342 | Specify the server you want to restore to. If you do not specify a server, the original source server will be used. | false | false |
| Request CanClear Restore Required | Switch Parameter | Sets RecommendedRestoreOptions.CanClearRestoreRequired on the RecommendedRestoreOptions object based on whether it is supported by the current job state. You still need to set ClearRestoreRequired on RestoreOptions to clear the restore required state of a job. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | false |

Outputs

RecommendedRestoreOptions on page 334

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
$_ .Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Get-DtRecommendedRestoreOptions -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -
RestoreTarget $DtServerObjectAlpha
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. Then the recommended restore options for the specified job and server are returned. The connections for the server object are then closed.

If you want to clear the restore required flag, save your recommended restore options to a variable and then set ClearRestoreRequired to true.

```
$DtRecommendedRestoreOptions = Get-DtRecommendedRestoreOptions -ServiceHost
$DtServerObjectBeta -JobId $DtJobForAlpha.Id -RestoreTarget $DtServerObjectAlpha -
RequestCanClearRestoreRequired
$DtRestoreOptions = $DtRecommendedRestoreOptions.RestoreOptions
$DtRestoreOptions.ClearRestoreRequired = $true;
```

Get-DtRepairJobOptionsStatus

Returns the details and status of a repair

Syntax

```
Get-DtRepairJobOptionsStatus [-ServiceHost] <Server> [-Token] <ActivityToken> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the details and status of the repair performed by the Repair-DtJobOptions cmdlet. See Repair-DtJobOptions on page 129.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| Token | ActivityToken on page 226 | Specify the repair action object returned from the Repair-DtJobOptions cmdlet. See Repair-DtJobOptions on page 129. | true | false |

Outputs

RepairStatus on page 335

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
$DtValidation = Confirm-DtJobOptions -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -
    JobOptions $DtJob.Options
$DtStatus = Get-DtVerificationStatus -ServiceHost $DtServerObjectBeta -Token $DtValidation
$DtRepair = Repair-DtJobOptions -ServiceHost $DtTarget -JobId $DtJob.Id -JobOptions $DtJob.Options -
    Step $DtStatus.Steps
$DtRepairStatus = Get-DtRepairJobOptionsStatus -ServiceHost $DtServerObjectBeta -Token $DtRepair
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable

DtJobForAlpha. The job options used by the job are confirmed, and the validation result is stored in DtValidation. The details of the validation are stored in the variable DtStatus. Ideally you should script this with a loop so you can wait until the verification status is complete before continuing with your script. Those items that can automatically be fixed are corrected. If the job options were modified in order to fix an issues, the updated job options are now contained in the variable \$DtRepair. The details and status of the repair are stored in the variable DtRepairStatus. The connections for the server object are then closed.

Get-DtScriptCredentials

Returns credentials

Syntax

```
Get-DtScriptCredentials [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the credentials that Carbonite is currently using to run scripts on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DtScriptCredentials -ServiceHost $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the credentials that Carbonite is using to run scripts on this server are returned. The connections for the server object are then closed.

Get-DtServerInfo

Returns server information

Syntax

```
Get-DtServerInfo [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet returns server configuration information for the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |

Outputs

ServerInfo on page 345

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DtServerInfo -ServiceHost $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then server configuration information for the server is returned. The connections for the server object are then closed.

Get-DtSnapshot

Returns snapshots

Syntax

```
Get-DtSnapshot [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Get-DtSnapshot [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the available Carbonite snapshots for the specified job .

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

SnapshotEntry on page 352

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Get-DtSnapshot -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name

stored in the variable `DtServerObjectAlpha` is retrieved. That information is then stored in the variable `DtJobForAlpha`. The snapshots available for the job are returned. The connections for the server object are then closed.

Get-DtSourceQueueSnapshot

Gets a coordinated snapshot

Syntax

```
Get-DtSourceQueueSnapshot [-ServiceHost] <Server> [-CorrelationId] <Guid> [-JobId] <Guid>
[<CommonParameters>]
```

Detailed Description

This cmdlet gets a coordinated snapshot for one job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| CorrelationID | Guid | Specify the correlation ID used to create the coordinated snapshot. See Checkpoint-DtConnectionSourceQueue on page 24. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |

Outputs

SourceQueueSnapshotEntry on page 358

Examples

```
$CorId=New-Guid
$Source1Uri = "dtms://112.42.7.63:6325/"
$Source2Uri = "dtms://112.42.7.71:6325/"
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJob1 = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object { $_.SourceHostUri -eq
$Source1Uri}
$DtJob2 = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object { $_.SourceHostUri -eq
$Source2Uri}
$DtJobsArray = New-Object "System.Collections.Generic.List[Guid]"
```

```
$DtJobsArray.Clear()
$DtJobsArray.Add($DtJob1.Id)
$DtJobsArray.Add($DtJob2.Id)
Checkpoint-DtConnectionSourceQueue -ServiceHost $DtServerObjectBeta -CorrelationId $CorId -JobIds
$DtJobsArray.ToArray()
Get-DtSourceQueueSnapshot -ServiceHost $DtServerObjectBeta -CorrelationId $CorId -JobIds $DtJob1.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

Several variables are set including a unique correlation ID for the snapshots that will be taken as well as URI identifiers for the source servers of existing jobs. A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called `DtServerObjectBeta`. The jobs are retrieved from `DtServerObjectBeta`, and the job information is inserted into unique variables. An array of job IDs is then created. A coordinated snapshot is taken using the specified correlation ID and the jobs stored in the array. Only those jobs will have coordinated snapshots. Then the coordinated snapshot for the specified correlation ID and job ID is returned. The connections for the server object are then closed.

Get-DtSourceQueueSnapshots

Gets all coordinated snapshots

Syntax

Get-DtSourceQueueSnapshot [-ServiceHost] <Server> [-CorrelationId] <Guid> [<CommonParameters>]

Detailed Description

This cmdlet gets all coordinated snapshot for one correlation ID.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| CorrelationID | Guid | Specify the correlation ID used to create the coordinated snapshot. See Checkpoint-DtConnectionSourceQueue on page 24. | true | false |

Outputs

SourceQueueSnapshotEntry on page 358 []

Examples

```
$CorId=New-Guid
$Source1Uri = "dtms://112.42.7.63:6325/"
$Source2Uri = "dtms://112.42.7.71:6325/"
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJob1 = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object { $_.SourceHostUri -eq $Source1Uri}
$DtJob2 = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object { $_.SourceHostUri -eq $Source2Uri}
$DtJobsArray = New-Object "System.Collections.Generic.List[Guid]"
$DtJobsArray.Clear()
$DtJobsArray.Add($DtJob1.Id)
$DtJobsArray.Add($DtJob2.Id)
```

```
Checkpoint-DtConnectionSourceQueue -ServiceHost $DtServerObjectBeta -CorrelationId $CorId -JobIds $DtJobsArray.ToArray()
```

```
Get-DtSourceQueueSnapshots -ServiceHost $DtServerObjectBeta -CorrelationId $CorId
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

Several variables are set including a unique correlation ID for the snapshots that will be taken as well as URI identifiers for the source servers of existing jobs. A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The jobs are retrieved from DtServerObjectBeta, and the job information is inserted into unique variables. An array of job IDs is then created. A coordinated snapshot is taken using the specified correlation ID and the jobs stored in the array. Only those jobs will have coordinated snapshots. Then the coordinated snapshots for the specified correlation ID are returned. The connections for the server object are then closed.

Get-DtUvraRecommendedFailoverOptions

Returns the recommended failover options

Syntax

```
Get-DtUvraRecommendedFailoverOptions [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Get-DtUvraRecommendedFailoverOptions [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the recommended failover options for the specified full server to ESX appliance job on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtUvraServer cmdlet. See New-DtUvraServer on page 115. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | false | false |

Outputs

FailoverOptions on page 275

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName root -Password password
$DtApplianceObject = New-DtUvraServer -Name beta -UserName root -Password password -Port 6325
$DtJobForAlpha = Get-DtJob -ServiceHost $DtApplianceObject | Where-Object {
$_ .Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Get-DtUvraRecommendedFailoverOptions -ServiceHost $DtApplianceObject -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtApplianceObject
```

Disconnect-DtServer -ServiceHost \$DtServerObjectAlpha

A server object is created for the server alpha using the root and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. A server object is created for the appliance beta using port 6325 and the root and password credentials. It assigns the server object to the variable called DtApplianceObject. The job(s) are retrieved from DtApplianceObject, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. Then the recommended failover options for the specified full server to ESX appliance job and server are returned. The connections for the server object are then closed.

Get-DtUvraRecommendedRemoveOptions

Returns recommended removal options

Syntax

```
Get-DtUvraRecommendedRemoveOptions [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Get-DtUvraRecommendedRemoveOptions [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the recommended removal options when deleting the specified full server to ESX appliance job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtUvraServer cmdlet. See New-DtUvraServer on page 115. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | false | false |

Outputs

DeleteOptions on page 259

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName root -Password password
$DtApplianceObject = New-DtUvraServer -Name beta -UserName root -Password password -Port 6325
$DtJobForAlpha = Get-DtJob -ServiceHost $DtApplianceObject | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Get-DtUvraRecommendedRemoveOptions -ServiceHost $DtApplianceObject -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtApplianceObject
```

Disconnect-DtServer -ServiceHost \$DtServerObjectAlpha

A server object is created for the server alpha using the root and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. A server object is created for the appliance beta using port 6325 and the root and password credentials. It assigns the server object to the variable called DtApplianceObject. The job(s) are retrieved from DtApplianceObject, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. Then the recommended remove options for the specified full server to ESX appliance job and server are returned. The connections for the server object are then closed.

Get-DtVerificationStatus

Returns the validation details and status

Syntax

```
Get-DtVerificationStatus [-ServiceHost] <Server> [-Token] <ActivityToken> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the details and status of the validation performed by the Confirm-DtJobOptions cmdlet. See Confirm-DtJobOptions on page 27. Do not confuse this process with the verification process that confirms if the data between the source and target are synchronized.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| Token | ActivityToken on page 226 | Specify the confirm action object returned from the Confirm-DtJobOption cmdlet. See Confirm-DtJobOptions on page 27. | true | false |

Outputs

VerificationStatus on page 380

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
$DtValidation = Confirm-DtJobOptions -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -
    JobOptions $DtJob.Options
$DtStatus = Get-DtVerificationStatus -ServiceHost $DtServerObjectBeta -Token $DtValidation
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The job options used by the job are confirmed, and the validation result is stored in DtValidation. The details of the validation are stored in the variable DtStatus. Ideally you should script this with a

loop so you can wait until the verification status is complete before continuing with your script. The connections for the server object are then closed.

Get-DtWorkload

Returns the workload definition

Syntax

```
Get-DtWorkload [-ServiceHost] <Server> [-WorkloadId] <Guid> [<CommonParameters>]
```

Detailed Description

This cmdlet returns an object that represents the workload definition, including the workload type name, any physical rules, and any logical rules. This object is used in job cmdlets.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your source server. | true | false |
| WorkloadId | Guid on page 286 | Specify the workload GUID returned from the New-DtWorkload cmdlet using the workload type name parameter. See New-DtWorkload on page 118. | true | false |

Outputs

Workload on page 400

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha-WorkloadTypeName
FullServerFailover
$DtWorkload = Get-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The script then creates a workload on the server for a full sever job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. The workload definition for the workload type and the server is then stored in the DtWorkload variable. The connections for the server object are then closed.

Get-DtWorkloadPhysicalItem

Returns physical items

Syntax

```
Get-DtWorkloadPhysicalItem [-ServiceHost] <Server> [-WorkloadId] <Guid> [-RefItem <PhysicalItem>]  
[<CommonParameters>]
```

Detailed Description

This cmdlet returns the physical items available for the specified workload on the specified server

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your source server. | true | false |
| WorkloadId | Guid on page 286 | Specify the workload GUID returned from the New-DtWorkload cmdlet using the workload type name parameter. See New-DtWorkload on page 118. | true | false |
| Ref | PhysicalItem on page 321 | Specify an object returned from a previous Get-DtWorkloadPhysicalItem call. | false | false |

Outputs

PhysicalItem on page 321

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName  
FilesAndFolders  
Get-DtWorkloadPhysicalItem -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The script then creates a workload on the server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. Finally, the physical items available for the workload on the server are returned. The connections for the server object are then closed.

Get-DtWorkloadType

Returns the workload types

Syntax

```
Get-DtWorkloadType [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet returns the types of workloads that are supported on the specified server. The supported workload types are based on the Carbonite license keys on the server, the applications on the server, the server configuration (like standalone or cluster), and so on.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your source server. | true | false |

Outputs

WorkloadType [] on page 403

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Get-DtWorkloadType -ServiceHost $DtServerObjectAlpha
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then it returns the workload types that are supported on the server. The connections for the server object are then closed.

Install-DoubleTake

Installs Carbonite

Syntax

```
Install-DoubleTake [-RemoteServer] <Server> -ActivationCode <String[]> [-DiskQueueFolder <String>] [-DiskQueueLimit <Int32>] [-DotNetPackagePath <String>] [-InstallationFolder <String>] [-MaxMemoryUsage <Int32>] [-MinFreeDiskSpace <Int32>] [-PackageBaseFolder <String>] [-SimultaneousFilePushLimit <Int32>] [-TempFolder <String>] [-X64PackageFolder <String>] [-X86PackageFolder <String>] [-LinuxPackageFolder <String>] [-AsJob] [<CommonParameters>]
```

```
Install-DoubleTake [-RemoteServer] <Server> -ActivationCode <String[]> -Schedule <DateTime> [-DiskQueueFolder <String>] [-DiskQueueLimit <Int32>] [-DotNetPackagePath <String>] [-InstallationFolder <String>] [-MaxMemoryUsage <Int32>] [-MinFreeDiskSpace <Int32>] [-NoReboot] [-PackageBaseFolder <String>] [-SimultaneousFilePushLimit <Int32>] [-TempFolder <String>] [-X64PackageFolder <String>] [-X86PackageFolder <String>] [-AsJob] [<CommonParameters>]
```

Detailed Description

This cmdlet installs Carbonite on the specified server. The first syntax allows you to install Carbonite immediately. The second syntax allows you to schedule the installation.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-----------------|--------------------|--|---------------|----------------|
| Remote Server | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. | true | false |
| Activation Code | String | <p>New installation—If you are completing a new installation, this parameter is required.</p> <ul style="list-style-type: none">• Add a license key—Specify a 24-character, alpha-numeric license key to apply that license to the Carbonite server.• Do not add a license key—Specify the keyword None to apply no license to the Carbonite server. <p>Upgrade—If you are upgrading on Windows, this parameter is not required. (Upgrade on Linux is not supported.)</p> <ul style="list-style-type: none">• Retain a license key—Do not use this parameter and the existing key will be maintained on the Carbonite server.• Replace a license key—Use this parameter and specify a 24-character, | true or false | false |

| Name | Type | Description | Required | Pipeline Input |
|---------------------|--------|---|----------|----------------|
| | | <p>alpha-numeric license key that will overwrite the existing license key on the Carbonite server.</p> <ul style="list-style-type: none"> • Remove a license key—Use this parameter and specify the keyword None to remove the existing key on the Carbonite server. | | |
| DiskQueue Folder | String | Specify the location where you want to store the Carbonite disk queue on each server. The default is \Program Files\Carbonite\Replication. | false | false |
| DiskQueue Limit | Int32 | Specify a fixed amount of disk space, in MB, in the specified DiskQueueFolder that can be used for Carbonite disk queuing. When the disk space limit is reached, Carbonite will automatically begin the auto-disconnect process. By default, an unlimited amount of disk queuing will be allowed. | false | false |
| DotNet Package Path | String | If your servers do not have Microsoft .NET version 4.5.1, specify the location of the setup file (on the local machine) that will be used to install it. This option is for older versions of Windows. Generally, newer versions of Windows will have .NET already installed. | false | false |
| Installation Folder | String | Specify the location where you want to install Carbonite on the server. The default is \Program Files\Carbonite\Replication. | false | false |
| Max Memory Usage | Int32 | Specify the maximum amount of memory, in MB, that can be used for Carbonite processing. The default will depend on your operating system and hardware. For complete details on memory usage, see the <i>User's Guide</i> . | false | false |
| MinFree DiskSpace | Int32 | This is the minimum amount of disk space in the specified DiskQueueFolder that must be available at all times. This amount should be less than the amount of physical disk space minus the disk size specified for DiskQueueLimit. The default is 50 MB. | false | false |
| Package Base Folder | String | Specifies the locations of the setup files (on the local machine or a UNC path) that will be used to install on both 32-bit and 64-bit servers. By default, these are in the i386\ and \x64 subdirectories where you installed Carbonite. | false | false |

| Name | Type | Description | Required | Pipeline Input |
|-----------------------------|------------------|---|----------|----------------|
| Simultaneous FilePush Limit | Int32 | Specify the number of files that can simultaneously be pushed to the machine you are installing on. The default is 5. | false | false |
| Temp Folder | String | Specify a temporary location (on the server where you are installing Carbonite) where the installation files will be copied and run. The default is \Temp. You need approximately 130 MB of space in the specified location. | false | false |
| X64 Package Folder | String | Specify the location of the setup file (on the local machine or a UNC path) that will be used to install on 64-bit Windows servers. By default, this is in the \x64 subdirectory where you installed Carbonite. | false | false |
| X86 Package Folder | String | Specify the location of the setup file (on the local machine or a UNC path) that will be used to install on 32-bit Windows servers. By default, this is in the \i386 subdirectory where you installed Carbonite. | false | false |
| Linux Package Folder | String | Specify the location of the .rpm or .deb installation files (on the local machine or a UNC path) that will be used to install on Linux servers. | false | false |
| AsJob | Switch Parameter | Specify if you want the installation to occur asynchronously in the background, returning the PowerShell command immediately. You can get the status of each installation using the Windows PowerShell Get-Job command. Without this parameter, each push installation specified will be executed synchronously and the current activity of the current installation will be displayed. | false | false |
| Schedule | DateTime | Specify a date and time to complete the installation. Specify the date in mm/dd/yyyy format. Specify the time in hh:mm:ss format with AM or PM. You can specify a time zone offset, for example, -04:00. If you do not specify a time zone offset, the time zone of the machine you are running from will be used. If you do not specify a time, 12:00:00 AM will be used. | true | false |
| NoReboot | Switch Parameter | Specify if you do not want the server to reboot after the installation, even if a reboot is required. | false | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Install-DoubleTake -RemoteServer $DtServerObjectAlpha -ActivationCode 1234567890abcdefghij1234 -
x64PackageFolder "C:\Program Files\Carbonite\Replication\x64"
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then Carbonite is installed to the server using the license key 1234567890abcdefghij1234, using the setup.exe installation file stored locally at C:\Program Files\Carbonite\Replication\x64. The connections for the server object are then closed.

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Install-DoubleTake -RemoteServer $DtServerObjectAlpha -ActivationCode 1234567890abcdefghij1234 -
LinuxPackageFolder "C:\Program Files\Carbonite\Replication\Linux"
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then Carbonite is installed to the server using the license key 1234567890abcdefghij1234, using the .rpm or .deb installation files stored locally at C:\Program Files\Carbonite\Replication\Linux. The connections for the server object are then closed.

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Install-DoubleTake -RemoteServer $DtServerObjectAlpha -ActivationCode 1234567890abcdefghij1234 -
LinuxPackageFolder "\\DTAppliance\installers"
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then Carbonite is installed to the server using the license key 1234567890abcdefghij1234, using the .rpm or .deb installation files stored on a deployed Carbonite Linux appliance at \\DTAppliance\installers. The connections for the server object are then closed.

Install-DtVmwareCertificate

Installs VMware security certificate

Syntax

```
Install-DtVmwareCertificate [-ServiceHost] <Server> [-Certificate] <X509Certificate> [<CommonParameters>]
```

Detailed Description

This cmdlet installs the specified X.509 security certificate on the specified server

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| Certificate | \$Variable [1] | The certificate from the Test-DtVmwareCertificatePolicy on page 203 false return must be installed. The certificate is the second item in the returned array. | true | false |

Outputs

None

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$TestResult = Test-DtVmwareCertificatePolicy -ServiceHost $DtServerObjectBeta -VmwareServer 112.47.15.6
Set-DtVmwareCertificatePolicy -ServiceHost $DtServerObjectBeta -VmwareServer 112.47.15.6 -Policy AllowAll
Install-DtVmwareCertificate -ServiceHost $DtServerObjectBeta -Certificate $TestResult[1]
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The server \$DtServerObjectBeta is tested to see if the current policy or any valid certificates will allow a connection to the specified VMware server. In this example, assume the return is false. The VMware certificate policy on the server \$DtServerObjectBeta is then set to allow all certificates to be installed. The certificate from the Test-DtVmwareCertificatePolicy false return is then installed on the server \$DtServerObjectBeta. The connections for the server object are then closed.

Invoke-DtAddShares

Adds shares to the target

Syntax

```
Invoke-DtAddShares [-ServiceHost] <Server> [-JobXmlPath] <String> [[-SharePathFilter] <String>]  
[<CommonParameters>]
```

Detailed Description

This cmdlet takes the drive share configuration that was gathered during Carbonite mirroring and replication and applies it to the target server. This process is independent of the failover process.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|------------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobXml Path | String | Specify the path and file name to the Carbonite .xml configuration file for the job that contains the protected shares. By default, this location is \Program Files\Carbonite\Replication\Service\Data. The file name will be JobGuid.xml where Guid is the unique identifier assigned to the job. You can find this ID by using Get-DtJob on page 48. | true | false |
| SharePath Filter | String | Creates shares from the specified path and any subdirectories of this path | false | false |

Outputs

None

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
$DtJobInfo = Get-DtJob -ServiceHost $DtServerObjectBeta  
$JobId = $DtJobInfo.Id  
$PathToJobFile = "C:\Program Files\Carbonite\Replication\Service\Data"  
$JobFileExtension = ".xml"  
$JobFile = $PathToJobFile + "Job" + $JobId + $JobFileExtension
```

```
Invoke-DtAddShares –ServiceHost $DtServerObjectBeta –JobXmlPath $JobFile  
Disconnect-DtServer –ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. All job information for all of the jobs on the server beta are stored in the variable DtJobInfo. This type of usage is common when the jobs were created in the past or if you did not store or do not know a job's ID. In this example, assume there is only one job on the server. See Get-DtJob on page 48 for examples on how to get specific job information when there are multiple jobs on one server. Job id from the stored job information is stored in the variable JobId. The path to the location of the job file is stored in the variable PathToJobFile. The extension of the job file is stored in the variable JobFileExtension. The variables are appended, together with the word Job, to create the variable JobFile. For example, the JobFile variable might end up being C:\Program Files\Carbonite\Replication\Service\Data\Job87667a0d-4516-4182-ab8f-13f6fd15dd92.xml. Shares are then added on the server DtServerObjectBeta using the job configuration file stored in JobFile. The connections for the server object are then closed.

Invoke-DtQueueTask

Queues tasks

Syntax

```
Invoke-DtQueueTask [-ServiceHost] <Server> [-JobId] <Guid> [-OnQueue <TaskParameters>] [-OnTransmit <TaskParameters>] [-OnReceive <TaskParameters>] [-OnExecute <TaskParameters>] [-InteractWithDesktop] [-Timeout <TimeSpan>] [-ConnectionId <Guid>] [<CommonParameters>]
```

```
Invoke-DtQueueTask [-ServiceHost] <Server> -JobInfo <JobInfo> [-OnQueue <TaskParameters>] [-OnTransmit <TaskParameters>] [-OnReceive <TaskParameters>] [-OnExecute <TaskParameters>] [-InteractWithDesktop] [-Timeout <TimeSpan>] [-ConnectionId <Guid>] [<CommonParameters>]
```

Detailed Description

This cmdlet queues tasks inline with replication data. Keep the following in mind when using this cmdlet.

- Any combination of one or more execution points can be used with the same Invoke-DtQueueTask cmdlet.
- All script processing messages, including errors, can be viewed in the Carbonite log and the Windows Event log.
- If your source is in a restore required state (after a failover), any task placed on the queue will be executed immediately. Use caution when submitting tasks while in this state so that the target does not get inadvertently updated.
- If a task is submitted after replication is stopped, the task will be executed immediately.
- A task may be discarded if all jobs to a target are manually stopped, if replication is stopped to a target, or if an auto-disconnect occurs.
- If you disable task command processing while tasks are in queue, those tasks will not be executed.
- The user submitting the task command must be a member of the Double-Take Admin security group on both the source and target and the Double-Take service must have proper privileges to access the files or run the commands specified in the task.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |

| Name | Type | Description | Required | Pipeline Input |
|-----------------------|----------------------------|---|----------|----------------|
| OnQueue | TaskParameters on page 372 | Execute the specified task on the source machine as soon as the source receives and queues the task. During heavy replication, there may be a delay while the task is queued inline with the replication operations. Define the task parameters by using New-DtTaskParameters on page 112. | false | false |
| OnTransmit | TaskParameters on page 372 | Execute the specified task on the source machine just before the source transmits the task to the target. Define the task parameters by using New-DtTaskParameters on page 112. | false | false |
| OnReceive | TaskParameters on page 372 | Execute the specified task on the target machine as soon as the target receives and queues the task. Define the task parameters by using New-DtTaskParameters on page 112. | false | false |
| OnExecute | TaskParameters on page 372 | Execute the specified task on the target when the target processes the task from the queue. Since the task is not executed until it is processed, if the target is paused, the task will be held in queue. Define the task parameters by using New-DtTaskParameters on page 112. | false | false |
| Interact With Desktop | SwitchParameter | Tasks interact with the desktop and, therefore, display on screen and run in the foreground. If you do not use this option, tasks do not interact with the desktop and will be run in the background. | false | false |
| Timeout | TimeSpan | Specify the length of time, in timespan format, to wait for tasks to complete. For example, 0.01:30:00 would wait for one hour and thirty minutes. If you set the timespan to zero (0.00:00:00), there is no timeout delay and the next operation is immediately processed. If you do not specify a timeout parameter, the timeout will default to forever. | false | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the | true | true |

| Name | Type | Description | Required | Pipeline Input |
|------|------|---|----------|----------------|
| | | Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | | |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
  $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
$DtScript = New-DtTaskParameters -ScriptPath "C:\PathDir\ScriptName" -Arguments "arg1 arg2"
$DtPsScript = New-DtTaskParameters -ScriptPath
"C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe" -Arguments "-File
""C:\PathDir\Script.ps1"" ""-Arg1 argument1_info -Arg2 argument2_info"" -ExecutionPolicy RemoteSigned"
Invoke-DtQueueTask -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -OnReceive $DtScript -
OnExecute $DtPsScript
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The script called ScriptName, located in C:\PathDir, along with two arguments, is stored in the variable DtScript. The script to launch PowerShell and run the script called Script.ps1, located in C:\PathDir, along with two arguments and the ExecutionPolicy parameter, is stored in the variable DtPsScript. Finally, the script stored in DtScript is executed when the target receives and queues the task and the script stored in DtPsScript is executed when the target processes the task from the queue. The connections for the server object are then closed.

Invoke-DtRemoveShares

Removes shares from the target

Syntax

```
Invoke-DtRemoveShares [-ServiceHost] <Server> [-JobXmlPath] <String> [[-SharePathFilter] <String>]  
[<CommonParameters>]
```

Detailed Description

This cmdlet takes the drive share configuration that was gathered during Carbonite mirroring and replication and removes it from the target server. This process is independent of the failback process.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|------------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobXml Path | String | Specify the path and file name to the Carbonite .xml configuration file for the job that contains the protected shares. By default, this location is \Program Files\Carbonite\Replication\Service\Data. The file name will be JobGuid.xml where Guid is the unique identifier assigned to the job. You can find this ID by using Get-DtJob on page 48. | true | false |
| SharePath Filter | String | Removes shares from the specified path and any subdirectories of this path | false | false |

Outputs

None

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
$DtJobInfo = Get-DtJob -ServiceHost $DtServerObjectBeta  
$JobId = DtJobInfo.Id  
$PathToJobFile = "C:\Program Files\Carbonite\Replication\Service\Data\  
$JobFileExtension = ".xml"  
$JobFile = $PathToJobFile + "Job" + $JobId + JobFileExtension  
Invoke-DtRemoveShares -ServiceHost $DtServerObjectBeta -JobXmlPath $JobFile
```

Disconnect-DtServer – ServiceHost \$DtServerObjectBeta

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. All job information for all of the jobs on the server beta are stored in the variable DtJobInfo. This type of usage is common when the jobs were created in the past or if you did not store or do not know a job's ID. In this example, assume there is only one job on the server. See Get-DtJob on page 48 for examples on how to get specific job information when there are multiple jobs on one server. Job id from the stored job information is stored in the variable JobId. The path to the location of the job file is stored in the variable PathToJobFile. The extension of the job file is stored in the variable JobFileExtension. The variables are appended, together with the word Job, to create the variable JobFile. For example, the JobFile variable might end up being C:\Program Files\Carbonite\Replication\Service\Data\Job87667a0d-4516-4182-ab8f-13f6fd15dd92.xml. Shares are then removed on the server DtServerObjectBeta using the job configuration file stored in JobFile. The connections for the server object are then closed.

Merge-DtConsoleServerData

Applies Carbonite Replication Console server data from a file

Syntax

```
Merge-DtConsoleServerData [-ImportFilePath] <String> [-Replace] [<CommonParameters>]
```

Detailed Description

This cmdlet applies the server information from a server data file generated from the `Save-DtConsoleServerData` cmdlet. See `Save-DtConsoleServerData` on page 142. The server information from the file will be applied to the user profile of the user that is currently logged into the machine. If you have multiple administrators sharing the same Carbonite Replication Console installation, each administrator will need to be logged in to apply console server data to their user profile. You must close the Carbonite Replication Console to apply the server data file.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|----------------|------------------|---|----------|----------------|
| ImportFilePath | String | Specify the path and file name of the .xml console data file that was generated from the <code>Save-DtConsoleServerData</code> cmdlet. See <code>Save-DtConsoleServerData</code> on page 142. | true | false |
| Replace | Switch Parameter | Remove the servers from the console that are not present in the import file. | false | false |

Outputs

None

Examples

```
Merge-DtConsoleServerData -ImportFilePath "C:\DtAdmin1_ServerData.xml"
```

The Carbonite Replication Console server data from the file `DtAdmin1_ServerData.xml` is applied to the user profile for the user that is currently logged in.

New-DtFilesAndFoldersJob

Creates a files and folders job

Syntax

```
New-DtFilesAndFoldersJob [-ServiceHost] <Server> [-Source] <Server> [-Path] <String> [[-TargetPath] <String>] [-Name <String>] [-JobOptions <JobOptions>] [<CommonParameters>]
```

Detailed Description

This cmdlet creates a files and folders job on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|------------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| Source | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. | true | false |
| Path | String | Specify the path on the source that contains the data that you want to protect | true | false |
| TargetPath | String | Specify the path on the target where you want to store the replica data from the source. By default, a one-to-one mapping will be used on the target, which means the replica source data will be stored in the same directory structure on the target. | false | false |
| Name | String | Specify the name of the job. | false | false |
| JobOptions | JobOptions on page 292 | Specify the JobOptions returned from the Get-DtRecommendedJobOptions cmdlet. See Get-DtRecommendedJobOptions on page 67. | false | false |

Outputs

Guid on page 286

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName
FilesAndFolders
```

```
$DtWorkload = Get-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtServerObjectBeta -Source
$DtServerObjectAlpha -JobType FilesAndFolders -Workload $DtWorkload
New-DtFilesAndFoldersJob -ServiceHost $DtServerObjectBeta -Source $DtServerObjectAlpha -Path
"C:\Data" -TargetPath "C:\Alpha\C" -Name "Alpha to Beta" -JobOptions $DtJobOptions.JobOptions
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The script then creates a workload on the server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. The workload definition for the workload type and the server is then stored in the DtWorkload variable. The recommended job options for the servers and the workload type are then stored in the variable DtJobOptions. A new files and folders job is created using the servers and the job options. The connections for the server object are then closed.

New-DtJob

Creates a job

Syntax

```
New-DtJob [-ServiceHost] <Server> [-Source] <Server> [-JobType] <String> [-JobOptions] <JobOptions> [[-OtherServers] <Server[]>] [<CommonParameters>]
```

```
New-DtJob [-ServiceHost] <Server> [-CreateOptions] <CreateOptions> [<CommonParameters>]
```

Detailed Description

This cmdlet creates the specified job type on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| Source | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. | true | false |
| JobType | String | This value is the job type name. <ul style="list-style-type: none">• Availability for Windows jobs<ul style="list-style-type: none">• FilesAndFolders—Files and folders• ClusterAwareFilesAndFolders—Cluster-aware files and folders• SQL—SQL• ClusterAwareSql—Cluster-aware SQL• FullServerFailover—Full server• VRA—Full server to ESX or full server to Hyper-V• Availability for Linux jobs<ul style="list-style-type: none">• LinuxFilesAndFolders—Files and folders• LinuxFullServerFailover—Full server• Lvra—Full server to ESX• Migrate for Windows jobs<ul style="list-style-type: none">• MoveDataOnlyMigration—Files and folders migration | true | false |

| Name | Type | Description | Required | Pipeline Input |
|----------------|------------------------|--|----------|----------------|
| | | <ul style="list-style-type: none"> • SqlMigration—SQL migration • ClusterAwareSqlMigration—Cluster-aware SQL migration • MoveServerMigration—Full server migration • VraMove—Full server to ESX migration or full server to Hyper-V migration • Migrate for Linux jobs <ul style="list-style-type: none"> • LinuxMoveDataOnlyMigration—Files and folders migration • LinuxMoveServerMigration—Full server migration • LinuxSapHanaMigration—SAP HANA migration • MoveLvra—Full server to ESX migration • Other jobs <ul style="list-style-type: none"> • Diagnostics—Throughput Diagnostic Utility | | |
| JobOptions | JobOptions on page 292 | Specify the JobOptions returned from the Get-DtRecommendedJobOptions cmdlet. See Get-DtRecommendedJobOptions on page 67. | false | false |
| Other Servers | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. Specify multiple server objects in an array using the format @(\$server1, \$server2). | false | false |
| Create Options | Create Options | Specify the create options available in DoubleTake.Jobs.Contract.CreateOptions. Use the Windows PowerShell New-Object cmdlet to create this object. | true | false |

Outputs

Guid on page 286

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName
```

FilesAndFolders

```
$DtWorkload = Get-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid
```

```
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtServerObjectBeta -Source  
$DtServerObjectAlpha -JobType FilesAndFolders -Workload $DtWorkload
```

```
$DtFnFJobGuid = New-DtJob -ServiceHost $DtServerObjectBeta -Source $DtServerObjectAlpha -JobType  
FilesAndFolders -JobOptions $DtJobOptions.JobOptions
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The script then creates a workload on the server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. The workload definition for the workload type and the server is then stored in the DtWorkload variable. The recommended job options for the servers and the workload type are then stored in the variable DtJobOptions. A new files and folders job is created using the servers and the job options. The job ID is stored in the variable DtFnFJobGuid. The connections for the server object are then closed.

New-DtServer

Creates a server object

Syntax

```
New-DtServer [-Name] <String> [[-UserName] <String>][[-Password] <String>] [-Role <String>]  
[<CommonParameters>]
```

```
New-DtServer [-Name] <String> -Credential <PSCredential> [-Role <String>] [<CommonParameters>]
```

Detailed Description

This cmdlet creates a server object with specific credentials associated with it. This may be any type of server in your organization, for example a Carbonite server, a DNS server, an application server, and so on. This object is used to communicate with the Double-Take Management Service. You should close the connections to this server object when you are finished using it by using `Disconnect-DtServer` on page 30.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|----------|--------|---|----------|----------------|
| Name | String | Specify the name or IP address of the server, cluster, or cluster node. If you need to specify a port, add :xxxx where xxxx is the port number, for example, alpha:6325. If you are specifying an IPv6 address and need to specify a port, you must enclose the address in brackets, for example [2002:ac10:a00:3::123]:6320. | true | false |
| UserName | String | Specify a user name. If you are using a domain, specify domain\user name. | true | false |
| Password | String | Specify the password associated with the user you have entered. This password will be visible in plain text. | true | false |
| Role | String | Specify one of the following roles for the server object you are creating. These servers are used when you specify the <code>-OtherServers</code> parameter in other cmdlets. <ul style="list-style-type: none">TargetVimServer—This is the ESX server or vCenter that will host the target appliance and the replica virtual machine for protection and failover. If you are using vCenter, specify your vCenter. Only specify an ESX host if you are using ESX standalone. | false | false |

| Name | Type | Description | Required | Pipeline Input |
|------------|--------------------------|---|----------|----------------|
| | | <ul style="list-style-type: none"> • ReverseVimServer—This is the ESX server or vCenter server that will host the reverse target appliance and the reverse replica virtual machine for reverse protection and failover. If you are using vCenter, specify your vCenter. Only specify an ESX host if you are using ESX standalone. • ReverseHelperRole—This is the reverse target appliance where data will be replicated during reverse protection. | | |
| Credential | PSCredential on page 330 | Specify the credential object returned from the Windows PowerShell Get-Credential cmdlet. This password will not be visible because Windows stores an encrypted password. See Hiding your password in a PowerShell script on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions. | true | false |

Outputs

Server on page 342

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The connections for the server object are then closed.

```
$DtCredentialEncrypted = Get-Credential
$DtServerObjectAlpha = New-DtServer -Name alpha -Credential $DtCredential
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

Credentials are stored in a variable called \$DtCredential. The script will prompt you to supply the username and password and the credentials will be encrypted. Then the stored credentials are used to create a new server object for the server alpha. It assigns the server object to the variable called DtServerObject. The connections for the server object are then closed.

New-DtTaskParameters

Creates parameter set

Syntax

```
New-DtTaskParameters [-ScriptPath] <String> [[-Arguments] <String>] [<CommonParameters>]
```

Detailed Description

Creates a parameter set to be used with the Invoke-DtQueueTask cmdlet. See Invoke-DtQueueTask on page 99.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|------------|--------|---|----------|----------------|
| ScriptPath | String | Specify the full path and script name | true | false |
| Arguments | String | Specify any arguments that need to be passed to the script. | false | false |

Outputs

TaskParameters on page 372

Examples

```
$DtScript = New-DtTaskParameters -ScriptPath "C:\PathDir\ScriptName" -Arguments "arg1 arg2"
```

The script called ScriptName, located in C:\PathDir, along with two arguments, is stored in the variable DtScript.

```
$DtPsScript = New-DtTaskParameters -ScriptPath  
"C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe" -Arguments "-File  
""C:\PathDir\Script.ps1"" ""-Arg1 argument1_info -Arg2 argument2_info"" -ExecutionPolicy RemoteSigned"
```

The script to launch PowerShell and run the script called Script.ps1, located in C:\PathDir, along with two arguments and the ExecutionPolicy parameter, is stored in the variable DtPsScript.

New-DtUri

Creates a URI

Syntax

```
New-DtUri [-Literal] <String> [<CommonParameters>]
```

```
New-DtUri [-NetworkId] <String> [-Credential <PSCredential>] [-Port <Int32>] [-Scheme <String>] [-Query <String>] [-Fragment <String>] [<CommonParameters>]
```

Detailed Description

This cmdlet creates a URI (uniform resource identifier) that is used to specify job credentials

Parameters

| Name | Type | Description | Required | Pipeline Input |
|------------|--------------------------|--|----------|----------------|
| Literal | String | Specify the entire URI string. | true | false |
| NetworkId | String | Specify the name or IP address of the server. | true | false |
| Credential | PSCredential on page 330 | Specify the credential object returned from the Windows PowerShell Get-Credential cmdlet. This password will not be visible because Windows stores an encrypted password. See Hiding your password in a PowerShell script on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions. | false | false |
| Port | Int32 | Specify the communications port. | false | false |
| Scheme | String | Specify the scheme name. | false | false |
| Query | String | Specify any additional identification information. | false | false |
| Fragment | String | Specify any identifying information that provides direction to a secondary resource. | false | false |

Outputs

[Uri](#)

Examples

```
New-DtUri -Literal "http://server:6320"
```

A URI is created for http://server:6320.

New-DtUri -Literal

```
"foo://username:password@domain.com:6320/location/index?type=volume&directory=C#location "
```

A URI is created for

```
foo://username:password@domain.com:6320/location/index?type=volume&directory=C#location.
```

New-DtUvraServer

Creates a server object

Syntax

```
New-DtUvraServer [-Name] <String> [[-UserName] <String>] [[-Password] <String>] [-Port <Int32>] [-Role <String>] [<CommonParameters>]
```

```
New-DtUvraServer [-Name] <String> -Credential <PSCredential> [-Port <Int32>] [-Role <String>] [<CommonParameters>]
```

Detailed Description

This cmdlet creates a server object with specific credentials associated with it. This cmdlet is specific to the full server to ESX appliance job type, The server object may be one of the following types of servers: Carbonite server, virtual recovery appliance, or VMware host. The object is used to communicate with the Double-Take Management Service.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|----------|--------|---|----------|----------------|
| Name | String | Specify the name or IP address of the server, cluster, or cluster node. If you need to specify a port, add :xxxx where xxxx is the port number, for example, alpha:6325. If you are specifying an IPv6 address and need to specify a port, you must enclose the address in brackets, for example [2002:ac10:a00:3::123]:6320. | true | false |
| Username | String | Specify a user name. If you are using a domain, specify domain\user name. | true | false |
| Password | String | Specify the password associated with the user you have entered. This password will be visible in plain text. | true | false |
| Port | Int32 | Specify the port for the XML web service protocol. By default, that is 443. Use 6325 for Carbonite servers and appliances, unless you changed the default Carbonite port. Do not specify a port for VMware hosts. | false | false |
| Role | String | Specify one of the following roles for the server object you are creating. These servers are used when you specify the -OtherServers parameter in other cmdlets. <ul style="list-style-type: none">• TargetVimServer—This is the ESX server | false | false |

| Name | Type | Description | Required | Pipeline Input |
|------------|--------------------------|--|----------|----------------|
| | | <p>or vCenter that will host the target appliance and the replica virtual machine for protection and failover. If you are using vCenter, specify your vCenter. Only specify an ESX host if you are using ESX standalone.</p> <ul style="list-style-type: none"> • ReverseVimServer—This is the ESX server or vCenter server that will host the reverse target appliance and the reverse replica virtual machine for reverse protection and failover. If you are using vCenter, specify your vCenter. Only specify an ESX host if you are using ESX standalone. • ReverseHelperRole—This is the reverse target appliance where data will be replicated during reverse protection. | | |
| Credential | PSCredential on page 330 | Specify the credential object returned from the Windows PowerShell Get-Credential cmdlet. This password will not be visible because Windows stores an encrypted password. See Hiding your password in a PowerShell script on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions. | true | false |

Outputs

Server on page 342

Examples

```
$DtServerObjectAlpha= New-DtUvraServer -Name alpha -UserName domain\administrator -Password password -Port 6325
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using port 6325 and the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObject. The connections for the server object are then closed.

```
$DtCredentialEncrypted = Get-Credential
$DtServerObjectAlpha = New-DtUvraServer -Name alpha -Credential $DtCredential -Port 6325
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

Credentials are stored in a variable called `$DtCredential`. The script will prompt you to supply the username and password and the credentials will be encrypted. Then the stored credentials are used to create a new server object for the server alpha using port 6325. It assigns the server object to the variable called `DtServerObject`. The connections for the server object are then closed.

New-DtWorkload

Creates a workload

Syntax

```
New-DtWorkload [-ServiceHost] <Server> -WorkloadTypeName <String> [-ImageId <Guid>] [-SnapshotId <Guid>] [<CommonParameters>]
```

```
New-DtWorkload [-ServiceHost] <Server> -Workload <Workload> [-ImageId <Guid>] [-SnapshotId <Guid>] [<CommonParameters>]
```

Detailed Description

This cmdlet creates a Carbonite workload on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-------------------|----------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your source server. | true | false |
| Workload TypeName | String | Specify a supported workload type from the Get-DtWorkloadType cmdlet. See Get-DtWorkloadType on page 91. | true | false |
| Workload | Workload on page 400 | Specify the workload object returned from the Get-DtWorkload cmdlet. See Get-DtWorkload on page 89. | true | false |
| ImageId | Guid | This property is no longer used. | false | false |
| Snapshot Id | Guid | Specify the snapshot GUID returned from the Get-DtSnapshot cmdlet. See Get-DtSnapshot on page 77. | false | false |

Outputs

Guid on page 286

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName
FilesAndFolders
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The script then creates a workload on the server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. The connections for the server object are then closed.

Remove-DtEndpointMapping

Removes source communication mapping

Syntax

```
Remove-DtEndpointMapping [-ServiceHost] <Server> [-OriginalUrl] <URI> [<CommonParameters>]
```

Detailed Description

This cmdlet removes the URL the target is using to communicate with the source for the specified URL.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| OriginalUrl | URI | Specify the URI the source is using to create a job. | true | false |

Outputs

None

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
Remove-DtEndpointMapping -ServiceHost $DtServerObjectBeta -OriginalUrl "http://alpha:6325"  
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The mapping the target server Beta is using to communicate with the source server Alpha and port 6325 is removed. The connections for the server object are then closed.

Remove-DtJob

Deletes the job

Syntax

```
Remove-DtJob [-ServiceHost] <Server> [-JobId] <Guid> [[-DeleteOptions] <DeleteOptions>]  
[<CommonParameters>]
```

```
Remove-DtJob [-ServiceHost] <Server> [[-DeleteOptions] <DeleteOptions>] -JobInfo <JobInfo>  
[<CommonParameters>]
```

Detailed Description

This cmdlet deletes the specified job from the specified server. A running job will be stopped before it is deleted.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|----------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Delete Options | Delete Options | Specify the delete options available in DoubleTake.Jobs.Contract.DeleteOptions. Use the Windows PowerShell New-Object cmdlet to create this object. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {  
$_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
```

```
$DtDeleteOptions = New-Object DoubleTake.Jobs.Contract.DeleteOptions
$DtDeleteOptions.DiscardTargetQueue = $true
Remove-DtJob -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -DeleteOptions
$DtDeleteOptions
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The delete options are stored in DtDeleteOptions, then the specific delete option DiscardTargetQueue is set to true. Finally the job is removed using the delete options. The connections for the server object are then closed.

Remove-DtPhysicalRule

Removes a physical rule

Syntax

```
Remove-DtPhysicalRule [-ServiceHost] <Server> [-WorkloadId] <Guid> [-Rule] <PhysicalRule>
[<CommonParameters>]
```

Detailed Description

This cmdlet removes a physical rule from the specified workload on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your source server. | true | false |
| WorkloadId | Guid on page 286 | Specify the workload GUID returned from the New-DtWorkload cmdlet using the workload type name parameter. See New-DtWorkload on page 118. | true | false |
| Rule | PhysicalRule on page 323 | Use the Windows PowerShell New-Object cmdlet to create a physical rule object from DoubleTake.Common.Contract.PhysicalRule. | true | false |

Outputs

ChangedItems on page 236

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName
FilesAndFolders
$DtPhysicalPath = New-Object DoubleTake.Common.Contract.PhysicalRule -Property @
{Path="C:\DirName"}
Remove-DtPhysicalRule -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid -Rule
$DtPhysicalPath
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The script then creates a workload on the

server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable `DtWorkloadGuid`. A new object is created from `Double-Take.Common.Contract.PhysicalRule` to store the physical path `C:\DirName` in the variable `DtPhysicalPath`. Finally, the physical rule is removed from the workload on the server. The connections for the server object are then closed.

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName
FilesAndFolders
$DtWorkloadInfo=Get-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid
$DtRemoveRule = $DtWorkloadInfo.PhysicalRules | Where-Object {$_.Path -eq "C:\DirNameToRemove"}
Remove-DtPhysicalRule -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid -Rule
$DtRemoveRule
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the `domain\administrator` and password credentials. It assigns the server object to the variable called `DtServerObjectAlpha`. The script then creates a workload on the server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable `DtWorkloadGuid`. The workload information for the workload is then stored in `DtWorkloadInfo`. The physical rule within `DtWorkloadInfo` called `C:\DirNameToRemove` is then stored in `DtRemoveRule`. Finally, the physical rule `DtRemoveRule` is removed from the workload on the server. The connections for the server object are then closed.

Remove-DtSnapshot

Removes a snapshot

Syntax

```
Remove-DtSnapshot [-ServiceHost] <Server> [-JobId] <Guid> [-SnapshotId] <Guid> [-ConnectionId <Guid>] [  
<CommonParameters>]
```

```
Remove-DtSnapshot [-ServiceHost] <Server> [-JobId] <Guid> [-Snapshot] <SnapshotEntry> [-ConnectionId  
<Guid>] [<CommonParameters>]
```

Detailed Description

This cmdlet removes a Carbonite snapshot from the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|---------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| SnapshotId | Guid | Specify the snapshot GUID returned from the Get-DtSnapshot cmdlet. See Get-DtSnapshot on page 77. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| Snapshot | SnapshotEntry on page 352 | Specify the snapshot entry object returned from the Get-DtSnapshot cmdlet. See Get-DtSnapshot on page 77. | true | false |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
```

```
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
$_ .Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
$DtSnaps = Get-DtSnapshot -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
$FirstSnap=$DtSnaps | Select-Object -First 1
Remove-DtSnapshot -ServiceHost $DtServerObjectBeta -SnapshotId $FirstSnap.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The snapshots available for the job are stored in DtSnaps and then the first snapshot is stored in FirstSnap. That first snapshot is then deleted. The connections for the server object are then closed.

Remove-DtSourceQueueSnapshot

Deletes a coordinated snapshot

Syntax

```
Remove-DtSourceQueueSnapshot [-ServiceHost] <Server> [-CorrelationId] <Guid> [-JobIds] <IEnumerable>
[<CommonParameters>]
```

Detailed Description

This cmdlet deletes a coordinated snapshot for the specified jobs. Snapshots having the same correlation ID but not in the specified jobs will not be deleted.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| CorrelationId | Guid | Specify the correlation ID used to create the coordinated snapshot. See Checkpoint-DtConnectionSourceQueue on page 24. | true | false |
| JobIds | IEnumerable | Specify an array of job GUIDs. A job GUID is returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |

Outputs

None

Examples

```
$CorId=New-Guid
$Source1Uri = "dtms://112.42.7.63:6325/"
$Source2Uri = "dtms://112.42.7.71:6325/"
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJob1 = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object { $_.SourceHostUri -eq
$Source1Uri}
$DtJob2 = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object { $_.SourceHostUri -eq
```

```
$Source2Uri}
$DtJobsArray = New-Object "System.Collections.Generic.List[Guid]"
$DtJobsArray.Clear()
$DtJobsArray.Add($DtJob1.Id)
$DtJobsArray.Add($DtJob2.Id)
Checkpoint-DtConnectionSourceQueue -ServiceHost $DtServerObjectBeta -CorrelationId $CorId -JobIds
$DtJobsArray.ToArray()
$DtJobsArray2 = New-Object "System.Collections.Generic.List[Guid]"
$DtJobsArray2.Clear()
$DtJobsArray2.Add($DtJob2.Id)
Remove-DtSourceQueueSnapshot -ServiceHost $DtServerObjectBeta -CorrelationId $CorId -JobIds
$DtJobsArray2.ToArray()
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

Several variables are set including a unique correlation ID for the snapshots that will be taken as well as URI identifiers for the source servers of existing jobs. A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called `DtServerObjectBeta`. The jobs are retrieved from `DtServerObjectBeta`, and the job information is inserted into unique variables. An array of job IDs is then created. A coordinated snapshot is taken using the specified correlation ID and the jobs stored in the array. Only those jobs will have coordinated snapshots. A second array of job IDs is then created, with just one item in the array. The coordinated snapshot for the job in the second array is then deleted. Other snapshots having the same correlation ID but not in the specified array will not be deleted. The connections for the server object are then closed.

Repair-DtJobOptions

Fixes job option errors and warnings

Syntax

```
Repair-DtJobOptions [-ServiceHost] <Server> [-JobId] <Guid> [-Step] <VerificationStep[]>
[<CommonParameters>]
```

```
Repair-DtJobOptions [-ServiceHost] <Server> [-CreateOptions] <CreateOptions> [-Step] <VerificationStep[]>
[<CommonParameters>]
```

```
Repair-DtJobOptions [-ServiceHost] <Server> [-Source] <Server> [-JobType] <String> [-JobOptions]
<JobOptions> [-Step] <VerificationStep[]> [-OtherServers <Server[]>] [<CommonParameters>]
```

Detailed Description

This cmdlet attempts to fix job option errors and warnings. For those errors and warnings that Carbonite cannot correct automatically, you will need to modify the job options manually, modify the source or target configuration, or perhaps select a different target. Use the first syntax for existing jobs and the second syntax for new jobs.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|----------------|------------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Step | VerificationStep on page 381 | Specify the verification steps returned by the Get-DtVerificationStatus cmdlet. See Get-DtVerificationStatus on page 87. | true | true |
| Create Options | Create Options | Specify the create options available in DoubleTake.Jobs.Contract.CreateOptions. Use the Windows PowerShell New-Object cmdlet to create this object. | true | false |
| Source | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. | true | false |

| Name | Type | Description | Required | Pipeline Input |
|---------|--------|--|----------|----------------|
| JobType | String | <p>This value is the job type name.</p> <ul style="list-style-type: none"> • Availability for Windows jobs <ul style="list-style-type: none"> • FilesAndFolders—Files and folders • ClusterAwareFilesAndFolders—Cluster-aware files and folders • SQL—SQL • ClusterAwareSql—Cluster-aware SQL • FullServerFailover—Full server • VRA—Full server to ESX or full server to Hyper-V • Availability for Linux jobs <ul style="list-style-type: none"> • LinuxFilesAndFolders—Files and folders • LinuxFullServerFailover—Full server • Lvra—Full server to ESX • Migrate for Windows jobs <ul style="list-style-type: none"> • MoveDataOnlyMigration—Files and folders migration • SqlMigration—SQL migration • ClusterAwareSqlMigration—Cluster-aware SQL migration • MoveServerMigration—Full server migration • VraMove—Full server to ESX migration or full server to Hyper-V migration • Migrate for Linux jobs <ul style="list-style-type: none"> • LinuxMoveDataOnlyMigration—Files and folders migration • LinuxMoveServerMigration—Full server migration • LinuxSapHanaMigration—SAP HANA migration • MoveLvra—Full server to ESX migration • Other jobs <ul style="list-style-type: none"> • Diagnostics—Throughput Diagnostic Utility | true | false |

| Name | Type | Description | Required | Pipeline Input |
|---------------|------------------------|--|----------|----------------|
| JobOptions | JobOptions on page 292 | Specify the JobOptions returned from the Get-DtRecommendedJobOptions cmdlet. See Get-DtRecommendedJobOptions on page 67. | true | false |
| Other Servers | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. Specify multiple server objects in an array using the format @(\$server1, \$server2). | false | false |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
$DtValidation = Confirm-DtJobOptions -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -
    JobOptions $DtJob.Options
$DtStatus = Get-DtVerificationStatus -ServiceHost $DtServerObjectBeta -Token $DtValidation
$DtRepair = Repair-DtJobOptions -ServiceHost $DtTarget -JobId $DtJob.Id -JobOptions $DtJob.Options -
    Step $DtStatus.Steps
Edit-DtJob -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -JobOptions $DtRepair.Options
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The job options used by the job are confirmed, and the validation result is stored in DtValidation. The details of the validation are stored in the variable DtStatus. Ideally you should script this with a loop so you can wait until the verification status is complete before continuing with your script. Those items that can automatically be fixed are corrected. If the job options were modified in order to fix an issues, the updated job options are now contained in the variable \$DtRepair. The updated job options are then applied to the job. The connections for the server object are then closed.

Request-DtOnlineActivation

Activates the license

Syntax

```
Request-DtOnlineActivation -Code <String> -ServerName <String> -ServerInformation <String> [-ServiceHost <Server>] [-EmailAddress <String>] [<CommonParameters>]
```

Detailed Description

This cmdlet activates the Carbonite license over the Internet using the server information returned by the `Get-DtOnlineActivationRequest` on page 56 cmdlet.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------------|--------------------|---|----------|----------------|
| Code | String | Specify the 24-character, alpha-numeric license key which applies the appropriate Carbonite license to your Carbonite server. Specify multiple keys in an array using the format @(code1, code2). You can also use the code that is returned by the <code>Get-DtOnlineActivationRequest</code> on page 56 cmdlet. | true | true |
| Server Name | String | Specify the name of the server or use the server name returned by the <code>Get-DtOnlineActivationRequest</code> on page 56 cmdlet. | true | true |
| Server Information | String | Specify the server information returned by the <code>Get-DtOnlineActivationRequest</code> on page 56 cmdlet. | true | true |
| Service Host | Server on page 342 | Specify the server object returned from the <code>New-DtServer</code> cmdlet. See <code>New-DtServer</code> on page 110. For this cmdlet, the <code>-ServiceHost</code> should be your target server. | false | false |
| Email Address | String | Specify a valid email address. | false | false |

Outputs

ActivationInformation on page 223

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$ServerInfo = Get-DtOnlineActivationRequest -ServiceHost $DtServerObjectAlpha
```

```
Request-DtOnlineActivation -Code "1234-5678-9012-3456-7890-1234" -ServerName
$DtServerObjectAlpha -ServerInformation $ServerInfo.ServerInformation
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The server information for the online activation process is returned. It assigns the server information to the variable called ServerInfo. The license is activated online. The connections for the server object are then closed.

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Get-DtOnlineActivationRequest -ServiceHost $DtServerObjectAlpha | Request-DtOnlineActivation | Set-
DtActivationCode
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The server information for the online activation process is returned. The output from the Get-DtOnlineActivationRequest cmdlet is piped directly to Request-DtOnlineActivation, which activates the license online, and then that output (from Request-DtOnlineActivation) is piped directory to Set-DtActivationCode to set the activation key on the server. The connections for the server object are then closed.

Request-DtOnlineDeactivation

Deactivates the license

Syntax

```
Request-DtOnlineDeactivation [-ServiceHost] <Server> [-EmailAddress <String>] [<CommonParameters>]
```

Detailed Description

This cmdlet deactivates the Carbonite license over the Internet for the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| Email Address | String | Specify a valid email address. | false | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Request-DtOnlineDeactivation -ServerName $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The license for that server is deactivated. The connections for the server object are then closed.

Restart-DtReplicationService

Stop and restarts the Double-Take service

Syntax

```
Restart-DtReplicationService [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet stops and restarts the Double-Take service on the specified server. This cmdlet does not impact the Double-Take Management Service.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Restart-DtReplicationService -ServiceHost $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the Double-Take service on the server is stopped and restarted. The connections for the server object are then closed.

Resume-DtJob

Resumes a paused job

Syntax

Resume-DtJob [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]

Resume-DtJob [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]

Detailed Description

This cmdlet resumes a paused job. All jobs from the same source to the same IP address on the target will be resumed.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Resume-DtJob -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name

stored in the variable `DtServerObjectAlpha` is retrieved. That information is then stored in the variable `DtJobForAlpha`. The job is then resumed. The connections for the server object are then closed.

Resume-DtMirror

Resumes a paused mirror

Syntax

```
Resume-DtMirror [-ServiceHost] <Server> [-JobId] <Guid> [-ConnectionId <Guid>] [<CommonParameters>]
```

```
Resume-DtMirror [-ServiceHost] <Server> -JobInfo <JobInfo> [-ConnectionId <Guid>]  
[<CommonParameters>]
```

Detailed Description

This cmdlet resumes a paused mirror.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {  
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}  
Resume-DtMirror -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The mirror for the job is then resumed. The connections for the server object are then closed.

Resume-DtTarget

Resumes Carbonite processing

Syntax

Resume-DtTarget [-ServiceHost] <Server> -All [<CommonParameters>]

Resume-DtTarget [-ServiceHost] <Server> [-JobId] <Guid> [-ConnectionId <Guid>] [<CommonParameters>]

Resume-DtTarget [-ServiceHost] <Server> -JobInfo <JobInfo> [-ConnectionId <Guid>]
[<CommonParameters>]

Detailed Description

This cmdlet resumes Carbonite processing on the target.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| All | Switch Parameter | Execute the cmdlet on all jobs that are present | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
Resume-DtTarget -ServiceHost $DtServerObjectBeta -All  
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. Carbonite processing on that server is then resumed. The connections for the server object are then closed.

Save-DtConsoleServerData

Saves Carbonite Replication Console server data

Syntax

```
Save-DtConsoleServerData [-FilePath] <String> [<CommonParameters>]
```

Detailed Description

This cmdlet saves the server information from the Carbonite Replication Console for the user that is currently logged into the machine. If you have multiple administrators sharing the same Carbonite Replication Console installation, each administrator will need to be logged in to save their console server data.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|----------|--------|---|----------|----------------|
| FilePath | String | Specify the path and file name with an .xml file extension to store the server data from the Carbonite Replication Console. | true | false |

Outputs

None

Examples

```
Save-DtConsoleServerData -FilePath "C:\DtAdmin1_ServerData.xml"
```

The Carbonite Replication Console server data for the user currently logged in will be saved at the root of the C: drive to the file DtAdmin1_ServerData.xml.

Save-DtJobDiagnostics

Saves a job diagnostics file

Syntax

```
Save-DtJobDiagnostics [-ServiceHost] <Server> [-JobId] <Guid[]> [<CommonParameters>]
```

```
Save-DtJobDiagnostics [-ServiceHost] <Server> -JobInfo <JobInfo[]> [<CommonParameters>]
```

Detailed Description

Saves a job diagnostics file to the \Service\Data\Diagnostics directory of your Carbonite installation on the specified server. The file data identifies the servers in the job, the job information, and the job status at the moment the diagnostics file was created.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

None

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Save-DtJobDiagnostics -Servicehost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The diagnostics files is then saved on the server. The connections for the server object are then closed.

Set-DefaultSqlCredentials

Sets SQL Server authentication credentials

Syntax

```
Set-DefaultSqlCredentials [-ServiceHost] <Server> [-Credentials] <PSCredential> [-Mode]
<SqlAuthenticationMode> [<CommonParameters>]
```

Detailed Description

This cmdlet sets credentials to be used for SQL Server authentication. You can use Windows or SQL Server credentials.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|-----------------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Credential | PSCredential on page 330 | Specify the credential object returned from the Windows PowerShell Get-Credential cmdlet. This password will not be visible because Windows stores an encrypted password. See Hiding your password in a PowerShell script on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions. | true | false |
| Mode | SqlAuthenticationMode on page 462 | Specify the type of credentials to use for SQL Server authentication. | true | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtCredentialEncrypted = Get-Credential
Set-DefaultSqlCredentials -ServiceHost $DtServerObjectAlpha -Credentials $DtCredentialEncrypted -Mode
```

```
Sql
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Credentials are stored in a variable called \$DtCredential. The script will prompt you to supply the username and password and the credentials will be encrypted. Then the stored credentials are used to update the SQL Server authentication credentials on the server alpha. The connections for the server object are then closed.

Set-DtActivationCode

Sets the Carbonite license key or activation key

Syntax

```
Set-DtActivationCode [-ServiceHost] <Server> [-Code] <String[]> [-AdditionalCode <String[]>] [-ActivationKey <String>] [<CommonParameters>]
```

Detailed Description

This cmdlet sets the Carbonite license key or activation key on the specified server. It also returns the Carbonite license key validation information from the Get-DtActivationStatus cmdlet. See Get-DtActivationStatus on page 35.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-----------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | true |
| Code | String | Specify the 24-character, alpha-numeric license key which applies the appropriate Carbonite license to your Carbonite server. Specify multiple keys in an array using the format @(code1, code2). | true | true |
| Additional Code | String | Specify any additional keys. Specify multiple keys in an array using the format @(code1, code2). | false | false |
| Activation Key | String | Specify the 24-character, alpha-numeric activation key which activates your Carbonite license. | false | true |

Outputs

ActivationStatus on page 224

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Set-DtActivationCode -ServiceHost $DtServerObjectAlpha -Code 1234567890abcdefghij1234  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the license key 1234567890abcdefghij1234 is applied to the server. The server returns the license key information. The connections for the server object are then closed.

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Get-DtOnlineActivationRequest -ServiceHost $DtServerObjectAlpha | Request-DtOnlineActivation | Set-  
DtActivationCode  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The server information for the online activation process is returned. The output from the Get-DtOnlineActivationRequest cmdlet is piped directly to Request-DtOnlineActivation, which activates the license online, and then that output (from Request-DtOnlineActivation) is piped directly to Set-DtActivationCode to set the activation key on the server. The connections for the server object are then closed.

Set-DtBandwidthLimit

Sets bandwidth limiting

Syntax

```
Set-DtBandwidthLimit [-ServiceHost] <Server> [-JobId] <Guid> [-BandwidthLimit] <BandwidthLimit> [-ConnectionId <Guid>] [<CommonParameters>]
```

```
Set-DtBandwidthLimit [-ServiceHost] <Server> [-BandwidthLimit] <BandwidthLimit> -JobInfo <JobInfo> [-ConnectionId <Guid>] [<CommonParameters>]
```

Detailed Description

This cmdlet sets bandwidth limiting for the specified job .

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-----------------|----------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Bandwidth Limit | BandwidthLimit on page 231 | Specify the bandwidth limit configuration from Get-BandwidthLimit. See Get-DtBandwidthLimit on page 37. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

None

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
$DtFixedBandwidth = Get-DtBandwidthLimit -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
$DtFixedBandwidth.Mode = "Fixed"
$DtFixedBandwidth.Limit = 100000
Set-DtBandwidthLimit -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -BandwidthLimit
$DtFixedBandwidth
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The bandwidth limiting configuration is then stored in DtFixedBandwidth. The Mode is then changed to fixed and the Limit is set to 100,000 bytes/second. Finally, the bandwidth settings are applied to the job. The connections for the server object are then closed.

Set-DtEmailNotificationOptions

Sets e-mail notification configuration

Syntax

```
Set-DtEmailNotificationOptions [-ServiceHost] <Server> [-Options] <EmailNotificationOptions>
[<CommonParameters>]
```

Detailed Description

This cmdlet sets the Carbonite e-mail notification configuration for the specified server

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Options | EmailNotificationOptions on page 267 | Specify the object returned from the Get-DtEmailNotificationOptions cmdlet. See Get-DtEmailNotificationOptions on page 44. | true | false |

Outputs

EmailNotificationOptions on page 267

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtEmailOptions = Get-DtEmailNotificationOptions -ServiceHost $DtServerObject
$DtEmailOptions.Enabled = $true
$DtEmailOptions.SmtpServer = "mail.company.com"
Set-DtEmailNotificationOptions -ServiceHost $DtServerObjectAlpha -Options $DtEmailOptions
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the default Carbonite e-mail notification options are stored in the variable DtEmailOptions. Two of the options are then changed. The Enabled option is set to true which turns on the e-mail notification feature. The SMTP server is also configured for mail.company.com. Finally those changes for the email notification options are set on the server. The connections for the server object are then closed.

Set-DtJobCredentials

Updates credentials

Syntax

```
Set-DtJobCredentials [-ServiceHost] <Server> [-JobId] <Guid> [-Source <PSCredential>] [-Target <PSCredential>] [-OtherServers <Server[]>] [<CommonParameters>]
```

```
Set-DtJobCredentials [-ServiceHost] <Server> -JobInfo <JobInfo> [-Source <PSCredential>] [-Target <PSCredential>] [-OtherServers <Server[]>] [<CommonParameters>]
```

Detailed Description

Updates the credentials for the source, appliance, and VMware host servers used in the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer or New-DtUvraServer cmdlet. See New-DtServer on page 110 or New-DtUvraServer on page 115. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Source | PSCredential on page 330 | Specify the credential object returned from the Windows PowerShell Get-Credential cmdlet. This password will not be visible because Windows stores an encrypted password. See Hiding your password in a PowerShell script on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions. | false | false |
| Target | PSCredential on page 330 | Specify the credential object returned from the Windows PowerShell Get-Credential cmdlet. This password will not be visible because Windows stores an encrypted password. See Hiding your password in a PowerShell script on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions. | false | false |
| Other | Server on page | Specify the server object returned from the New- | false | false |

| Name | Type | Description | Required | Pipeline Input |
|---------|---------------------|---|----------|----------------|
| Servers | 342 | DtServer or New-DtUvraServer cmdlet. See New-DtServer on page 110 or New-DtUvraServer on page 115. Specify the server object in an array using the format @(\$server). | | |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

None

Examples

```
$DtCredentials = Get-Credential domain\Administrator
$DtServerObjectAlpha = New-DtServer -Name alpha -Credential $DtCredentials
$DtServerObjectBeta = New-DtServer -Name beta -Credential $DtCredentials
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Set-DtJobCredentials -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -Source $DtCredentials
-Target $DtCredentials
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

You will be prompted for credentials for the domain\Administrator account and they will be stored in DtCredentials. Then a server object is created for the servers alpha and beta using the stored credentials. The objects are stored in DtServerObjectAlpha and DtServerObjectBeta, respectively. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. Finally, the credentials are updated for the job using the stored credentials. The connections for the server object are then closed.

Set-DtLogicalItemSelection

Adds or removes logical items

Syntax

```
Set-DtLogicalItemSelection [-ServiceHost] <Server> [-WorkloadId] <Guid> [-LogicalPath] <String> [-Unselect] [<CommonParameters>]
```

Detailed Description

This cmdlet adds or removes a logical items for the specified workload for the specified server. Adding or removing logical items will add or remove physical rules depending on the workload type.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your source server. | true | false |
| WorkloadId | Guid on page 286 | Specify the workload GUID returned from the New-DtWorkload cmdlet using the workload type name parameter. See New-DtWorkload on page 118. | true | false |
| Logical Path | String | Specify the path of an item returned from Get-DtLogicalItem. See Get-DtLogicalItem on page 53. | true | false |
| Unselect | Switch Parameter | Specify this option if you want to remove the logical item. | false | false |

Outputs

ChangedItems on page 236

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtWorkloadGuid = New-DtWorkload -ServiceHost $DtServerObjectAlpha -WorkloadTypeName
FilesAndFolders
$DtLogicalItem = Get-DtLogicalItem -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGUID
Set-DtLogicalItemSelection -ServiceHost $DtServerObjectAlpha -WorkloadId $DtWorkloadGuid -
LogicalPath $DtLogicalItem[0].Path
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. The script then creates a workload on the server for a files and folders job, returning a global unique ID for the workload, and assigns that ID to the variable DtWorkloadGuid. The logical items associated with the workload type and the server are then stored in the variable DtLogicalItem. Finally, the first logical item in DtLogicalItem is added to the workload. The connections for the server object are then closed.

Set-DtOption

Sets server or job options

Syntax

```
Set-DtOption [-ServiceHost] <Server> [-Setting] <Hashtable> [<CommonParameters>]
```

```
Set-DtOption [-ServiceHost] <Server> [-Name] <String> -IntValue <Int64> [<CommonParameters>]
```

```
Set-DtOption [-ServiceHost] <Server> [-Name] <String> -StringValue <String> [<CommonParameters>]
```

```
Set-DtOption [-ServiceHost] <Server> [-Name] <String> -MultiStringValue <String[]> [<CommonParameters>]
```

Detailed Description

This cmdlet sets the value of the Carbonite server or job option for the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-------------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Setting | Hashtable | Specify a hash table using the format @ {option1=value1; option2=value2}. See Server and job settings on page 541 details on job and server options. | true | false |
| Name | String | Specify the name of the job or server option. See Server and job settings on page 541 details on job and server options. | true | false |
| IntValue | Int64 | Specify an integer value for the server or job option. See Server and job settings on page 541 details on job and server options. | true | false |
| StringValue | String | Specify a single string (text) value for the server or job option | true | false |
| MultiString Value | String | Specify multiple string (text) values for the server or job option in an array using the format @(string1, string2). | true | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Set-DtOption -ServiceHost $DtServerObjectAlpha -Setting @{MaxChecksumBlocks=64;
MirrorChunkSize=131072}
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the server settings MaxChecksumBlocks and MirrorChunkSize are set to 64 and 131072, respectively, on the server. The connections for the server object are then closed.

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Set-DtOption -ServiceHost $DtServerObjectAlpha -Name MirrorChunkSize -IntValue 64
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then it sets the MirrorChunkSize server setting to 64. The connections for the server object are then closed.

See Viewing and setting job and server options on page 519 for a sample script that gathers and sets several Carbonite job and server options.

Set-DtPathBlocking

Blocks writing on the target

Syntax

```
Set-DtPathBlocking [-ServiceHost] <Server> [-SourceAddress] <String> [[-Mode] <PathBlockingMode>]  
[<CommonParameters>]
```

Detailed Description

This cmdlet blocks writing to the replica source data located on the target, keeping the data from being changed outside of Carbonite processing.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|----------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| Source Address | String | Specify the IP address of the source, including the port, for example, 123.123.123.123:6320. If you are specifying an IPv6 address, enclose the address in brackets, for example [2002:ac10:a00:3::123]:6320. | true | false |
| Mode | Path Blocking Mode | Specify Blocked or Unblocked. | false | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Set-DtPathBlocking -ServiceHost $DtServerObjectAlpha -SourceAddress "112.42.74.29:6320" -Mode  
Blocked  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then it sets the target paths associated with the replica data from the specified source IP address to blocked. The connections for the server object are then closed.

Set-DtScriptCredentials

Sets credentials

Syntax

```
Set-DtScriptCredentials [-ServiceHost] <Server> [-Credential] <PSCredential> [<CommonParameters>]
```

```
Set-DtScriptCredentials [-ServiceHost] <Server> [-UserName] <String> [-Password] <String> [<CommonParameters>]
```

Detailed Description

This cmdlet sets the credentials for Carbonite to use when running scripts on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Credential | PSCredential on page 330 | Specify the credential object returned from the Windows PowerShell Get-Credential cmdlet. This password will not be visible because Windows stores an encrypted password. See Hiding your password in a PowerShell script on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions. | true | false |
| UserName | String | Specify a user name. If you are using a domain, specify domain\user name. | true | false |
| Password | String | Specify the password associated with the user you have entered. This password will be visible in plain text. | true | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
$DtCredentials = Get-Credential domain\administrator
```

```
Set-DtScriptCredentials -ServiceHost $DtServerObjectAlpha -Credential $DtCredentials  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then you will be prompted for credentials for the domain\administrator account and those credentials will be stored in the variable DtCredentials. Finally, the credentials used for Carbonite scripts on the server will be set to the stored credentials. The connections for the server object are then closed.

Set-DtServerCredential

Changes server credentials

Syntax

```
Set-DtServerCredential -Input <Server> -Credential <PSCredential> [<CommonParameters>]
```

Detailed Description

This cmdlet changes the credentials associated with the server object that has already been created using the `New-DtServer` cmdlet. See `New-DtServer` on page 110 for more details on creating a server object.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|------------|------------------------------|---|----------|----------------|
| Input | String or Server on page 342 | Specify the name or IP address of the server, cluster, or cluster node. If you need to specify a port, add :xxxx where xxxx is the port number, for example, alpha:6325. If you are specifying an IPv6 address and need to specify a port, you must enclose the address in brackets, for example [2002:ac10:a00:3::123]:6320. Specify the server object returned from the <code>New-DtServer</code> cmdlet. See <code>New-DtServer</code> on page 110. | true | false |
| Credential | PSCredential on page 330 | Specify the credential object returned from the Windows PowerShell <code>Get-Credential</code> cmdlet. This password will not be visible because Windows stores an encrypted password. See <code>Hiding your password in a PowerShell script</code> on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions. | true | false |

Outputs

Server on page 342

Examples

```
$DtCredentialEncrypted = Get-Credential  
Set-DtServerCredential -Input alpha -Credential $DtCredential
```

Credentials are stored in a variable called `$DtCredential`. The script will prompt you to supply the username and password and the credentials will be encrypted. Then the stored credentials are used to update the current credentials on the server alpha.

Set-DtVmwareCertificatePolicy

Sets the VMware certificate policy

Syntax

```
Set-DtVmwareCertificatePolicy [-ServiceHost] <Server> [-VmwareServer] <String> [-Policy] <VmwareCertificatePolicy> [<CommonParameters>]
```

Detailed Description

This cmdlet sets the VMware certificate policy on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|-------------------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| VmwareServer | String | Specify the name of the VMware server (ESX host or vCenter) where the target server is located. | false | false |
| Policy | VmwareCertificatePolicy on page 469 | Specify the VMware security certificate policy you want to apply. | true | false |

Outputs

None

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$TestResult = Test-DtVmwareCertificatePolicy -ServiceHost $DtServerObjectBeta -VmwareServer 112.47.15.6
Set-DtVmwareCertificatePolicy -ServiceHost $DtServerObjectBeta -VmwareServer 112.47.15.6 -Policy AllowAll
Install-DtVmwareCertificate -ServiceHost $DtServerObjectBeta -Certificate $TestResult[1]
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The server \$DTServerObjectBeta is tested to see if the current policy or any valid certificates will allow a connection to the specified VMware server. In this example, assume the return is false. The VMware certificate policy on the server \$DTServerObjectBeta is then set to allow all certificates to be installed. The certificate from the Test-DtVmwareCertificatePolicy false return is then installed on the server \$DTServerObjectBeta. The connections for the server object are then closed.

Start-DtJob

Starts a job

Syntax

```
Start-DtJob [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Start-DtJob [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]
```

Detailed Description

This cmdlet starts the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

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Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Start-DtJob -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name

stored in the variable `DtServerObjectAlpha` is retrieved. That information is then stored in the variable `DtJobForAlpha`. The job is then started. The connections for the server object are then closed.

Start-DtJobFailback

Starts failback

Syntax

```
Start-DtJobFailback [-ServiceHost] <Server> [-JobId] <Guid> [-FailbackOptions] <FailbackOptions> [  
<CommonParameters>]
```

```
Start-DtJobFailback [-ServiceHost] <Server> [-FailbackOptions] <FailbackOptions> -JobInfo <JobInfo> [  
<CommonParameters>]
```

Detailed Description

This cmdlet starts failback for the specified job using the specified failback options.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|------------------|-----------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Failback Options | FailbackOptions on page 274 | Specify the failback options returned from the Get-DtRecommendedFailbackOptions cmdlet. See Get-DtRecommendedFailbackOptions on page 63. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {  
$_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
```

```
$DtFailbackOptions = Get-DtRecommendedFailbackOptions -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
```

```
Start-DtJobFailback -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -FailbackOptions $DtFailbackOptions.FailbackOptions
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The failback options are stored in DtFailbackOptions. Failback is then started using the failback options. The connections for the server object are then closed.

Start-DtJobFailover

Starts failover

Syntax

```
Start-DtJobFailover [-ServiceHost] <Server> [-JobId] <Guid> [-FailoverOptions] <FailoverOptions>
[<CommonParameters>]
```

```
Start-DtJobFailover [-ServiceHost] <Server> [-FailoverOptions] <FailoverOptions> -JobInfo <JobInfo>
[<CommonParameters>]
```

Detailed Description

This cmdlet starts failover for the specified job using the specified failover options.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|------------------|-----------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Failover Options | FailoverOptions on page 275 | Specify the failover options returned from the Get-DtRecommendedFailoverOptions cmdlet. See Get-DtRecommendedFailoverOptions on page 65. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
$_ .Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
```



```
$DtFailoverOptions = Get-DtRecommendedFailoverOptions -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
$DtFailoverOptions.FailoverOptions.FailoverMode = 1
Start-DtJobFailover -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -FailoverOptions $DtFailoverOptions.FailoverOptions
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The failover options are stored in DtFailoverOptions, and then the FailoverMode is set to 1 for a test failover. Failover is then started using the failover options. The connections for the server object are then closed.

Start-DtJobRestore

Starts restoration

Syntax

```
Start-DtJobRestore [-ServiceHost] <Server> [-JobId] <Guid> [-RestoreOptions] <RestoreOptions>
[<CommonParameters>]
```

```
Start-DtJobRestore [-ServiceHost] <Server> [-RestoreOptions] <RestoreOptions> -JobInfo <JobInfo>
[<CommonParameters>]
```

Detailed Description

This cmdlet starts the restoration process for the specified job using the specified restoration options.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-----------------|----------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Restore Options | RestoreOptions on page 338 | Specify the restoration options returned from the Get-DtRecommendedRestoreOptions cmdlet. See Get-DtRecommendedRestoreOptions on page 71. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

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Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
```

```
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
$_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}

$DtRestoreOptions = Get-DtRecommendedRestoreOptions -ServiceHost $DtServerObjectBeta -JobId
$DtJobForAlpha.Id -RestoreTarget $DtServerObjectAlpha

$DtRestoreOptions.RestoreOptions.RestoreParameters.ProcessOrphans = $true

Start-DtJobRestore -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -RestoreOptions
$DtRestoreOptions.RestoreOptions

Disconnect-DtServer -ServiceHost $DtServerObjectAlpha

Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The restoration options are stored in DtRestoreOptions, and then the ProcessOrphans option is set to true. Restoration is then started using the restoration options. The connections for the server object are then closed.

Start-DtJobReverse

Starts reverse

Syntax

```
Start-DtJobReverse [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Start-DtJobReverse [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]
```

Detailed Description

This cmdlet starts the reverse process for the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Start-DtJobReverse -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name

stored in the variable `DtServerObjectAlpha` is retrieved. That information is then stored in the variable `DtJobForAlpha`. The job is then reversed. The connections for the server object are then closed.

Start-DtMirror

Starts mirroring

Syntax

```
Start-DtMirror [-ServiceHost] <Server> [-JobId] <Guid> [-MirrorParameters] <MirrorParameters> [-ConnectionId <Guid>] [<CommonParameters>]
```

```
Start-DtMirror [-ServiceHost] <Server> [-MirrorParameters] <MirrorParameters> -JobInfo <JobInfo> [-ConnectionId <Guid>] [<CommonParameters>]
```

Detailed Description

This cmdlet starts mirroring on the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-------------------|------------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Mirror Parameters | MirrorParameters on page 307 | Specify the mirror options available in DoubleTake.Core.Contract.Connection.MirrorParameters. Use the Windows PowerShell New-Object cmdlet to create this object. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

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Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
$_ .Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
$DtMirrorChecksum = New-Object DoubleTake.Core.Contract.Connection.MirrorParameters
$DtMirrorChecksum.ComparisonCriteria = "Checksum"
$DtMirrorChecksum.Options = "Synchronize,CalculateDifferences"
Start-DtMirror -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -MirrorParameters
$DtMirrorChecksum
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The mirror options are stored in DtMirrorChecksum. The ComparisonCriteria value is changed to checksum and the Options are set to Synchronize and CalculateDifferences. Then the mirror is started for the job using the stored mirroring options. The connections for the server object are then closed.

Start-DtOrphansProcessing

Starts orphan processing

Syntax

```
Start-DtOrphansProcessing [-ServiceHost] <Server> [-JobId] <Guid> [-ConnectionId <Guid>]  
[<CommonParameters>]
```

```
Start-DtOrphansProcessing [-ServiceHost] <Server> -JobInfo <JobInfo> [-ConnectionId <Guid>]  
[<CommonParameters>]
```

Detailed Description

This cmdlet starts orphan files processing on the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

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Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {  
$_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
```



```
Start-DtOrphansProcessing -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id  
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. Orphan file processing is then started for the job. The connections for the server object are then closed.

Start-DtReplication

Starts replication

Syntax

```
Start-DtReplication [-ServiceHost] <Server> [-JobId] <Guid> [-ConnectionId <Guid>] [<CommonParameters>]
```

```
Start-DtReplication [-ServiceHost] <Server> -JobInfo <JobInfo> [-ConnectionId <Guid>]  
[<CommonParameters>]
```

Detailed Description

This cmdlet starts replication on the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {  
  $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}  
Start-DtReplication -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. Replication is then started for the job. The connections for the server object are then closed.

Start-DtVerify

Starts verification

Syntax

```
Start-DtVerify [-ServiceHost] <Server> [-JobId] <Guid> [-Synchronize] [-Newer] [-Checksum] [-ProcessOrphans] [-ConnectionId <Guid>] [<CommonParameters>]
```

```
Start-DtVerify [-ServiceHost] <Server> -JobInfo <JobInfo> [-Synchronize] [-Newer] [-Checksum] [-ProcessOrphans] [-ConnectionId <Guid>] [<CommonParameters>]
```

Detailed Description

This cmdlet starts the Carbonite verification process to check that the replica source data on the target is identical to the actual data on the source

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Synchronize | Switch Parameter | Mirrors to the target any protected files that are different on the source. Without this option, the verification process will only verify the data and generate a verification log file, but it does not remirror any files that are different on the source and target. | false | false |
| Newer | Switch Parameter | If you are mirroring files to the target during the verification process with the synchronize option, this option will only mirror files that are newer on the source than on the target. If you are using a database application, do not use this option unless you know for certain that you need it. With database applications, it is critical that all files, not just some of the file that might be newer, get mirrored. | false | false |
| Checksum | Switch Parameter | If you are mirroring files to the target during the | false | false |

| Name | Type | Description | Required | Pipeline Input |
|-----------------|--------------------------|---|----------|----------------|
| | | verification process with the synchronize option, this option will have the verification process perform a block checksum comparison to determine which blocks are different. | | |
| Process Orphans | Switch Parameter | If you are mirroring files to the target during the verification process with the synchronize option, this option will delete orphaned files on the target. | false | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

None

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
  $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Start-DtVerify -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -Synchronize -Newer -
Checksum -ProcessOrphans
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. Verification is then started for the job. The connections for the server object are then closed.

Stop-DtJob

Stops a job

Syntax

```
Stop-DtJob [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Stop-DtJob [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]
```

Detailed Description

This cmdlet stops the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

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Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Stop-DtJob -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name

stored in the variable `DtServerObjectAlpha` is retrieved. That information is then stored in the variable `DtJobForAlpha`. The job is then stopped. The connections for the server object are then closed.

Stop-DtMirror

Stops mirroring

Syntax

```
Stop-DtMirror [-ServiceHost] <Server> [-JobId] <Guid> [-ConnectionId <Guid>] [<CommonParameters>]
```

```
Stop-DtMirror [-ServiceHost] <Server> -JobInfo <JobInfo> [-ConnectionId <Guid>] [<CommonParameters>]
```

Detailed Description

This cmdlet stops mirroring on the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Stop-DtMirror -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```


A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The mirror is then stopped for the job. The connections for the server object are then closed.

Stop-DtReplication

Stops replication

Syntax

Stop-DtReplication [-ServiceHost] <Server> [-JobId] <Guid> [-ConnectionId <Guid>] [<CommonParameters>]

Stop-DtReplication [-ServiceHost] <Server> -JobInfo <JobInfo> [-ConnectionId <Guid>]
[<CommonParameters>]

Detailed Description

This cmdlet stops replication on the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Stop-DtReplication -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. Replication is then stopped for the job. The connections for the server object are then closed.

Stop-DtReplicationService

Stops the Double-Take service

Syntax

```
Stop-DtReplicationService [-ServiceHost] <Server> [<CommonParameters>]
```

Detailed Description

This cmdlet stops the Double-Take service on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Stop-DtReplicationService -ServiceHost $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the Double-Take service is stopped on the server. The connections for the server object are then closed.

Suspend-DtJob

Pauses a job

Syntax

```
Suspend-DtJob [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Suspend-DtJob [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]
```

Detailed Description

This cmdlet pauses a job. All jobs from the same source to the same IP address on the target will be paused.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Suspend-DtJob -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name

stored in the variable `DtServerObjectAlpha` is retrieved. That information is then stored in the variable `DtJobForAlpha`. The job is then suspended. The connections for the server object are then closed.

Suspend-DtMirror

Pauses mirroring

Syntax

Suspend-DtMirror [-ServiceHost] <Server> [-JobId] <Guid> [-ConnectionId <Guid>] [<CommonParameters>]

Suspend-DtMirror [-ServiceHost] <Server> -JobInfo <JobInfo> [-ConnectionId <Guid>]
[<CommonParameters>]

Detailed Description

This cmdlet pauses mirroring.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Suspend-DtMirror -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The mirror for the job is then paused. The connections for the server object are then closed.

Suspend-DtTarget

Pauses Carbonite processing

Syntax

```
Suspend-DtTarget [-ServiceHost] <Server> -All [<CommonParameters>]
```

```
Suspend-DtTarget [-ServiceHost] <Server> [-JobId] <Guid> [-ConnectionId <Guid>] [<CommonParameters>]
```

```
Suspend-DtTarget [-ServiceHost] <Server> -JobInfo <JobInfo> [-ConnectionId <Guid>]  
[<CommonParameters>]
```

Detailed Description

This cmdlet pauses Carbonite processing on the target. Incoming Carbonite data from the source will be queued on the target. All active jobs to the target will complete the operations already in progress. Any new operations will be queued on the target until the target is resumed. The data will not be committed until the target is resumed. Pausing the target only pauses Carbonite processing, not the entire server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| All | Switch Parameter | Execute the cmdlet on all jobs that are present | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
$_ .Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Suspend-DtTarget -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. Carbonite processing for the job is then paused. The connections for the server object are then closed.

Test-DtActiveDirectoryCredentials

Tests credentials against Active Directory

Syntax

```
Test-DtActiveDirectoryCredentials [-ServiceHost] <Server> [-Credential] <PSCredential> -ComputerDomain <String> -ComputerName <String> [<CommonParameters>]
```

```
Test-DtActiveDirectoryCredentials [-ServiceHost] <Server> [-UserName] <String> [-Password] <String> -ComputerDomain <String> -ComputerName <String> [<CommonParameters>]
```

Detailed Description

This cmdlet tests if the specified credentials have privileges to update Active Directory on the specified server's domain.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|-----------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Credential | PSCredential on page 330 | Specify the credential object returned from the Windows PowerShell Get-Credential cmdlet. This password will not be visible because Windows stores an encrypted password. See Hiding your password in a PowerShell script on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions. | false | false |
| Computer Domain | String | Specify a domain name. | true | false |
| Computer Name | String | Specify a computer name. | true | false |
| UserName | String | Specify a user name. If you are using a domain, specify domain\user name. | true | false |
| Password | String | Specify the password associated with the user you have entered. This password will be visible in plain text. | true | false |

Outputs

Boolean

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtCredentials = Get-Credential domain\administrator
Test-DtActiveDirectoryCredentials -ServiceHost $DtServerObjectAlpha -Credential $DtCredentials -
ComputerDomain "domain" -ComputerName "alpha"
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then you will be prompted for credentials for the domain\administrator account and those credentials will be stored in the variable DtCredentials. Finally, the stored credentials will be tested to see if they can update Active Directory on the specified domain and computer. The connections for the server object are then closed.

Test-DtEmailNotification

Tests e-mail configuration

Syntax

```
Test-DtEmailNotification [-ServiceHost] <Server> [-Options] <EmailNotificationOptions> [-To] <String> [-Body] <String> [<CommonParameters>]
```

Detailed Description

Tests the e-mail options configured with Set-DtEmailNotificationOptions by attempting to send an e-mail to the specified recipient. See Set-DtEmailNotificationOptions on page 151

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Options | EmailNotificationOptions on page 267 | Specify the object returned from the Get-DtEmailNotificationOptions cmdlet. See Get-DtEmailNotificationOptions on page 44. | true | false |
| To | String | Specify the e-mail address that the test Carbonite e-mail message should be sent to. Multiple addresses can be separated by a comma. | true | false |
| Body | String | Specify the text of the test Carbonite email message. | true | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtEmailOptions = Get-DtEmailNotificationOptions -ServiceHost $DtServerObject
$DtEmailOptions.Enabled = $true
$DtEmailOptions.SmtpServer = "mail.company.com"
Set-DtEmailNotificationOptions -ServiceHost $DtServerObjectAlpha -Options $DtEmailOptions
```

```
Test-DtEmailNotification -ServiceHost $DtServerObjectAlpha -Options $DtEmailOptions -To  
"administrator@mail.company.com" -Body "This is a test Carbonite message."
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the default Carbonite e-mail notification options are stored in the variable DtEmailOptions. Two of the options are then changed. The Enabled option is set to true which turns on the e-mail notification feature. The SMTP server is also configured for mail.company.com. Those changes for the email notification options are set on the server. Finally a test message is sent to the administrator@mail.company.com addresses with the specified message text using the configured e-mail notification options. The connections for the server object are then closed.

Test-DtScript

Tests the specified script

Syntax

```
Test-DtScript [-ServiceHost] <Server> [-Path] <String> [[-Arguments] <String>] [[-InteractionMode] <DesktopInteractionMode>] [<CommonParameters>]
```

Detailed Description

This cmdlet tests the specified script on the specified server using the credentials from Set-DtScriptCredentials on page 159. If necessary, manually undo any changes that you do not want after testing the script.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|------------------|------------------------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Path | String | Specify the full path and script name | true | false |
| Arguments | String | Specify any arguments that need to be passed to the script. | false | false |
| Interaction Mode | DesktopInteractionMode on page 415 | Specify if the script processing will be displayed on the screen, by using the value Interact, or if the script will execute silently in the background, by using the value None. | false | false |

Outputs

Int32

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Test-DtScript -ServiceHost $DtServerObjectAlpha -Path "C:\PathDir\ScriptName" -Arguments "arg1 arg2" -
InteractionMode Interact
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then the script called ScriptName

(located in C:\PathDir) is run, using the arguments arg1 and arg2. The script will display on screen. The connections for the server object are then closed.

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
Test-DtScript -ServiceHost $DtServerObjectAlpha -Path
"C:\Windows\System32\WindowsPowerShell\v1.0\powershell.exe" -Arguments "-File ""C:\my
scripts\myscript.ps1"" ""-Arg1 arg1 -Arg2 arg2"" -ExecutionPolicy RemoteSigned" -InteractionMode None
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then PowerShell is launched and the arguments passed to PowerShell are the PowerShell script myscrip.ps1 (located in C:\my scripts) and the arguments arg1 and arg2. The PowerShell execution policy is set to RemoteSigned so the PowerShell script will execute. The script is set to run silently in the background. The connections for the server object are then closed.

Test-DtScriptCredentials

Tests credentials

Syntax

```
Test-DtScriptCredentials [-ServiceHost] <Server> [-Credential <PSCredential>] [<CommonParameters>]
```

```
Test-DtScriptCredentials [-ServiceHost] <Server> [-UserName] <String> [-Password] <String> [<CommonParameters>]
```

Detailed Description

This cmdlet tests the specified credentials on the specified server to confirm if they have administrative rights

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost could be your source or target server. | true | false |
| Credential | PSCredential on page 330 | Specify the credential object returned from the Windows PowerShell Get-Credential cmdlet. This password will not be visible because Windows stores an encrypted password. See Hiding your password in a PowerShell script on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions. | false | false |
| UserName | String | Specify a user name. If you are using a domain, specify domain\user name. | true | false |
| Password | String | Specify the password associated with the user you have entered. This password will be visible in plain text. | true | false |

Outputs

Boolean

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password
$DtCredentials = Get-Credential domain\administrator
```

```
Test-DtScriptCredentials -ServiceHost $DtServerObjectAlpha -Credential $DtCredentials  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then you will be prompted for credentials for the domain\administrator account and those credentials will be stored in the variable DtCredentials. Finally, the credentials will be tested to confirm if they have administrative rights on the server. The connections for the server object are then closed.

Test-DtVmwareCertificatePolicy

Tests the VMware certificate policy

Syntax

Test-DtVmwareCertificatePolicy [-ServiceHost] <Server> [-VmwareServer] <String> [<CommonParameters>]

Detailed Description

This cmdlet tests to see if the current policy or any valid certificates will allow a connection to the specified VMware server. A true return indicates a connection can be made. A false return includes an X509Certificate2 object which can be used in the Install-DtVmwareCertificate on page 96 cmdlet. See X509Certificate2 Class at [https://msdn.microsoft.com/en-us/library/system.security.cryptography.x509certificates.x509certificate2\(v=vs.110\).aspx](https://msdn.microsoft.com/en-us/library/system.security.cryptography.x509certificates.x509certificate2(v=vs.110).aspx) on the Microsoft MSDN web site for details on the object returned with a false test.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|--------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| VmwareServer | String | Specify the name of the VMware server (ESX host or vCenter) where the target server is located. | true | false |

Outputs

Boolean

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$TestResult = Test-DtVmwareCertificatePolicy -ServiceHost $DtServerObjectBeta -VmwareServer
112.47.15.6
Set-DtVmwareCertificatePolicy -ServiceHost $DtServerObjectBeta -VmwareServer 112.47.15.6 -Policy
AllowAll
Install-DtVmwareCertificate -ServiceHost $DtServerObjectBeta -Certificate $TestResult[1]
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The server \$DtServerObjectBeta is tested to see if the current policy or any valid certificates will allow a connection to the specified VMware server. In this example, assume the return is false. The VMware certificate policy on the server \$DtServerObjectBeta is then

set to allow all certificates to be installed. The certificate from the Test-DtVmwareCertificatePolicy false return is then installed on the server \$DTServerObjectBeta. The connections for the server object are then closed.

Undo-DtJobFailover

Starts undo failover

Syntax

Undo-DtJobFailover [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]

Undo-DtJobFailover [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]

Detailed Description

This cmdlet starts the undo failover process for the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Undo-DtJobFailover -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable

DtJobForAlpha. The undo failover process is then started. The connections for the server object are then closed.

Uninstall-DoubleTake

Uninstalls Carbonite

Syntax

Uninstall-DoubleTake [-RemoteServer] <Server> [-AsJob] [<CommonParameters>]

Detailed Description

This cmdlet uninstalls Carbonite on the specified server.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|---------------|--------------------|--|----------|----------------|
| Remote Server | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. | true | false |
| AsJob | Switch Parameter | Specify if you want the uninstallation to occur asynchronously in the background, returning the PowerShell command immediately. You can get the status of each uninstallation using the Windows PowerShell Get-Job command. Without this parameter, each uninstallation specified will be executed synchronously and the current activity of the current uninstallation will be displayed. | false | false |

Outputs

None

Examples

```
$DtServerObjectAlpha= New-DtServer -Name alpha -UserName domain\administrator -Password password  
Uninstall-Doubletake -RemoteServer $DtServerObjectAlpha  
Disconnect-DtServer -ServiceHost $DtServerObjectAlpha
```

A server object is created for the server alpha using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectAlpha. Then Carbonite is uninstalled from the server. The connections for the server object are then closed.

Update-DtJobStatus

Updates jobs status

Syntax

```
Update-DtShares [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Update-DtShares [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]
```

Detailed Description

This cmdlet forces a job status update immediately rather than waiting for the next scheduled poll. The default polling interval is 3 seconds. For Windows servers, a non-default registry setting can be created to change the polling interval.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Update-DtJobStatus -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from

DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The jobs status is then updated. The connections for the server object are then closed.

Update-DtShares

Updates shares

Syntax

```
Update-DtShares [-ServiceHost] <Server> [-JobId] <Guid> [<CommonParameters>]
```

```
Update-DtShares [-ServiceHost] <Server> -JobInfo <JobInfo> [<CommonParameters>]
```

Detailed Description

This cmdlet updates source share information on the target for the specified job.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

ActivityToken on page 226

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
Update-DtShares -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable

DtJobForAlpha. Shares are then updated on the target for the job. The connections for the server object are then closed.

Wait-DtConfirmJobOptions

Waits for the job validation process to complete

Syntax

```
Wait-DtConfirmJobOptions [-ServiceHost] <Server> -Token <ActivityToken> [-Any] [-Timeout <Int32>]  
[<CommonParameters>]
```

Detailed Description

This cmdlet waits for the job validation process triggered by Confirm-DtJobOptions on page 27 to complete before processing any additional cmdlets.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|--------------|---------------------------|---|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| Token | ActivityToken on page 226 | Specify the confirm action object returned from the Confirm-DtJobOption cmdlet. See Confirm-DtJobOptions on page 27. | true | false |
| Any | | Only wait for the first validation to finish before continuing | false | false |
| Timeout | Int32 | Specify the length of time, in seconds, to wait for the process to complete. For example, 120 would wait two minutes and then the next cmdlet would be processed. If you set the timeout to zero (0), there is no timeout delay and the next cmdlet is immediately processed. If you do not specify a timeout parameter, the timeout will default to forever. | false | false |

Outputs

VerificationStep on page 381

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password  
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {  
    $_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}  
$DtValidation = Confirm-DtJobOptions -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -
```

```
JobOptions $DtJob.Options
```

```
Wait-DtConfirmJobOptions -ServiceHost $DtServerObjectBeta -Token $DtValidation
```

```
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The job options used by the job are confirmed, and the validation result is stored in DtValidation. The script then waits until the validation is complete before continuing. The connections for the server object are then closed.

Wait-DtMirrorComplete

Waits for the mirroring process to complete

Syntax

```
Wait-DtMirrorComplete [-ServiceHost] <Server> [-JobId] <Guid> [-PollingInterval <Int32>] [-ConnectionId  
<Guid>] [<CommonParameters>]
```

```
Wait-DtMirrorComplete [-ServiceHost] <Server> -JobInfo <JobInfo> [-PollingInterval <Int32>] [-ConnectionId  
<Guid>] [<CommonParameters>]
```

Detailed Description

This cmdlet waits for the mirroring process to complete before processing any additional cmdlets.

Parameters

| Name | Type | Description | Required | Pipeline Input |
|------------------|--------------------------|--|----------|----------------|
| Service Host | Server on page 342 | Specify the server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. For this cmdlet, the -ServiceHost should be your target server. | true | false |
| JobId | Guid on page 286 | Specify the job GUID returned from the New-DtJob cmdlet or the Id within the job information returned from the Get-DtJob cmdlet. See New-DtJob on page 107 and Get-DtJob on page 48. | true | false |
| Polling Interval | Int32 | Specify the amount of time, in hh:mm:ss, to wait before checking to see if the mirror has completed. | false | false |
| Connection Id | ConnectionId on page 243 | Specify the connection ID returned from the Get-DtConnectionIds cmdlet. See Get-DtConnectionIds on page 39. | false | false |
| JobInfo | JobInfo on page 289 | Specify the job information returned from the Get-DtJob cmdlet. The job information can be piped from the Get-DtJob cmdlet and used in this cmdlet. See Get-DtJob on page 48. | true | true |

Outputs

MirrorState on page 440

Examples

```
$DtServerObjectBeta = New-DtServer -Name beta -UserName domain\administrator -Password password
$DtJobForAlpha = Get-DtJob -ServiceHost $DtServerObjectBeta | Where-Object {
$_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
$DtMirrorChecksum = New-Object DoubleTake.Core.Contract.Connection.MirrorParameters
$DtMirrorChecksum.ComparisonCriteria = "Checksum"
$DtMirrorChecksum.Options = "Synchronize,CalculateDifferences"
Start-DtMirror -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -MirrorParameters
$DtMirrorChecksum
Wait-DtMirrorComplete -ServiceHost $DtServerObjectBeta -JobId $DtJobForAlpha.Id -PollingInterval
"00:05:00"
Disconnect-DtServer -ServiceHost $DtServerObjectBeta
```

A server object is created for the server beta using the domain\administrator and password credentials. It assigns the server object to the variable called DtServerObjectBeta. The job(s) are retrieved from DtServerObjectBeta, but only the job information where the source machine name is equivalent to the name stored in the variable DtServerObjectAlpha is retrieved. That information is then stored in the variable DtJobForAlpha. The mirror options are stored in DtMirrorChecksum. The ComparisonCriteria value is changed to checksum and the Options are set to Synchronize and CalculateDifferences. Then the mirror is started for the job using the stored mirroring options. The script will wait for mirroring to complete before continuing. The script will check ever five minutes to see if mirroring is complete. The connections for the server object are then closed.

Chapter 3 Classes

The following classes are used in Carbonite.

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- [ActivationCode](#) on page 221
- [ActivationInformation](#) on page 223
- [ActivationStatus](#) on page 224
- [ActivityStatusEntry](#) on page 225
- [ActivityToken](#) on page 226
- [ApplicationOptions](#) on page 227
- [ApplicationQualificationResults](#) on page 229
- [BandwidthEntry](#) on page 230
- [BandwidthLimit](#) on page 231
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- [BandwidthSchedule](#) on page 233
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- [ChangedItems](#) on page 236
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- [WorkloadType](#) on page 403

ActivationAttribute

Parameter of

ActivationCode on page 221

Properties

| Name | Type | Description |
|-------|--------|--|
| Name | String | This value is the name of the license key attribute. |
| Value | Int64 | This value is the numeric value associated with the license key attribute. |

ActivationCode

Parameter of

ActivationStatus on page 224

Properties

| Name | Type | Description |
|----------------|-------------------------------------|--|
| Attributes | ActivationAttribute [] on page 220 | This value represents the attributes of the license. |
| Code | String | This value is a 24 character, alpha-numeric key which applies the appropriate license to the server. |
| ExpirationDate | DateTime | The value is the license expiration date. |
| IsEvaluation | Boolean | This value is true if the license key is an evaluation license; otherwise, it is false. |
| IsExpired | Boolean | This value is true if the license is expired; otherwise, it is false. |
| IsNodeLocked | Boolean | This value is true if the license key must be activated; otherwise, it is false. |
| IsValid | Boolean | This value is true if the license key is valid; otherwise, it is false. |
| LicenseType | LicenseType on page 437 | This value represents the type of license. |
| MajorVersion | Int32 | This value is the major version of the release associated with this license. |
| MinorVersion | Int32 | This value is the minor version of the release associated with this license. |
| ProductCode | Int32 | This value is the product code associated with this license. |

| Name | Type | Description |
|--------------|--------|---|
| ProductName | String | This value is the product name associated with this license. |
| SerialNumber | Int32 | This value is the serial number associated with this license. |

ActivationInformation

Returned by

Request-DtOnlineActivation on page 132

Properties

| Name | Type | Description |
|-------------------|--------------------|---|
| ActivationKey | String | This value is the activation key. |
| Code | String | This value is the activation key. |
| EmailAddress | String | This value is the email address to register the activation key. |
| Error | String | This value is the text for any error messages from the activation process. |
| Quantity | Int32 | This value is the quantity associated with the license. |
| ServiceHost | Server on page 342 | This value is a server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. |
| ServerName | String | This value is the name of the server. |
| ServerInformation | String | This value is the unique server information used to generate the activation key for this particular server. |

ActivationStatus

Returned by

Get-DtActivationStatus on page 35, Set-DtActivationCode on page 147

Properties

| Name | Type | Description |
|--------------|--------------------------------|--|
| AddOnCodes | ActivationCode [] on page 221 | This value represents the current add-on licenses on this server. This property is no longer used. |
| Codes | ActivationCode [] on page 221 | This value represents the current licenses on this server. |
| IsNodeLocked | Boolean | This value is true if the license key must be activated; otherwise, it is false. |
| IsValid | Boolean | This value is true if the license key is valid; otherwise, it is false. |

ActivityStatusEntry

Returned by

Get-DtJobActionStatus on page 50

Parameter of

RepairStatus on page 335, VerificationStatus on page 380

Properties

| Name | Type | Description |
|-------------------------|--------------------------------------|---|
| Duration | TimeSpan | This value is the duration of the activity. |
| MessageFormatParameters | String | This value is the message format parameters. |
| MessageId | String | This value is the message resource ID. |
| RequesterUserName | String | The requester is the user who initiated the activity. |
| Status | ActivityCompletionStatus on page 410 | This value represents if or how the activity completed. |
| TimeStamp | DateTimeOffset | This value is the time stamp for the activity. |
| Token | ActivityToken on page 226 | This value is a unique identifier for the request. |

ActivityToken

Returned by

Checkpoint-DtConnection on page 22, Confirm-DtJobOptions on page 27, Edit-DtJob on page 31, Invoke-DtQueueTask on page 99, Remove-DtJob on page 121, Remove-DtSnapshot on page 125, Repair-DtJobOptions on page 129, Resume-DtJob on page 136, Resume-DtMirror on page 138, Resume-DtTarget on page 140, Start-DtJob on page 164, Start-DtJobFailback on page 166, Start-DtJobFailover on page 168, Start-DtJobRestore on page 170, Start-DtJobReverse on page 172, Start-DtMirror on page 174, Start-DtOrphansProcessing on page 176, Start-DtReplication on page 178, Start-DtVerify on page 180, Stop-DtJob on page 182, Stop-DtMirror on page 184, Stop-DtReplication on page 186, Suspend-DtJob on page 189, Suspend-DtMirror on page 191, Suspend-DtTarget on page 193, Undo-DtJobFailover on page 205, Update-DtJobStatus on page 208, Update-DtShares on page 210

Parameter of

ActivityStatusEntry on page 225, Get-DtVerificationStatus on page 87, Wait-DtConfirmJobOptions on page 212

Properties

| Name | Type | Description |
|------------------------------|--------|---|
| ActivityNameFormatParameters | String | This value is the activity format parameters. |
| ActivityNameId | String | This value is the name of the activity. |
| Id | Guid | This value is the unique ID of the activity. |

ApplicationOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|-----------------------------|---------------------------------|---|
| AagInstances | String | This value is the instance name corresponding to the SQL AlwaysOn Availability Group Server. This value should never contain more than one entry. |
| DnsRecordLocks | DnsRecordLock | Do not use this property. Carbonite uses it internally. |
| IsAag | Boolean | Do not use this property. Carbonite uses it internally. |
| MonitoredServiceRepeatCount | Int32 | This property is no longer used. See MonitoringOptions on page 313. ServiceMonitoringOptions on page 350. |
| MonitoredServices | ServiceInformation | This property is no longer used. See MonitorConfiguration on page 308. ScriptMonitorName. |
| MonitorScript | String | This property is no longer used. See CoreMonitorOptions on page 254. MonitorConfiguration on page 308. ScriptMonitorName. |
| RestartService | Boolean | This property is no longer used. See MonitoringOptions on page 313. ServiceMonitoringOptions on page 350. |
| SourceDomain | String | This value is the source server's primary domain. |
| SqlMigrationOptions | SqlMigrationOptions on page 362 | This value includes the options for a SQL migration job. |

| Name | Type | Description |
|---------------------------------|--------|---|
| SourceName | String | This value is the name of the source server. |
| TargetDomain | String | This value is the target server's primary domain. |
| TargetName | String | This value is the name of the target server. |
| TestPostFailoverScript | String | This value is the path and name of the script to run after the target is brought online during a test failover. |
| TestPostFailoverScriptArguments | String | This value is the arguments for the TestPostFailoverScript to run. |
| TestPreFailbackScript | String | This value is the path and name of the script to run before failing back after a test failover. |
| TestPreFailbackScriptArguments | String | This value is the arguments for the TestPreFailbackScript. |

ApplicationQualificationResults

Parameter of

JobQualificationResults on page 295

Properties

| Name | Type | Description |
|--------------|--|--|
| SqlMigration | SqlMigrationQualificationResults on page 364 | This value represents the SQL migration qualification information. |

BandwidthEntry

Parameter of

BandwidthOptions on page 232

Properties

| Name | Type | Description |
|-------------|--------------------------------|---|
| DaysOfWeek | Weekdays on page 470 | This values is the days of the week to which the entry applies. |
| EndTime | DateTime | This value is the end time of the entry. It should be between 00:00:00 and 23:59:59 (hh:mm:ss). This value is only applicable if the BandwidthOptions on page 232.BandwidthScheduleMode on page 412 is Scheduled. |
| EntryType | BandwidthEntryType on page 411 | This value represents a daytime or overnight schedule. |
| IsUnlimited | Boolean | This value is true if the entry allows unlimited bandwidth; otherwise, it is false. |
| Limit | Int64 | This value is the bandwidth limit in bytes per second. |
| Name | String | This value is the name of the entry. It must be unique among all entries in the bandwidth schedule. |
| StartTime | DateTime | This value is the start time of the entry. It should be between 00:00:00 and 23:59:59 (hh:mm:ss). |

BandwidthLimit

Returned by

Get-DtBandwidthLimit on page 37

Parameter of

Set-DtBandwidthLimit on page 149

Properties

| Name | Type | Description |
|-------|-----------------------------------|--|
| Limit | Int64 | This value is the bandwidth limit in bytes per second. |
| Mode | BandwidthScheduleMode on page 412 | This value is the bandwidth limiting mode. |

BandwidthOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|----------------|--|---|
| Entries | BandwidthEntry [] on page 230 | This value represents the bandwidth schedule. This value is copied to CoreConnectionOptions.ConnectionStartParameters.Schedule.Bandwidth.Entries. |
| Limit | Int64 | This value is the bandwidth limit in bytes per second. |
| Mode | BandwidthScheduleMode on page 412 | This value is the bandwidth limiting mode. This value is copied to CoreConnectionOptions.ConnectionStartParameters.Schedule.Bandwidth.Mode. |
| Specifications | BandwidthSpecification [] on page 235 | This value represents a bandwidth specifications as identified by a common name (for example T1) and a numeric speed (for example, 193,000 bytes per second). This value is copied to CoreConnectionOptions.ConnectionStartParameters.Schedule.Bandwidth.Specification. |

BandwidthSchedule

Parameter of

ConnectionSchedule on page 244

Properties

| Name | Type | Description |
|----------------|---------------------------------------|--|
| Current | BandwidthScheduleEntry [] on page 234 | This value is the current bandwidth schedule entry being used. |
| Entries | BandwidthScheduleEntry [] on page 234 | This value represents the bandwidth schedule. This value is copied from BandwidthOptions.Entries. |
| Mode | BandwidthScheduleMode on page 412 | This value is the bandwidth limiting mode. This value is copied from BandwidthOptions.Mode. |
| Specifications | BandwidthSpecification [] on page 235 | This value represents a bandwidth specifications as identified by a common name (for example T1) and a numeric speed (for example, 193,000 bytes per second). This value is copied from BandwidthOptions.Specification. |

BandwidthScheduleEntry

Parameter of

BandwidthSchedule on page 233

Properties

| Name | Type | Description |
|-------------|----------------------|---|
| DaysOfWeek | Weekdays on page 470 | This values is the days of the week to which the entry applies. |
| IsUnlimited | Boolean | This value is true if the entry allows unlimited bandwidth; otherwise, it is false. |
| Limit | Int64 | This value is the bandwidth limit in bytes per second. |
| Name | String | This value is the name of the entry. It must be unique among all entries in the bandwidth schedule. |
| StartTime | DateTime | This value is the start time of the entry. It should be between 00:00:00 and 23:59:59 (hh:mm:ss). |

BandwidthSpecification

Parameter of

BandwidthOptions on page 232, BandwidthSchedule on page 233

Properties

| Name | Type | Description |
|-------|--|---|
| Key | String | This value is a common name that represents a bandwidth specifications, for example T1. |
| Type | BandwidthSpecificationType on page 413 | This value represents the bandwidth specification associated with the type of network (LAN or WAN). |
| Value | Int64 | This value is the bandwidth limit in bytes per second. |

ChangedItems

Returned by

Add-DtPhysicalRule on page 18, Remove-DtPhysicalRule on page 123, Set-DtLogicalItemSelection on page 154

Parameter of

Add-DtPhysicalRule on page 18, Add-DtUvraPhysicalRule on page 20, Remove-DtPhysicalRule on page 123

Properties

| Name | Type | Description |
|---------------|------------------------------|---|
| LogicalItems | LogicalItems [] on page 300 | This value represents the logical items that changed. |
| LogicalRules | String [] | This value is the current logical rules of the workload. |
| PhysicalItems | PhysicalItem [] on page 321 | This value represents the physical items that changed. |
| PhysicalRules | PhysicalRule [] on page 323 | This value represents the current physical rules of the workload. |

CloudJobDetails

Parameter of

JobStatistics on page 297

Properties

| Name | Type | Description |
|------------------------|------------------------------------|---|
| SnapshotStorageDetails | SnapshotStorageDetails on page 357 | This value represents the snapshot storage information. |

CloudOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|-----------------|---------------------------|---|
| EngineJobType | EngineJobType on page 417 | This value is the job type according to the replication engine. (These jobs are not the same as JobInfo on page 289.JobType.) |
| HardLinkLogPath | String | This value is the path for the hard link processing log / report. |

ClusterFilesAndFoldersQualifcationResults

Parameter of

JobQualificationResults on page 295

Properties

| Name | Type | Description |
|--------------------------------------|--|---|
| TargetFileServerQualificationResults | TargetFileServerQualificationResults on page 367 | This value represents target configuration information for clustered files and folders jobs. |
| TargetGroupDiskOffline | Boolean | This value is true if the disk resource in the target cluster group is offline; otherwise, it is false. |

ClusterOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|---------------------------------|---------|--|
| CreateTargetResource | Boolean | This value is true if the target cluster resource will be created; otherwise, it is false. |
| DependOnResources | String | This value is the dependent resources. |
| InitializeOnTargetNodeMove | Boolean | Do not use this property. Carbonite uses it internally. |
| ManageTargetResources | Boolean | This value is true if the target cluster resource will be brought online during cutover; otherwise, it is false. |
| OriginalSourceClusterId | String | This value is the unique ID of the source cluster. |
| SourceClusterName | String | This value is the name of the source cluster. |
| SourceGroupName | String | The value is the name of the source group. |
| SourceIsCluster | Boolean | This value is true if the source is a cluster; otherwise, it is false. |
| TargetClusterName | String | This value is the name of the target cluster. |
| TargetClusterResourceNamePrefix | String | This value is the optional name of the target cluster resource prefix. |
| TargetClusterStoragePath | String | This value is the location of the target cluster storage. |
| TargetGroupName | String | This value is the name of the target group. |
| TargetIsCluster | Boolean | This value is true if the target is a cluster; otherwise, it is false. |

| Name | Type | Description |
|-------------------------|--------|---|
| TargetResourceGroupName | String | This values overrides the default group name when creating the target resource. |
| TargetVirtualServers | String | This value is the name of the target virtual servers. |

CompressionLevel

Parameter of

ConnectionStartParameters on page 245, CoreQualificationResults on page 255, RestoreParameters on page 339

Properties

| Name | Type | Description |
|-----------|-------|--|
| Algorithm | Int32 | The algorithm and level properties are used together in the following combinations. <ul style="list-style-type: none">• Disabled—Compression is disabled if the level equals -1. The algorithm value is ignored when level equals -1.• Low compression—Compression is enabled at a low level if level equals 0 and algorithm equals 10.• Medium compression—Compression is enabled at a medium level if level equals 1 and algorithm equals 21.• High compression—Compression is enabled at a high level if level equals 2 and algorithm equals 31. |
| Level | Int32 | |

ConnectionId

Returned by

Get-DtConnectionIds on page 39

Parameter of

Get-DtBandwidthLimit on page 37, Invoke-DtQueueTask on page 99, Remove-DtSnapshot on page 125, Resume-DtMirror on page 138, Resume-DtTarget on page 140, Set-DtBandwidthLimit on page 149, Start-DtMirror on page 174, Start-DtOrphansProcessing on page 176, Start-DtReplication on page 178, Start-DtVerify on page 180, Stop-DtMirror on page 184, Stop-DtReplication on page 186, Suspend-DtMirror on page 191, Suspend-DtTarget on page 193, Wait-DtMirrorComplete on page 214

Properties

| Name | Type | Description |
|-------|--------|--|
| Key | String | This value is the description of the associated connection ID. |
| Value | Guid | This value is a unique ID of a connection associated with a job. |

ConnectionSchedule

Parameter of

ConnectionStartParameters on page 245

Properties

| Name | Type | Description |
|--------------|-------------------------------|---|
| Archive | None | This property is no longer used. |
| Bandwidth | BandwidthSchedule on page 233 | This value represents the bandwidth schedule. |
| Orphans | OrphansSchedule on page 317 | This value represents if orphan files (files in the target path location that are not present on the source) will be deleted. There is currently no schedule (time-related options) for orphan files. They can only be deleted or left on the target. |
| Transmission | None | This property is no longer used. |
| Verify | VerifySchedule on page 382 | This value represents the verification schedule. |

ConnectionStartParameters

Parameter of

CoreConnectionOptions on page 252

Properties

| Name | Type | Description |
|-----------------------------|--------------------------------|---|
| ArchiveBinLocation | String | This property is no longer used. |
| AreClusterDNSUpdatesEnabled | Boolean | This value is true if the job is a cluster job and DNS will be updated during failover; otherwise, it is false. |
| CompressionLevel | CompressionLevel on page 242 | This value represents the compression to use for data passed over the connection. |
| IsEncrypted | Boolean | This property is no longer used. |
| IsMirrorEnabled | Boolean | This value is true if a mirror is started when the connection is created; otherwise, it is false. |
| IsPathBlockingEnabled | Boolean | This value is true if the destination paths on the target are blocked for writing, except by Carbonite; otherwise, it is false. |
| IsReplicationEnabled | Boolean | This value is true if replication is started when the connection is created; otherwise, it is false. |
| IsRestore | Boolean | This value is true if the connection is a restoration mirror; otherwise, it is false. |
| MirrorParameters | MirrorParameters on page 307 | This value represents the mirror parameters used for the connection. If this value is null, the default mirror parameters will be used. |
| Schedule | ConnectionSchedule on page 244 | This value represents the bandwidth, orphans, and |

| Name | Type | Description |
|------------------|------------------------------|---|
| | | verification schedule. These schedule settings will be applied to all connections that share the same route to the same target. Therefore, if a connection exists over the same route to the same target as the connection you are creating, any schedule changes will be applied to that connection as well. |
| ScriptPoints | ScriptPoint [] on page 341 | This value represents the scripts to be run at specific points during mirroring. |
| SnapshotSchedule | SnapshotSchedule on page 354 | This value represents the snapshot schedule for the target. |

CoreConnectionDetails

Parameter of

FullServerJobDetails on page 283, JobStatistics on page 297

Properties

| Name | Type | Description |
|-----------------------|---------------------------|--|
| BandwidthCollar | Int32 | This value is the current bandwidth limit. It may vary according to the bandwidth limit schedule. |
| CompressionEnabled | Boolean | This value is true if compression is enabled; otherwise, it is false. |
| CompressionLevel | Int32 | This value is the current compression level. |
| ConnectionId | Int32 | This value is the ID assigned to the connection. The ID is a one-based index that resets each time the Double-Take service is restarted. |
| CurrentTime | DateTimeOffset | This value is the time the connection detail was retrieved. |
| DiskQueueBytes | Int64 | This value is the number of bytes queued on the target. |
| Encrypted | Boolean | This value is true if Carbonite is encrypting data before sending it to the target; otherwise, it is false. |
| InitialMirrorComplete | Boolean | This value is true if the initial mirror has completed; otherwise, it is false. |
| LicenseStatus | LicenseStatus on page 436 | This values indicates the licensing required for the job. |
| ManagedConnectionId | Guid | This value is the ID assigned to the connection by the Management Service. |
| MirrorBytesRemaining | Int64 | This value is the number of remaining mirror bytes. |

| Name | Type | Description |
|-----------------------------|-------------------------|---|
| MirrorBytesSent | Int64 | This value is the number of mirror bytes sent. |
| MirrorBytesSkipped | Int64 | This value is the number of mirror bytes skipped. Bytes are skipped because the data is not different on the source and target. |
| MirrorBytesTransmitted | Int64 | The value is the number of mirror bytes transmitted. |
| MirrorEndTime | DateTimeOffset | This value is the time when mirroring ended. |
| MirrorOpsQueued | Int64 | This value is the number of mirror operations queued on the target. |
| MirrorPermillage | Int16 | This value is the percentage of the mirror that is complete. A mirror may be at 99-100% when it is actually still processing . For example, this may occur if files were added after the protected data set size was calculated or if there are alternate data streams in the protected data set. |
| MirrorStartTime | DateTimeOffset | This value is the time when mirroring started. |
| MirrorState | MirrorState on page 440 | This value represents the state of mirroring. |
| MountPointsDetached | Boolean | This value is true if the mounts points are detached from the virtual disk and are folders; otherwise, it is false (and the mount points are attached to the virtual disk). |
| PeerMemoryLow | Boolean | This value is true if memory on the target is low; otherwise it is false. |
| ReplicationBytesQueued | Int64 | This value is the number of replication bytes queued on the target. |
| ReplicationBytesSent | Int64 | This value is the number of replication bytes sent. |
| ReplicationBytesTransmitted | Int64 | The value is the number of replication bytes transmitted. |
| ReplicationOpsQueued | Int64 | This value is the number of replication operations queued on |

| Name | Type | Description |
|------------------------------|----------------------------------|---|
| | | the target. |
| ReplicationSetCalcInProgress | Boolean | This value is true if the size of the protected data set is being calculated; otherwise, it is false. Mirroring will start while the size of the protected data set is being determined. While the calculation is in progress, the remaining byte count is not valid. |
| ReplicationState | ReplicationState on page 449 | This value represents the state of replication. |
| Restoring | Boolean | This value is true if the connection is restoring data; otherwise, it is false. |
| SourceAccessLevel | AccessLevel on page 407 | This value is the source security access. This value will be null if the Carbonite access level cannot be determined. If the value is not null and SourceAvailable is false, Carbonite can connect to the source but was not able to determine at least Carbonite monitor access with the provided credentials. |
| SourceAvailable | Boolean | This value is true if the target can communicate with the source; otherwise, it is false. |
| SourceClusterResourceState | ClusterResourceState on page 414 | This value represents the state of the source cluster resource. |
| SourceEndpoint | String | This value is the source endpoint that is the route from the target back to the source. |
| SourceEngineAvailable | Boolean | This value is true if the source replication engine is available; otherwise, it is false. |
| SourceMachineName | String | This value is the name of the source server. |
| SourceRecoveryPointLatency | Int64 | This value is the length of time replication is behind on the target compared to the source. This is the time period of data that would be lost if a failure were to occur at the current time. |

| Name | Type | Description |
|-------------------------|--------------------------|---|
| SourceRecoveryPointTime | DateTimeOffset | This value is the time that replication is synchronized between the source and target. The difference between the current time and this time is the time period of data that would be lost if a failure were to occur at the current time. |
| SourceUniqueld | String | This value is a unique ID assigned to the source. |
| StartTime | DateTimeOffset | This value is the time the connection was started. |
| TargetAccessLevel | AccessLevel on page 407 | This value is the target security access. This value will be null if the Carbonite access level cannot be determined. If the value is not null and TargetAvailable is false, Carbonite can connect to the target but was not able to determine at least Carbonite monitor access with the provided credentials. |
| TargetAvailable | Boolean | This value is true if the target is available; otherwise, it is false. |
| TargetEngineAvailable | Boolean | This value is true if the target replication engine is available; otherwise, it is false. |
| TargetLoaded | Boolean | This value is true if the Carbonite target module is loaded on the server; otherwise, it is false. |
| TargetMachineName | String | This value is the name of the target server. |
| TargetQueueBytes | Int64 | This value is the number of bytes in the target queue. |
| TargetRoute | String | This value is the endpoint on the target that is the route the source is using for the connection. This route is in the format [address]:[port]. |
| TargetState | TargetStates on page 466 | This value represents the state of the target. |
| TargetUniqueld | String | This value is a unique ID assigned to the target. |
| TotalBytesSent | Int64 | This value is the total number of bytes that have been sent for the connection. |

| Name | Type | Description |
|-----------------------|------------------------------|--|
| TotalBytesTransmitted | Int64 | This value is the total number of bytes that have been transmitted for the connection. |
| TotalOpsQueued | Int64 | This value is the total number of operations queued on the target. |
| TransmissionMode | TransmissionMode on page 468 | This value represents the state of data transmission from the source to the target. |

CoreConnectionOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|---------------------------|---------------------------------------|--|
| ConnectionStartParameters | ConnectionStartParameters on page 245 | This value represents the parameters used to start the connection between the source and target. |
| PathTransformations | PathTransformation [] on page 320 | This value represents where the source protected data will be located on the target. |
| TargetAddress | String | This value is the target IP address. |
| TargetEnginePort | Int32 | This value is the port where the engine is listening. |

CoreMonitorDetails

Parameter of

JobStatistics on page 297

Properties

| Name | Type | Description |
|--------------------------|--|--|
| HighAvailabilityState | HighAvailabilityState on page 431 | This value represents the state of failover monitoring. |
| MonitoredAddressStatuses | MonitoredAddressStatus [] on page 312 | This value represents the status of a monitored IP address. |
| MonitorId | Guid | This value is a unique ID for this failover monitor. |
| MonitorName | String | This value is the name for this failover monitor. |
| RestoreStates | RestoreStates on page 451 | This value represents the state of a restoration connection. |
| TargetAvailable | Boolean | This value is true if the target is available; otherwise, it is false. |

CoreMonitorOptions

Parameter of

FailbackOptions on page 274, JobOptions on page 292

Properties

| Name | Type | Description |
|--------------------------|----------------------------------|---|
| MonitorConfiguration | MonitorConfiguration on page 308 | This value represents the configuration of failover monitoring. |
| ShouldPerformLanFailover | Boolean | This value is for display in the console to determine which failover option should be selected by default. |
| SourceDomain | String | This value is the name of the source domain. |
| SourceServer | String | This value is the name of the source server. |
| TargetDomain | String | This value is the name of the target domain. |
| TargetServer | String | This value is the name of the target server. |
| TotalTimeAllowed | TimeSpan | This value is the amount of time allowed without a successful ping before a failover condition is met. |
| UseTotalTimeAllowed | Boolean | This value is true if TotalTimeAllowed is used to determine when a failover condition is met; otherwise, it is false. |

CoreQualificationResults

Parameter of

JobQualificationResults on page 295

Properties

| Name | Type | Description |
|-------------------------|--------------------------------------|--|
| CompressionLevels | CompressionLevel [] on page 242 | This value is the compression level. It will be null if there is a problem getting the compression level from the source or target. |
| DefaultAllToOneBasePath | String | This value sets the default base path for the all to one path mapping, which configures the source replica data to be stored on a single volume on the target. The default is \source_name\volume_name. If you are protecting multiple volumes on the source, each volume would be stored on the same volume on the target. For example, C:\data and D:\files for the source Alpha would be stored in D:\alpha\C and D:\alpha\D, respectively. |
| SourceEnginePort | Int32 | This value is the port where the engine is listening. |
| SourceIPAddresses | UnicastIPAddressInfo [] on page 376 | This value represents the available IP addresses on the source. |
| SourceMachineName | String | This value is the name of the source server. |
| SourceNetworkId | String | This value is the source network ID used to communicate with the source from the target. |
| SourceNetworkInterfaces | NetworkInterfaceInfo [] on page 314 | This value represents the available NICs on the source. |
| SourceProductInfo | ProductInfo on page 327 | This value represents the Carbonite product info on the source. |

| Name | Type | Description |
|-------------------------|--------------------------------------|--|
| SourceServicePort | Int32 | This value is the port where the Management Service is listening. |
| SourceVolumes | Volume [] on page 388 | This value represents the available volumes on the source. |
| TargetEnginePort | Int32 | This value is the port where the engine is listening. |
| TargetIPAddresses | UnicastIPAddressInfo [] on page 376 | This value represents the available IP addresses on the target. These IP addresses are the possible values that can be used to populate CoreConnectionOptions on page 252.TargetAddress. |
| TargetMachineName | String | This value is the name of the target server. |
| TargetNetworkInterfaces | NetworkInterfaceInfo [] on page 314 | This value represents the available NICs on the target. |
| TargetProductInfo | ProductInfo on page 327 | This value represents the Carbonite product info on the target. |
| TargetVolumes | Volume [] on page 388 | This value represents the available volumes on the target. |

Credentials

Parameter of

DnsDomainDetails on page 263, EmailNotificationOptions on page 267, MonitorConfiguration on page 308, Server on page 342, SqlCredentials on page 359, SqlMigrationOptions on page 362

Properties

| Name | Type | Description |
|----------------|--------|---------------------------------------|
| Domain | String | This value is the name of the domain. |
| Password | String | This value is the password. |
| SecurePassword | String | This value is the secure password. |
| UserName | String | This value is the name of the user. |

CutoverDetails

Parameter of

FullServerJobDetails on page 283

Properties

| Name | Type | Description |
|-----------------|-------|---|
| PercentComplete | Int32 | This value is the percentage of the cutover that is complete. |
| State | Int32 | This value is the state of the cutover. If this value is 1, the cutover is idle. If this value is 1000, the cutover processing is complete. Negative numbers are error codes. |

DeleteOptions

Returned by

Get-DtUvraRecommendedRemoveOptions on page 85

Properties

| Name | Type | Description |
|--------------------------------|---------|---|
| DeleteOnClusterResourceOffline | Boolean | This value is true if the job is deleted because the target cluster resource went offline; otherwise, it is false. |
| DeleteReplica | Boolean | This value is true if the replica virtual machine should be deleted when the job is deleted; otherwise, it is false. |
| DiscardTargetQueue | Boolean | This value is true if any operations in the target queue should be deleted when the job is deleted; otherwise, it is false. |
| ImageOptions | None | This property is no longer used. |

Disk

Parameter of

ServerInfo on page 345

Properties

| Name | Type | Description |
|---------------|---------------------------|--|
| DiskFlags | String | This value is the disk flag of the disk. |
| DiskName | String | This value is the name of the disk. |
| Partitions | Partition [] on page 318 | This value is the partitions on the disk. |
| PartTableType | String | This value is the partition table type. |
| SizeInB | Int64 | This value is the size, in bytes, of the disk. |
| Valid | Boolean | This value is true if the disk is valid; otherwise, it is false. |

DiskOptions

Parameter of

TestFailoverOptions on page 373, VRAOptions on page 395

Properties

| Name | Type | Description |
|----------------------|---------------------------|--|
| DesiredSizeInB | String | This value is the desired size, in bytes, of the new disk. |
| DiskControllerType | String | This value is the disk controller. <ul style="list-style-type: none">• IDE—Use this value to create an IDE disk.• SCSI—Use this value to create a SCSI disk. |
| DiskName | String | This value is the name of the disk. |
| DiskProvisioningType | String | This value is the disk type. <ul style="list-style-type: none">• Dynamic—Use this value for ESX thin disks and for Hyper-V dynamic disks.• Fixed—Use this value for ESX thick disks and for Hyper-V fixed disks.• Flat Disk—Use this value for ESX flat disks. This type is not supported on Hyper-V. |
| Partitions | Partition [] on page 318 | This value is the partitions on the disk. |
| PartTableType | String | This value is the partition table type. |
| PreexistingDiskPath | String | This value is the full path and file name of an existing virtual disk that you want to reuse. If this value is null, a new virtual disk will be created. |
| SizeInB | Int64 | This value is the size, in bytes, of the disk. |

| Name | Type | Description |
|-----------------|---------|---|
| Valid | Boolean | This value is true if the disk is valid; otherwise, it is false. |
| VirtualDiskPath | String | This value is the path on the host where the disk should be stored. |

DnsDomainDetails

Parameter of

DnsOptions on page 264

Properties

| Name | Type | Description |
|-------------------|---------------------------------|--|
| Credentials | Credentials on page 257 | This value represents the domain credentials. |
| DC | String | This value is the domain controller (usually an IP address) where DNS records should be locked. |
| DnsServers | DnsServerDetail [] on page 265 | This value represents a DNS server that will be updated during DNS failover. |
| DomainName | String | This value is the name of the domain. |
| IpAddressMappings | IpAddressMap [] on page 287 | This value represents the mapping between source IP address and target IP address when using DNS failover. |
| ShouldUpdateTtl | Boolean | This value is true if the time to live value should be updated; otherwise, it is false. |
| TtlValue | Int32 | This value is the time to live value in seconds. |
| UpdateRecordType | RecordType on page 446 | This value is the record types that will be failed over and failed back. |

DnsOptions

Returned by

Get-DtDnsOptions on page 41

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|---------------------------|----------------------------------|--|
| AdditionalDns | String | This value identifies any additional source DNS servers to update. |
| AllIpAddressesNeedMapping | Boolean | This value is true if all IP addresses need to be mapped to a target IP address; otherwise, it is false. |
| AlternateTrustee | String | This value is the source server trustee, which overrides the default trustees of "NT AUTHORITY\SYSTEM" and the source computer account (for clustered environments). |
| Domains | DnsDomainDetails [] on page 263 | This value represents the domains that will be updated during failover. |
| Enabled | Boolean | This value is true if DNS failover is enabled; otherwise, it is false. |
| SourceServerInWorkgroup | Boolean | This value is true if the source is in a workgroup; otherwise, it is false. |
| SourceServerName | String | This value is the name of the source server. |
| TargetServerName | String | This value is the name of the target server. |

DnsServerDetail

Parameter of

DnsDomainDetails on page 263

Properties

| Name | Type | Description |
|-------------------|---------|--|
| Address | String | This value is the IP address of the DNS server. |
| Origin | String | This value is the origin of the DNS server, which indicates if the DNS server was discovered from the source server, the target server, both servers, or manually specified by the user. |
| SelectedForUpdate | Boolean | This value is true if the DNS server will be updated during failover; otherwise, it is false. |

EFIBootInfo

Parameter of

ServerInfo on page 345

Properties

| Name | Type | Description |
|----------------------------|---------|--|
| EFIBootDisk | String | This value is the disk where /boot/efi is located. |
| EFIBootDiskPartitionNumber | Int32 | The value is the partition number where /boot/efi is located. |
| EFIBootEntryLabel | String | This value is the label name of the EFI boot entry. |
| EFIBootLoader | String | This value is the primary bootloader for EFI. |
| EFIBootVendorName | String | This value is the vender identified under /boot/efi/EFI. |
| SecureEFIBoot | Boolean | This value is true if the server is secure EFI boot; otherwise, it is false. |

EmailNotificationOptions

Returned by

Get-DtEmailNotificationOptions on page 44, Set-DtEmailNotificationOptions on page 151

Parameter of

Test-DtEmailNotification on page 197

Properties

| Name | Type | Description |
|----------------------------------|---------------------------------------|--|
| ConnectionSecurity | SmtplibConnectionSecurity on page 456 | This value represents the SMTP server connection security. |
| Enabled | Boolean | This value is true if email notification is enabled; otherwise, it is false. |
| EntryIdFilter | String | This value is one or more comma-delimited Windows Event Log entry IDs for which email notifications should be sent. |
| EntryTypeFilter | String | This value is one or more comma-delimited Windows Event Log entry types (error, warning, or information) for which email notifications should be sent. |
| From | String | This value is the e-mail address that will be placed in the From field of the email message. |
| IncludeEventDescriptionInSubject | Boolean | This value is true if the event description is included in the email subject; otherwise, it is false. |
| LoginToSmtpServer | Boolean | This value is true if you must log in to the SMTP server; otherwise, it is false. |
| SmtpCredentials | Credentials on page 257 | This value represents the credentials used to log into the SMTP server. Do not set this value if you want to use the SMTP server anonymously. |

| Name | Type | Description |
|---------------|--------|--|
| Smtpport | Int32 | This value is the SMTP port. The default port is 25. |
| SmtppServer | String | This value is the name of the SMTP server. |
| SubjectPrefix | String | This value is the text that will be added to the beginning of the email subject. |
| To | String | This value can contain one or more comma-delimited e-mail addresses to which the email notifications will be sent. |

EngineControlStatus

Parameter of

JobStatus on page 298

Properties

| Name | Type | Description |
|-----------------------|---------|--|
| CanPauseMirror | Boolean | This value is true if mirroring can be paused;otherwise, it is false. |
| CanPauseTarget | Boolean | This value is true if the target can be paused;otherwise, it is false. |
| CanPauseTransmission | Boolean | This value is true if transmission can be paused;otherwise, it is false. |
| CanProcessOrphans | Boolean | This value is true if the orphan file removal process can be started;otherwise, it is false. |
| CanRefreshStaus | Boolean | This value is true if the job's status can be refreshed; otherwise, it is false. |
| CanResumeMirror | Boolean | This value is true if mirroring can be resumed;otherwise, it is false. |
| CanResumeTarget | Boolean | This value is true if the target can be resumed;otherwise, it is false. |
| CanResumeTransmission | Boolean | This value is true if transmission can be resumed;otherwise, it is false. |
| CanSetBandwidth | Boolean | This value is true if a bandwidth limit can be set;otherwise, it is false. |
| CanStartMirror | Boolean | This value is true if mirroring can be started;otherwise, it is |

| Name | Type | Description |
|----------------------|---------|---|
| | | false. |
| CanStartTransmission | Boolean | This value is true if transmission can be started;otherwise, it is false. |
| CanStopMirror | Boolean | This value is true if mirroring can be stopped;otherwise, it is false. |
| CanTakeSnapshot | Boolean | This value is true if the target can take a snapshot of the replica data;otherwise, it is false. |
| CanUpdateShares | Boolean | This value is true if source share information can be updated;otherwise, it is false. |
| CanVerify | Boolean | This value is true if verification of the source data to the target replica data can be started;otherwise, it is false. |
| ConnectionId | Guid | This value is a unique ID that needs to be provided to the replication engine control methods for controlling the replication engine connection. |
| Role | String | This value is the role of the replication engine for the job. Jobs may use more than one replication engine connection in their operation. This property provides a way to differentiate between the replication engine connections for display purposes. |

EventLogEntry

Returned by

Get-DtEventLogEntry on page 47

Properties

| Name | Type | Description |
|--------------------|-------------------------------|--|
| Category | String | This value is the text associated with the CategoryNumber. |
| CategoryNumber | Int16 | This value is the category number of the event. |
| EntryType | EventLogEntryType on page 272 | This value is the type of event. |
| Index | Int32 | This value is the index of this event in the event log. |
| Instanceid | Int32 | The value is a resource identifier that designates the message text for the event. |
| MachineName | String | This value is the name of the server that generated the event. |
| Message | String | This value is the localized event message. |
| ReplacementStrings | String | This value includes any replacement strings associated with the event. |
| Source | String | This value is the name of the application that generated the event. |
| TimeGenerated | DateTime | This value is the local time when the event was generated. |
| TimeWritten | DateTime | This value is the local time when the event was written to the event log. |
| UserName | String | This value is the name of the user that generated the event. |

EventLogEntryType

Parameter of

EventLogEntry on page 271

Properties

| Name | Type | Description |
|-------------|--------|--|
| Error | String | The event message is an error message. |
| Information | String | The event message is an information message. |
| Warning | String | The event message is a warning message. |

ExtendedLowLevelStates

Parameter of

JobStatus on page 298

Properties

| Name | Type | Description |
|---------------------------|--------------------|--|
| Health | Health on page 430 | This value represents the health of the low level state. Possible uses include displaying an icon for a low level state. |
| MessageId | String | This value is a unique ID for the state message. |
| MessageIdFormatParameters | String | This value is the state message. |

FailbackOptions

Parameter of

RecommendedFailbackOptions on page 331, Start-DtJobFailback on page 166

Properties

| Name | Type | Description |
|-------------------|--------------------------------|---|
| NewMonitorOptions | CoreMonitorOptions on page 254 | This value represents the options for configuring failover monitoring after a job has been restored to a new source server. |

FailoverOptions

Returned by

Get-DtUvraRecommendedFailoverOptions on page 83

Parameter of

RecommendedFailoverOptions on page 332, Start-DtJobFailover on page 168

Properties

| Name | Type | Description |
|----------------------------|----------------------------------|---|
| FailoverDataAction | FailoverDataAction on page 419 | This value represents the action to take on the queued target data before failover. |
| FailoverMode | FailoverMode on page 422 | This value represents the live, test, or snapshot style of failover. |
| FailoverType | FailoverType.Options on page 428 | This value represents the automatic or manual style of failover. |
| PerformTestFailover | Boolean | This option is no longer used. Use FailoverMode on page 422 instead. |
| SkipSourceResourceShutdown | Boolean | This value is true if the cluster resource is not shut down on the source during live failover; otherwise, it is false. |
| SkipSourceServicesShutdown | Boolean | This value is true if the cluster services is not shut down on the source during live failover; otherwise, it is false. |
| SnapshotId | Guid | This value is the snapshot ID that should be applied to the target during snapshot failover. |

FailoverReport

Returned by

Get-DtAllFailoverReports on page 36, Get-DtLatestFailoverReport on page 52

Properties

| Name | Type | Description |
|-----------------|---------------------------|--|
| failoverSuccess | Boolean | This value is true if the failover was successful; otherwise, it is false. |
| failoverType | FailoverStyle on page 425 | This value represents a live or test failover. |
| isReverse | Boolean | This value is true if this is the reverse of a job; otherwise, it is false. |
| jobId | String | This value is the unique ID for the job. |
| jobName | String | This value is the name of the job. |
| jobType | String | This value is the job type name. <ul style="list-style-type: none">• Availability for Windows jobs<ul style="list-style-type: none">• FilesAndFolders—Files and folders• ClusterAwareFilesAndFolders—Cluster-aware files and folders• SQL—SQL• ClusterAwareSql—Cluster-aware SQL• FullServerFailover—Full server• VRA—Full server to ESX or full server to Hyper-V• Availability for Linux jobs<ul style="list-style-type: none">• LinuxFilesAndFolders—Files and folders• LinuxFullServerFailover—Full server• Lvra—Full server to ESX |

| Name | Type | Description |
|---------------------|------------------------------|---|
| | | <ul style="list-style-type: none"> • Migrate for Windows jobs <ul style="list-style-type: none"> • MoveDataOnlyMigration—Files and folders migration • SqlMigration—SQL migration • ClusterAwareSqlMigration—Cluster-aware SQL migration • MoveServerMigration—Full server migration • VraMove—Full server to ESX migration or full server to Hyper-V migration • Migrate for Linux jobs <ul style="list-style-type: none"> • LinuxMoveDataOnlyMigration—Files and folders migration • LinuxMoveServerMigration—Full server migration • LinuxSapHanaMigration—SAP HANA migration • MoveLvra—Full server to ESX migration • Other jobs <ul style="list-style-type: none"> • Diagnostics—Throughput Diagnostic Utility |
| snapshotLabel | String | This value is the label of the snapshot being used. If you are performing a live failover, this value will be null. |
| targetedMachineInfo | MachineInfoClass on page 306 | This value represents the target server's operating system and version. |
| times | TimeClass on page 375 | This value represents the time at various points during failover. |

FailoverScriptConfiguration

Parameter of

MonitorConfiguration on page 308

Properties

| Name | Type | Description |
|------------------------|---------|--|
| PostFailbackScript | String | This value is the full path and file name of the script located on the target and to be run on the target after failback. |
| PostFailbackScriptArgs | String | This value is the comma-separated arguments for PostFailbackScript. |
| PostFailoverScript | String | This value is the full path and file name of the script located on the target and to be run on the target after failover. |
| PostFailoverScriptArgs | String | This value is the comma-separated arguments for PostFailoverScript. |
| PreFailbackScript | String | This value is the full path and file name of the script located on the target and to be run on the target before failback. |
| PreFailbackScriptArgs | String | This value is the comma-separated arguments for PreFailbackScript. |
| PreFailbackWait | Boolean | This value is true if Carbonite will wait for PreFailbackScript to complete before continuing with the failback operation; otherwise, it is false. |
| PreFailoverScript | String | This value is the full path and file name of the script located on the target and to be run on the target before failover. |
| PreFailoverScriptArgs | String | This value is the comma-separated arguments for PreFailoverScript. |

| Name | Type | Description |
|------------------------------|---------|--|
| PreFailoverWait | Boolean | This value is true if Carbonite will wait for PreFailoverScript to complete before continuing with the failover operation; otherwise, it is false. |
| SourcePostFailbackScript | String | This value is the full path and file name of the script located on the source and to be run on the source after failback. |
| SourcePostFailbackScriptArgs | String | This value is the comma-separated arguments for SourcePostFailbackScript. |

Feature

Parameter of

JobInfo on page 289

Properties

| Name | Type | Description |
|----------|--------|---|
| Endpoint | Uri | This value is the endpoint that identifies the location of the service. |
| Tag | String | This value is the tag that identifies the role of the service. |

FilesAndFoldersOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|-----------------|---------|--|
| AllToOneMapping | Boolean | This value is true if files and folders jobs are mapped in an all to one configuration; otherwise it is false and the mapping is one to one. |

FullServerFailoverOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|--------------------------|---------|--|
| AdditionalStagingFolders | String | This value is the folders that should be staged on the target. They will be applied to their actual installation location during failover. |
| CreateBackupConnection | Boolean | This value is true if reverse protection should be configured for this job; otherwise, it is false. |
| RemoveOrphans | Boolean | This value is true if orphan files should be removed for the reverse connection; otherwise, it is false. |
| ReverseRoute | String | This value is the source IP address to be used for the reverse connection. |
| ReverseRouteEnginePort | Int32 | This value is the port where the engine is listening. |
| ShutdownSourceServer | Boolean | This value is true if the source server should be shut down during cutover; otherwise, it is false. |
| SourceChecksumAll | Boolean | This value is true if a checksum should be used for all files when comparing them; otherwise, it is false. |

FullServerJobDetails

Parameter of

JobStatistics on page 297

Properties

| Name | Type | Description |
|-------------------------------------|-----------------------------------|---|
| BackupConnectionDetails | CoreConnectionDetails on page 247 | This value represents the details of the Carbonite Availability reverse connection. |
| CutoverDetails | CutoverDetails on page 258 | This value represents the Carbonite Migrate cutover detail. |
| ProtectionConnectionDetails | CoreConnectionDetails on page 247 | This value represents the details of the protection connection. |
| RecoveryConnectionDetails | None | This property is no longer used. |
| SystemVolumeRevertConnectionDetails | CoreConnectionDetails on page 247 | This value represents the details of the system volume revert connection. |

FullServerNicMappings

Parameter of

FullServerTestFailoverOptions on page 285, SystemStateOptions on page 365

Properties

| Name | Type | Description |
|---------------------------|-----------|---|
| SourceNic | String | This value is the NIC on the source server. |
| TargetNic | String | This value is the NIC on the target server. |
| TargetNicList | String [] | This value is the list of NICs on the target server. |
| TestFailoverTargetNic | String | This value is the NIC on the test failover server. |
| TestFailoverTargetNicList | String [] | This value is the list of NICs on the test failover server. |

FullServerTestFailoverOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|-----------------------------------|---|---|
| DeleteSnapshots | Boolean | This value is true if snapshots will be deleted after the test failover; otherwise, it is false. |
| TestFailoverServerCredential | TestFailoverServerCredentials on page 374 | This value represents the server to use for test failover for full server jobs. |
| NicMappings | FullServerNicMappings [] on page 284 | This value represents the NIC mappings for the test failover for the full server job. |
| FailoverName | String | This value is the name applied to the test failover server. If the job settings are failing over the server name, the source name will be used on the test server. If not, the target name will be retained on the test server. |
| TestFailoverServerAddress | String | This value is the IP address used for the test failover connection. |
| TestFailoverServerEnginePort | Int32 | This value is the port used on the test failover server. |
| TestFailoverServerReservedAddress | String | This value is the reserved IP address on the test server |

Guid

Returned by

New-DtFilesAndFoldersJob on page 105, New-DtJob on page 107, New-DtWorkload on page 118

Parameter of

Add-DtPhysicalRule on page 18, Checkpoint-DtConnection on page 22, Close-DtWorkload on page 26, Confirm-DtJobOptions on page 27, Edit-DtJob on page 31, Get-DtBandwidthLimit on page 37, Get-DtConnectionIds on page 39, Get-DtJob on page 48, Get-DtJobActionStatus on page 50, Get-DtLogicalItem on page 53, Get-DtQualificationResults on page 61, Get-DtRecommendedFailbackOptions on page 63, Get-DtRecommendedFailoverOptions on page 65, Get-DtRecommendedPathTransform on page 70, Get-DtRecommendedRestoreOptions on page 71, Get-DtSnapshot on page 77, Get-DtUvraRecommendedFailoverOptions on page 83, Get-DtUvraRecommendedRemoveOptions on page 85, Get-DtWorkload on page 89, Get-DtWorkloadPhysicalItem on page 90, Invoke-DtQueueTask on page 99, Remove-DtJob on page 121, Remove-DtPhysicalRule on page 123, Remove-DtSnapshot on page 125, Repair-DtJobOptions on page 129, Resume-DtJob on page 136, Resume-DtMirror on page 138, Resume-DtTarget on page 140, Save-DtJobDiagnostics on page 143, Set-DtBandwidthLimit on page 149, Set-DtJobCredentials on page 152, Set-DtLogicalItemSelection on page 154, Start-DtJob on page 164, Start-DtJobFailback on page 166, Start-DtJobFailover on page 168, Start-DtJobRestore on page 170, Start-DtJobReverse on page 172, Start-DtMirror on page 174, Start-DtOrphansProcessing on page 176, Start-DtReplication on page 178, Start-DtVerify on page 180, Stop-DtJob on page 182, Stop-DtMirror on page 184, Stop-DtReplication on page 186, Suspend-DtJob on page 189, Suspend-DtMirror on page 191, Suspend-DtTarget on page 193, Undo-DtJobFailover on page 205, Update-DtShares on page 210, Wait-DtMirrorComplete on page 214

Properties

| Name | Type | Description |
|------|--------|----------------------------|
| Guid | String | This value is a unique ID. |

IpAddressMap

Parameter of

DnsDomainDetails on page 263

Properties

| Name | Type | Description |
|-----------------|---------|---|
| ShouldUpdateTtl | Boolean | This value is true if the time to live value should be updated; otherwise, it is false. |
| SourceIP | String | This value is the IP address on the source server |
| TargetIP | String | This value is the IP address on the target server |
| TtlValue | Int32 | This value is the time to live value in seconds. |

JobAction

Parameter of

JobStatus on page 298

Properties

| Name | Type | Description |
|-------------------------|--------------------------|--|
| Duration | TimeSpan | This value is the duration of the action. |
| ErrorCode | Int32 | This value is the error code associated with the action. |
| ExceptionMessage | String | This value is a message from the underlying exception. The message stored in this property should not be displayed in the user interface, as it may not be available in the language used by the interface. This property should only be used for internal troubleshooting, and as a measure of last resort in the event of a completely unexpected error. |
| Id | Guid | This value is the unique ID of the action. |
| MessageFormatParameters | String | This value is the message format parameters. |
| MessageId | String | This value is the message ID for the action. This value can be used to look up a message associated with this action. |
| RequestingUserName | String | This value is the name of the user that requested the action. |
| Status | ActionStatus on page 408 | This value represents the status of the action. |
| Timestamp | DateTimeOffset | This value is the time when the action occurred. |
| TitleFormatParameters | String | This value is the title format parameters for the action. |
| TitleId | String | This value is the title ID for the action. This value can be used to look up a title associated with this action. |

JobInfo

Returned by

Get-DtJob on page 48

Parameter of

Checkpoint-DtConnection on page 22, Confirm-DtJobOptions on page 27, Edit-DtJob on page 31, Get-DtBandwidthLimit on page 37, Get-DtJob on page 48, Get-DtQualificationResults on page 61, Get-DtRecommendedFailbackOptions on page 63, Get-DtRecommendedFailoverOptions on page 65, Get-DtRecommendedRestoreOptions on page 71, Get-DtSnapshot on page 77, Get-DtUvraRecommendedFailoverOptions on page 83, Get-DtUvraRecommendedRemoveOptions on page 85, Invoke-DtQueueTask on page 99, Remove-DtJob on page 121, Remove-DtSnapshot on page 125, Resume-DtJob on page 136, Resume-DtMirror on page 138, Resume-DtTarget on page 140, Save-DtJobDiagnostics on page 143, Set-DtBandwidthLimit on page 149, Set-DtJobCredentials on page 152, Start-DtJob on page 164, Start-DtJobFailback on page 166, Start-DtJobFailover on page 168, Start-DtJobRestore on page 170, Start-DtJobReverse on page 172, Start-DtMirror on page 174, Start-DtOrphansProcessing on page 176, Start-DtReplication on page 178, Start-DtVerify on page 180, Stop-DtJob on page 182, Stop-DtMirror on page 184, Stop-DtReplication on page 186, Suspend-DtJob on page 189, Suspend-DtMirror on page 191, Suspend-DtTarget on page 193, Undo-DtJobFailover on page 205, Update-DtShares on page 210, Wait-DtMirrorComplete on page 214

Properties

| Name | Type | Description |
|-------------------|-------------------------|--|
| CreatorUserName | String | This value is the name of the user who created the job. |
| Features | Feature [] on page 280 | This value represents a service endpoint that provides additional features for a job. |
| Id | Guid | This value is the unique ID for the job. |
| JobPersistedState | None | Do not use this property. Carbonite uses it internally. |
| JobType | String | This value is the job type name. <ul style="list-style-type: none">• Availability for Windows jobs<ul style="list-style-type: none">• FilesAndFolders—Files and folders• ClusterAwareFilesAndFolders—Cluster-aware files and folders |

| Name | Type | Description |
|----------------|---------|--|
| | | <ul style="list-style-type: none"> • SQL—SQL • ClusterAwareSql—Cluster-aware SQL • FullServerFailover—Full server • VRA—Full server to ESX or full server to Hyper-V • Availability for Linux jobs <ul style="list-style-type: none"> • LinuxFilesAndFolders—Files and folders • LinuxFullServerFailover—Full server • Lvra—Full server to ESX • Migrate for Windows jobs <ul style="list-style-type: none"> • MoveDataOnlyMigration—Files and folders migration • SqlMigration—SQL migration • ClusterAwareSqlMigration—Cluster-aware SQL migration • MoveServerMigration—Full server migration • VraMove—Full server to ESX migration or full server to Hyper-V migration • Migrate for Linux jobs <ul style="list-style-type: none"> • LinuxMoveDataOnlyMigration—Files and folders migration • LinuxMoveServerMigration—Full server migration • LinuxSapHanaMigration—SAP HANA migration • MoveLvra—Full server to ESX migration • Other jobs <ul style="list-style-type: none"> • Diagnostics—Throughput Diagnostic Utility |
| LoadedFromDisk | Boolean | This value is true if the job was loaded from persistence; otherwise, it is false. |

| Name | Type | Description |
|----------------------|---------------------------|---|
| Managed | Boolean | This value is true if the job is managed; otherwise, it is false. This property is intended to be used by transitional implementations of jobs that want to allow their jobs to be visible to the job manager, but will be responsible for creating those jobs and managing their lifetime. |
| Options | JobOptions on page 292 | This value represents the current options for the job. |
| OtherHostUris | IDictionary | This value is the URIs for other servers involved in the job. |
| SourceHostUri | URI | This value is the source URI. |
| SourceHostUriDefault | URI | This value determines if the source URI has been modified. Do not modify this value. |
| SourceUniqueld | String | This value is the unique ID of the source server. |
| Statistics | JobStatistics on page 297 | This value represents the current statistics of the job. |
| Status | JobStatus on page 298 | This value represents the current state of the job. |
| TargetHostUri | Uri | This value is the target URI. |
| TargetUniqueld | String | This value is the unique ID of the target server. |

JobOptions

Parameter of

Confirm-DtJobOptions on page 27, Edit-DtJob on page 31, JobInfo on page 289, New-DtFilesAndFoldersJob on page 105, New-DtJob on page 107, RecommendedJobOptions on page 333, RepairStatus on page 335

Properties

| Name | Type | Description |
|-------------------------------|---------------------------------------|---|
| ApplicationOptions | ApplicationOptions on page 227 | This value represents the options for SQL jobs. |
| BandwidthOptions | BandwidthOptions on page 232 | This value represents bandwidth limiting configuration. |
| CloudOptions | CloudOptions on page 238 | The values represents cloud job options. |
| ClusterOptions | ClusterOptions on page 240 | This value represents cluster options. |
| CoreConnectionOptions | CoreConnectionOptions on page 252 | This value represents the options for the job connection. |
| CoreMonitorOptions | CoreMonitorOptions on page 254 | This value represents the options for configuring failover monitoring by using the service monitoring method. |
| DnsOptions | DnsOptions on page 264 | This value represents the options for jobs using DNS failover. |
| DtavOptions | None | This property is no longer used. |
| DTHVOptions | None | This property is no longer used. |
| FailoverMonitoringEnabled | Boolean | This value is true if failover monitoring is enabled; otherwise, it is false. |
| FilesAndFoldersOptions | FilesAndFoldersOptions on page 281 | This value represents the options for files and folders jobs. |
| FullServerFailoverOptions | FullServerFailoverOptions on page 282 | This value represents the options for full server jobs. |
| FullServerTestFailoverOptions | FullServerTestFailoverOptions on page | This values represents the test failover options for full |

| Name | Type | Description |
|-------------------------------------|--|--|
| | 285 | server jobs. |
| ImageProtectionOptions | None | This property is no longer used. |
| ImageRecoveryOptions | None | This property is no longer used. |
| ManagementServiceTargetPort | Int32 | This value is the port where the engine is listening. |
| MonitoringOptions | MonitoringOptions on page 313 | This value represents the options for configuring failover monitoring by using the service monitoring method. |
| Name | String | This value is the name of the job. |
| SimpleFailoverMonitorOptions | None | This property is no longer used. |
| SnapshotAdvancedOptions | SnapshotAdvancedOptions on page 351 | This value represents the advanced options for Linux snapshots. |
| SnapshotMonitorOptions | SnapshotMonitorOptions on page 353 | This value represents the monitoring of snapshot usage percentage for Linux full server jobs. |
| SourceNetworkIdForManagementService | String | This property is the IP address or host name that will be used for Double-Take Management Service communication from the target to the source. |
| SystemStateOptions | SystemStateOptions on page 365 | This value represents the system state options for full server jobs. |
| TargetServicesOptions | TargetServicesOptions on page 368 | This value represents which target services will be stopped and started during failover and failback. |
| UnmanagedConnectionOptions | UnmanagedConnectionOptions on page 377 | This value represents the options for unmanaged connections which are connections that are not associated with a known job. These connections were created in a client outside of the job manager. |
| VcdVappOptions | None | This property is no longer used. |

| Name | Type | Description |
|------------|------------------------|---|
| VRAOptions | VRAOptions on page 395 | This value represents the options for guest-level virtual jobs. |
| Workload | Workload on page 400 | This value represents the workload being protected by the job. |

The JobOptions class includes all possible configurations for all possible job types, which makes it large and potentially confusing. See Carbonite Replication Console Set Options page to JobOptions class mapping on page 525 to help identify which JobOptions classes correspond to job options in the Carbonite Replication Console.

JobQualificationResults

Returned by

Get-DtQualificationResults on page 61

Parameter of

RecommendedJobOptions on page 333

Properties

| Name | Type | Description |
|--|--|---|
| Applications | ApplicationQualificationResults on page 229 | This value represents the SQL migration qualification information. |
| ClusterFilesAndFoldersQualificationResults | ClusterFilesAndFoldersQualificationResults on page 239 | This value represents configuration information for clustered files and folders jobs. |
| CoreQualificationResults | CoreQualificationResults on page 255 | This value represents the replication engine connection configuration. |
| DtavQualificationResults | None | This property is no longer used. |
| DTHVQualificationResults | None | This property is no longer used. |
| SourceBehindNat | Boolean | This value is true if the source is located behind a NAT router; otherwise, it is false. |
| SourceHostUri | Uri | This value is the source URI. |
| SupportsFrameworkMonitoring | Boolean | This value is true if the server supports failover monitoring; otherwise, it is false. |
| SuppressFailoverMonitorOptions | Boolean | This value is true if failover monitoring options are suppressed; otherwise, it is false. |
| VcdVappQualificationResults | None | This property is not applicable. It is reserved for |

| Name | Type | Description |
|-------------------------|-------------------------------------|---|
| | | future features. |
| VRAQualificationResults | VRAQualificationResults on page 398 | This value represents configuration information for guest-level virtual jobs. |

JobStatistics

Parameter of

JobInfo on page 289

Properties

| Name | Type | Description |
|---------------------------|-----------------------------------|---|
| CoreConnectionDetails | CoreConnectionDetails on page 247 | This value represents the details of the connection. |
| CloudJobDetails | CloudJobDetails on page 237 | This values represents the details of a cloud job. |
| CoreMonitorDetails | CoreMonitorDetails on page 253 | This value represents the details of failover monitoring. |
| FullServerJobDetails | FullServerJobDetails on page 283 | This value represents the details of a full server job. |
| ImageProtectionJobDetails | None | This property is no longer used. |
| ImageRecoveryJobDetails | None | This property is no longer used. |

JobStatus

Parameter of

JobInfo on page 289

Properties

| Name | Type | Description |
|------------------------|---------------------------|---|
| Actions | JobAction [] on page 288 | This value represents an action recently reported by a job. |
| CanCreateImageRecovery | None | This property is no longer used. |
| CanDelete | Boolean | This value is true if you can delete the job; otherwise, it is false. |
| CanEdit | Boolean | This value is true if the job can be edited; otherwise, it is false. |
| CanFailback | Boolean | This value is true if the job can be failed back; otherwise, it is false. |
| CanFailover | Boolean | This value is true if the job can be failed over; otherwise, it is false. |
| CanPause | Boolean | This value is true if the job can be can be paused; otherwise, it is false. |
| CanRestore | Boolean | This value is true if the job can be restored; otherwise, it is false. |
| CanReverse | Boolean | This value is true if the job can be reversed; otherwise, it is false. |
| CanStart | Boolean | This value is true if the job can be started; otherwise, it is false. |
| CanStop | Boolean | This value is true if the job can be stopped; otherwise, it is |

| Name | Type | Description |
|-----------------------|------------------------------------|---|
| | | false. |
| CanUndoFailover | Boolean | This value is true if the failover of the job can be undone; otherwise, it is false. |
| EngineControlStatuses | EngineControlStatus on page 269 | This value represents the status of the replication engine. |
| ExtendedLowLevelState | ExtendedLowLevelStates on page 273 | This value represents additional information about the low level job state. |
| Health | Health on page 430 | This value represents the high level health of the job. |
| HighLevelState | HighLevelState on page 432 | This value represents high level job states. High level states typically map to phases of the job's overall lifecycle, like mirroring or failing over. Jobs will pass through various high level states during their lifetime, and the types of high level states are usually shared between jobs, regardless of job type. |
| IsInError | Boolean | This value is true if the job is in an error state; otherwise, it is false. |
| LowLevelState | String | This value is a low level job state. Low level states typically map to individual steps the job is performing at any given time, like attaching virtual disks or updating DNS. Low level states provide detailed information about a job's current state or action and will vary between different job types. |
| PermillageComplete | Int32 | This value is the percentage of the current activity for that job that is complete. To display a percentage string for an arbitrary activity, jobs can provide a value for this property, and that value will be formatted and displayed in the client. To remove the display of the percentage, set this property to zero. |
| TargetState | String | This value is derived from TargetStates on page 466. Information from the connection is distilled into a string key which is sent to the client for display. |

LogicalItems

Returned by

Get-DtLogicalItem on page 53

Parameter of

ChangedItems on page 236, Get-DtLogicalItem on page 53

Properties

| Name | Type | Description |
|-------------------|-----------------------------|---|
| IsContainer | Boolean | This value is true if the item is a container of other items; otherwise, it is false. |
| IsReadOnly | Boolean | This value is true if the item is read-only (meaning the Saturation cannot be changed); otherwise, it is false. |
| ItemType | String | This value is the type of item. |
| Metadata | String | This value is any additional metadata that may be displayed for a particular type of item. This metadata is not in any particular format, but you must be able to determine the format and decipher the metadata based on the type. |
| Name | String | This value is the name of the item. Typically, this name is used for display in the user interface. |
| PartitionName | String | This value is the name of the partition. |
| Path | String | This value is the path of the item. |
| Saturation | SaturationLevel on page 453 | This value represents the saturation level of the item. Typically, this value is used to display a visual state in the user interface. |
| SaturationDefault | SaturationLevel on page 453 | This value is the default saturation level of the item. Typically, this value is used to display a visual state in the user interface. |

LogicalVolume

Parameter of

VolumeGroup on page 390

Properties

| Name | Type | Description |
|----------------------|----------------------------------|--|
| Attributes | FileSystemAttributes on page 429 | This value represents the file system attributes. |
| AvailableFreeSpace | Int64 | This value is the amount of free space on the volume. |
| CreationTime | DateTime | This value is the time when the volume was created. |
| DesiredSize | Int64 | This value is the desired size of the new volume. |
| DiskControllerType | String | This value is the disk controller. <ul style="list-style-type: none">• IDE—Use this value to create an IDE disk.• SCSI—Use this value to create a SCSI disk. |
| DiskProvisioningType | String | This value is the disk type. <ul style="list-style-type: none">• Dynamic—Use this value for ESX thin disks and for Hyper-V dynamic disks.• Fixed—Use this value for ESX thick disks and for Hyper-V fixed disks.• Flat Disk—Use this value for ESX flat disks. This type is not supported on Hyper-V. |
| DriveFormat | String | This value is the file system format of the volume. |
| DriveType | DriveType | This value is the drive type. |
| IsContainer | Boolean | This value is true if the volume is a container of other volumes; otherwise, it is false. |

| Name | Type | Description |
|---------------------|-----------------------------|---|
| IsReadOnly | Boolean | This value is true if the volume is read-only; otherwise, it is false. |
| IsSupported | Boolean | This value is true if the volume type is supported; otherwise, it is false. |
| IsSystemDrive | Boolean | This value is true if the volume is the system volume; otherwise, it is false. |
| ItemType | String | This value is the type of item. |
| Label | String | This value is the label assigned to the volume. |
| LastAccessTime | DateTime | This value is the time when the volume was last accessed. |
| LastWriteTime | DateTime | This value is the time when the volume was last written to. |
| LogicalVolumeName | String | This value is the name of the logical volume. |
| Metadata | String | This value is any additional metadata that may be displayed for a particular type of item. This metadata is not in any particular format, but you must be able to determine the format and decipher the metadata based on the type. |
| Name | String | This value is the name of the volume. Typically, this name is used for display in the user interface. |
| Path | String | This value is the path of the volume. |
| PreexistingDiskPath | String | This value is the full path and file name of an existing virtual disk that you want to reuse. If this value is null, a new virtual disk will be created. |
| Saturation | SaturationLevel on page 453 | This value represents the saturation level of the volume. Typically, this value is used to display a visual state in the user interface. |
| ShortNameBehavior | Boolean | Do not use this property. Carbonite uses it internally. |

| Name | Type | Description |
|-----------------|--------|---|
| Size | Int64 | This value is the physical size of the volume. |
| TotalSize | Int64 | This value is the total size of the volume. |
| VirtualDiskPath | String | This value is the path on the host where the volume should be stored. |
| VolumeSignature | Int16 | This value is the volume signature. |
| VolumeType | String | This value is the type of volume. |

LogMessage

Returned by

Get-DtLogMessage on page 54

Properties

| Name | Type | Description |
|-----------------|----------------|---|
| Hash | Int32 | This value is the message hash which is used to differentiate messages written with the same Timestamp. |
| Id | Int32 | This value is the message ID. |
| MessageType | String | This value is the type of log message. |
| ProcessId | Int32 | This value is the process ID of the process that generated the message. |
| Sequence | Int32 | This value is the sequence number of this message in the log file. |
| Source | String | This value identifies the service (Double-Take or Double-Take Management Service) that generated the log message. |
| Text | String | This value is the content of the log message. |
| ThreadId | Int32 | This value is the thread ID of the thread that generated the message. |
| Timestamp | DateTime | This value is the local time when the message was generated. |
| TimeStampOffset | DateTimeOffset | This value is the relative UTC time when the message was generated. |

LvmOptions

Parameter of

ServerInfo on page 345, TestFailoverOptions on page 373, VRAOptions on page 395

Properties

| Name | Type | Description |
|-------------|----------------------------|--|
| VolumeGroup | VolumeGroup [] on page 390 | This value represents the volume group properties. |

MachineInfoClass

Parameter of

FailoverReport on page 276

Properties

| Name | Type | Description |
|-----------|--------|--|
| os | String | This value is the server's operating system. |
| osVersion | String | This value is the operating system version. |

MirrorParameters

Parameter of

ConnectionStartParameters on page 245, Start-DtMirror on page 174

Properties

| Name | Type | Description |
|------------------------------|--------------------------------------|--|
| ComparisonCriteria | MirrorComparisonCriteria on page 438 | This value represents how to compare the source protected data and the replica on the target. |
| Options | MirrorOperationOptions on page 439 | This value represents what mirror operation will be performed. |
| OverrideJobOrphansProcessing | Boolean | This value is true if the job's orphan file setting is to be overridden; otherwise, it is false. |

MonitorConfiguration

Parameter of

CoreMonitorOptions on page 254

Properties

| Name | Type | Description |
|----------------------------|---|---|
| ActiveDirectoryCredentials | Credentials on page 257 | This value represents the Active Directory credentials. |
| ActiveDirectoryOptions | ActiveDirectoryFailoverOptions on page 409 | This value represents the Active Directory options. |
| Addresses | MonitoredAddressConfiguration [] on page 311 | This value represents the configuration of the IP addresses that should be monitored for failure. |
| ADPassword | String | This property is no longer used. Use ActiveDirectoryCredentials. |
| ADUserName | String | This property is no longer used. Use ActiveDirectoryCredentials. |
| CustomFailover | Boolean | This value is true if Carbonite is using a custom failover setting for SQL migration; otherwise, it is false. |
| DataAction | FailoverDataAction on page 419 | This value represents the action to take on the queued target data before failover. |
| FailoverIPAddressOption | FailoverIPAddressesOption on page 420 | This value represents which IP addresses should be applied to the target server during failover. |
| FailoverType | FailoverType.Monitor on page 427 | This value represents if an entire server is being failed over. |
| ItemsToFailover | FailoverItems on page 421 | This value represents what will be failed over to the target. |
| MaxScriptFailures | Int32 | This value is the number of times a monitoring script can fail when using MonitoredAddressConfiguration on page |

| Name | Type | Description |
|---------------------|---|--|
| | | 311.PingMethods on page 445.Script. |
| Name | String | This value is the name of the failover monitor. |
| ProcessingOptions | FailoverProcessingOptions on page 423 | This value represents how the failover is processed. |
| ReplaceActions | FailoverReplaceActions on page 424 | This value represents what identity items are to be replaced on the target during failover. |
| ScriptMonitorEngine | String | This property is no longer used. |
| ScriptMonitorName | String | This value is the full path and name of a monitoring script when using MonitoredAddressConfiguration on page 311.PingMethods on page 445.Script. |
| Scripts | FailoverScriptConfiguration on page 278 | This value represents the scripts that should be run at different stages of failover and failback. |
| SourceEndpoint | String | This value is the IP endpoint used to communicate with Carbonite on the source. |
| SSMLogPath | String | This value is the path of the system state (full server processor) log. |
| SSMManualReboot | Boolean | This value is true if the server has to be manually rebooted to apply the system state after failover; otherwise, it is false. |
| SSMRecoveryType | None | This property is no longer used. |
| SSMSourceNicGuids | String | This value is the global unique IDs associated with the source NICs. |
| SSMStagingPath | String | This value is the path of the staged folders on the target. |
| SSMTargetNicGuids | String | This value is the global unique IDs associated with the target NICs. |

| Name | Type | Description |
|---------|-----------------------------|--|
| Trigger | FailoverTrigger on page 426 | This value represents when a failover operation is triggered with respect to the monitored IP addresses. |

MonitoredAddressConfiguration

Parameter of

MonitorConfiguration on page 308

Properties

| Name | Type | Description |
|-----------------|-------------------------|--|
| Address | String | This value is the monitored IP address. |
| EnginePort | Int32 | This value is the port where the engine is listening. |
| MacAddress | String | This value is the MAC address of the NIC for the monitored IP address. |
| MaxPingAttempts | Int16 | This value is the maximum number of ping attempts that will be attempted before considering the IP address to be failed. |
| NicName | String | This value is the name of the NIC. On a Windows server, this is typically a global unique ID. |
| PingInterval | TimeSpan | This value is the interval for how often the monitored IP address is pinged. |
| PingMethods | PingMethods on page 445 | This value represents how the IP address is pinged. |
| ServicePort | Int32 | This value is the port where the Management Service is listening. |
| SubnetMask | String | This value is the subnet mask of an IPv4 IP address. |

MonitoredAddressStatus

Parameter of

CoreMonitorDetails on page 253

Properties

| Name | Type | Description |
|----------------------|----------|--|
| Address | String | This value is the monitored IP address. |
| Alive | Boolean | This value is true if the IP address is responding to pings; otherwise, it is false. |
| FailoverConditionMet | Boolean | This value is true if the IP address is considered failed; otherwise, it is false. |
| RemainingTime | TimeSpan | This value is the amount of time remaining before the IP address is considered failed. |
| WarningConditionMet | Boolean | This value is true if the IP address is in a warning condition; otherwise, it is false. An IP address is considered to be in a warning condition if it has failed to respond to ping attempts for three quarters of the number of attempts allowed to be missed before the IP address is considered failed. For example, if the value for MonitoredAddressConfiguration on page 311.MaxPingAttempts is 20, then this property will be true after 15 failed attempts. |

MonitoringOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|--------------------------|--------------------------------------|--|
| ServiceMonitoringEnabled | Boolean | This value is true if the service monitoring method for failover monitoring is enabled; otherwise it is false. |
| ServiceMonitoringOptions | ServiceMonitoringOptions on page 350 | This value represents the options used for the service monitoring method for failover monitoring. |

NetworkInterfaceInfo

Parameter of

CoreQualificationResults on page 255, ServerInfo on page 345

Properties

| Name | Type | Description |
|----------------|--------------------------------------|---|
| Description | String | This value is the description of the NIC. |
| DnsDomain | String | This value is the DNS domain assigned to the NIC. |
| DnsServers | String | This value is the DNS server assigned to the NIC. |
| Gateways | String | This value is the gateway assigned to the NIC. |
| Guid | String | This value is the unique ID for the NIC. It is equivalent to the SettingID property of the Win32_NetworkAdapterConfiguration WMI class as well as the NetworkInterface.Id property in the Base Class Library (BCL). |
| Index | Int32 | Do not use this property. Carbonite uses it internally. |
| InterfaceIndex | Int32 | Do not use this property. Carbonite uses it internally. |
| IPAddresses | UnicastIPAddressInfo [] on page 376 | This value represents the IP addresses assigned to the NIC. |
| MacAddresses | String | This value represents the MAC address of the NIC. |
| Name | String | This value is the friendly name of the NIC. |
| PnpInstanceId | String | This value is the plug and play instance ID of the NIC. |
| ServiceName | String | This value is the service name of the NIC. |

OperatingSystemInfo

Parameter of

ServerInfo on page 345

Properties

| Name | Type | Description |
|----------------|---|--|
| Architecture | OperatingSystemArchitecture on page 442 | This value represents the operating system architecture. |
| CSDVersion | Int32 | This value is the version of the operating system service pack as a number. |
| HasBCDTemplate | Boolean | This value is true if the BCD template file exists; otherwise it is false. |
| ProductSuite | Int32 | This value is the Windows OSVERSIONINFOEX structure, which contains operating system version information including major and minor version numbers, a build number, a platform identifier, and information about product suites and the latest service pack installed on the system. |
| ProductType | OperatingSystemProductType on page 443 | This value represents the type of operating system. |
| ServicePack | String | This value is the version of the operating system service pack as a string. |
| Version | OperatingSystemVersion on page 316 | This value is the version of the operating system as a number. |
| VersionString | String | This value is the version of the operating system as a string. |

OperatingSystemVersion

Parameter of

OperatingSystemInfo on page 315

Properties

| Name | Type | Description |
|----------|-------|--|
| Build | Int32 | This value is the build number of the operating system. |
| Major | Int32 | This value is the major version of the operating system. |
| Minor | Int32 | This value is the minor version of the operating system. |
| Revision | Int32 | This value is the revision number of the operating system. |

OrphansSchedule

Parameter of

ConnectionSchedule on page 244

Properties

| Name | Type | Description |
|-----------|---------|--|
| IsEnabled | Boolean | This value is true if orphan files (files in the target path location that are not present on the source) will be deleted; otherwise, it is false. There is currently no schedule (time-related options) for orphan files. They can only be on or off. |

Partition

Parameter of

Disk on page 260

Properties

| Name | Type | Description |
|-------------------|---------|--|
| FileSystem | String | This value is the file system for the partition. |
| Flags | String | This value is the flags for the partition. |
| PartitionEndInB | Int64 | This value is the point in bytes where the partition ends. |
| PartitionName | String | This value is the name of the partition. |
| PartitionNumber | Int32 | This value is the partition number. |
| PartitionStartInB | Int64 | This value is the point in bytes where the partition begins. |
| PartitionType | String | This value represents the partition type like primary, extended, or logical. |
| Valid | Boolean | This value is true if the partition is valid; otherwise, it is false. |

PathBlocking

Returned by

Get-DtPathBlocking on page 58

Properties

| Name | Type | Description |
|---------------|------------------------------|--|
| BlockingMode | PathBlockingMode on page 444 | This value represents if the path is blocked. |
| Paths | String [] | This value is the paths that are blocked. |
| SourceAddress | String | This value is the source IP address that corresponds to the connection that has the blocked paths. |

PathTransformation

Returned by

Get-DtRecommendedPathTransform on page 70

Parameter of

CoreConnectionOptions on page 252, ReplicaVmInfo on page 336, RestoreParameters on page 339, SqlMigrationClusterGroup on page 361, VmInfo on page 387

Properties

| Name | Type | Description |
|------------|--------|---------------------------------------|
| SourcePath | String | This value is the path on the source. |
| TargetPath | String | This value is the path on the target. |

PhysicalItem

Returned by

Get-DtPhysicalItem on page 59, Get-DtWorkloadPhysicalItem on page 90

Parameter of

ChangedItems on page 236, Get-DtPhysicalItem on page 59, Get-DtWorkloadPhysicalItem on page 90

Properties

| Name | Type | Description |
|----------------|----------------------------------|---|
| Attributes | FileSystemAttributes on page 429 | This value represents the file system attributes. |
| CreationTime | DateTime | This value is the time when the item was created. |
| IsContainer | Boolean | This value is true if the item is a container of other items; otherwise, it is false. |
| IsReadOnly | Boolean | This value is true if the item is read-only (meaning the Saturation cannot be changed); otherwise, it is false. |
| ItemType | String | This value is the type of item. |
| LastAccessTime | DateTime | This value is the time when the item was last accessed. |
| LastWriteTime | DateTime | This value is the time when the item was last written to. |
| Metadata | String | This value is any additional metadata that may be displayed for a particular type of item. This metadata is not in any particular format, but you must be able to determine the format and decipher the metadata based on the type. |
| Name | String | This value is the name of the item. Typically, this name is used for display in the user interface. |

| Name | Type | Description |
|---------------|-----------------------------|--|
| PartitionName | String | This value is the name of the partition. |
| Path | String | This value is the path of the item. |
| Saturation | SaturationLevel on page 453 | This value represents the saturation level of the item. Typically, this value is used to display a visual state in the user interface. |
| Size | Int64 | This value is the physical size of the item. |

PhysicalRule

Parameter of

ChangedItems on page 236, Workload on page 400

Properties

| Name | Type | Description |
|------------|---------------------------|--|
| Inclusion | InclusionMode on page 435 | This value represents if the rule will be included in or excluded from replication. |
| IsReadOnly | Boolean | This value is true if the rule is read-only; otherwise, it is false. |
| Metadata | String | This value is any additional metadata for the rule. This property can be used by specialized workload implementations to provide additional hints to the job-creation process. |
| Path | String | This value is the path of the data to be replicated. |
| Recursion | RecursionMode on page 447 | This value represents if the rule will be applied to this path only or to all children of the path as well. |

PhysicalVolume

Parameter of

VolumeGroup on page 390

Properties

| Name | Type | Description |
|----------------------|----------------------------------|--|
| Attributes | FileSystemAttributes on page 429 | This value represents the file system attributes. |
| AvailableFreeSpace | Int64 | This value is the amount of free space on the volume. |
| CreationTime | DateTime | This value is the time when the volume was created. |
| DesiredSize | Int64 | This value is the desired size of the new volume. |
| DiskControllerType | String | This value is the disk controller. <ul style="list-style-type: none">• IDE—Use this value to create an IDE disk.• SCSI—Use this value to create a SCSI disk. |
| DiskProvisioningType | String | This value is the disk type. <ul style="list-style-type: none">• Dynamic—Use this value for ESX thin disks and for Hyper-V dynamic disks.• Fixed—Use this value for ESX thick disks and for Hyper-V fixed disks.• Flat Disk—Use this value for ESX flat disks. This type is not supported on Hyper-V. |
| DriveFormat | String | This value is the file system format of the volume. |
| DriveType | DriveType | This value is the drive type. |
| Guid | Guid | This value is the UUID assigned to an existing virtual disk. |
| IsContainer | Boolean | This value is true if the volume is a container of other |

| Name | Type | Description |
|---------------------|-----------------------------|---|
| | | volumes; otherwise, it is false. |
| IsReadOnly | Boolean | This value is true if the volume is read-only; otherwise, it is false. |
| IsSupported | Boolean | This value is true if the volume type is supported; otherwise, it is false. |
| IsSystemDrive | Boolean | This value is true if the volume is the system volume; otherwise, it is false. |
| ItemType | String | This value is the type of item. |
| Label | String | This value is the time when the volume was last accessed. |
| LastAccessTime | DateTime | This value is the time when the volume was last accessed. |
| LastWriteTime | DateTime | This value is the time when the volume was last written to. |
| Metadata | String | This value is any additional metadata that may be displayed for a particular type of item. This metadata is not in any particular format, but you must be able to determine the format and decipher the metadata based on the type. |
| Name | String | This value is the name of the volume. Typically, this name is used for display in the user interface. |
| PartitionName | String | This value is the name of the partition. |
| Path | String | This value is the path of the volume. |
| PreexistingDiskPath | String | This value is the full path and file name of an existing virtual disk that you want to reuse. If this value is null, a new virtual disk will be created. |
| Saturation | SaturationLevel on page 453 | This value represents the saturation level of the volume. Typically, this value is used to display a visual state in the user interface. |

| Name | Type | Description |
|-------------------|---------|---|
| ShortNameBehavior | Boolean | Do not use this property. Carbonite uses it internally. |
| Size | Int64 | This value is the physical size of the volume. |
| StartOfDataInByte | Int64 | Do not use this property. Carbonite uses it internally. |
| TotalSize | Int64 | This value is the total size of the volume. |
| VirtualDiskPath | String | This value is the path on the host where the volume should be stored. |
| VolumeSignature | Int16 | This value is the volume signature. |
| VolumeType | String | This value is the type of volume. |

ProductInfo

Returned by

Get-DtProductInfo on page 60

Parameter of

CoreQualificationResults on page 255

Properties

| Name | Type | Description |
|--------------------------|------------------------------|---|
| ActivationStatus | ActivationStatus on page 224 | This value represents the activation of the server. |
| CanPauseTarget | Boolean | This value is true if target operations can be paused; otherwise, it is false. |
| CanResumeTarget | Boolean | This value is true if target operations can be resumed; otherwise, it is false. |
| EngineModuleStatus | Int32 | Do not use this property. Carbonite uses it internally. |
| EnginePort | Int32 | This value is the port where the engine is listening. |
| GatewaySessionKey | Int64 | Do not use this property. Carbonite uses it internally. |
| InstallationPath | String | This value is the installation path. |
| LocalEndpoints | String | This value is the local endpoints. |
| MachineName | String | This value is the name of the machine. |
| ManagementServiceVersion | ProductVersion on page 329 | This value is the version of the Management Service on the server. |
| Name | String | This value is the name of the product on the server. |

| Name | Type | Description |
|-----------------|----------------------------|---|
| NatEndpoints | String | This value is the NAT endpoints. |
| ReservedAddress | String | This value is the reserved IP address for the server. |
| UniqueID | String | This value is the unique ID of the server. |
| Version | ProductVersion on page 329 | This value is the version of the product on the server. |

ProductVersion

Parameter of

ProductInfo on page 327, TargetStateInfo on page 370

Properties

| Name | Type | Description |
|-------------|-------|---|
| Build | Int32 | This value is the build (or sequence number) of the product. |
| Hotfix | Int32 | This value is the hotfix (or limited release) of the product. |
| Major | Int32 | This value is the major version of the product. |
| Minor | Int32 | This value is the minor version of the product. |
| ServicePack | Int32 | This value is the service pack version of the product. |

PSCredential

Parameter of

Get-DefaultSqlCredentials on page 33, New-DtServer on page 110, New-DtUri on page 113, New-DtUvraServer on page 115, Set-DtJobCredentials on page 152, Set-DtScriptCredentials on page 159, Set-DtServerCredential on page 161, Test-DtActiveDirectoryCredentials on page 195, Test-DtScriptCredentials on page 201,

Properties

| Name | Type | Description |
|----------|--------------|--------------------------------------|
| UserName | String | This value is the user name. |
| Password | SecureString | This value is an encrypted password. |

RecommendedFailbackOptions

Returned by

Get-DtRecommendedFailbackOptions on page 63

Properties

| Name | Type | Description |
|-----------------|-----------------------------|---|
| FailbackOptions | FailbackOptions on page 274 | This value represents the failback configuration. |
| IsSourceNew | Boolean | This value is true if the data from the target was or is being restored to a new source server; otherwise, it is false. |
| RestoreStatus | RestoreStatus on page 452 | This value represents the status of the restoration process. |

RecommendedFailoverOptions

Returned by

Get-DtRecommendedFailoverOptions on page 65

Properties

| Name | Type | Description |
|---------------------------------------|-------------------------------|--|
| FailoverOptions | FailoverOptions on page 275 | This value represents the failover configuration. |
| IsSkipSourceResourceShutdownSupported | Boolean | This value is true if skipping the source cluster resource shutdown is supported; otherwise, it is false. |
| IsSkipSourceServicesShutdownSupported | Boolean | This value is true if skipping the source services shutdown is supported; otherwise, it is false. |
| IsTestFailoverSupported | Boolean | This value is true if test failover is supported for the job type; otherwise, it is false. |
| Snapshots | SnapshotEntry [] on page 352 | This value represents the available snapshots on the target. |
| WarningTextTestFailover | Boolean | This value is true if optional warning text to display if test failover is selected; otherwise, it is false. |
| WarnUserOfInconsistentProtectionData | Boolean | This value is true if the data on the target may be in an inconsistent state; otherwise, it is false. |

RecommendedJobOptions

Returned by

Get-DtRecommendedJobOptions on page 67

Properties

| Name | Type | Description |
|-------------------------|-------------------------------------|--|
| JobOptions | JobOptions on page 292 | This value represents the current options for the job. |
| JobQualificationResults | JobQualificationResults on page 295 | This value represents the job qualification results which are other possible job options, in addition to those that are strictly recommended. For example, JobOptions.CoreConnectionOptions on page 252.TargetAddress may be the recommended address, but JobQualificationResults.CoreQualificationResults on page 255.TargetIPAddresses may include other IP addresses on the server. |

RecommendedRestoreOptions

Returned by

Get-DtRecommendedRestoreOptions on page 71

Properties

| Name | Type | Description |
|-------------------------|----------------------------|---|
| CanClearRestoreRequired | Boolean | This value is true if the restore required flag can be cleared; otherwise, it is false. |
| IsNat | Boolean | This value is true if the IP address is a public NAT address; otherwise, it is false. |
| PossibleSourceAddresses | String | This value is the possible source IP addresses. |
| RestoreOptions | RestoreOptions on page 338 | This value represents the restoration options. |
| SameSourceOnly | Boolean | This value is true is the job can only be restored to the same source server; otherwise, it is false. |

RepairStatus

Returned by

Get-DtRepairJobOptionsStatus on page 73

Properties

| Name | Type | Description |
|------------|---------------------------------|--|
| Task | ActivityStatusEntry on page 225 | This value represents the status of the task being repaired. |
| JobOptions | JobOptions on page 292 | This value represents the repaired job options. This value will be null until the repair has been completed. |

ReplicaVmInfo

Parameter of

VRAOptions on page 395

Properties

| Name | Type | Description |
|---------------------|-----------------------------------|---|
| Address | String | This value is the virtual machine guest name or IP address. |
| BiosGuid | String | This value is the virtual machine BIOS unique ID. |
| BootVolumeSignature | Int8 [] | This value is the virtual machine boot volume signature which is required for agentless Hyper-V WAN failover. |
| CoresPerProcessor | Int32 | This value is the number of cores per processor. A value of 0 is used for an unknown or unspecified number. |
| Cpus | Int32 | This value is the number of processors. |
| DisplayName | String | This value is the virtual machine display name. |
| GuestOS | String | This value is the virtual machine guest operating system. |
| GuestUri | Uri | This value is the guest URI. |
| Id | Guid | This value is the virtual machine unique ID. |
| Memory | Int64 | This value is the amount of memory in bytes. |
| OperatingSystem | String | This value is the ESX operating system. |
| Path | String | This value is the virtual machine configuration file location. |
| PathTransformations | PathTransformation [] on page 320 | This value represents where the protected source virtual machine will be located on the target. |
| PrestageFolder | String | This value is the full path to a location that contains an |

| Name | Type | Description |
|---------------------|-----------|--|
| | | existing virtual disk that you want to reuse. |
| ReplicaVmFirmware | String | This value is for Linux virtual machines and indicates if the firmware is BIOS or EFI. |
| ReplicaVmVersion | String | This value is for the version of the virtual machine hardware or the Linux firmware. |
| RunOnceAtStartup | String | This value is a command to run when the replica virtual machine is first powered on. |
| SnapshotDataPath | String | This value is the virtual machine snapshot location. |
| SnapshotFileNames | String [] | This value is the virtual machine snapshot file names. |
| SystemDirectory | String | This value is the virtual machine system directory which is required for agentless Hyper-V WAN failover. |
| VirtualHardDiskPath | String [] | This value is the virtual machine hard disk location. |

RestoreOptions

Parameter of

RecommendedRestoreOptions on page 334

Properties

| Name | Type | Description |
|----------------------|-------------------------------|--|
| ClearRestoreRequired | Boolean | This value is true if the restore required flag can be cleared without restoring; otherwise, it is false. |
| EnginePort | Int32 | This value is the port where the engine is listening. |
| RestoreParameters | RestoreParameters on page 339 | This value represents the restoration configuration. |
| RestoreTargetHostUri | Uri | This value is the target URI. (The target is the target of the restoration connection, not the original protection connection.) |

RestoreParameters

Parameter of

RestoreOptions on page 338

Properties

| Name | Type | Description |
|--------------------------|---|--|
| ArchiveBinLocation | String | This property is no longer used. |
| ArchiveOption | ArchiveOption | This property is no longer used. |
| CompressionLevel | CompressionLevel on page 242 | This value represents how data will be compressed when it is transmitted from the source to the target. |
| MirrorComparisonCriteria | MirrorComparisonCriteria on page 438 | This value represents how to compare the source protected data and the replica on the target. |
| OriginalSourceName | String | This value is the name of the original source server from the original protection job. |
| OriginalTargetRoute | String | This value is the route for the original target server from the original protection job. |
| PathTransformations | PathTransformation on page 320 | This value represents where the source protected data will be located on the target. |
| ProcessOrphans | Boolean | This value is true if the orphan files (files in the target path location that are not present on the source) are to be deleted; otherwise, it is false. |
| ReplicationSetName | String | This value is the name of the protected data set. |
| RestoreOptions | RestoreParametersRestoreOptions on page 450 | This value represents additional options used for the restoration process. |

ReverseOptions

Parameter of

VRAOptions on page 395

Properties

| Name | Type | Description |
|---------------------|---------------------------------|--|
| ReverseVMwareServer | URI | This value is the URI of the ESX server hosting the reverse appliance. |
| TestFailover | TestFailoverOptions on page 373 | This values represents the reverse test failover options for full server to ESX jobs. |
| VmName | String | This value is the display name of the reverse virtual machine. |
| VmPath | String | This value is the path on the host where the reverse virtual machine should be stored. |
| Volumes | VolumeOptions on page 391 | This value represents a volume to reverse and any changes to its base configuration. |

ScriptPoint

Parameter of

ConnectionStartParameters on page 245

Properties

| Name | Type | Description |
|-----------------|------------------------------------|---|
| Arguments | String | This value is a comma-separated list of valid arguments required to execute the script. |
| ExecutionMode | ScriptExecutionMode on page 454 | This value represents if Carbonite will wait while executing the script. |
| InteractionMode | DesktopInteractionMode on page 415 | This value represents if the script processing will display on screen. |
| Path | String | This value is the full path and file name of the script. |
| Type | ScriptPointType on page 455 | This value represents the type of script to execute. |

Server

Returned by

New-DtServer on page 110, New-DtUvraServer on page 115, Set-DtServerCredential on page 161

Parameter of

Add-DtPhysicalRule on page 18, Add-DtUvraPhysicalRule on page 20, Checkpoint-DtConnection on page 22, Close-DtWorkload on page 26, Confirm-DtJobOptions on page 27, Disconnect-DtServer on page 30, Edit-DtJob on page 31, Get-DtAccessLevel on page 34, Get-DtActivationStatus on page 35, Get-DtBandwidthLimit on page 37, Get-DtConnectionIds on page 39, Get-DtDiagnostics on page 40, Get-DtEmailNotificationOptions on page 44, Get-DtEventLogEntry on page 47, Get-DtJob on page 48, Get-DtJobActionStatus on page 50, Get-DtLogicalItem on page 53, Get-DtLogMessage on page 54, Get-DtOption on page 57, Get-DtPathBlocking on page 58, Get-DtPhysicalItem on page 59, Get-DtProductInfo on page 60, Get-DtQualificationResults on page 61, Get-DtRecommendedFailbackOptions on page 63, Get-DtRecommendedFailoverOptions on page 65, Get-DtRecommendedJobOptions on page 67, Get-DtRecommendedPathTransform on page 70, Get-DtRecommendedRestoreOptions on page 71, Get-DtScriptCredentials on page 75, Get-DtServerInfo on page 76, Get-DtSnapshot on page 77, Get-DtUvraRecommendedFailoverOptions on page 83, Get-DtUvraRecommendedRemoveOptions on page 85, Get-DtVerificationStatus on page 87, Get-DtWorkload on page 89, Get-DtWorkloadPhysicalItem on page 90, Get-DtWorkloadType on page 91, Invoke-DtQueueTask on page 99, New-DtFilesAndFoldersJob on page 105, New-DtJob on page 107, New-DtTaskParameters on page 112, New-DtWorkload on page 118, Remove-DtJob on page 121, Remove-DtPhysicalRule on page 123, Remove-DtSnapshot on page 125, Repair-DtJobOptions on page 129, Restart-DtReplicationService on page 135, Resume-DtJob on page 136, Resume-DtMirror on page 138, Resume-DtTarget on page 140, Save-DtJobDiagnostics on page 143, Set-DtActivationCode on page 147, Set-DtBandwidthLimit on page 149, Set-DtEmailNotificationOptions on page 151, Set-DtJobCredentials on page 152, Set-DtLogicalItemSelection on page 154, Set-DtOption on page 156, Set-DtPathBlocking on page 158, Set-DtScriptCredentials on page 159, Start-DtJob on page 164, Start-DtJobFailback on page 166, Start-DtJobFailover on page 168, Start-DtJobRestore on page 170, Start-DtJobReverse on page 172, Start-DtMirror on page 174, Start-DtOrphansProcessing on page 176, Start-DtReplication on page 178, Start-DtVerify on page 180, Stop-DtJob on page 182, Stop-DtMirror on page 184, Stop-DtReplication on page 186, Stop-DtReplicationService on page 188, Suspend-DtJob on page 189, Suspend-DtMirror on page 191, Suspend-DtTarget on page 193, Test-DtActiveDirectoryCredentials on page 195, Test-DtEmailNotification on page 197, Test-DtScript on page 199, Test-DtScriptCredentials on page 201, Undo-DtJobFailover on page 205, Update-DtShares on page 210, Wait-DtMirrorComplete on page 214

Properties

| Name | Type | Description |
|-------------|-------------------------|--|
| Credentials | Credentials on page 257 | This value represents the credentials used to access the server. |

| Name | Type | Description |
|----------|--------|--|
| HostName | String | This value is the name of the server. |
| Port | Int32 | This value is the port number used to access the server. |
| Role | String | This value is an optional role defined for the server. |
| URI | String | This value is the URI of the server. |

ServerActivationInformation

Returned by

Get-DtOnlineActivationRequest on page 56

Properties

| Name | Type | Description |
|-------------------|--------------------|---|
| Code | String | This value is the license key. |
| ServerInformation | String | This value is the unique server information which will be used to generate the activation key for this particular server. |
| ServerName | String | This value is the name of the server. |
| ServiceHost | Server on page 342 | This value is a server object returned from the New-DtServer cmdlet. See New-DtServer on page 110. |

ServerInfo

Returned by

Get-DtServerInfo on page 76

Properties

| Name | Type | Description |
|----------------------|-------------------------|---|
| BiosGuid | Guid | This value is the BIOS unique ID. |
| BootVolume | String | This value is the server's boot volume. |
| CoresPerProcessor | Int32 | This value is the number of cores per processor. A value of 0 is used for an unknown or unspecified number. |
| Disks | Disk [] on page 260 | This value is the disks on the server. |
| Domain | String | This value is the domain the server is a member of. |
| DtDriverLoaded | Boolean | This value is true if the replication driver is loaded; otherwise, it is false. |
| EFIBoot | Boolean | This value is true if the boot volume is EFI; otherwise, it is false and the boot volume is BIOS. |
| EFIBootInfo | EFIBootInfo on page 266 | This value represents the EFI boot information. |
| FullyQualifiedDomain | String | This value is the fully qualified domain name. |
| HalInternalName | String | This value is the internal name of the hardware abstraction layer (HAL). |
| HalVersion | String | The version of the hardware abstraction layer |
| HasIntegrationTools | Boolean | This value is true if the server has integration tools installed; otherwise, it is false. |

| Name | Type | Description |
|-----------------------|---------|--|
| HostedByAws | Boolean | This value is true if the server is hosted by Amazon Web Services (AWS); otherwise, it is false. |
| HostedByAzure | Boolean | This value is true if the server is hosted by Microsoft Azure; otherwise, it is false. |
| HostedByGcp | Boolean | This value is true if the server is hosted by Google Cloud Platform (GCP); otherwise, it is false. |
| IsClustered | Boolean | This value is true if the server is part of a cluster; otherwise, it is false. |
| IsHostedByHyperV | Boolean | This value is true if the server is hosted by Hyper-V; otherwise, it is false. |
| IsHostedByVMware | Boolean | This value is true if the server is hosted by VMware; otherwise, it is false. |
| IsHostedByXen | Boolean | This value is true if the server is hosted by Xen; otherwise, it is false. |
| IsHyperVHost | Boolean | This value is true if the server is a Hyper-V host; otherwise, it is false. |
| IsReplicationEnabled | Boolean | This value is true if replication is enabled; otherwise, it is false. |
| IsSBS | Boolean | This value is true if the server is running Microsoft Windows Small Business Server; otherwise, it is false. |
| IsSSE | Boolean | This value is true if the server is running Microsoft Windows Storage Server; otherwise, it is false. |
| IsVirtual | Boolean | This value is true if the server is a virtual machine; otherwise, it is false. |
| LogicalProcessorCount | Int32 | This value is the number of logical processors including threads. |

| Name | Type | Description |
|-----------------------|--------------------------------------|--|
| LvmOptions | LvmOptions on page 305 | This value represents the Linux Volume Manager (LVM) options. |
| ManagementPort | Int32 | This value is the port where the Management Service is listening. |
| MemorySize | Int64 | This value is the amount of memory on the server. |
| Name | String | This value is the name of the server. |
| NetworkMethod | NetworkMethods on page 441 | This value identifies what network Linux servers are using |
| NetworkInterfaces | NetworkInterfaceInfo [] on page 314 | This value represents the NICs on the server. |
| NodeLockedServerInfo | String | This value is the server information needed for an activation key. |
| OperatingSystem | OperatingSystemInfo on page 315 | This value is the operating system on the server. |
| ProcessorCount | Int32 | This value is the processor count on the server. |
| ProgramFilesPath | String | This value is the server's program files path. |
| SystemPath | String | This value is the server's system path. |
| SystemRoot | String | This value is the server's system root path. |
| SystemStateDefinition | String | Do not use this property. Carbonite uses it internally. |
| SystemVolume | String | This value is the server's system volume. |
| Volumes | Volume [] on page 388 | This value represents the volumes on the server. |

ServerQualificationResults

Parameter of

VRAQualificationResults on page 398

Properties

| Name | Type | Description |
|-------------------|--|---|
| CoresPerProcessor | Int32 | This value is the number of cores per processor. A value of 0 is used for an unknown or unspecified number. |
| Cpus | Int32 | This value is the number of processors. |
| LogicalProcessors | Int32 | This value is the number of logical processors including threads. |
| Memory | Int64 | This value is the amount of memory in bytes. |
| Version | String | This value is the version of the target host hypervisor. |
| VirtualSwitches | VirtualSwitchInfo [] on page 385 | This value represents the virtual switch information |
| Volumes | VolumeQualificationResults on page 394 | This value represents the volume information. |

ServiceInformation

Parameter of

ServiceMonitoringOptions on page 350, TargetServicesOptions on page 368

Properties

| Name | Type | Description |
|-------------|---------|---|
| DisplayName | String | This value is the service display name. |
| Name | String | This value is the service name. |
| Selected | Boolean | This value is true if the service is selected for service monitoring; otherwise, it is false. |

ServiceMonitoringOptions

Parameter of

MonitoringOptions on page 313

Properties

| Name | Type | Description |
|--------------|-----------------------------------|---|
| RepeatCount | Int32 | This value is the number of times to repeat the call to retrieve the service status. |
| Services | ServiceInformation [] on page 349 | This value represents the services that should be monitored. |
| StartService | Boolean | This value is true if the monitored service should be started if it is stopped; otherwise, it is false. |

SnapshotAdvancedOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|---------------|------------------------------|--|
| SnapshotSizes | SnapshotSize [] on page 355 | This value represents snapshot sizes in a percentage of the original volume. |

SnapshotEntry

Returned by

Get-DtSnapshot on page 77

Parameter of

RecommendedFailoverOptions on page 332, TargetStateInfo on page 370

Properties

| Name | Type | Description |
|------------|------------------------------------|--|
| Attributes | SnapshotAttributes on page 457 | This value represents a snapshot created by the Windows Volume Snapshot Service. |
| Comment | String | This value is any description associated with the snapshot. |
| ConName | String | This value is the connection name for the snapshot. |
| Id | Guid | This value is the unique ID for the snapshot. |
| Reason | SnapshotCreationReason on page 458 | This value represents why the snapshot was taken. |
| Result | String | This value is a description of the result of the snapshot. |
| States | TargetStates on page 466 | This value represents the state of the target associated with the snapshot. |
| Timestamp | DateTimeOffset | This value is the time when the snapshot was taken. |

SnapshotMonitorOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|-------------------------|----------|--|
| SnapshotMonitorEnabled | Boolean | This value is true if snapshot monitoring is enabled; otherwise, it is false. |
| SnapshotMonitorInterval | TimeSpan | This value is the frequency that Carbonite checks the snapshot usage percentage. |
| SnapshotMonitoThreshold | Int64 | This value is the threshold to warn when snapshot usage percentage will be exceeded. |

SnapshotSchedule

Parameter of

ConnectionStartParameters on page 245

Properties

| Name | Type | Description |
|------------------------|----------|--|
| Interval | TimeSpan | This value is the interval for taking snapshots. |
| IsEnabled | Boolean | This value is true if the snapshot schedule is set; otherwise, it is false. |
| MaxNumberOfSnapshots | Int32 | This value is the maximum number of snapshots that will be retained. |
| SnapshotSizePercentage | Int32 | This value represents snapshot sizes in a percentage of the original volume. |
| StartTime | DateTime | This value is the when the snapshot schedule should start. |

SnapshotSize

Parameter of

SnapshotAdvancedOptions on page 351

Properties

| Name | Type | Description |
|---------------|--------|---|
| VolumeName | String | This values represents the name of the original volume. |
| SizeInPercent | Int32 | This values represents a percentage. |

SnapshotStorage

Parameter of

SnapshotStorageDetails on page 357

Properties

| Name | Type | Description |
|--------------------|--------|--|
| AllocatedSpace | Int64 | This value is the allocated space on the differential volume. |
| DiffVolumeDeviceID | String | This value is the device ID of the differential volume. |
| MaxSpace | Int64 | This value is the maximum amount of space available for snapshots. |
| UsedSpace | Int64 | This value is the used space on the differential volume. |
| VolumeDeviceID | String | This value is the device ID of the volume. |

SnapshotStorageDetails

Parameter of

CloudJobDetails on page 237

Properties

| Name | Type | Description |
|---------------------------|-----------------------------|--|
| VolumeSnapshotStorageList | SnapshotStorage on page 356 | This value represents the snapshot space consumed on a volume. |

SourceQueueSnapshotEntry

Returned by

Get-DtSourceQueueSnapshot on page 79, Get-DtSourceQueueSnapshots on page 81

Properties

| Name | Type | Description |
|--------------------|------------------------------------|---|
| CorrelationId | Guid | This value is the correlation ID for the snapshot. |
| JobId | Guid | This value is the job ID. |
| Quality | SnapshotQuality on page 459 | This value represents the quality of the snapshot. |
| Reason | SnapshotCreationReason on page 458 | This value represents why the snapshot was taken. |
| SnapshotSetId | Guid | This value is the snapshot ID. |
| SourceAddress | String | This value is the IP address of the source server |
| State | SnapshotState on page 460 | This value is the state of the snapshot. |
| TargetStates | TargetStates on page 466 | This value represents the state of the target associated with the snapshot. |
| TimeStampCompleted | DateTimeOffset | This value is when the coordinated snapshot was completed. |
| TimeStampRequested | DateTimeOffset | This value is when the coordinated snapshot was requested. |

SqlCredentials

Parameter of

SqlMigrationOptions on page 362

Properties

| Name | Type | Description |
|-------------|-----------------------------------|---|
| Credentials | Credentials on page 257 | This value represents the server credentials. |
| Mode | SqlAuthenticationMode on page 462 | Specify the type of credentials to use for SQL Server authentication. |

SqlInstance

Parameter of

SqlMigrationClusterGroup on page 361, SqlMigrationOptions on page 362, SqlMigrationQualificationResults on page 364

Properties

| Name | Type | Description |
|--------------|----------------------------|--|
| Address | String | If you are using AAG, this value is the AAG listener name or the IP address when failed over. If you are not using AAG, this value is the server name. |
| InstanceName | String | This value is the instance name. |
| Port | Int32 | This value is the port to access the SQL server. |
| ServerName | String | If you are using AAG, this value is the AAG listener name. If you are not using AAG, this value is the server name. |
| State | SqlServerState on page 463 | This value is the state of the SQL server. |
| Type | SqlServerType on page 464 | This value is the type of SQL server. |
| WorkloadName | String | If you are using AAG, this value is the AAG name. If you are not using AAG, this value is the instance name. |

SqlMigrationClusterGroup

Parameter of

SqlMigrationQualificationResults on page 364

Properties

| Name | Type | Description |
|---------------------|--------------------------------------|--|
| Addresses | UnicastIPAddressInfo [] on page 376 | This value represents the IP addresses assigned to the NIC. |
| Instance | SqlInstance on page 360 | This value represents the instance that corresponds to the FCI or AlwaysOn replica. |
| Name | String | This value represents the name of the SQL instance. |
| PathTransformations | PathTransformation on page 320 | This value represents where the source protected data will be located on the target. |

SqlMigrationOptions

Parameter of

ApplicationOptions on page 227

Properties

| Name | Type | Description |
|-------------------------------------|---------------------------------------|---|
| AdCredentials | Credentials on page 257 | This value represents Active Directory credentials. |
| DatabasesOnly | Boolean | This value is true if only the databases will be migrated; otherwise, it is false. |
| DbToolsCredentials | Credentials on page 257 | This values represents credentials for migrating the SQL configuration. |
| DirectoriesToCheck | None | Do not use this property. Carbonite uses it internally. |
| MigrateDatabaseOptions | Boolean | This value is true if the database options will be migrated; otherwise, it is false. |
| OriginalTargetInstances | None | Do not use this property. Carbonite uses it internally. |
| OverrideBackupAlwaysOnDatabasesPath | String | This value is the location of the MDB files that will be backed up to for AlwaysOn databases. An empty string will skip the backup. |
| SourceOptions | SourceSqlMigrationOptions on page 461 | This value indicates how the databases on the source and the source itself will be handled. |
| SourcePort | Int32 | This value is the port on the source server. |
| SourceSqlCredentials | None | This property is no longer used. Use SourceSqlCredentialsAndMode. |
| SourceSqlCredentialsAndMode | SqlCredentials on page 359 | This values represents the source SQL server credentials and the authentication mode. |

| Name | Type | Description |
|-----------------------------|----------------------------|--|
| TargetInstance | SqlInstance on page 360 | This value is the instance on the target where you want to migrate the data from the source. |
| TargetPort | Int32 | This value is the port on the target server. |
| TargetSqlCredentials | None | This property is no longer used. Use TargetSqlCredentialsAndMode. |
| TargetSqlCredentialsAndMode | SqlCredentials on page 359 | This values represents the target SQL server credentials and the authentication mode. |

SqlMigrationQualificationResults

Parameter of

ApplicationQualificationResults on page 229

Properties

| Name | Type | Description |
|---------------------------|--------------------------------------|--|
| TargetInstances | SqlInstance on page 360 | This value identifies the available SQL instances on the target server. |
| SqlMigrationClusterGroups | SqlMigrationClusterGroup on page 361 | This value represents configuration information for available FCIs and AlwaysOn replicas on the target server. |

SystemStateOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|---------------------------|---------------------------------------|---|
| AlternateVolumeMapping | String | This value is the mapping of source volumes to target volumes for alternate volume staging, for example, C::N:. |
| AlternateVolumeStaging | Boolean | This value is true if volumes will be staged to an alternate volume; otherwise it is false. |
| ApplyPorts | Boolean | This value indicates if the source ports should be copied to the target. |
| ClearMonitor | Boolean | This value is true if the failover monitor should be removed at cutover; otherwise, it is false. |
| IsWanFailover | Boolean | This value is true if the job uses WAN failover; otherwise, it is false. |
| KeepTargetActivationCode | Boolean | This value is true if the target license key should be kept after failover; otherwise, it is false (and the source's license key will be applied to the target after failover). |
| NicMappings | FullServerNicMappings [] on page 284 | This value represents the NIC mappings for a full server job. |
| ServerNameOverride | String | Do not use this property. Carbonite uses it internally. |
| ServicesToStopOptions | TargetServicesToStop [] on page 369 | This value represents the services on the target to stop during protection. |
| ShouldApplyDiskSignatures | Boolean | This value is true if disk signatures should be applied at cutover; otherwise, it is false. |

| Name | Type | Description |
|-----------------------|--------|---|
| SourceReservedAddress | String | This value is the reserved IP address on the source server. |
| StagingFolder | String | This value is the folder on the target where operating system files from the source will be staged. |
| TargetReservedAddress | String | This value is the reserved IP address on the target server |

TargetFileServerQualificationResults

Parameter of

ClusterFilesAndFoldersQualificationResults on page 239

Properties

| Name | Type | Description |
|---------------------------------|--------------------------------------|---|
| ClusterResourceGroupIPAddresses | UnicastIPAddressInfo [] on page 376 | This value represents a unicast IP address. |
| ClusterResourceGroupName | String | This value is the name of the cluster group that contains the resource. |
| CurrentOwnerNodeName | String | This value is the name of the resource's current owning node. |
| DiskSize | Int64 | This value is total disk size, in bytes, of the volume. |
| DriveLetter | String | This value is the volume drive letter. |
| FreeSpace | Int64 | This value is the free space, in bytes, available on the volume. |
| IsVolumeCSV | Boolean | This value is true if it is a cluster shared volume; otherwise, it is false. |
| RecommendedGroup | Boolean | This value is true if there is a file server group on the target cluster that matches the protected file server group from the source; otherwise, it is false. When this value is true, an IP address from the group will be used as the route for CoreConnectionOptions on page 252.TargetAddress. |

TargetServicesOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|----------------------|-----------------------------------|--|
| FailoverServices | ServiceInformation [] on page 349 | This value represents services that will be stopped on the source and started on the target during failover and started on the source and stopped on the target during failback. |
| StartAndStopServices | Boolean | This value is true if the services will be stopped and started; otherwise, it is false (and the services will be left running). |

TargetServicesToStop

Parameter of

SystemStateOptions on page 365

Properties

| Name | Type | Description |
|------------------------|---------------------------------|---|
| Failover | Boolean | This value is true if the service should be started after failover; otherwise, it is false. In addition to starting this service after failover, this value is whether the service will be stopped during failback. |
| IsCritical | Boolean | This value is true if the service is considered critical; otherwise, it is false. |
| KeepRunningNonCritical | Boolean | This value is true if the non-critical service should be kept running; otherwise, it is false. |
| ServiceDescription | String | This value is the service description. |
| ServiceName | String | This value is the name of the service |
| State | TargetServiceStatus on page 465 | This value represents the state of a service. |

TargetStateInfo

Parameter of

UnmanagedConnectionOptions on page 377

Properties

| Name | Type | Description |
|-------------------------|-------------------------------------|---|
| ConnectionId | Guid | This value is the unique ID assigned to the connection. |
| ConnectTime | DateTimeOffset | This value is the time when the connection was created. |
| EngineConnectionId | Int32 | This value is the unique ID assigned to the replication engine connection. |
| EngineJobType | EngineJobType on page 417 | This value is the job type according to the replication engine. (These jobs are not the same as JobInfo on page 289.JobType.) |
| HasSnapshotSchedule | Boolean | This value is true if the connection has a snapshot schedule; otherwise, it is false. |
| LastUpdateTime | DateTimeOffset | This value is the last time the target connection information was updated. |
| NextScheduledSnapshot | DateTimeOffset | This value is the time of the next scheduled snapshot. This property is only valid when HasSnapshotSchedule is true. |
| Paths | String [] | This value is the paths of the replica data on the target. |
| QueueBytes | Int64 | This value is the number of bytes in the target queue. |
| ReplicationSetName | String | This value is the name of the protected data set. |
| ReplicationSetUsageType | ReplicationSetUsageType on page 448 | This value defines the possible usage types for the protected data set. |

| Name | Type | Description |
|---------------------------|-------------------------------|---|
| ScheduledSnapshotInterval | TimeSpan | This value is the interval for the scheduled snapshot. This property is only valid when HasSnapshotSchedule is true. |
| Snapshots | SnapshotEntry [] on page 352 | This value represents the current list of snapshots for the connection. |
| SourceEndpoint | String | This value is the IP endpoint used to communicate with Carbonite on the source. |
| SourceEndpointFromSource | String | This value is the default address for the source server as provided by the source server. |
| SourceMachineName | String | This value is the name of the source server. |
| SourceVersion | ProductVersion on page 329 | This value is the Carbonite product version on the source. |
| TargetEndpoint | String | This value is the destination endpoint of the socket connection. If there is a NAT router between the source and target, this value represents the target's private address (translated from the public address). In other words, this will not match the target endpoint specified for the target route of the connection from the source's perspective. |
| TargetStates | TargetStates on page 466 | This values is the state of the target. |

TaskParameters

Returned by

New-DtTaskParameters on page 112

Parameter of

Invoke-DtQueueTask on page 99

Properties

| Name | Type | Description |
|-----------|--------|---|
| Arguments | String | This value is a comma-separated list of valid arguments required to execute the script. |
| Script | String | This value is the full path and file name of the script. |

TestFailoverOptions

Parameter of

VRAOptions on page 395

Properties

| Name | Type | Description |
|--------------------|-------------------------------|--|
| DeleteSnapshots | Boolean | This value is true if snapshots will be deleted after the test failover; otherwise, it is false. |
| DeleteVirtualDisks | Boolean | This value is true if the virtual disks will be deleted after the test failover; otherwise, it is false. |
| DiskOptions | DiskOptions [] on page 261 | This value is the disk options available on a Linux server. Use this property for the match source disk configuration strategy. If you want a per volume disk configuration strategy use VolumeOptions on page 391. |
| LvmOptions | LvmOptions on page 305 | This value represents logical volume manager (LVM) options for a Linux server. |
| ReplicaDisplayName | String | This value is the replica display name of the test failover server. This value is only for full server to ESX for Linux jobs and allows you to specify an alternate server for test failover. |
| Volumes | VolumeOptions [] on page 391 | This value represents the test volume and any changes to its base configuration. For Linux, use this property for the per volume disk configuration strategy. If you want a matching source disk configuration strategy use DiskOptions on page 261. |

TestFailoverServerCredentials

Parameter of

FullServerTestFailoverOptions on page 285

Properties

| Name | Type | Description |
|------------------------------|--------|--|
| TestFailoverServerHardwareId | String | This value is the hardware ID of the test server for full server jobs. |
| TestFailoverServerHostUri | URI | This value is the URI of the test server for full server jobs. |

TimeClass

Parameter of

FailoverReport on page 276

Properties

| Name | Type | Description |
|-----------------|----------|---|
| completed | DateTime | This value is the time when failover completed. |
| startProcessing | DateTime | This value is the time when failover processing started. |
| startReboot | DateTime | This value is the time when the failover reboot started. For files and folders jobs, this value will be null. |

UnicastIPAddressInfo

Parameter of

CoreQualificationResults on page 255, NetworkInterfaceInfo on page 314, SqlMigrationClusterGroup on page 361, TargetFileServerQualificationResults on page 367, VirtualNetworkInterfaceInfo on page 383

Properties

| Name | Type | Description |
|------------|---------|--|
| IPAddress | String | This value is the IP address as a string. |
| IPv4Mask | String | This value is the IPv4 subnet mask. |
| IPv6Prefix | Int32 | This value is the IPv6 prefix. |
| IsDHCP | Boolean | This value is true if the IP address is a DHCP assigned address; otherwise, it is false. |
| IsNAT | Boolean | This value is true if the IP address is a public NAT address; otherwise, it is false. |
| IsOnline | Boolean | This value is true if the IP address is online; otherwise, it is false. |

UnmanagedConnectionOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|-----------------|-----------------------------|---|
| TargetStateInfo | TargetStateInfo on page 370 | This value represents information on the state of the target. |

Uri

Returned by

Get-DtEndpointMapping on page 45, New-DtUri on page 113

Properties

| Name | Type | Description |
|---------------|---------|--|
| AbsolutePath | String | This value is the absolute path of the URI. |
| AbsoluteUri | String | This value is the absolute URI. |
| Authority | String | This value is the DNS host name or IP address and the port number. |
| DnsSafeHost | String | This value is a host name that, after being unescaped if necessary, is safe to use for DNS resolution. |
| Fragment | String | This value is the escaped URI fragment |
| Host | String | This value is the host component of the instance. |
| HostNameType | String | This value is the type of the host name specified in the URI. |
| IsAbsoluteUri | Boolean | This value is true if the URI is an absolute URI; otherwise, it is false. |
| IsDefaultPort | Boolean | This value is true if the port is the default value; otherwise, it is false. |
| IsFile | Boolean | This value is true if the URI is a file URI; otherwise, it is false. |
| IsLoopback | Boolean | This value is true if the URI is referencing the local host; otherwise, it is false. |
| IsUnc | Boolean | This value is true if the URI is using a UNC path; otherwise, it is false. |

| Name | Type | Description |
|----------------|---------|--|
| LocalPath | String | This value is the local operating-system representation of a file name. |
| OriginalString | String | This value is the original URI string that was entered. |
| PathAndQuery | String | This value is the AbsolutePath and Query properties separated by the ? symbol. |
| Port | Int32 | This value is the port. |
| Query | String | This value is the query information included in the specified URI. |
| Scheme | String | This value is the scheme name for the URI. . |
| Segments | String | This value is an array containing the path segments that make up the specified URI. |
| UserEscaped | Boolean | This value is true if the URI string was completely escaped before being the URI instance was created. |
| UserInfo | String | This value is the user name, password, or other user-specific information associated with the URI. |

VerificationStatus

Returned by

Get-DtVerificationStatus on page 87

Properties

| Name | Type | Description |
|-------|---------------------------------|---|
| Steps | VerificationStep [] on page 381 | This value represents a step in the job validation process. Do not confuse this process with the verification process that confirms if the data between the source and target are synchronized. |
| Task | ActivityStatusEntry on page 225 | This value represents the status of the validation task. |

VerificationStep

Returned by

Wait-DtConfirmJobOptions on page 212

Parameter of

Repair-DtJobOptions on page 129, VerificationStatus on page 380

Properties

| Name | Type | Description |
|-------------------------|--------------------------------------|--|
| CanFix | Boolean | This value is true if Carbonite can automatically fix the validation item; otherwise, it is false. |
| Id | String | This value is the ID for the validation item. |
| Index | Int32 | This value is an index value used to impose an order to the validation items. |
| MessageFormatParameters | String | This value is the message format parameters. |
| MessageKey | String | This value is a message key for the validation item. This value can be used to look up the message text. |
| Progress | Int32 | This value is the completion progress of the validation item. |
| Status | ActivityCompletionStatus on page 410 | This value represents the status of the validation item. |
| TitleFormatParameters | String [] | This value is the title format parameters for the action. |
| TitleKey | String | This value is a title key for the validation item. This value can be used to look up the title text. |

VerifySchedule

Parameter of

ConnectionSchedule on page 244

Properties

| Name | Type | Description |
|-----------|--------------------------------------|---|
| Criteria | MirrorComparisonCriteria on page 438 | This value represents how to compare the source protected data and the replica on the target. |
| Interval | TimeSpan | This value is the interval for taking snapshots. |
| IsEnabled | Boolean | This value is true if the verification schedule is set; otherwise, it is false. |
| Options | MirrorOperationOptions on page 439 | This value represents what mirror operation will be performed. |
| StartTime | DateTime | This value is the when the verification schedule should start. |

VirtualNetworkInterfaceInfo

Parameter of

VRAOptions on page 395

Properties

| Name | Type | Description |
|----------------|--------------------------------------|---|
| Description | String | This value is the description of the NIC. |
| DnsDomain | String | This value is the DNS domain assigned to the NIC. |
| DnsServers | String | This value is the DNS server assigned to the NIC. |
| Gateways | String | This value is the gateway assigned to the NIC. |
| Guid | String | This value is the unique ID for the NIC. It is equivalent to the SettingID property of the Win32_NetworkAdapterConfiguration WMI class as well as the NetworkInterface.Id property in the Base Class Library (BCL). |
| Index | Int32 | Do not use this property. Carbonite uses it internally. |
| InterfaceIndex | Int32 | Do not use this property. Carbonite uses it internally. |
| IPAddresses | UnicastIPAddressInfo [] on page 376 | This value represents the IP addresses assigned to the NIC. |
| MacAddresses | String | This value represents the MAC address of the NIC. |
| Name | String | This value is the friendly name of the NIC. |
| PnpInstanceId | String | This value is the plug and play instance ID of the NIC. |
| ServiceName | String | This value is the service name of the NIC. |
| VirtualNetwork | String | This value is the virtual network. |
| VirtualNictype | String | This value is one of the following virtual NIC types. |

| Name | Type | Description |
|----------------------|-------|---|
| | | <ul style="list-style-type: none"> • Default • Legacy • Synthetic • E1000 • PCNet32 • VmxNet • VmxNet3 • xennet |
| VLAN_ID | Int32 | This value is the ID of the VLAN on the replica after live failover. The value can be any integer between 1 and 4095, or a value of 0 indicates the server does not support setting the VLAN ID, or a value of -1 indicates the VLAN ID should not be set. No other values are supported. |
| VLAN_ID_TestFailover | Int32 | This value is the ID of the VLAN on the replica after test failover. The value can be any integer between 1 and 4095, or a value of 0 indicates the server does not support setting the VLAN ID, or a value of -1 indicates the VLAN ID should not be set. No other values are supported. |

VirtualSwitchInfo

Parameter of

ServerQualificationResults on page 348, VirtualSwitchMapping on page 386

Properties

| Name | Type | Description |
|------------|--------|---|
| Label | String | This value is the virtual switch label. |
| SwitchUuid | String | This value is the virtual switch unique ID. |

VirtualSwitchMapping

Parameter of

VRAOptions on page 395

Properties

| Name | Type | Description |
|---------------------|-------------------------------|---|
| SourceVirtualSwitch | VirtualSwitchInfo on page 385 | This value represents the virtual switch on the source. |
| TargetVirtualSwitch | VirtualSwitchInfo on page 385 | This value represents the virtual switch on the target. |

VmInfo

Parameter of

VRAOptions on page 395

Properties

| Name | Type | Description |
|---------------------|-----------------------------------|---|
| Address | String | This value is the virtual machine guest name or IP address. |
| BiosGuid | Guid | This value is the virtual machine BIOS unique ID. |
| BootVolumeSignature | Int8 [] | This value is the virtual machine boot volume signature which is required for agentless Hyper-V WAN failover. |
| DisplayName | String | This value is the virtual machine display name. |
| EsxHost | String | This value is the ESX server hosting the virtual machine. |
| GuestOS | String | This value is the virtual machine guest operating system. |
| GuestUri | Uri | This value is the guest URI. |
| Id | Guid | This value is the virtual machine unique ID. |
| Path | String | This value is the virtual machine configuration file location. |
| PathTransformations | PathTransformation [] on page 320 | This value represents where the protected source virtual machine will be located on the target. |
| SnapshotDataPath | String | This value is the virtual machine snapshot location. |
| SnapshotFileNames | String [] | This value is the virtual machine snapshot file names. |
| SystemDirectory | String | This value is the virtual machine system directory which is required for agentless Hyper-V WAN failover. |
| VirtualHardDiskPath | String [] | This value is the virtual machine hard disk location. |

Volume

Parameter of

CoreQualificationResults on page 255, ServerInfo on page 345

Properties

| Name | Type | Description |
|--------------------|----------------------------------|---|
| Attributes | FileSystemAttributes on page 429 | This value represents the file system attributes. |
| AvailableFreeSpace | Int64 | This value is the amount of free space on the volume. |
| CreationTime | DateTime | This value is the time when the item was created. |
| DriveFormat | String | This value is the file system format of the volume. |
| DriveType | DriveType | This value is the drive type. |
| IsContainer | Boolean | This value is true if the volume is a container of other volumes; otherwise, it is false. |
| IsReadOnly | Boolean | This value is true if the volume is read-only; otherwise, it is false. |
| IsSupported | Boolean | This value is true if the volume type is supported; otherwise, it is false. |
| IsSystemDrive | Boolean | This value is true if the volume is the system volume; otherwise, it is false. |
| ItemType | String | This value is the type of item. |
| Label | String | This value is the label assigned to the volume. |
| LastAccessTime | DateTime | This value is the time when the volume was last accessed. |
| LastWriteTime | DateTime | This value is the time when the volume was last written to. |

| Name | Type | Description |
|-------------------|-----------------------------|---|
| Metadata | String | This value is any additional metadata that may be displayed for a particular type of item. This metadata is not in any particular format, but you must be able to determine the format and decipher the metadata based on the type. |
| Name | String | This value is the name of the volume. Typically, this name is used for display in the user interface. |
| PartitionName | String | This value is the name of the partition. |
| Path | String | This value is the path of the volume. |
| Saturation | SaturationLevel on page 453 | This value represents the saturation level of the volume. Typically, this value is used to display a visual state in the user interface. |
| ShortNameBehavior | Boolean | Do not use this property. Carbonite uses it internally. |
| Size | Int32 | This value is the physical size of the volume. |
| TotalSize | Int64 | This value is the total size of the volume. |
| VolumeType | String | This value is the type of volume. |

VolumeGroup

Parameter of

LvmOptions on page 305

Properties

| Name | Type | Description |
|-----------------------|--------------------------------|--|
| LogicalVolume | LogicalVolume [] on page 301 | This value represents the logical volumes in the volume group. |
| MaxPhysicalVolumeSize | Int64 | This value is the maximum size, in bytes, of the virtual disks used to create the volume group. The default value is equal to the maximum size that can be attached to the datastore you selected. That will depend on your ESX version, your file system version, and the block size of your datastore. |
| Name | String | This value is the name of the volume group on the source. |
| PhysicalVolume | PhysicalVolume [] on page 324 | This value represents the physical volumes in the volume group. |
| PreexistingDisksPath | String [] | This value is the full path and file name of an existing virtual disk that you want to reuse. If this value is null, a new virtual disk will be created. |
| SourceVolumeGroupSize | Int64 | This value is the size of the volume group on the source. |

VolumeOptions

Parameter of

ReverseOptions on page 340, TestFailoverOptions on page 373, VRAOptions on page 395

Properties

| Name | Type | Description |
|----------------------|----------------------------------|--|
| Attributes | FileSystemAttributes on page 429 | This value represents the file system attributes. |
| AvailableFreeSpace | Int32 | This value is the amount of free space on the volume. |
| CreationTime | DateTime | This value is the time when the volume was created. |
| DesiredSize | Int64 | This value is the desired size of the new volume. |
| DiskControllerType | String | This value is the disk controller. <ul style="list-style-type: none">• IDE—Use this value to create an IDE disk.• SCSI—Use this value to create a SCSI disk. |
| DiskProvisioningType | String | This value is the disk type. <ul style="list-style-type: none">• Dynamic—Use this value for ESX thin disks and for Hyper-V dynamic disks.• Fixed—Use this value for ESX thick disks and for Hyper-V fixed disks.• Flat Disk—Use this value for ESX flat disks. This type is not supported on Hyper-V. |
| DriveFormat | String | This value is the file system format of the volume. |
| DriveType | DriveType | This value is the drive type. |
| Guid | Guid | This value is the UUID assigned to an existing virtual disk. |
| IsContainer | Boolean | This value is true if the volume is a container of other |

| Name | Type | Description |
|---------------------|-----------------------------|---|
| | | volumes; otherwise, it is false. |
| IsReadOnly | Boolean | This value is true if the volume is read-only; otherwise, it is false. |
| IsSupported | Boolean | This value is true if the volume type is supported; otherwise, it is false. |
| IsSystemDrive | Boolean | This value is true if the volume is the system volume; otherwise, it is false. |
| ItemType | String | This value is the type of item. |
| Label | String | This value is the label assigned to the volume. |
| LastAccessTime | DateTime | This value is the time when the volume was last accessed. |
| LastWriteTime | DateTime | This value is the time when the volume was last written to. |
| Metadata | String | This value is any additional metadata that may be displayed for a particular type of item. This metadata is not in any particular format, but you must be able to determine the format and decipher the metadata based on the type. |
| Name | String | This value is the name of the volume. Typically, this name is used for display in the user interface. |
| PartitionName | String | This value is the name of the partition. |
| Path | String | This value is the path of the volume. |
| PreexistingDiskPath | String | This value is the full path and file name of an existing virtual disk that you want to reuse. If this value is null, a new virtual disk will be created. |
| Saturation | SaturationLevel on page 453 | This value represents the saturation level of the volume. Typically, this value is used to display a visual state in the user interface. |

| Name | Type | Description |
|-------------------|---------|---|
| ShortNameBehavior | Boolean | Do not use this property. Carbonite uses it internally. |
| Size | Int32 | This value is the physical size of the volume. |
| TotalSize | Int32 | This value is the total size of the volume. |
| VirtualDiskPath | String | This value is the path on the host where the volume should be stored. |
| VolumeSignature | Int8 | This value is the volume signature. |
| VolumeType | String | This value is the type of volume. |

VolumeQualificationResults

Parameter of

ServerQualificationResults on page 348

Properties

| Name | Type | Description |
|--------------------------|---------|--|
| ClusterResourceGroupName | String | This value is the name of the group that contains the resource. |
| CurrentOwnerNodeName | String | This value is the name of the resource's current owning node. |
| DiskSize | Int64 | This value is the total size, in bytes, of the volume. |
| DriveLetter | String | This value is the drive letter of the volume. |
| FreeSpace | Int64 | This value is the available free space, in bytes, on the volume. |
| IsSystemVolume | Boolean | This value is true if the volume is the system volume; otherwise, it is false. |
| IsVolumeCSV | Boolean | This value is true if the volume is a cluster shared volume; otherwise, it is false. |
| MaxFileSize | Int64 | This value is the maximum file size, in mebibytes, of the virtual hard disk file. |
| ProvisionedSpace | Int64 | This value is the amount of provisioned space, in bytes, on the volume. |
| Url | String | This value is the URL of an ESX datastore. |

VRAOptions

Parameter of

JobOptions on page 292

Properties

| Name | Type | Description |
|----------------------|--------------------------------|---|
| Hypervisor | String | This value should be one of the following strings. <ul style="list-style-type: none">• VMWARE.ESX• VCloud.ESX• Windows.HyperV• Amazon.XEN• Citrix.XEN |
| IsSourceHostCluster | Boolean | This value is true if the source host is clustered; otherwise, it is false. |
| IsWanFailoverEnabled | Boolean | This value is true if WAN failover is enabled; otherwise, it is false. |
| DiskOptions | DiskOptions [] on page 261 | This value is the disk options available on a Linux server. Use this property for the match source disk configuration strategy. If you want a per volume disk configuration strategy use VolumeOptions on page 391. |
| DiskConfigStrategy | DiskConfigStrategy on page 416 | This value represents the disk configuration strategy used on the target server. |
| ForwardJobId | Guid | This value represents the job ID of a forward full server to ESX protection job, used during the reverse operation. |
| LvmOptions | LvmOptions on page 305 | This value represents logical volume manager (LVM) options for a Linux server. |

| Name | Type | Description |
|-----------------------------|---|---|
| ReplicaApplianceInfo | VmlInfo on page 387 | This value represents the helper appliance information. |
| ReplicaESXHostName | String | This value is the name of the ESX host where the replica will be located. |
| ReplicaNetworkInterfaceInfo | VirtualNetworkInterfaceInfo [] on page 383 | This value represents the desired NIC configuration on the replica virtual machine. |
| ReplicaVmInfo | ReplicaVmInfo on page 336 | This value represents the desired configuration of the replica virtual machine. |
| ReverseCount | Int32 | Do not use this property. Carbonite uses it internally. |
| ReverseRoute | String | This value is the source IP address to be used for the reverse connection. |
| ReverseOptions | ReverseOptions on page 340 | This value represents the options used for the reverse process. |
| SourceApplianceInfo | VmlInfo on page 387 | This value represents the appliance used during reverse. |
| SourceESXHostName | String | This value is the name of the ESX host where the source is located. |
| SourceHypervisor | String | This value should be one of the following strings. <ul style="list-style-type: none"> • VMWARE.ESX • VCloud.ESX • Windows.HyperV • Amazon.XEN • Citrix.XEN |
| SourceNetworkInterfaceInfo | VirtualNetworkInterfaceInfo [] on page 383 | This value represents the available NICs on the source. |
| SourceProductLicense | String | This value is the license key used for automatic installations during the V to ESX and V to Hyper-V job creation process. |

| Name | Type | Description |
|----------------------------------|---|--|
| SourceVmInfo | VmInfo on page 387 | This value represents the source information used during reverse. |
| TestFailover | TestFailoverOptions on page 373 | This values represents the test failover options for full server to ESX and full server to Hyper-V jobs. |
| VirtualSwitchMapping | VirtualSwitchMapping [] on page 386 | This value represents the virtual switch mappings on the source and target for live failover. |
| VirtualSwitchMappingTestFailover | VirtualSwitchMapping [] on page 386 | This value represents the virtual switch mappings on the source and target for test failover. |
| Volumes | VolumeOptions [] on page 391 | This value represents a volume to protect and any changes to its base configuration. For Linux, use this property for the per volume disk configuration strategy. If you want a matching source disk configuration strategy use DiskOptions on page 261. |
| WorkloadCustomizationOptions | VRAWorkloadCustomizationOptions on page 399 | This value represents workload customization options. |

VRAQualificationResults

Parameter of

JobQualificationResults on page 295

Properties

| Name | Type | Description |
|------------------------------------|--|--|
| PreexistingDisksFileName | String | This value is the full path and file name of an existing virtual disk that you want to reuse. If this value is null, a new virtual disk will be created. |
| ReversetHost | ServerQualificationResults on page 348 | This value represents the reverse server information. |
| SourceName | String | This value is the name of the source server. |
| SourceServerCoresPerProcessorCount | Int32 | This value is the number of cores per processor. A value of 0 is used for an unknown or unspecified number. |
| SourceServerMemorySize | Int64 | This value is the amount of memory, in bytes, on the source. |
| SourceServerProcessorCount | Int32 | This value is the number of processors on the source. |
| TargetHost | ServerQualificationResults on page 348 | This value represents the target server information. |
| V2VQualificationResults | None | This property is no longer used. |

VRAWorkloadCustomizationOptions

Parameter of

VRAOptions on page 395

Properties

| Name | Type | Description |
|-----------------------------|---------|--|
| NoReplication | Boolean | Do not use this property. Carbonite uses it internally. |
| PowerupReplicaAfterFailover | Boolean | This value is true if the replica should be powered on after failover; otherwise, it is false. |
| ShouldShutdownSource | Boolean | This value is true if the source should be shut down during failover; otherwise, it is false. |
| UseWin32 | Boolean | Do not use this property. Carbonite uses it internally. |

Workload

Returned by

Add-DtUvraPhysicalRule on page 20, Get-DtWorkload on page 89

Parameter of

Add-DtUvraPhysicalRule on page 20, Get-DtRecommendedJobOptions on page 67, JobOptions on page 292, New-DtWorkload on page 118

Properties

| Name | Type | Description |
|-----------------------|------------------------------|--|
| LogicalRules | String [] | This value is the logical replication rules that define the workload. |
| PhysicalRules | PhysicalRule [] on page 323 | This value represents the physical replication rules that define the workload. |
| RecoveryImageDataPath | None | This property is no longer used. |
| RecoveryImageId | None | This property is no longer used. |
| RecoverySnapshotSetId | None | This property is no longer used. |
| WorkloadTypeName | String | This value is the workload type name. <ul style="list-style-type: none">• Availability for Windows jobs<ul style="list-style-type: none">• FilesAndFolders—Files and folders• ClusterAwareFilesAndFolders—Cluster-aware files and folders• SQL—SQL• ClusterAwareSql—Cluster-aware SQL• FullServerFailover—Full server• VRA—Full server to ESX or full server to Hyper-V• Availability for Linux jobs |

| Name | Type | Description |
|------|------|--|
| | | <ul style="list-style-type: none"> • LinuxFilesAndFolders—Files and folders • LinuxFullServerFailover—Full server • Lvra—Full server to ESX • Migrate for Windows jobs <ul style="list-style-type: none"> • MoveDataOnlyMigration—Files and folders migration • SqlMigration—SQL migration • ClusterAwareSqlMigration—Cluster-aware SQL migration • MoveServerMigration—Full server migration • VraMove—Full server to ESX migration or full server to Hyper-V migration • Migrate for Linux jobs <ul style="list-style-type: none"> • LinuxMoveDataOnlyMigration—Files and folders migration • LinuxMoveServerMigration—Full server migration • LinuxSapHanaMigration—SAP HANA migration • MoveLvra—Full server to ESX migration • Other jobs <ul style="list-style-type: none"> • Diagnostics—Throughput Diagnostic Utility |

WorkloadSupportSummary

Parameter of

WorkloadType on page 403

Properties

| Name | Type | Description |
|------------------------|--------|--|
| Reason | String | This value can be a string resource ID used for obtaining the reason text in the client or the reason text itself. If the reason text needs to be formatted with parameters, use ReasonFormatParameters. |
| ReasonFormatParameters | String | This value is format parameters for Reason. |

WorkloadType

Returned by

Get-DtWorkloadType on page 91

Properties

| Name | Type | Description |
|------------|---------|--|
| IsLicensed | Boolean | This value is true if this type of workload is licensed for the server; otherwise, it is false. |
| IsPresent | Boolean | This value is true if this type of workload is present on the server; otherwise, it is false. |
| Name | String | <p>This value is the workload type name.</p> <ul style="list-style-type: none">• Availability for Windows jobs<ul style="list-style-type: none">• FilesAndFolders—Files and folders• ClusterAwareFilesAndFolders—Cluster-aware files and folders• SQL—SQL• ClusterAwareSql—Cluster-aware SQL• FullServerFailover—Full server• VRA—Full server to ESX or full server to Hyper-V• Availability for Linux jobs<ul style="list-style-type: none">• LinuxFilesAndFolders—Files and folders• LinuxFullServerFailover—Full server• Lvra—Full server to ESX• Migrate for Windows jobs<ul style="list-style-type: none">• MoveDataOnlyMigration—Files and folders migration• SqlMigration—SQL migration |

| Name | Type | Description |
|----------------|------------------------------------|---|
| | | <ul style="list-style-type: none"> • ClusterAwareSqlMigration—Cluster-aware SQL migration • MoveServerMigration—Full server migration • VraMove—Full server to ESX migration or full server to Hyper-V migration • Migrate for Linux jobs <ul style="list-style-type: none"> • LinuxMoveDataOnlyMigration—Files and folders migration • LinuxMoveServerMigration—Full server migration • LinuxSapHanaMigration—SAP HANA migration • MoveLvra—Full server to ESX migration • Other jobs <ul style="list-style-type: none"> • Diagnostics—Throughput Diagnostic Utility |
| SupportSummary | WorkloadSupportSummary on page 402 | This value is a summary of the licensing for the workload type. The summary can be null if there is no reason to report any details about the license calculation. Otherwise, it should be non-null and populated with details about the license calculation that the client can use for reporting purposes. |

Chapter 4 Enumerations

The following enumerations are used in the Carbonite classes.

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- ActionStatus on page 408
- ActiveDirectoryFailoverOptions on page 409
- ActivityCompletionStatus on page 410
- BandwidthEntryType on page 411
- BandwidthScheduleMode on page 412
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- VmwareCertificatePolicy on page 469
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AccessLevel

Returned by

Get-DtAccessLevel on page 34

Parameter of

CoreConnectionDetails on page 247

Properties

| Name | Enumeration | Description |
|-------------------|-------------|--|
| Unknown | -1 | The access level is unknown. |
| NoAccess | 0 | The credentials are not authenticated. |
| MonitorOnlyAccess | 1 | This access level is associated with membership in the Double-Take Monitors or dtmon security group. |
| FullAccess | 2 | This access level is associated with membership in the Double-Take Admin or dtadmin security group. |

ActionStatus

Parameter of

JobAction on page 288

Properties

| Name | Enumeration | Description |
|-----------|-------------|--|
| Pending | 0 | The action has not yet started. |
| Running | 1 | The action is running. |
| Completed | 2 | The action has completed successfully. |
| Cancelled | 3 | The action was canceled. |
| Faulted | 4 | The action encountered an error. |

ActiveDirectoryFailoverOptions

Parameter of

MonitorConfiguration on page 308

Properties

| Name | Enumeration | Description |
|------------------|-------------|---|
| None | 0 | There are no Active Directory options applied. |
| FailoverHostName | 1 | The host name of the source server should be moved to the Active Directory server object of the target when a failover occurs. |
| FailbackHostName | 2 | The host name of the target server should be reinstated in the Active Directory server object of the target when failback occurs. |

You can combine FailoverHostName and FailbackHostName by using enumeration 3.

ActivityCompletionStatus

Parameter of

ActivityStatusEntry on page 225, VerificationStep on page 381

Properties

| Name | Enumeration | Description |
|-----------|-------------|--|
| Pending | 0 | The activity is pending. |
| Running | 1 | The activity is running. |
| Completed | 2 | The activity has completed successfully. |
| Canceled | 3 | The activity was canceled. |
| Faulted | 4 | The activity had an error. |

BandwidthEntryType

Parameter of

BandwidthEntry on page 230

Properties

| Name | Enumeration | Description |
|-----------|-------------|--|
| Daytime | 0 | This value is an entry where the BandwidthEntry on page 230.StartTime and .EndTime are on the same day. |
| Overnight | 1 | This value is an entry where the BandwidthEntry on page 230.StartTime value is on one day and the .EndTime value is on the next day. |

BandwidthScheduleMode

Parameter of

BandwidthLimit on page 231, BandwidthOptions on page 232, BandwidthSchedule on page 233

Properties

| Name | Enumeration | Description |
|------------|-------------|---|
| NotLimited | 0 | Bandwidth is not limited. |
| Fixed | 1 | Bandwidth is limited to a fixed value. |
| Scheduled | 2 | Bandwidth is limited according to scheduled values. |

BandwidthSpecificationType

Parameter of

BandwidthSpecification on page 235

Properties

| Name | Enumeration | Description |
|------|-------------|--|
| LAN | 0 | This value is the bandwidth associated with local area networks. |
| WAN | 1 | This value is the bandwidth associated with wide area networks. |

ClusterResourceState

Parameter of

CoreConnectionDetails on page 247

Properties

| Name | Enumeration | Description |
|------------------|-------------|---|
| Uninitialized | 0 | A cluster resource is not used. |
| OfflinePending | 1 | The resource state changed to offline pending. |
| Offline | 2 | The resource state changed to offline. |
| OnlinePending | 3 | The resource state changed to online pending. |
| Online | 4 | The resource state changed to online. |
| ResourceNotFound | 5 | The cluster resource was not found on the cluster. |
| Reconnected | 6 | The cluster resource reconnected. This could be due to a node roll. |
| Connected | 7 | The cluster resource is connected and online. |

DesktopInteractionMode

Parameter of

ScriptPoint on page 341, Test-DtScript on page 199

Properties

| Name | Enumeration | Description |
|----------|-------------|---|
| None | 0 | The script will execute silently in the background. |
| Interact | 1 | Script processing will be displayed on screen. |

DiskConfigStrategy

Parameter of

VRAOptions on page 395

Properties

| Name | Enumeration | Description |
|---------------------|-------------|--|
| CreateDiskPerVolume | 0 | The target disk configuration is per source volume. |
| MatchingSource | 1 | The target disk configuration matches the source disk configuration. |
| Customization | 2 | The target disk configuration is a custom configuration. |

EngineJobType

Parameter of

CloudOptions on page 238, TargetStateInfo on page 370

Properties

| Name | Enumeration | Description |
|---------------------|-------------|--|
| NormalJob | 0 | This value is a files and folders connection. |
| ImageJob | 1 | This property is no longer used. |
| RecoveryJob | 2 | This property is no longer used. |
| FullServerJob | 4 | This value is a full server connection for Windows. |
| GeoClusterJob | 8 | This property is no longer used. |
| MigrationJob | 16 | This value is a Carbonite Migrate connection. |
| FullServerRevertJob | 32 | This value is a full server reverse connection. |
| VraRecoveryJob | 64 | This value is a full server to ESX or Hyper-V reverse connection. |
| VraMigrationJob | 128 | This value is a full server to ESX or Hyper-V Carbonite Migrate connection. |
| DataOnlyOption | 256 | This value is for a connection that is replicating data only. |
| VraJob | 512 | This value is a full server to ESX or Hyper-V Carbonite Availability connection. |
| HyperVJob | 1024 | This value is a Hyper-V connection. |
| Win32MirrorOption | 2048 | This value is a connection that will override the server default and use the Win32 mirroring driver. |

| Name | Enumeration | Description |
|-----------------------------|-------------|--|
| SourceConnectionResourceJob | 4096 | This value is a connection protecting a source cluster. |
| FullServerBackupJob | 8192 | This value is a full server reverse connection. |
| UvraJob | 16384 | This value is a full server to ESX appliance job. |
| NonClientAccessibleSnapshot | 32768 | This value indicates that snapshots created for this connection should not have the VSS_CTX_CLIENT_ACCESSIBLE context. |
| Invalid | 65535 | This value is an unknown connection. |
| FFO | 65536 | This value is a full server connection for Windows. This is not the real value for engine job type, but is for CreateConnectionAction to create a connection. |
| LVRA_JOB | 131072 | This value is a full server to ESX connection for Linux. It is usually a connection to the local server (the source is same as the target) where the target drive is an iSCSI hosted by a Linux appliance. This is not the real value for engine job type, but is for CreateConnectionAction to create connection. |

FailoverDataAction

Parameter of

FailoverOptions on page 275, MonitorConfiguration on page 308

Properties

| Name | Enumeration | Description |
|---------|-------------|--|
| Apply | 0 | This value will apply the data in the target queue before starting failover. |
| Flush | 1 | This value will discard the data in the target queue and start failover immediately. |
| Revert | 2 | If the target data is in a bad state, this value will revert to the last good snapshot, if snapshots are available. If the target data is in a good state or no snapshots are available, this value will apply the data in the target queue and then failover. |
| Unknown | 3 | The action is unknown. |

FailoverIPAddressesOption

Parameter of

MonitorConfiguration on page 308

Properties

| Name | Enumeration | Description |
|-----------|-------------|--|
| Monitored | 0 | Failover only the IP addresses that are being monitored. |
| All | 1 | Failover all of the IP address on the source. |

FailoverItems

Parameter of

MonitorConfiguration on page 308

Properties

| Name | Enumeration | Description |
|-------------|-------------|---|
| None | 0 | Nothing will be failed over. |
| IPAddresses | 1 | The IP addresses specified by MonitorConfiguration on page 308.FailoverIPAddressesOption will be applied to the target during failover. |
| Name | 2 | The NetBIOS name of the source server will be applied to the target during failover. |
| Shares | 4 | Shares included in the source workload will be added to the target during failover. |

You can combine IPAddresses and Name by using enumeration 3, IPAddresses and Shares by using enumeration 5, Name and Shares by using enumeration 6, and IPAddresses, Name, and Shares by using enumeration 7.

FailoverMode

Parameter of

FailoverOptions on page 275

Properties

| Name | Enumeration | Description |
|------------------------|-------------|---|
| Live | 0 | Failover is using live, current data and the target is started with network connectivity. |
| Test | 1 | Failover is using live current data, but is a test. The target is started without network connectivity. |
| Snapshot | 2 | Failover is using a data from a snapshot. The target is started with network connectivity. |
| SetRestoreRequiredOnly | 3 | Failover is not performed, but the restore required flag is set. |

FailoverProcessingOptions

Parameter of

MonitorConfiguration on page 308

Properties

| Name | Enumeration | Description |
|--------------------------|-------------|--|
| None | 0 | This value resets the flags so no failover processing options will be used. |
| UserInterventionRequired | 1 | The user must manually initiate failover when a failover condition is met. . |
| UseShareFile | 2 | When failing over file shares, the persisted share file on the target should be used to create the shares on the target. Without this value, the target will attempt to obtain the shares from the source during failover, however, if the source is unavailable, no shares will be created on the target. |

You can combine UserInterventionRequired and UseShareFile by using enumeration 3

FailoverReplaceActions

Parameter of

MonitorConfiguration on page 308

Properties

| Name | Enumeration | Description |
|---------|-------------|--|
| None | 0 | This value resets the flags so no failover replace actions will be used. |
| Name | 1 | The NetBIOS name of the target will be replaced by the NetBIOS name from the source during failover. |
| Address | 2 | The IP addresses on the target will be replaced by the IP address from the source during failover. |

You can combine UserInterventionRequired and UseShareFile by using enumeration 3.

FailoverStyle

Parameter of

FailoverReport on page 276

Properties

| Name | Enumeration | Description |
|------|-------------|---|
| Live | 0 | Failover is using live, current data |
| Test | 1 | Failover is using live current data, but is a test. |

FailoverTrigger

Parameter of

MonitorConfiguration on page 308

Properties

| Name | Enumeration | Description |
|------------------|-------------|---|
| OneAddressFails | 0 | A failover condition is met when one monitored IP address fails. |
| AllAddressesFail | 1 | A failover condition is met when all monitored IP addresses fail. |

FailoverType.Monitor

Parameter of

MonitorConfiguration on page 308

Properties

| Name | Enumeration | Description |
|------------|-------------|--|
| Normal | 0 | The parameters in MonitorConfiguration on page 308 are used to process failover. |
| FullServer | 1 | The entire server is being failed over and internal Carbonite processing will determine what is failed over. |

FailoverType.Options

Parameter of

FailoverOptions on page 275

Properties

| Name | Enumeration | Description |
|-----------|-------------|---|
| Manual | 0 | Failover must be initiated by the user. |
| Automatic | 1 | Failover will occur automatically when a failover condition is met. |

FileSystemAttributes

Parameter of

LogicalVolume on page 301, PhysicalItem on page 321, PhysicalVolume on page 324, Volume on page 388, VolumeOptions on page 391

Properties

| Name | Enumeration | Description |
|-------------------|-------------|--|
| ReadOnly | 1 | The file system item is read-only. |
| Hidden | 2 | The file system item is hidden. |
| System | 4 | The file system item is a system item. |
| Directory | 16 | The file system item is a directory. |
| Archive | 32 | The file system item is marked to be archived. |
| Normal | 128 | The file system item is normal. |
| Temporary | 256 | The file system item is temporary. |
| SparseFile | 512 | The file system item is a sparse file. |
| ReparsePoint | 1024 | The file system item is a reparse point. |
| Compressed | 2048 | The file system item is compressed. |
| Offline | 4096 | The file system item is offline. |
| NotContentIndexed | 8192 | The file system item is not content indexed. |
| Encrypted | 16384 | The file system item is encrypted. |

Health

Parameter of

ExtendedLowLevelStates on page 273, JobStatus on page 298

Properties

| Name | Enumeration | Description |
|---------|-------------|--|
| Unknown | 0 | The health of the job is unknown or not yet determined. |
| OK | 1 | The health of the job is good and data is protected. |
| Warning | 2 | The job is taking corrective action. Data may not be protected. You should closely monitor a job in a warning state. |
| Error | 3 | The job has encountered an error that requires user attention. Data is not protected. |

HighAvailabilityState

Parameter of

CoreMonitorDetails on page 253

Properties

| Name | Enumeration | Description |
|--------------------|-------------|--|
| Illegal | -1 | There is a problem determining the monitoring status. |
| None | 0 | The monitoring status has not yet been determined. |
| FailoverMonitoring | 16 | The target is monitoring the source for a failure. No failover condition has been met. |
| FailoverRequired | 32 | Failover is pending because a failover condition has been met but failover has not started yet. |
| FailoverOccurring | 48 | Failover is occurring. |
| FailbackRequired | 64 | The source is failed over to the target. A failback needs to occur to restore the target to its original identity. |
| FailbackOccurring | 80 | Failback is occurring. |
| FailbackRemonitor | 96 | Failback is complete. The target is waiting to start monitoring the source again. |

HighLevelState

Parameter of

JobStatus on page 298

Properties

| Name | Enumeration | Description |
|-----------------|-------------|---|
| Unknown | 0 | The job's state is unknown or not yet determined. |
| Created | 1 | The job is being created. |
| Deleting | 2 | The job is being deleted. |
| FailedBack | 3 | The job has failed back. |
| FailedOver | 4 | The job has failed over. |
| FailingBack | 5 | The job is failing back. |
| FailingOver | 6 | The job is failing over. |
| FailoverFailed | 7 | Failover has failed. |
| FailoverPending | 8 | The job has a failover condition met. |
| Mirroring | 9 | The job is mirroring. |
| MirrorRequired | 10 | The job requires a mirror to ensure data integrity. |
| Paused | 11 | The job is paused. |
| Pausing | 12 | The job is pausing. |
| Protecting | 13 | The job is started and protecting. |
| Provisioning | 14 | The job is provisioning resources required to start protection. |

| Name | Enumeration | Description |
|-------------------------|-------------|--|
| Restored | 15 | The job has completed restoring data. |
| RestoreFailed | 16 | Restoration has failed. |
| RestorePaused | 17 | The job is restoring data but transmission is currently paused. |
| RestoreRequired | 18 | The job needs to restore data from the target to a new or the original source. |
| Restoring | 19 | The job is restoring data. |
| Resuming | 20 | The job is resuming. |
| Reversing | 21 | The job is reversing roles. |
| Reverting | 22 | The job is reverting. |
| Starting | 23 | The job is starting. |
| Stopped | 24 | The job is stopped. |
| Stopping | 25 | The job is stopping. |
| Undoing | 26 | The job is undoing a failover. |
| RevertingSnapshot | 27 | The job is reverting to a previous snapshot. |
| UpdatingTargetImage | 28 | This property is no longer used. |
| CredentialsRequired | 29 | The job does not have sufficient credentials to operate properly. |
| ActivationCodeWarning | 30 | The Carbonite replication engine is reporting a licensing warning. |
| ActivationCodeError | 31 | The Carbonite replication engine is reporting a licensing error. |
| EngineConnectionWarning | 32 | The connection associated with the job is reporting an error, |

| Name | Enumeration | Description |
|----------------------------|-------------|--|
| | | but the threshold for failed communication has not yet been met. |
| EngineConnectionError | 33 | The connection associated with the job is reporting an error, and the threshold for failed communication has been exceeded. |
| EngineServiceWarning | 34 | The Management Service on the target cannot communicate with the target replication engine or the Management Service on the source cannot communicate with the source replication engine, but the threshold for failed communication has not yet been met. |
| EngineServiceError | 35 | The Management Service on the target cannot communicate with the target replication engine or the Management Service on the source cannot communicate with the source replication engine, and the threshold for failed communication has been exceeded. |
| ServerCommunicationWarning | 36 | The Management Service on the target cannot contact the Management Service on the source, but the threshold for failed communication has not yet been met. |
| ServerCommunicationError | 37 | The Management Service on the target cannot contact the Management Service on the source, and the threshold for failed communication has not yet been met. |
| TargetInfoNotAvailable | 38 | The controller appliance for an agentless vSphere job cannot communicate with the target. |
| Editing | 39 | The job is being edited. |

InclusionMode

Parameter of

PhysicalRule on page 323

Properties

| Name | Enumeration | Description |
|---------|-------------|---|
| Include | 0 | The data path is included in replication. |
| Exclude | 1 | The data path is excluded from replication. |

LicenseStatus

Parameter of

CoreConnectionDetails on page 247

Properties

| Name | Enumeration | Description |
|----------------|-------------|---|
| OK | 0 | This values indicates the job is licensed correctly. |
| TargetRequired | 1 | This value indicates the job requires a license on the target server. |
| SourceRequired | 2 | This value indicates the job requires a license on the source server. |

LicenseType

Parameter of

ActivationCode on page 221

Properties

| Name | Enumeration | Description |
|---------------|-------------|--|
| NotApplicable | 0 | The license type is not applicable. |
| Limited | 1 | The license type is an evaluation license. |
| Single | 2 | The license type is a single server license. |
| Site | 3 | The license type is a site license. |
| NodeLockedKey | 4 | The key is an activation key. |

MirrorComparisonCriteria

Parameter of

MirrorParameters on page 307, RestoreParameters on page 339, VerifySchedule on page 382

Properties

| Name | Enumeration | Description |
|----------|-------------|--|
| None | 0 | Carbonite will not perform any comparison between the files on the source and target. |
| Newer | 1 | Carbonite will compare file attributes between the files on the source and target. |
| Checksum | 2 | Carbonite will compare file attributes and file data between files on the source and target. |

MirrorOperationOptions

Parameter of

MirrorParameters on page 307, VerifySchedule on page 382

Properties

| Name | Enumeration | Description |
|----------------------|-------------|---|
| None | 0 | Carbonite will not mirror any files. |
| Synchronize | 1 | Carbonite will mirror the files from the source to the target. If you use this property by itself, all files will be mirror. If you use this property with CalculateDifferences (enumeration 5), only the differences will be mirrored. |
| Report | 2 | Carbonite will only report the differences found between the source protected data set and the replica on the target. You must use this option with CalculateDifferences (enumeration 6) in order for the differences to be reported. |
| CalculateDifferences | 4 | The mirroring operation will calculate the differences between the source protected data and the replica on the target using MirrorComparisonCriteria on page 438 |
| CalculateSize | 8 | The mirroring operation will calculate the size of the source protected data set. You can combine this enumeration with Synchronize, Report, CalculateDifferences, and ProcessOrphans. |
| ProcessOrphans | 16 | The mirroring operation will process orphan files (files in the target path location that are not present on the source). You can combine this enumeration with Synchronize, Report, CalculateDifferences, and CalculateSize. |

MirrorState

Returned by

Wait-DtMirrorComplete on page 214

Parameter of

CoreConnectionDetails on page 247

Properties

| Name | Enumeration | Description |
|---------------|-------------|--|
| Calculating | 0 | The size of the replication set is being calculated. |
| Idle | 1 | No data is being mirrored to the target. |
| Mirror | 2 | Data is being mirrored to the target. |
| Pause | 3 | Mirroring is paused. |
| RemoveOrphans | 4 | Orphan files (files in the target path location that are not present on the source) are being deleted. |
| RepsetVerify | 5 | The source protected data set is being verified against the target replica data. |
| Restore | 6 | Replica data from the target is being restored to the source. |
| Stopped | 7 | Mirroring is stopped. |
| Waiting | 8 | Mirroring is complete, but data is still being written to the target. |
| Unknown | 9 | The mirror is in an unknown or error state. |

NetworkMethods

Parameter of

ServerInfo on page 345

Properties

| Name | Enumeration | Description |
|-----------------|-------------|---|
| Traditional | 0 | A traditional network, like ifcfg-etho0, is being used. |
| Network_Manager | 1 | The NetworkManager network is being used. |
| NetPlan | 2 | The Netplan network is being used. |

OperatingSystemArchitecture

Parameter of

OperatingSystemInfo on page 315

Properties

| Name | Enumeration | Description |
|------|-------------|--|
| x86 | 0 | The operating system uses the 32-bit architecture. |
| ia64 | 6 | The operating system uses the Itanium 64-bit architecture. |
| x64 | 9 | The operating system uses the AMD 64-bit architecture. |

OperatingSystemProductType

Parameter of

OperatingSystemInfo on page 315

Properties

| Name | Enumeration | Description |
|------------------|-------------|---|
| None | 0 | The operating system product type is not defined. |
| Workstation | 1 | The operating system is a workstation. |
| DomainController | 2 | The operating system is a domain controller. |
| Server | 3 | The operating system is a server. |

PathBlockingMode

Parameter of

PathBlocking on page 319

Properties

| Name | Enumeration | Description |
|-----------|-------------|---|
| Blocked | 0 | The path is blocked for writing, except by Carbonite. |
| Unblocked | 1 | The path is unblocked for writing. |

PingMethods

Parameter of

MonitoredAddressConfiguration on page 311

Properties

| Name | Enumeration | Description |
|-------------------|-------------|--|
| None | 0 | The IP address will not be monitored for failure and cannot be failed over. |
| Network | 1 | The IP address will be monitored using an ICMP ping. |
| Service | 2 | This property is no longer used. |
| Manual | 4 | The IP address will not be monitored for failure but is still eligible for failover. |
| Script | 8 | The IP address will be monitored using a user scripted ping method. If you use this value, you must set MonitorConfiguration on page 308.ScriptMonitorEngine and MonitorConfiguration on page 308.ScriptMonitorName. |
| ManagementService | 10 | The IP address will be monitored using the Management Service. |
| ForceUpdate | 256 | Do not use this property. Carbonite uses it internally. |

RecordType

Parameter of

DnsDomainDetails on page 263

Properties

| Name | Enumeration | Description |
|-----------|-------------|--|
| All | 0 | All record types are failed over and failed back. |
| HostOnly | 1 | Only host records (A and AAAA) are failed over and failed back. |
| SourcePtr | 2 | PTR records are created to map target IP addresses to the source name. |

You can combine HostOnly and SourcePtr by using enumeration 3.

RecursionMode

Parameter of

PhysicalRule on page 323

Properties

| Name | Enumeration | Description |
|--------------|-------------|---|
| Recursive | 0 | The physical rule will be applied to this path and all of its children paths. |
| NonRecursive | 1 | The physical rule will be applied to this path only. |

ReplicationSetUsageType

Parameter of

TargetStateInfo on page 370

Properties

| Name | Enumeration | Description |
|-------------|-------------|---|
| Invalid | -1 | This value is an unknown data set type. |
| Normal | 0 | This value is for all job types. |
| SystemState | 1 | This property is no longer used. |
| GeoCluster | 2 | This property is no longer used. |

ReplicationState

Parameter of

CoreConnectionDetails on page 247

Properties

| Name | Enumeration | Description |
|----------------|-------------|--|
| NotReplicating | 0 | Replication is stopped. |
| OutOfMemory | 1 | Replication memory has been exhausted. |
| Pending | 2 | Replication is pending. |
| Replicating | 3 | Data is being replicated to the target. |
| Unknown | 4 | Replication is in an unknown or error state. |
| Watchdog | 5 | The Double-Take service is not receiving replication operations from the Carbonite driver. Check the event log for driver related issues |
| Ready | 6 | There is no data to replicate. |

RestoreParametersRestoreOptions

Parameter of

RestoreParameters on page 339

Properties

| Name | Enumeration | Description |
|-------------------------|-------------|--|
| None | 0 | No additional restoration options will be used. |
| UseTargetWorkload | 1 | Use the workload information that is stored on the target instead of any workload information that is persisted on the source. |
| RestoreWorkloadToSource | 2 | Restore the workload information from the target to the source. |
| OverwriteExistingFiles | 4 | Overwrite all existing files on the source during the restoration. |

You can combine UseTargetWorkload and RestoreWorkloadToSource by using enumeration 3, UseTargetWorkload and OverwriteExistingFiles by using enumeration 5, RestoreWorkloadToSource and OverwriteExistingFiles by using enumeration 6, and UseTargetWorkload, RestoreWorkloadToSource, and OverwriteExistingFiles by using enumeration 7.

RestoreStates

Parameter of

CoreMonitorDetails on page 253

Properties

| Name | Enumeration | Description |
|---------------|-------------|--|
| None | 0 | There is no restoration connection. |
| OldServer | 1 | The server is running an old version of Carbonite and the restoration status is not available. |
| Required | 2 | A restoration is required. |
| Connected | 4 | The restoration connection is active and is replicating. |
| MultiConnect | 8 | There is more than one active restoration connection. |
| Mirroring | 16 | The restoration connection is active and mirroring. |
| MirrorStopped | 32 | The restoration mirror has been stopped. |
| OpDropped | 64 | A mirroring or replication operation has been dropped. A restoration remirror is required. |
| OpRetrying | 128 | A mirroring or replication write operation is being retried. |

RestoreStatus

Parameter of

RecommendedFailbackOptions on page 331

Properties

| Name | Enumeration | Description |
|------------|-------------|--|
| NotStarted | 0 | The restoration operation has not started. |
| Restoring | 1 | The restoration process is in progress. |
| Restored | 2 | The restoration process is complete. It is now safe to perform failback. |

SaturationLevel

Parameter of

LogicalItems on page 300, LogicalVolume on page 301, PhysicalItem on page 321, PhysicalVolume on page 324, Volume on page 388

Properties

| Name | Enumeration | Description |
|---------|-------------|---|
| Unknown | 0 | The saturation level is unknown. |
| None | 1 | The item will not be replicated. |
| Partial | 2 | Some, but not all, of the item will be replicated. |
| Full | 3 | The item and all of its children (if a container) will be replicated. |
| Error | 4 | An error occurred while calculating the saturation for the item. |

ScriptExecutionMode

Parameter of

ScriptPoint on page 341

Properties

| Name | Enumeration | Description |
|--------------|-------------|---|
| Synchronous | 0 | Carbonite will wait while the script is executed. |
| Asynchronous | 1 | Carbonite will not wait while the script is executed. |

ScriptPointType

Parameter of

ScriptPoint on page 341

Properties

| Name | Enumeration | Description |
|----------------|-------------|---|
| MirrorStart | 0 | The script is executed when the target receives the first mirror operation. In the case of a difference mirror, this may be a long time after the mirror is started because the script does not start until the first different data is received on the target. If the data is synchronized and a difference mirror finds nothing to mirror, the script will not be executed. |
| MirrorComplete | 1 | The script is executed when a mirror is completed. Because the mirror statistics may indicate a mirror is at 99-100% when it is actually still processing (for example, if files were added after the job size was calculated, if there are alternate data streams, and so on), the script will not start until all of the mirror data has been completely processed on the target. |
| MirrorStop | 2 | The script is executed when a mirror is stopped, which may be caused by an auto-disconnect occurring while a mirror is running, the service is shutdown while a mirror is running, or if you stop a mirror manually. |

SmtpConnectionSecurity

Parameter of

EmailNotificationOptions on page 267

Properties

| Name | Enumeration | Description |
|-------|-------------|---|
| Plain | 0 | The security is plain. |
| SSL | 1 | The security is Secure Sockets Layer. |
| TLS | 2 | The security is Transport Layer Security. |

SnapshotAttributes

Parameter of

SnapshotEntry on page 352

Properties

| Name | Enumeration | Description |
|------------|-------------|--|
| None | 0 | This value represents no snapshots available. |
| JobManaged | 1 | This value represents a snapshot managed by a job. |
| ActiveTest | 2 | This value represents a snapshot managed by a test failover. |

SnapshotCreationReason

Parameter of

SnapshotEntry on page 352, SourceQueueSnapshotEntry on page 358

Properties

| Name | Enumeration | Description |
|---------------------|-------------|---|
| Manual | 0 | A user manually took this snapshot. |
| Automatic | 1 | Carbonite automatically took this snapshot. |
| Scheduled | 2 | A periodic snapshot schedule triggered this snapshot. |
| Deferred | 3 | A periodic snapshot schedule triggered this snapshot, although it did not occur at the specified interval because the job between the source and target was not in a good state |
| DataTest | 4 | The test failover process took this snapshot. |
| Coordinated | 5 | A user took a coordinated snapshot. |
| SQLClusterAutomatic | 6 | The test failover process took this snapshot for a clustered SQL job. |
| Invalid | 7 | This is an invalid snapshot. |

SnapshotQuality

Parameter of

SourceQueueSnapshotEntry on page 358

Properties

| Name | Enumeration | Description |
|------|-------------|--|
| Good | 0 | This value represents a good snapshot. |
| Bad | 1 | This value represents a bad snapshot. |

SnapshotState

Parameter of

SourceQueueSnapshotEntry on page 358

Properties

| Name | Enumeration | Description |
|-----------|-------------|---|
| Completed | 0 | This value represents a completed snapshot. |
| Pending | 1 | This value represents a pending snapshot. |
| Error | 2 | This value represents a snapshot error. |

SourceSqlMigrationOptions

Parameter of

SqlMigrationOptions on page 362

Properties

| Name | Enumeration | Description |
|-------------------------------|-------------|--|
| None | 0 | This value indicates no changes will be made on the source. |
| OfflineDatabasesBeforeCutover | 1 | This value indicates access to the source database will be restricted during cutover. This ensures no one can make changes to the database during the cutover process. |
| OnlineDatabasesAfterCutover | 2 | This value indicates the restrictions on the source database will be removed when they are no longer needed. Cutover will still continue processing. |
| Shutdown | 4 | This value indicates the source server will be shut down after cutover completes. |

You can combine OfflineDatabaseBeforeCutover and OnlineDatabasesAfterCutover by using enumeration 3, OfflineDatabaseBeforeCutover and Shutdown by using enumeration 5, OnlineDatabasesAfterCutover and Shutdown by using enumeration 6, and OfflineDatabaseBeforeCutover, OnlineDatabasesAfterCutover, and Shutdown by using enumeration 7.

SqlAuthenticationMode

Parameter of

Set-DefaultSqlCredentials on page 145, SqlCredentials on page 359

Properties

| Name | Enumeration | Description |
|---------|-------------|--|
| Windows | 0 | This value indicates Windows credentials will be used for SQL Server authentication. |
| Sql | 1 | This value indicates SQL credentials will be used for SQL Server authentication. |

SqlServerState

Parameter of

SqlInstance on page 360

Properties

| Name | Enumeration | Description |
|---------|-------------|--|
| Unknown | 0 | This value indicates the state of the SQL server is unknown. |
| Stopped | 1 | This value indicates the SQL server is stopped. |
| Running | 2 | This value indicates the SQL server is running. |

SqlServerType

Parameter of

SqlInstance on page 360

Properties

| Name | Enumeration | Description |
|------------|-------------|--|
| Standalone | 0 | This value indicates the SQL server is a standalone server. |
| Clustered | 1 | This value indicates the SQL server is clustered. |
| Aag | 2 | This value indicates the SQL server is an AlwaysOn Availability Group. |

TargetServiceStatus

Parameter of

TargetServicesToStop on page 369

Properties

| Name | Enumeration | Description |
|---------------|-------------|--------------------------------------|
| Stopped | 0 | The service is stopped. |
| Started | 1 | The service is started. |
| StopPending | 2 | The service is pending a stop. |
| StartPending | 3 | The service is pending a start. |
| ResumePending | 4 | The service is pending a resume. |
| PausePending | 5 | The service is pending a pause. |
| Paused | 6 | The service is paused. |
| Unknown | 7 | The state of the service is unknown. |

TargetStates

Parameter of

CoreConnectionDetails on page 247, SnapshotEntry on page 352, SourceQueueSnapshotEntry on page 358, TargetStateInfo on page 370

Properties

| Name | Enumeration | Description |
|--------------------|-------------|--|
| Good | 0 | The target is in a good state. |
| Mirroring | 1 | Mirroring is in progress. |
| MirrorStopped | 2 | Mirroring was stopped. A remirror should be performed. |
| OpDropped | 4 | The target detected that an operation was dropped on the network. A remirror should be performed. |
| Retrying | 8 | The target is retrying a write operation. |
| Paused | 16 | Writing to the target has been paused by the user. |
| PausePending | 32 | Writing to the target has been paused by the user. |
| RestoreRequired | 64 | The data on the source and target may not be synchronized because of a failover condition. This state will remain until a restore or remirror is completed. |
| ReplicationPending | 128 | The connection has been established and replication is enabled, but the first replication operation has not been transmitted yet |
| SnapshotReverted | 256 | The data on the source and target may not be synchronized because a snapshot was applied on the target. This state will remain until a restore or remirror is completed. |
| FailoverUnblocked | 512 | This property is no longer used. |

| Name | Enumeration | Description |
|-----------------------|-------------|--|
| Disconnected | 1024 | The target server cannot be contacted. |
| SrolImage | 2048 | This property is no longer used. |
| FailoverMonitoring | 4096 | The target is monitoring the source for a failure. |
| TransactionsPending | 8192 | There are transactional NTFS (TxF) operations pending. |
| GCReplicationComplete | 16384 | This property is no longer used. |
| MarkedForDeletion | 32768 | The connection is marked for deletion when the source comes back online. |
| JobNotReadyOnTarget | 65536 | The target server may not be ready to resume transmission, for example due to disks being offline. |
| TargetPathBlocked | 2147483648 | Writing to the replica path location on the target is blocked. |
| Unknown | -4294967296 | The target state cannot be determined. |

TransmissionMode

Parameter of

CoreConnectionDetails on page 247

Properties

| Name | Enumeration | Description |
|-----------|-------------|-------------------------------------|
| Error | 0 | Transmission is in an error state. |
| Paused | 1 | Transmission is paused. |
| Started | 2 | Transmission is active. |
| Scheduled | 3 | Transmission is pending a schedule. |
| Stopped | 4 | Transmission is stopped. |
| Unknown | 5 | Transmission is unknown. |

VmwareCertificatePolicy

Parameter of

Set-DtVmwareCertificatePolicy on page 162

Properties

| Name | Enumeration | Description |
|-------------------|-------------|---|
| AllowAll | 0 | Allow all certificates to be installed. |
| AllowSelfSigned | 1 | Allow only self-signed certificates to be installed. |
| AllowValid | 2 | Allow only valid certificates to be installed. |
| AllowKnownOrValid | 4 | Allow only known or valid certificates to be installed. |

Weekdays

Parameter of

BandwidthEntry on page 230, BandwidthScheduleEntry on page 234

Properties

| Name | Enumeration | Description |
|-----------|-------------|---|
| None | 0 | No days of the week are specified. |
| Sunday | 1 | Sunday is specified. |
| Monday | 2 | Monday is specified. |
| Tuesday | 4 | Tuesday is specified. |
| Wednesday | 8 | Wednesday is specified. |
| Thursday | 16 | Thursday is specified. |
| Friday | 32 | Friday is specified. |
| Workdays | 62 | Monday, Tuesday, Wednesday, Thursday, and Friday are specified. |
| Saturday | 64 | Saturday is specified. |
| Weekends | 65 | Saturday and Sunday are specified. |
| All | 127 | All days of the week are specified. |

Chapter 5 Scripting examples

Below are links to sample Carbonite PowerShell scripts. The sample scripts must be modified. They cannot be used as-is. Modify them to fit your environment. If you need basic assistance with script modifications, contact Technical Support. Assistance with advanced scripting will be referred to Professional Services.

- **Job creation scripts**
 - Carbonite Availability
 - [Creating a files and folders job for Windows on page 473](#)
 - [Creating a full server job for Windows on page 475](#)
 - [Creating a full server job for Linux on page 477](#)
 - [Creating a SQL job on page 479](#)
 - [Creating a full server to ESX job for Windows on page 481](#)
 - [Creating a full server to ESX job for Linux on page 485](#)
 - [Creating a full server to Hyper-V job on page 489](#)
 - Carbonite Migrate
 - [Creating a files and folders migration job for Windows on page 491](#)
 - [Creating a full server migration job for Windows on page 493](#)
 - [Creating an SAP HANA migration job for Linux on page 495](#)
 - [Creating a SQL migration job on page 497](#)
 - [Creating a full server to ESX migration job for Windows on page 500](#)
 - [Creating a full server to Hyper-V migration job on page 502](#)
- **Job information scripts**
 - [Viewing job Event messages on page 505](#)
 - [Creating a job diagnostics file on page 507](#)
- **Job control scripts**
 - [Validating an existing job on page 509](#)
 - [Editing a files and folders job for Windows on page 511](#)
 - [Changing the compression setting for an existing job on page 513](#)
 - [Stopping and starting a job on page 515](#)
 - [Pausing and resuming a job on page 517](#)
 - [Viewing and setting job and server options on page 519](#)
- **Other scripts**
 - [Pausing and resuming your target on page 522](#)
 - [Shutting down the Double-Take service on a server on page 523](#)
 - [Hiding your password in a PowerShell script on page 524](#)

Job creation scripts

Below are links to sample job creation scripts. The sample scripts must be modified. They cannot be used as-is. Modify them to fit your environment. If you need basic assistance with script modifications, contact Technical Support. Assistance with advanced scripting will be referred to Professional Services.

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 - [Creating a files and folders job for Windows on page 473](#)
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 - [Creating a full server job for Linux on page 477](#)
 - [Creating a SQL job on page 479](#)
 - [Creating a full server to ESX job for Windows on page 481](#)
 - [Creating a full server to ESX job for Linux on page 485](#)
 - [Creating a full server to Hyper-V job on page 489](#)
- Carbonite Migrate
 - [Creating a files and folders migration job for Windows on page 491](#)
 - [Creating a full server migration job for Windows on page 493](#)
 - [Creating an SAP HANA migration job for Linux on page 495](#)
 - [Creating a SQL migration job on page 497](#)
 - [Creating a full server to ESX migration job for Windows on page 500](#)
 - [Creating a full server to Hyper-V migration job on page 502](#)

Creating a files and folders job for Windows

The following sample script will create a simple files and folders job for Windows. You will need to modify this script to fit your environment and configuration. If your source or target is a cluster, additional parameters must be added.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- \$DtProtectionPath1 =
- \$DtProtectionRule1 =
- \$DtProtectionPath2 =
- \$DtProtectionRule2 =
- \$DtJobOptions =
- \$DtJobGuidForFilesAndFolders =
- # \$DtJobGuidForFilesAndFolders =

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a simple files and folders job
# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "FilesAndFolders"
$DtJobType = "FilesAndFolders"

# Paths on the source to protect
$DtSourceProtectionPath1 = "C:\Dir1\"
$DtSourceProtectionPath2 = "C:\Dir2\"

# Path mapping that will be used when the job is created
$DtSourcePath = "C:\"
$DtTargetPath = "C:\Dir3\"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# Specify the files and folders to protect
$DtProtectionPath1 = New-Object DoubleTake.Common.Contract.PhysicalRule -Property @
{Path=$DtSourceProtectionPath1}
$DtProtectionRule1 = Add-DtPhysicalRule -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -Rule
```

```

$DtProtectionPath1
$DtProtectionPath2 = New-Object DoubleTake.Common.Contract.PhysicalRule -Property @
{Path=$DtSourceProtectionPath2}
$DtProtectionRule2 = Add-DtPhysicalRule -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -Rule
$DtProtectionPath2
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid

# Get the default job options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Workload $DtWorkload

# Sets the path mapping on the target to an all-to-one location
$DtJobOptions.JobOptions.CoreConnectionOptions.PathTransformations[0].SourcePath = $DtSourcePath
$DtJobOptions.JobOptions.CoreConnectionOptions.PathTransformations[0].TargetPath = $DtTargetPath

# Create the job
$DtJobGuidForFilesAndFolders = New-DtJob -ServiceHost $DtTarget -Source $DtSource -JobType
FilesAndFolders -JobOptions $DtJobOptions.JobOptions

# If you do not want to specify job options and instead use the default options,
# remove the PathTransformations lines above and use the New-DtFilesAndFoldersJob
# cmdlet, similar to the following line.
# $DtJobGuidForFilesAndFolders = New-DtFilesAndFoldersJob -ServiceHost $DtTarget -Source $DtSource
-Path $DtSourcePath -JobOptions $DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtJobGuidForFilesAndFolders

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget

```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a full server job for Windows

The following sample script will create a simple full server job for Windows . You will need to modify this script to fit your environment and configuration.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- # Set-DtLogicalItemSelection
- \$DtJobOptions =
- \$DtJobGuidForFullServer =
- \$TestServer =
- \$DtJobOptions.JobOptions.FullServerTestFailoverOptions.TestFailoverServerCredential

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a simple full server for Windows job
# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Reserved IP addresses of source and target
$DtSourceReservedIP = "10.10.10.29"
$DtTargetReservedIP = "10.10.10.30"

# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "FullServerFailover"
$DtJobType = "FullServerFailover"

# Test failover server
$DtTestServerIP = "112.42.75.60"
$DtTestServerUserName = "domain\administrator"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# This workload, by default, selects all volumes for protection
# If desired, exclude any volumes from protection, however, be careful
# when excluding data as it may compromise the integrity of your installed applications
# Uncomment and use the following line, substituting G:\ for the volume you want to exclude
# Repeat the line to exclude multiple volumes
# Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -LogicalPath "G:\
-Unselect

# Get the workload definition including the workload and logical items
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID
```

```

# Get the default options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Workload $DtWorkload

# Specify the reserved addresses set earlier to be used in the job options to be used for reverse
$DtJobOptions.JobOptions.SystemStateOptions.SourceReservedAddress = $DtSourceReservedIP
$DtJobOptions.JobOptions.SystemStateOptions.TargetReservedAddress = $DtTargetReservedIP

# If you want to disable reverse, you would not need the two lines above.
# Instead, use the following line to disable reverse.
# $DtJobOptions.JobOptions.FullServerFailoverOptions.CreateBackupConnection = $false

# Configure a third server for test failover
$DtCredentialEncrypted = Get-Credential $DtTestServerUserName
$TestServer = New-DtUri -NetworkId $DtTestServerIP -Credential $DtCredentialEncrypted -Scheme
"SchemeName"
$DtJobOptions.JobOptions.FullServerTestFailoverOptions.TestFailoverServerCredential.TestFailoverSe
rverHostUri = $TestServer
$DtJobOptions.JobOptions.FullServerTestFailoverOptions.DeleteSnapshots = $true
$DtJobOptions.JobOptions.FullServerTestFailoverOptions.TestFailoverServerAddress = $DtTestServerIP

# Create the job
$DtJobGuidForFullServer = New-DtJob -ServiceHost $DtTarget -Source $DtSource -JobType $DtJobType -
Options $DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtjobGuidForFullServer

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget

```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a full server job for Linux

The following sample script will create a simple full server job for Linux. You will need to modify this script to fit your environment and configuration.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- # Set-DtLogicalItemSelection
- \$DtJobOptions =
- \$DtJobGuidForLFFO =
- \$TestServer =
- \$DtJobOptions.JobOptions.FullServerTestFailoverOptions.TestFailoverServerCredential

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a simple full server for Linux job
# Specify the variables to be used in the script

# Source server and credentials
# Be sure to include the communication port with the source server
$DtSourceName = "112.42.7.63:6325"
$DtSourceUserName = "root"
$DtSourcePassword = "password"

# Target server and credentials
# Be sure to include the communication port with the target server
$DtTargetName = "112.42.9.93:6325"
$DtTargetUserName = "root"
$DtTargetPassword = "password"

# Reserved IP addresses
$DtSourceReservedIP = "10.10.10.29"
$DtTargetReservedIP = "10.10.10.30"

# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "LinuxFullServerFailover"
$DtJobType = "LinuxFullServerFailover"

# Test failover server
$DtTestServerIP = "112.42.75.60"
$DtTestServerUserName = "domain\administrator"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# This workload, by default, selects all volumes for protection
# If desired, exclude any volumes from protection, however, be careful
# when excluding data as it may compromise the integrity of your installed applications
# Uncomment and use the following line, substituting G:\ for the volume you want to exclude
# Repeat the line to exclude multiple volumes
# Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -LogicalPath "G:\"
-Unselect
```

```

# Get the workload definition including the workload and logical items
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID

# Get the default options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Workload $DtWorkload

# Specify the reserved addresses set earlier to be used in the job options to be used for reverse
$DtJobOptions.JobOptions.SystemStateOptions.SourceReservedAddress = $DtSourceReservedIP
$DtJobOptions.JobOptions.SystemStateOptions.TargetReservedAddress = $DtTargetReservedIP

# If you want to disable reverse, you would not need the two lines above.
# Instead, use the following line to disable reverse.
# $DtJobOptions.JobOptions.FullServerFailoverOptions.CreateBackupConnection = $false

# Configure a third server for test failover
$DtCredentialEncrypted = Get-Credential $DtTestServerUserName
$TestServer = New-DtUri -NetworkId $DtTestServerIP -Credential $DtCredentialEncrypted -Scheme
"SchemeName"
$DtJobOptions.JobOptions.FullServerTestFailoverOptions.TestFailoverServerCredential.TestFailoverSe
rverHostUri = $TestServer
$DtJobOptions.JobOptions.FullServerTestFailoverOptions.DeleteSnapshots = $true
$DtJobOptions.JobOptions.FullServerTestFailoverOptions.TestFailoverServerAddress = $DtTestServerIP

# Create the job
$DtJobGuidForLFFO = New-DtJob -ServiceHost $DtTarget -Source $DtSource -JobType $DtJobType -
Options $DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtjobGuidForLFFO

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget

```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a SQL job

The following sample script will create a simple SQL job. You will need to modify this script to fit your environment and configuration. If your source or target is a cluster, additional parameters must be added.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- \$DtProtectionItems =
- # \$RootItem =
- # | ForEach-Object
- # \$DtProtectionItems
- \$DtJobOptions =
- \$DtJobGuidForSQL =

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a simple SQL job
# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "SQL"
$DtJobType = "SQL"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# Add what you want to protect to the workload. These lines will, by default, select all instances
$DtLogicalItem = Get-DtLogicalItem -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID
$DtProtectionItems = Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid
-LogicalPath $DtLogicalItem.Path
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID

# If you do not want to protect all of the instances, as the default does, comment out the
# three lines above and uncomment and use the following group of lines.
# $RootItems = Get-DtLogicalItem -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID
# $RootItems | Format-List
# $RootItem = (Get-DtLogicalItem -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID | Where-Object
# {$_.Path -eq "SQL:\"})[ 0 ]
# The following lines unselect all of the instances that were selected by default
# Get-DtLogicalItem -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID -RefItem $RootItem `
# | ForEach-Object {Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId
```

```

$DtWorkloadGUID -LogicalPath $_.Path -Unselect}
# Select the instance that you want to protect by replacing instance_name with the name of the
# instance
# For example, SQL:\instance_name would be SQL:\PROD for an instance called PROD
# $DtProtectionItems = Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId
$DtWorkloadGuid -LogicalPath "SQL:\instance_name"
# $DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID

# Get the default job options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Workload $DtWorkload

# Create the job
$DtJobGuidForSQL = New-DtJob -ServiceHost $DtTarget -Source $DtSource -JobType $DtJobType -Options
$DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtJobGuidForSQL

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget

```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a full server to ESX job for Windows

The following sample script will create a full server to ESX job for Windows. It includes options for configuring test failover and reverse. You will need to modify this script to fit your environment and configuration.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- \$DtReverseAppliance=
- \$VimTarget =
- # Set-DtLogicalItemSelection
- \$DtJobOptions =
- The comments in the Configure test failover section
- \$DTJobOptions.JobOptions.VRAOptions.SourceApplianceInfo
- \$DtJobGuidForEVRA =

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a full server to ESX job
# Including options for test failover and reverse

# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# If you are configuring a reverse job
# Reverse target appliance and credentials
# This may or may not be the same as the target for the forward protection
$DtReverseTargetName = "gamma"
$DtReverseTargetUri = "dtms://112.42.76.3:6325"
$DtReverseTargetRoute = "112.42.76.3"
$DtReverseTargetUserName = "domain\administrator"
$DtReverseTargetPassword = "password"

# ESX host and credentials
# If you are using vCenter, specify your vCenter.
# Only specify an ESX host if you are using ESX standalone.
$DtHostName = "112.42.56.14"
$DtHostUserName = "root"
$DtHostPassword = "password"

# If you are configuring a reverse job
# Reverse ESX host and credentials
# If you are using vCenter, specify your vCenter.
# Only specify an ESX host if you are using ESX standalone.
$DtReverseHostName = "112.42.12.7"
$DtReverseHostUserName = "root"
$DtReverseHostPassword = "password"

# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "VRA"
$DtJobType = "VRA"

# VM display name
# This name must be unique within your environment and different
```

```

# from the existing directory location name if you are reusing an existing disk
$DisplayName = "Name"

# Datastore location - GUID assigned to the datastore
# You can find this GUID in your vSphere or VMware web client
$DatastoreLocation = "/vmfs/volumes/529a027d-b4ba1124-b1c0-614c42bc0717"

# If you are configure a reverse job, datastore location
$ReverseDatastoreLocation = "/vmfs/volumes/630b128d-c5ca2235-b2d1-725d53cd1828"

# Existing disk - Specify only if you want to reuse an existing disk
$ExistingDisk = "Dir/SubDir/filename.vmdk"

# Type of disk. Use Dynamic for ESX thin disks, Fixed for ESX thick disks
# and Flat Disk for ESX flat disks
$DiskType = "Dynamic"

# Test failover configuration
$SourceVSwitch = "Local Area Connection"
$TargetVSwitch = "Internal Network"

# Reverse options
$ReverseDisplayName = "ReverseName"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# If you are configuring a reverse job, create reverse appliance object
$DtReverseAppliance = New-DtServer -Name $DtReverseTargetName -UserName $DtReverseTargetUserName -
Password $DtReverseTargetPassword -Role ReverseHelperRole

# Create ESX host object
# If you are using vCenter, specify your vCenter.
# Only specify an ESX host if you are using ESX standalone.
$VimTarget = New-DtServer -Name $DtHostName -Username $DtHostUserName -Password $DtHostPassword -
Role TargetVimServer

# If you are configuring a reverse job, create reverse ESX host object
$DtReverseHost = New-DtServer -Name $DtReverseHostName -UserName $DtReverseHostUserName -Password
$DtReverseHostPassword -Role ReverseVimServer

# All roles
$OtherServers = @($VimTarget,$DtReverseHost,$DtReverseAppliance)

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# This workload, by default, selects all volumes for protection
# If desired, exclude any volumes from protection, however, be careful
# when excluding data as it may compromise the integrity of your installed applications
# Uncomment and use the following line, substituting G:\ for the volume you want to exclude
# Repeat the line to exclude multiple volumes
# Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -LogicalPath "G:\"
-Unselect

# Get the workload definition including the workload and logical items
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID

# Get the default job options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -OtherServers
$OtherServers -JobType $DtJobType -Workload $DtWorkload

# Set the display name in the job options
$DtJobOptions.JobOptions.VraOptions.ReplicaVmInfo.DisplayName = $DisplayName

# Set the location where you want the VM config files to be located
$DtJobOptions.JobOptions.VRAOptions.ReplicaVMInfo.Path = $DatastoreLocation

```

```

# Set the location where you want the VM disk files to be located
foreach($disk in $DtJobOptions.JobOptions.VRAOptions.Volumes)
{
    $disk.VirtualDiskPath = $DatastoreLocation
    $disk.DiskProvisioningType = $DiskType
    # If you want to reuse an existing disk, you will need to identify the path
    # to use for each $disk using PreexistingDiskPath
}

# Configure test failover
$DTJobOptions.JobOptions.VRAOptions.TestFailover.DeleteVirtualDisks=$true
# If you want to connect the replica to the network, uncomment and use the following lines
# Without these lines, the test failover will be completed without network connectivity
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover = New-Object -TypeName
'DoubleTake.Virtualization.Contract.VirtualSwitchMapping'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover[0].SourceVirtualSwitch =
New-Object -TypeName 'DoubleTake.Virtualization.Contract.VirtualSwitchInfo'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover[0].TargetVirtualSwitch =
New-Object -TypeName 'DoubleTake.Virtualization.Contract.VirtualSwitchInfo'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover
[0].SourceVirtualSwitch.Label = "Name of source adapter goes here"
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover
[0].TargetVirtualSwitch.Label = "Name of target virtual switch goes here"
# If you have more than one adapter, you need to add the additional adapters to the
VirtualSwitchMappingTestFailover array
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover += New-Object -TypeName
'DoubleTake.Virtualization.Contract.VirtualSwitchMapping'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover[1].TargetVirtualSwitch =
New-Object -TypeName 'DoubleTake.Virtualization.Contract.VirtualSwitchInfo'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover[1].SourceVirtualSwitch =
New-Object -TypeName 'DoubleTake.Virtualization.Contract.VirtualSwitchInfo'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover
[1].SourceVirtualSwitch.Label = "Name of another source adapter goes here"
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover
[1].TargetVirtualSwitch.Label = "Name of target virtual switch goes here"

# Configure reverse job options
# Identify the reverse host
$DTJobOptions.JobOptions.VRAOptions.ReverseOptions.ReverseVMwareServer = $DtReverseHost.Uri
# Identify the reverse appliance by creating a new VMInfo object
$DTJobOptions.JobOptions.VRAOptions.SourceApplianceInfo = New-Object -TypeName
'Doubletake.Virtualization.Contract.VMInfo'
$DTJobOptions.JobOptions.VRAOptions.SourceApplianceInfo.Address = $DtReverseTargetName
$DTJobOptions.JobOptions.VRAOptions.SourceApplianceInfo.GuestUri = $DtReverseTargetURI
# Identify the reverse route
$DTJobOptions.JobOptions.VRAOptions.ReverseRoute = $DtReverseTargetRoute
# Identify the reverse options
$DTJobOptions.JobOptions.VRAOptions.ReverseOptions.VmName = $ReverseDisplayName
$DTJobOptions.JobOptions.VRAOptions.ReverseOptions.VmPath = $ReverseDatastoreLocation
foreach($reverseDisk in $DtJobOptions.JobOptions.VRAOptions.ReverseOptions.Volumes)
{
    $reverseDisk.VirtualDiskPath = $ReverseDatastoreLocation
    $reverseDisk.DiskProvisioningType = $DiskType
    # If you want to reuse an existing disk, you will need to identify the path
    # to use for each $disk using PreexistingDiskPath
}

# Create the job
$DtJobGuidForEVRA = New-DtJob -ServiceHost $DtTarget -Source $DtSource -OtherServers $OtherServers
-JobType $DtJobType -JobOptions $DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtJobGuidForEVRA

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget
Disconnect-DtServer -ServiceHost $VimTarget
Disconnect-DtServer -ServiceHost $DtReverseAppliance
Disconnect-DtServer -ServiceHost $DtReverseHost

```

If you want to hide your user credentials in your script, use the Windows PowerShell Get-Credential cmdlet. The password will not be visible because Windows stores an encrypted password. See Hiding your password in a

PowerShell script on page 524 for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a full server to ESX job for Linux

The following sample script will create a simple full server to ESX job for Linux. You will need to modify this script to fit your environment and configuration.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- \$VimTarget =
- # Set-DtLogicalItemSelection
- \$DtJobOptions =
- \$ExistingDisk +=
- \$ExistingDisk +=
- \$ExistingDisk +=
- \$DtJobGuidForLVRA =

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a simple full server to ESX job for Linux

# Specify the variables to be used in the script

# Source server and credentials
# Be sure to include the communication port with the source server
$DtSourceName = "112.42.7.63:6325"
$DtSourceUserName = "root"
$DtSourcePassword = "password"

# Target appliance and credentials
# Be sure to include the communication port with the target
$DtTargetName = "112.42.9.93:6325"
$DtTargetUserName = "root"
$DtTargetPassword = "password"

# ESX host and credentials
# If you are using vCenter, specify your vCenter.
# Only specify an ESX host if you are using ESX standalone.
$DtHostName = "112.42.56.14"
$DtHostUserName = "root"
$DtHostPassword = "password"

# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "Lvra"
$DtJobType = "Lvra"

# VM display name
# This name must be unique within your environment and different
# from the existing directory location name if you are reusing an existing disk
$DisplayName = "Name"

# Datastore location - GUID assigned to the datastore
# You can find this GUID in your vSphere or VMware web client
$DatastoreLocation = "/vmfs/volumes/529a027d-b4ba1124-b1c0-614c42bc0717"

# Existing disk - Specify only if you want to reuse an existing disk
# If your disks are mounted directly (without using LVM2), specify the mount name and
location
# If your disks are in an LVM2 volume group, specify the LVM name and location
# If you are using both, specify both
$MountName = "/boot"
$MountLocation = "Dir1/DiskName__boot.vmdk"
$LvmName1 = "VG Name"
$LvmLocation1 = "Dir1/DiskName_VG_Name_PhysicalVolume0.vmdk"
```

```

$LvmName2 = "VG_Name"
$LvmLocation2 = "Dir1/DiskName_VG_Name_PhysicalVolume1.vmdk"

# Test failover configuration
$SourceVSwitch = "Local Area Connection"
$TargetVSwitch = "Internal Network"
$TestDisplayName = "TestName"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Create ESX host appliance object
# If you are using vCenter, specify your vCenter.
# Only specify an ESX host if you are using ESX standalone.
$VimTarget = New-DtServer -Name $DtHostName -Username $DtHostUserName -Password $DtHostPassword -
Role TargetVimServer
$OtherServers = @($VimTarget)

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# This workload, by default, selects all volumes for protection
# If desired, exclude any volumes from protection, however, be careful
# when excluding data as it may compromise the integrity of your installed applications
# Uncomment and use the following line, substituting G:\ for the volume you want to exclude
# Repeat the line to exclude multiple volumes
# Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -LogicalPath "G:\"
-Unselect

# Get the workload definition including the workload and logical items
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID

# Get the default job options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -OtherServers
$OtherServers -JobType $DtJobType -Workload $DtWorkload

# Set the display name
$DtJobOptions.JobOptions.VraOptions.ReplicaVmInfo.DisplayName = $DisplayName

# Set the location where you want the VM config files to be located
$DtJobOptions.JobOptions.VRAOptions.ReplicaVMInfo.Path = $DatastoreLocation

# Uncomment and use the following block only if you want to reuse an existing
# disk with a per volume disk configuration strategy
# Specify the existing disk to use
<#
    $ExistingDisks = @()
    $ExistingDisksDatastoreLocation = $ReplicaVmDatastoreLocation
    $ExistingDisks += @{ mountPoint = $MountName; dsLoc = $ExistingDisksDatastoreLocation;
vmdkPath = $MountLocation }
    $ExistingDisks += @{ vgName = $LvmName1; dsLoc = $ExistingDisksDatastoreLocation; vmdkPath =
$LvmLocation1 }
    $ExistingDisks += @{ vgName = $LvmName2; dsLoc = $ExistingDisksDatastoreLocation; vmdkPath =
$LvmLocation2 }

    $modifiedVolumeGroups = @{}
    foreach($existingDisk in $ExistingDisks)
    {
        if ($existingDisk.ContainsKey("mountPoint"))
        {
            $mntpt = $existingDisk["mountPoint"]
            if ($mntpt)
            {
                foreach($mountedPartition in $DtJobOptions.JobOptions.VRAOptions.Volumes)
                {
                    if ($mntpt -eq $mountedPartition.Name)
                    {
                        $mountedPartition.VirtualDiskPath = $existingDisk["dsLoc"]
                    }
                }
            }
        }
    }
#>

```



```
$DtJobGuidForLVRA = New-DtJob -ServiceHost $DtTarget -Source $DtSource -OtherServers $OtherServers
-JobType $DtJobType -JobOptions $DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtJobGuidForLVRA

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget
Disconnect-DtServer -ServiceHost $VimTarget
```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a full server to Hyper-V job

The following sample script will create a simple full server to Hyper-V job. You will need to modify this script to fit your environment and configuration. If your source or target is a cluster, additional parameters must be added.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- # Set-DtLogicalItemSelection
- \$DtJobOptions =
- The commented lines for connecting the replicate to the network
- \$DtJobGuidForHVRA =

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a simple full server to Hyper-V job
# Specify the variables to be used in the script
# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"
# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"
# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "VRA"
$DtJobType = "VRA"
# Test failover configuration
$SourceVSwitch = "Local Area Connection"
$TargetVSwitch = "Internal Network"
# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"
# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword
# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType
# This workload, by default, selects all volumes for protection
# If desired, exclude any volumes from protection, however, be careful
# when excluding data as it may compromise the integrity of your installed applications
# Uncomment and use the following line, substituting G:\ for the volume you want to exclude
# Repeat the line to exclude multiple volumes
# Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -LogicalPath "G:\"
-Unselect
# Get the workload definition including the workload and logical items
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID
# Get the default job options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Workload $DtWorkload
# Configure test failover
```

```

$DtJobOptions.JobOptions.VRAOptions.TestFailover.DeleteVirtualDisks=$true
# If you want to connect the replica to the network, uncomment and use the following lines
# Without these lines, the test failover will be completed without network connectivity
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover = New-Object -TypeName
'DoubleTake.Virtualization.Contract.VirtualSwitchMapping'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover[0].SourceVirtualSwitch =
New-Object -TypeName 'DoubleTake.Virtualization.Contract.VirtualSwitchInfo'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover[0].TargetVirtualSwitch =
New-Object -TypeName 'DoubleTake.Virtualization.Contract.VirtualSwitchInfo'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover
[0].SourceVirtualSwitch.Label = "Name of source adapter goes here"
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover
[0].TargetVirtualSwitch.Label = "Name of target virtual switch goes here"
# If you have more than one adapter, you need to add the additional adapters to the
VirtualSwitchMappingTestFailover array
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover += New-Object -TypeName
'DoubleTake.Virtualization.Contract.VirtualSwitchMapping'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover[1].TargetVirtualSwitch =
New-Object -TypeName 'DoubleTake.Virtualization.Contract.VirtualSwitchInfo'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover[1].SourceVirtualSwitch =
New-Object -TypeName 'DoubleTake.Virtualization.Contract.VirtualSwitchInfo'
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover
[1].SourceVirtualSwitch.Label = "Name of another source adapter goes here"
# $DtJobOptions.JobOptions.VRAOptions.VirtualSwitchMappingTestFailover
[1].TargetVirtualSwitch.Label = "Name of target virtual switch goes here"

# Create the job
$DtJobGuidForHVRA = New-DtJob -ServiceHost $DtTarget -Source $DtSource -JobType $DtJobType -
JobOptions $DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtJobGuidForHVRA

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget

```

If you want to hide your user credentials in your script, use the Windows PowerShell Get-Credential cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a files and folders migration job for Windows

The following sample script will create a simple files and folders migration job for Windows. You will need to modify this script to fit your environment and configuration.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- \$DtMigrationPath1 =
- \$DtMigrationRule1 =
- \$DtMigrationPath2 =
- \$DtMigrationRule2 =
- \$DtJobOptions =
- \$DtJobGuidForDataMigration =

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a simple data migration job
# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Type of workload you will be migrating and type of job you will be creating
$DtWorkloadType = "MoveDataOnlyMigration"
$DtJobType = "MoveDataOnlyMigration"

# Paths on the source to migrate
$DtSourceMigrationPath1 = "C:\Dir1\"
$DtSourceMigrationPath2 = "C:\Dir2\"

# Path mapping that will be used when the job is created
$DtSourcePath = "C:\"
$DtTargetPath = "C:\Dir3\"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# Specify the files and folders to migrate
$DtMigrationPath1 = New-Object DoubleTake.Common.Contract.PhysicalRule -Property @
{Path=$DtSourceMigrationPath1}
$DtMigrationRule1 = Add-DtPhysicalRule -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -Rule
$DtMigrationPath1
$DtMigrationPath2 = New-Object DoubleTake.Common.Contract.PhysicalRule -Property @
{Path=$DtSourceMigrationPath2}
$DtMigrationRule2 = Add-DtPhysicalRule -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -Rule
```

```

$DtMigrationPath2
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid

# Get the default job options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Workload $DtWorkload

# Sets the path mapping on the target to an all-to-one location
$DtJobOptions.JobOptions.CoreConnectionOptions.PathTransformations[0].SourcePath = $DtSourcePath
$DtJobOptions.JobOptions.CoreConnectionOptions.PathTransformations[0].TargetPath = $DtTargetPath

# Create the job
$DtJobGuidForDataMigration = New-DtJob -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -JobOptions $DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtJobGuidForDataMigration

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget

```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a full server migration job for Windows

The following sample script will create a simple full server migration job for Windows. You will need to modify this script to fit your environment and configuration.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- # Set-DtLogicalItemSelection
- \$DtJobOptions =
- \$DtJobGuidForFullServerMigration =

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a simple full server migration job

# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "MoveServerMigration"
$DtJobType = "MoveServerMigration"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# This workload, by default, selects all volumes for protection
# If desired, exclude any volumes from protection, however, be careful
# when excluding data as it may compromise the integrity of your installed applications
# Uncomment and use the following line, substituting G:\ for the volume you want to exclude
# Repeat the line to exclude multiple volumes
# Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -LogicalPath "G:\"
-Unselect

# Get the workload definition including the workload and logical items
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID

# Get the default options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Workload $DtWorkload

# Create the job
$DtJobGuidForFullServerMigration = New-DtJob -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Options $DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtJobGuidForFullServerMigration
```

```
# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget
```

If you want to hide your user credentials in your script, use the Windows PowerShell Get-Credential cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating an SAP HANA migration job for Linux

The following sample script creates a simple SAP HANA migration job for Linux. You must modify this script to fit your environment and configuration.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- # Set-DtLogicalItemSelection
- \$DtJobOptions =
- \$DtJobGuidForLFFO =
- \$TestServer =

When re-creating a script like this one for your environment, make sure you enter the commands on just one line.

```
# Sample script to create a simple SAP HANA migration for Linux job

# Specify the variables to be used in the script

# Source server and credentials
# Be sure to include the communication port with the source server
$DtSourceName = "112.42.7.63:6325"
$DtSourceUserName = "root"
$DtSourcePassword = "password"

# Target server and credentials
# Be sure to include the communication port with the target server
$DtTargetName = "112.42.9.93:6325"
$DtTargetUserName = "root"
$DtTargetPassword = "password"

# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "SapHanaMigration"
$DtJobType = "SapHanaMigration"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# This workload, by default, selects all volumes for protection
# If desired, exclude any volumes from protection, however, be careful
# when excluding data as it may compromise the integrity of your installed applications
# Uncomment and use the following line, substituting G:\ for the volume you want to exclude
# Repeat the line to exclude multiple volumes
# Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -LogicalPath "G:\"
-Unselect

# Get the workload definition including the workload and logical items
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID

# Get the default options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Workload $DtWorkload

# Create the job
```

```
$DtJobGuidForLFFO = New-DtJob -ServiceHost $DtTarget -Source $DtSource -JobType $DtJobType -
Options $DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtjobGuidForLFFO

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget
```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a SQL migration job

The following sample script will create a simple SQL migration job. You will need to modify this script to fit your environment and configuration. If your source or target is a cluster, additional parameters must be added.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- \$DtProtectionItems =
- # \$RootItem =
- # | ForEach-Object
- # \$DtProtectionItems
- \$DtJobOptions =
- The following lines that start with \$DtJobOptions.JobOptions.ApplicationOptions.
 - SqlMigrationOptions.DbaToolsCredentials.UserName =
 - SqlMigrationOptions.DbaToolsCredentials.Password =
 - SqlMigrationOptions.SourceSqlCredentials.UserName =
 - SqlMigrationOptions.SourceSqlCredentials.Password =
 - SqlMigrationOptions.TargetSqlCredentials.UserName =
 - SqlMigrationOptions.TargetSqlCredentials.Password =
 - SqlMigrationOptions.TargetInstance.InstanceName =
- \$DtJobGuidForSQL =

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a simple SQL migration job
# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Active Directory and SQL credentials
$DtDomainName = "domain"
$DtDomainUserName = "user"
$DtDomainPassword = "password"

# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "SqlMigration"
$DtJobType = "SqlMigration"

# Instance on the target where the database will be migrated
$DtTargetInstanceName = "InstanceName"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
```

```

$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# Add what you want to protect to the workload. These lines will, by default, select all databases
$DtLogicalItem = Get-DtLogicalItem -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID
$DtProtectionItems = Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID
-LogicalPath $DtLogicalItem.Path
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID

# If you do not want to protect all of the databases, as the default does, comment out the
# three lines above and uncomment and use the following group of lines.
# $RootItems = Get-DtLogicalItem -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID
# $RootItems | Format-List
# $RootItem = (Get-DtLogicalItem -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID | Where-Object
{ $_.Path -eq "SQL:\"})[ 0 ]
# The following lines unselect all of the databases that were selected by default
# Get-DtLogicalItem -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID -RefItem $RootItem `
# | ForEach-Object {Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId
$DtWorkloadGUID -LogicalPath $_.Path -Unselect}
# Select the database that you want to protect by replacing database_name with the name of the
database
# For example, SQL:\database_name would be SQL:\PROD for a database called PROD
# $DtProtectionItems = Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId
$DtWorkloadGUID -LogicalPath "SQL:\Default Instance\Databases\User Databases\database_name"
# $DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID

# Get the default job options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Workload $DtWorkload

# Set the SQL migration specific job options
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.AdCredentials.Domain =
$DtDomainName
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.AdCredentials.UserName =
$DtDomainUserName
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.AdCredentials.Password =
$DtDomainPassword
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.DbaToolsCredentials.Domain =
$DtDomainName
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.DbaToolsCredentials.UserName =
$DtDomainUserName
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.DbaToolsCredentials.Password =
$DtDomainPassword
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.SourceSqlCredentials.Domain =
$DtDomainName
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.SourceSqlCredentials.UserName =
$DtDomainUserName
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.SourceSqlCredentials.Password =
$DtDomainPassword
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.TargetSqlCredentials.Domain =
$DtDomainName
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.TargetSqlCredentials.UserName =
$DtDomainUserName
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.TargetSqlCredentials.Password =
$DtDomainPassword
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.TargetInstance.InstanceName =
$DtTargetInstanceName
$DtJobOptions.JobOptions.ApplicationOptions.SqlMigrationOptions.SourceOptions = 3

# Create the job
$DtJobGuidForSQL = New-DtJob -ServiceHost $DtTarget -Source $DtSource -JobType $DtJobType -Options
$DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtJobGuidForSQL

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget

```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a full server to ESX migration job for Windows

The following sample script will create a simple full server to ESX migration job for Windows. You will need to modify this script to fit your environment and configuration.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- \$VimTarget =
- # Set-DtLogicalItemSelection
- \$DtJobOptions =
- \$DtJobGuidForVraMove =

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a simple full server to ESX migration job

# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# ESX host and credentials
# If you are using vCenter, specify your vCenter.
# Only specify an ESX host if you are using ESX standalone.
$DtHostName = "112.42.56.14"
$DtHostUserName = "root"
$DtHostPassword = "password"

# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "VraMove"
$DtJobType = "VraMove"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Create ESX host appliance object
# If you are using vCenter, specify your vCenter.
# Only specify an ESX host if you are using ESX standalone.
$VimTarget = New-DtServer -Name $DtHostName -Username $DtHostUserName -Password $DtHostPassword -
Role TargetVimServer
$OtherServers = @($VimTarget)

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# This workload, by default, selects all volumes for protection
# If desired, exclude any volumes from protection, however, be careful
# when excluding data as it may compromise the integrity of your installed applications
# Uncomment and use the following line, substituting G:\ for the volume you want to exclude
# Repeat the line to exclude multiple volumes
# Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -LogicalPath "G:\"
```

```
-Unselect

# Get the workload definition including the workload and logical items
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID

# Get the default job options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Workload $DtWorkload -OtherServers $OtherServers

# Create the job
$DtJobGuidForVraMove = New-DtJob -ServiceHost $DtTarget -Source $DtSource -OtherServers
$OtherServers -JobType $DtJobType -JobOptions $DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtJobGuidForVraMove

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget
Disconnect-DtServer -ServiceHost $VimTarget
```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a full server to Hyper-V migration job

The following sample script will create a simple full server to Hyper-V migration job. You will need to modify this script to fit your environment and configuration.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- # Set-DtLogicalItemSelection
- \$DtJobOptions =
- \$DtJobGuidForVraMove =

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to create a simple full server to Hyper-V migration job

# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Type of workload you will be protecting and type of job you will be creating
$DtWorkloadType = "VraMove"
$DtJobType = "VraMove"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Create a workload
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -WorkloadTypeName $DtWorkloadType

# This workload, by default, selects all volumes for protection
# If desired, exclude any volumes from protection, however, be careful
# when excluding data as it may compromise the integrity of your installed applications
# Uncomment and use the following line, substituting G:\ for the volume you want to exclude
# Repeat the line to exclude multiple volumes
# Set-DtLogicalItemSelection -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -LogicalPath "G:\"
-Unselect

# Get the workload definition including the workload and logical items
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGUID

# Get the default job options that will be used to create the job
$DtJobOptions = Get-DtRecommendedJobOptions -ServiceHost $DtTarget -Source $DtSource -JobType
$DtJobType -Workload $DtWorkload

# Create the job
$DtJobGuidForVraMove = New-DtJob -ServiceHost $DtTarget -Source $DtSource -JobType $DtJobType -
JobOptions $DtJobOptions.JobOptions

# Start the job
Start-DtJob -ServiceHost $DtTarget -JobId $DtJobGuidForVraMove
```

```
# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget
```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Job information scripts

Below are links to sample job information scripts. The sample scripts must be modified. They cannot be used as-is. Modify them to fit your environment. If you need basic assistance with script modifications, contact Technical Support. Assistance with advanced scripting will be referred to Professional Services.

- [Viewing job Event messages on page 505](#)
- [Creating a job diagnostics file on page 507](#)

Viewing job Event messages

Most Carbonite Event messages are located in the Application Log with a Source of Double-Take or Double-Take Management Service. You will also find some Event messages in the System log under RepDrv. See the *Reference Guide* for details on all of the Carbonite Event messages.

The following sample scripts will gather Carbonite specific Event messages. The cmdlets used in these scripts are not Carbonite cmdlets. They are Windows PowerShell cmdlets. See your Windows PowerShell documentation for more details and examples on how to use these cmdlets.

You will need to modify this script to fit your environment and configuration.



Each Get-EventLog cmdlet is just one line. It may be wrapped to the line below so that you can see all of the text on the page. When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to view job Event messages

# Set the date for how far back you want to view
$Date = get-date 01/15/20220

# Display all Double-Take service and Double-Take Management Service Event messages
# since the date you specified
Get-EventLog -LogName Application -Source @("Double-Take", "Double-Take Management Service") -
After $Date
```

```
# Sample script to view job Event messages

# Display the last five Double-Take service or Double-Take Management Service Event
# messages, listing all properties of the Events
Get-EventLog -LogName Application -Source @("Double-Take", "Double-Take Management Service") -
Newest 5 | format-list -property *
```

```
# Sample script to view job Event messages

# Set the values of the Event IDs you want to see
$FirstEventId = 4065      # Target data state change
$SecondEventId = 4111    # Sharing violation on target
$ThirdEventId = 8196     # Memory issues on source

# Set the date for how far back you want to view
$Date = get-date 01/15/20220

# Display specific Double-Take service or Double-Take Management Service Event messages
# based on the Event IDs
Get-EventLog -LogName Application -Source @("Double-Take", "Double-Take Management Service") -
After $Date | Where-Object {$_.EventID -eq $FirstEventId -or $_.EventId -eq $SecondEventId}

# Display specific RepDrv Event messages based on the Event IDs
Get-EventLog -LogName System -Source RepDrv -After $Date | Where-Object {$_.EventID -eq
$ThirdEventId}
```

```
# Sample script to view job Event messages

# Display specific Double-Take service or Double-Take Management Service Event messages
# based on the Event index number, and listing all properties of the Event
Get-EventLog -LogName Application -Source @("Double-Take", "Double-Take Management Service") |
Where-Object {$_.Index -eq 99461} | format-list -property *
```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Creating a job diagnostics file

The following sample script will create a job diagnostics file, also known as DTInfo. The file will be located in the \Service\Data directory where you installed Carbonite. This is a file you may want to give to technical support if you are troubleshooting a job. There will be a separate file for each job on your target. You will need to modify this script to fit your environment and configuration.

```
# Sample script to create a job diagnostics files
# Specify the variables to be used in the script

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Login to your target server
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Get the jobs on the target and pass through to create a diagnostics file
Get-DtJob -ServiceHost $DtTarget | Save-DtJobDiagnostics -ServiceHost $DtTarget

# Close the connections for the server object
Disconnect-DtServer -ServiceHost $DtTarget
```

If you want to hide your user credentials in your script, use the Windows PowerShell Get-Credential cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Job control scripts

Below are links to sample job control scripts. The sample scripts must be modified. They cannot be used as-is. Modify them to fit your environment. If you need basic assistance with script modifications, contact Technical Support. Assistance with advanced scripting will be referred to Professional Services.

- [Validating an existing job on page 509](#)
- [Editing a files and folders job for Windows on page 511](#)
- [Changing the compression setting for an existing job on page 513](#)
- [Stopping and starting a job on page 515](#)
- [Pausing and resuming a job on page 517](#)
- [Viewing and setting job and server options on page 519](#)

Validating an existing job

The following sample script will validate an existing job. You will need to modify this script to fit your environment and configuration.



The `$DtJob` line is wrapped to the line below so that you can see all of the text on the page. When re-creating a script like this for your environment, make sure you enter that command on just one line.

```
# Sample script to validate an existing Carbonite job

# Specify the variables to be used in the script

# Source server
$DtSourceName = "alpha"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create target object
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Find the appropriate job, based on the source server name.
$DtJob = Get-DtJob -ServiceHost $DtTarget | Where-Object {
$_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtSourceName}

# Validate the job options.
$DtConfirmation = Confirm-DtJobOptions -ServiceHost $DtTarget -JobId $DtJob.Id -JobOptions
$DtJob.Options

# Give the validation process time to complete.
while ($true)
{
    sleep 1
    $DtConfirmStatus = Get-DtVerificationStatus -ServiceHost $DtTarget -Token
$DtConfirmation
    if ($DtConfirmStatus.Task.Status -eq "Faulted")
    {
        throw $("Validation failed: {0}" -f $DtConfirmStatus.Task.MessageId)
    }
    if ($DtConfirmStatus.Task.Status -eq "Completed")
    {
        break
    }
}
$StatusCount=0
$DtConfirmStatus.Steps | ForEach-Object {
    if ($_.Status -eq "Warning" -or $_.Status -eq "Error")
    {
        $StatusCount++
        # For each error or warning, display the level and message.
        Write-Host "$($_.Status) : $($_.MessageKey)"
    }
}

# Identify if there were no errors or warnings.
if ($StatusCount -eq 0)
{
    Write-Host "No job validation errors or warnings were detected."
}
```

```
# Close the connection for the server object
Disconnect-DtServer -ServiceHost $DtTarget
```

If you want to hide your user credentials in your script, use the Windows PowerShell Get-Credential cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Editing a files and folders job for Windows

The following sample script will edit an existing files and folders job for Windows. You will need to modify this script to fit your environment and configuration.



The following lines are wrapped to the line below so that you can see all of the text on the page.

- \$DtJob =
- \$DtNewRule =
- \$DtExcludeTxtRule =

When re-creating a script like this for your environment, make sure you enter those commands on just one line.

```
# Sample script to edit an existing files and folders Carbonite job
# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Changes to the job
$DtJobDirectory = "C:\NewDirectory"
$DtJobFileToExclude = "C:\NewDirectory\*.txt"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Identify the job, based on the source server name
$DtJob = Get-DtJob -ServiceHost $DtTarget | Where-Object {
$_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtSourceName}

# Create a workload object on the source to edit the current workload rules
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -Workload $DtJob.Options.Workload

# Specify the additional files and folders to protect
$DtNewRule = Add-DtPhysicalRule -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -Path
$DtJobDirectory

# Specify files to exclude from protection, in this example .txt files in the new protection rule
$DtExcludeTxtRule = Add-DtPhysicalRule -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid -Path
$DtJobFileToExclude -Exclude

# Update the workload rules in the job options with the new modifications
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid
$DtJob.Options.Workload=$DtWorkload

# Update the path mapping of the replicated data on the target based on the current
recommendations
$DtTargetPath = Get-DtRecommendedPathTransform -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid
$DtJob.Options.CoreConnectionOptions.PathTransformations = $DtTargetPath
```

```

# If you do not want to use the one-to-one path mapping in the default recommended options,
# you can configure the job to use specific locations, similar to the following lines.
# $DtJob.Options.CoreConnectionOptions.PathTransformations[0].SourcePath = "C:\\"
# $DtJob.Options.CoreConnectionOptions.PathTransformations[0].TargetPath = "C:\ReplicatedData\"

# Verify the new job options on the existing job.
$DtConfirmation = Confirm-DtJobOptions -ServiceHost $DtTarget -JobId $DtJob.Id -JobOptions
$DtJob.Options
do
{
    # Poll every second for the confirmation status
    Start-Sleep -Seconds 1
    $DtConfirmStatus = Get-DtVerificationStatus -ServiceHost $DtTarget -Token
$DtConfirmation
    # When the ActivityCompletionStatus is not InProgress, the confirmation is complete.
}
while ($DtConfirmStatus.Steps.Status -eq 0)

# If the ActivityCompletionStatus is Error, print out the steps reporting an Error.
if ($DtConfirmStatus.Steps.Status -eq 3)
{
    Write-Error "The following job validation errors were detected:"
    $DtConfirmStatus.Steps | ForEach-Object
    {
        if ($_.Status -eq 3)
        {
            Write-Error "$($_.Id) : $($_.TitleKey) : $($_.MessageKey)"
        }
    }
    # Terminate so the job is not edited with invalid options
    throw "Job validation failure."
}

# Apply new job options with the updated workload rules, forcing a remirror.
Edit-DtJob -ServiceHost $DtTarget -JobId $DtJob.Id -JobOptions $DtJob.Options

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget

```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Changing the compression setting for an existing job

The following sample script will change the compression setting for an existing job. You will need to modify this script to fit your environment and configuration.



The `$DtJob` line is wrapped to the line below so that you can see all of the text on the page. When re-creating a script like this for your environment, make sure you enter that command on just one line.

```
# Sample script to change the compression settings for an existing Carbonite job

# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Identify the job, based on the source server name
$DtJob = Get-DtJob -ServiceHost $DtTarget | Where-Object {
$_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtSourceName}

# Create a workload object on the source to edit the current workload rules
$DtWorkloadGUID = New-DtWorkload -ServiceHost $DtSource -Workload $DtJob.Options.Workload

# Enable compression using one of the following combinations
# level = -1 Compression is disabled
# level = 0 and algorithm = 10 Compression is enabled at low level
# level = 1 and algorithm = 21 Compression is enabled at medium level
# level = 2 and algorithm = 31 Compression is enabled at high level
$DtJob.Options.CoreConnectionOptions.ConnectionStartParameters.CompressionLevel.Level=1
$DtJob.Options.CoreConnectionOptions.ConnectionStartParameters.CompressionLevel.Algorithm=21

# Update the workload rules in the job options with the new modifications
$DtWorkload = Get-DtWorkload -ServiceHost $DtSource -WorkloadId $DtWorkloadGuid
$DtJob.Options.Workload=$DtWorkload

# Verify the new job options on the existing job.
$DtConfirmation = Confirm-DtJobOptions -ServiceHost $DtTarget -JobId $DtJob.Id -JobOptions
$DtJob.Options
do
{
    # Poll every second for the confirmation status
    Start-Sleep -Seconds 1
    $DtConfirmStatus = Get-DtVerificationStatus -ServiceHost $DtTarget -Token
$DtConfirmation
    # When the activity completion status is not InProgress, the confirmation is complete.
} while ($DtConfirmStatus.Steps.Status -eq 0)

# If the completion status is Error, print out the steps reporting an Error
if ($DtConfirmStatus.Steps.Status -eq 3)
{
    Write-Error "The following job validation errors were detected:"
    $DtConfirmStatus.Steps | ForEach-Object
    {
```

```
        if ($_.Status -eq 3)
        {
            Write-Error "$($_.Id) : "$($_.TitleKey) : "$($_.MessageKey)"
        }
    }
    # Terminate so the job is not edited with invalid options
    throw "Job validation failure."
}

# Apply new job options with the updated workload rules, forcing a remirror.
Edit-DtJob -ServiceHost $DtTarget -JobId $DtJob.Id -JobOptions $DtJob.Options

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget
```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Stopping and starting a job

The following sample scripts stop and start a Carbonite job on your target. You will need to modify these scripts to fit your environment and configuration.

```
# Sample script to stop a Carbonite job on your target

# Specify the variables to be used in the script

    # Target server and credentials
    $DtTargetName = "beta"
    $DtTargetUserName = "domain\administrator"
    $DtTargetPassword = "password"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create target object
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Get the job ID of the job running on the target
$DtJob = Get-DtJob -ServiceHost $DtTarget

# Stop the job running on the target
Stop-DtJob -ServiceHost $DtTarget -JobId $DtJob.Id

# Close the connections for the server object
Disconnect-DtServer -ServiceHost $DtTarget
```

```
# Sample script to start a Carbonite job on your target

# Specify the variables to be used in the script

    # Target server and credentials
    $DtTargetName = "beta"
    $DtTargetUserName = "domain\administrator"
    $DtTargetPassword = "password"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create target object
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Get the job ID of the job running on the target
$DtJob = Get-DtJob -ServiceHost $DtTarget

# Resume the job running on the target
Start-DtJob -ServiceHost $DtTarget -JobId $DtJob.Id

# Close the connections for the server object
Disconnect-DtServer -ServiceHost $DtTarget
```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

If you have multiple jobs on your target, you can use the Windows `Where-Object` cmdlet to identify a specific job by its source URI, source server name, or by job name. For example, you might use one of the following.

```
$DtJob = Get-DtJob -ServiceHost $DtTarget | Where-Object { $_.SourceHostUri.Host -eq "ServerName" }
```

```
$DtJob = Get-DtJob -ServiceHost $DtTarget | Where-Object {  
$_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
```

```
$DtJob = Get-DtJob -ServiceHost $DtTarget | Where-Object { $_.Options.Name -eq "source to target" }
```

See your Windows PowerShell documentation for more details on using the Where-Object command.

Pausing and resuming a job

The following sample scripts pause and resume a Carbonite job on your target. You will need to modify these scripts to fit your environment and configuration.

```
# Sample script to pause a Carbonite job on your target

# Specify the variables to be used in the script

    # Target server and credentials
    $DtTargetName = "beta"
    $DtTargetUserName = "domain\administrator"
    $DtTargetPassword = "password"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create target object
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Get the job ID of the job running on the target
$DtJob = Get-DtJob -ServiceHost $DtTarget

# Pause the job running on the target
Suspend-DtJob -ServiceHost $DtTarget -JobId $DtJob.Id

# Close the connections for the server object
Disconnect-DtServer -ServiceHost $DtTarget
```

```
# Sample script to resume a Carbonite job on your target

# Specify the variables to be used in the script

    # Target server and credentials
    $DtTargetName = "beta"
    $DtTargetUserName = "domain\administrator"
    $DtTargetPassword = "password"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create target object
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Get the job ID of the job running on the target
$DtJob = Get-DtJob -ServiceHost $DtTarget

# Resume the job running on the target
Resume-DtJob -ServiceHost $DtTarget -JobId $DtJob.Id

# Close the connections for the server object
Disconnect-DtServer -ServiceHost $DtTarget
```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

If you have multiple jobs on your target, you can use the Windows `Where-Object` cmdlet to identify a specific job by its source URI, source server name, or job name. For example, you might use one of the following.

```
$DtJob = Get-DtJob -ServiceHost $DtTarget | Where-Object { $_.SourceHostUri.Host -eq "ServerName" }
```

```
$DtJob = Get-DtJob -ServiceHost $DtTarget | Where-Object {  
$_.Statistics.CoreConnectionDetails.SourceMachineName -eq $DtServerObjectAlpha}
```

```
$DtJob = Get-DtJob -ServiceHost $DtTarget | Where-Object { $_.Options.Name -eq "source to target" }
```

See your Windows PowerShell documentation for more details on using the Where-Object command.

Viewing and setting job and server options

The following sample script will gather and set several Carbonite job and server options. You may want to consider running cmdlets like this from the PowerShell command line, rather than a script, so you can see the values returned from the get cmdlets and then make appropriate adjustments for your set cmdlets. You will need to modify this script to fit your environment and configuration. The options used in this script are examples. You can get and set any option. See Server and job settings on page 541 for a complete list of options.

```
# Sample script to gather and set Carbonite job and server options
# You may want to run these cmdlets from the PowerShell command prompt
# so that you can see the values returned for each of the get cmdlets
# and then determine appropriate desired values for each option

# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Target server and credentials
$DtTargetName = "beta"
$DtTargetUserName = "domain\administrator"
$DtTargetPassword = "password"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Gather and display several job and server settings
# These options are examples. You can get and set any option.
$DtMaxChecksumBlocksSource = Get-DtOption -ServiceHost $DtSource -Name MaxChecksumBlocks
$DtMaxChecksumBlocksTarget = Get-DtOption -ServiceHost $DtTarget -Name MaxChecksumBlocks
$DtMirrorChunkSizeSource = Get-DtOption -ServiceHost $DtSource -Name MirrorChunkSize
$DtMirrorChunkSizeTarget = Get-DtOption -ServiceHost $DtTarget -Name MirrorChunkSize
$DtCalculateByVolumeSource = Get-DtOption -ServiceHost $DtSource -Name CalculateByVolume
$DtCalculateByVolumeTarget = Get-DtOption -ServiceHost $DtTarget -Name CalculateByVolume
$DtAutoRemirrorSource = Get-DtOption -ServiceHost $DtSource -Name AutoRemirror
$DtAutoRemirrorTarget = Get-DtOption -ServiceHost $DtTarget -Name AutoRemirror
write-output "=====
write-output "These are the current options and values."
write-output "The source is displayed first, and the target is displayed second."
$DtMaxChecksumBlocksSource
$DtMaxChecksumBlocksTarget
$DtMirrorChunkSizeSource
$DtMirrorChunkSizeTarget
$DtCalculateByVolumeSource
$DtCalculateByVolumeTarget
$DtAutoRemirrorSource
$DtAutoRemirrorTarget

# Store the desired value for each job and server setting
$DtMaxChecksumBlocksDesiredValue = @{MaxChecksumBlocks=64}
$DtMirrorChunkSizeDesiredValue = @{MirrorChunkSize=131072}
$DtCalculateByVolumeDesiredValue = @{CalculateByVolume=1}
$DtAutoRemirrorDesiredValue = @{AutoRemirror=1}

# Set the new values
Set-DtOption -ServiceHost $DtSource -Setting $DtMaxChecksumBlocksDesiredValue
Set-DtOption -ServiceHost $DtTarget -Setting $DtMaxChecksumBlocksDesiredValue
Set-DtOption -ServiceHost $DtSource -Setting $DtMirrorChunkSizeDesiredValue
Set-DtOption -ServiceHost $DtTarget -Setting $DtMirrorChunkSizeDesiredValue
Set-DtOption -ServiceHost $DtSource -Setting $DtCalculateByVolumeDesiredValue
Set-DtOption -ServiceHost $DtTarget -Setting $DtCalculateByVolumeDesiredValue
Set-DtOption -ServiceHost $DtSource -Setting $DtAutoRemirrorDesiredValue
Set-DtOption -ServiceHost $DtTarget -Setting $DtAutoRemirrorDesiredValue
```

```

# Regather and display the updated values
$DtMaxChecksumBlocksSource = Get-DtOption -ServiceHost $DtSource -Name MaxChecksumBlocks
$DtMaxChecksumBlocksTarget = Get-DtOption -ServiceHost $DtTarget -Name MaxChecksumBlocks
$DtMirrorChunkSizeSource = Get-DtOption -ServiceHost $DtSource -Name MirrorChunkSize
$DtMirrorChunkSizeTarget = Get-DtOption -ServiceHost $DtTarget -Name MirrorChunkSize
$DtCalculateByVolumeSource = Get-DtOption -ServiceHost $DtSource -Name CalculateByVolume
$DtCalculateByVolumeTarget = Get-DtOption -ServiceHost $DtTarget -Name CalculateByVolume
$DtAutoRemirrorSource = Get-DtOption -ServiceHost $DtSource -Name AutoRemirror
$DtAutoRemirrorTarget = Get-DtOption -ServiceHost $DtTarget -Name AutoRemirror
write-output " "
write-output "====="
write-output "These are the updated options and values."
write-output "The source is displayed first, and the target is displayed second."
$DtMaxChecksumBlocksSource
$DtMaxChecksumBlocksTarget
$DtMirrorChunkSizeSource
$DtMirrorChunkSizeTarget
$DtCalculateByVolumeSource
$DtCalculateByVolumeTarget
$DtAutoRemirrorSource
$DtAutoRemirrorTarget

# Close the connections for the server objects. You may want to consider using a finally block.
Disconnect-DtServer -ServiceHost $DtSource
Disconnect-DtServer -ServiceHost $DtTarget

```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Other sample scripts

Below are links to other sample scripts. The sample scripts must be modified. They cannot be used as-is. Modify them to fit your environment. If you need basic assistance with script modifications, contact Technical Support. Assistance with advanced scripting will be referred to Professional Services.

- [Pausing and resuming your target on page 522](#)
- [Shutting down the Double-Take service on a server on page 523](#)
- [Hiding your password in a PowerShell script on page 524](#)

Pausing and resuming your target

The following sample scripts pause and resume your Carbonite target. (The server itself is not paused. Only Carbonite processing is paused.) You will need to modify these scripts to fit your environment and configuration.

```
# Sample script to pause the Carbonite target

# Specify the variables to be used in the script

    # Target server and credentials
    $DtTargetName = "beta"
    $DtTargetUserName = "domain\administrator"
    $DtTargetPassword = "password"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create target object
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Pause all of the Carbonite jobs on the target
Suspend-DtTarget -ServiceHost $DtTarget -All

# Close the connections for the server object
Disconnect-DtServer -ServiceHost $DtTarget
```

```
# Sample script to resume the Carbonite target

# Specify the variables to be used in the script

    # Target server and credentials
    $DtTargetName = "beta"
    $DtTargetUserName = "domain\administrator"
    $DtTargetPassword = "password"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create target object
$DtTarget = New-DtServer -Name $DtTargetName -UserName $DtTargetUserName -Password
$DtTargetPassword

# Resume all of the Carbonite jobs on the target
Resume-DtTarget -ServiceHost $DtTarget -All

# Close the connections for the server object
Disconnect-DtServer -ServiceHost $DtTarget
```

If you want to hide your user credentials in your script, use the Windows PowerShell `Get-Credential` cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Shutting down the Double-Take service on a server

The following sample script will login to a Carbonite server and then shutdown the Double-Take service on that server. You will need to modify this script to fit your environment and configuration.

```
# Sample script to shutdown the Double-Take service on a server

# Specify the variables to be used in the script

# Source server and credentials
$DtSourceName = "alpha"
$DtSourceUserName = "domain\administrator"
$DtSourcePassword = "password"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Create source object
$DtSource = New-DtServer -Name $DtSourceName -UserName $DtSourceUserName -Password
$DtSourcePassword

# Shutdown the Double-Take service on the server
Stop-DtReplicationService -ServiceHost $DtSource

# Close the connections for the server object
Disconnect-DtServer -ServiceHost $DtSource
```

If you want to hide your user credentials in your script, use the Windows PowerShell Get-Credential cmdlet. The password will not be visible because Windows stores an encrypted password. See [Hiding your password in a PowerShell script on page 524](#) for basic details on using this cmdlet. See your Windows PowerShell documentation for detailed instructions.

Hiding your password in a PowerShell script

The Carbonite PowerShell cmdlets require a server object, and that server object requires user credentials for the specified server. Many corporate security policies do not allow for user passwords to be typed in plain text, which can make scripting difficult. You can use the credential object returned from the Windows PowerShell Get-Credential cmdlet. This password will not be visible because Windows stores an encrypted password. The following sample script logs in to a Carbonite server using a hidden password. See your Windows PowerShell documentation for more details on creating a credential object with Get-Credential. You will need to modify this script to fit your environment and configuration.

```
# Sample script to login to a Carbonite server using a hidden password

# Specify the variables to be used in the script

# Source server
$DtSourceName = "alpha"

# Target server
$DtTargetName = "beta"

# Import the Carbonite PowerShell module
# This may be \Service\ or \Console\ depending on your installation
Import-Module "C:\Program Files\Carbonite\Replication\Console\DoubleTake.PowerShell.dll"

# Store user credentials in an encrypted form
$DtCredentialEncrypted = Get-Credential domain\administrator

# At this point, you will be prompted to supply the password
# and the credentials will be stored in an encrypted format

# Create source and target objects
$DtSource = New-DtServer -Name $DtSourceName -Credential $DtCredentialEncrypted
$DtTarget = New-DtServer -Name $DtTargetName -Credential $DtCredentialEncrypted

# If you are incorporating this script into another script,
# be sure and close the connections for the server objects
# at the end of the script using the Disconnect-DtServer
# cmdlet. For example,
# Disconnect-DtServer -ServiceHost $DtSource
# Disconnect-DtServer -ServiceHost $DtTarget
# You may want to consider using a finally block.
```

Chapter 6 Carbonite Replication Console Set Options page to JobOptions class mapping

When using the Carbonite Replication Console to create a job, the **Set Options** page filters the job options in order to display only those that are specific to the type of job you are creating. This filtering also applies to server configurations within a job type. For example, a files and folders job from a standalone source to a standalone target will have different job options displayed in the console than a file and folders job from a clustered source to a clustered target.

There is no such filtering available in the JobOptions class because the class must include all possible configurations for all possible job types. This makes the JobOptions class large and potentially confusing.

The sections below correspond to the accordion sections available on the **Set Options** page in the console. These sections will help you identify a JobOptions class for a particular job option. First, expand the section below that corresponds to the console accordion that has the option you want to set. Then, locate the field name from the console accordion in the left column of the table and the corresponding JobOptions class to use in the right column of the table. Keep in mind these caveats about console options compared to JobOptions classes.

- Some console options are for display purposes only and do not have a corresponding JobOptions class.
- Some console options may have more than one JobOptions class that may need to be set.
- Some console options may have unique JobOptions classes depending on the job type.
- The sections below and the information within them are a superset of all available accordions and all available options within an accordion. You may not be able to configure a JobOptions class for your job type. For example, not all job types offer bandwidth limiting, and not all jobs that do offer bandwidth limiting offer bandwidth scheduling. Use the **Set Options** page in the console as a guide to help you determine which job options are applicable to your job type.

Bandwidth

| Set Options Field | Equivalent JobOptions Class |
|-------------------------------------|---|
| Do not limit bandwidth | JobOptions.BandwidthOptions.Mode |
| Use a fixed limit | JobOptions.BandwidthOptions.Mode |
| Use a fixed limit, Preset bandwidth | JobOptions.BandwidthOptions.Specification.Key JobOptions.BandwidthOptions.Specification.Type |

| Set Options Field | Equivalent JobOptions Class |
|---|--|
| | JobOptions.BandwidthOptions.Specification.Value |
| Use a fixed limit, Bandwidth | JobOptions.BandwidthOptions.Limit |
| Use scheduled limits | JobOptions.BandwidthOptions.Mode |
| Use scheduled limits, New (or Edit), Daytime entry | JobOptions.BandwidthOptions.Entries.EntryType |
| Use scheduled limits, New (or Edit), Overnight entry | JobOptions.BandwidthOptions.Entries.EntryType |
| Use scheduled limits, New (or Edit), Day | JobOptions.BandwidthOptions.Entries .DaysOfWeek |
| Use scheduled limits, New (or Edit), Start time | JobOptions.BandwidthOptions.Entries.StartTime |
| Use scheduled limits, New (or Edit), End time | JobOptions.BandwidthOptions.Entries.EndTime |
| Use scheduled limits, New (or Edit), Preset bandwidth | JobOptions.BandwidthOptions.Specification.Key JobOptions.BandwidthOptions.Specification.Type JobOptions.BandwidthOptions.Specification.Value |
| Use scheduled limits, New (or Edit), Bandwidth | JobOptions.BandwidthOptions.Entries.Limit |

Compression

| Set Options Field | Equivalent JobOptions Class |
|--------------------|--|
| Enable compression | JobOptions.CoreConnectionOptions.ConnectionStartParameters. CompressionLevel.Algorithm JobOptions.CoreConnectionOptions.ConnectionStartParameters. CompressionLevel.Level |

Failover Identity

| Set Options Field | Equivalent JobOptions Class |
|--|--|
| Apply source network configuration to the target | JobOptions.CoreMonitorOptions.ShouldPerformLanFailover (for files and folders jobs) JobOptions.SystemStateOptions.IsWanFailover (for full server jobs) |
| Failover server name | JobOptions.CoreMonitorOptions.MonitorConfiguration.ItemsToFailover |
| Add these addresses to the selected target adapter after failover | JobOptions.CoreMonitorOptions.MonitorConfiguration.ItemsToFailover |
| Retain target network configuration | JobOptions.CoreMonitorOptions.ShouldPerformLanFailover (for files and folders and application jobs) JobOptions.SystemStateOptions.IsWanFailover (for full server jobs) JobOptions.VRAOptions.IsWanFailoverEnabled (for virtual guest jobs) |
| Failover server name (NetBIOS) | JobOptions.CoreMonitorOptions.MonitorConfiguration.ItemsToFailover |
| Update DNS server | JobOptions.DnsOptions.Enabled |
| Credentials for | JobOptions.CoreMonitorOptions.MonitorConfiguration.ActiveDirectoryCredentials |
| These DNS servers will be updated during failover | JobOptions.DnsOptions.Domains.DnsServers |
| Update these source DNS entries with the corresponding target IP address | JobOptions.DnsOptions.Domains.IpAddressMappings |
| Update TTL | JobOptions.DnsOptions.Domains.ShouldUpdateTtl JobOptions.DnsOptions.Domains.IpAddressMappings.ShouldUpdateTtl JobOptions.DnsOptions.Domains.TtlValue JobOptions.DnsOptions.Domains.IpAddressMappings.TtlValue |

| Set Options Field | Equivalent JobOptions Class |
|-------------------|---|
| | Set both pairs of values to the same value. Both locations of ShouldUpdateTtl and both locations of TtlValue should be the same value. If they are different, the DNS update will fail. |

Failover Monitor

| Set Options Field | Equivalent JobOptions Class |
|--|---|
| Total time to failure | JobOptions.CoreMonitorOptions.TotalTimeAllowed JobOptions.CoreMonitorOptions.UseTotalTimeAllowed |
| Consecutive failures | JobOptions.CoreMonitorOptions.UseTotalTimeAllowed JobOptions.CoreMonitorOptions.MonitorConfiguration.Addresses.MaxPingAttempts |
| Monitor on this interval | JobOptions.CoreMonitorOptions.MonitorConfiguration.Addresses.PingInterval |
| Network monitoring | JobOptions.CoreMonitorOptions.MonitorConfiguration.Addresses.PingMethods |
| Monitor these addresses | JobOptions.CoreMonitorOptions.MonitorConfiguration.Addresses.Address |
| Monitoring method | JobOptions.CoreMonitorOptions.MonitorConfiguration.Addresses.PingMethods |
| Failover trigger | JobOptions.CoreMonitorOptions.MonitorConfiguration.Trigger |
| Service monitoring | JobOptions.MonitoringOptions.ServiceMonitoringEnabled |
| Services to monitor | JobOptions.ApplicationOptions.MonitoredServices |
| Attempt to restart this service after each failure | JobOptions.MonitoringOptions.ServiceMonitoringOptions.StartService |
| Custom script monitoring | JobOptions.CoreMonitorOptions.MonitorConfiguration.Addresses.PingMethods |
| Script file | JobOptions.CoreMonitorOptions.MonitorConfiguration.ScriptMonitorName |

Failover Options

| Set Options Field | Equivalent JobOptions Class |
|---|--|
| Wait for user to initiate failover | JobOptions.CoreMonitorOptions.MonitorConfiguration.ProcessingOptions. UserInterventionRequired |
| Shutdown source server | JobOptions.FullServerFailoverOptions.ShutdownSourceServer (for full server jobs) JobOptions.VRAOptions.WorkloadCustomizationOptions. ShouldShutdownSource (for virtual guest jobs) |
| Change target ports to match source during failover | JobOptions.SystemStateOptions.ApplyPorts |
| Failover shares | JobOptions.CoreMonitorOptions.MonitorConfiguration.ItemsToFailover.Shares |
| Failover host name | JobOptions.CoreMonitorOptions.MonitorConfiguration.ActiveDirectoryOptions |
| Failback host name | JobOptions.CoreMonitorOptions.MonitorConfiguration.ActiveDirectoryOptions |
| Active Directory Credentials | JobOptions.CoreMonitorOptions.MonitorConfiguration. ActiveDirectoryCredentials |
| Scripts | JobOptions.CoreMonitorOptions.MonitorConfiguration.Scripts |

Failover Services

| Set Options Field | Equivalent JobOptions Class |
|---|---|
| Services to stop on source and start on target during failover and start on source and stop on target during failback | JobOptions.SystemStateOptions.ServicesToStopOptions |

General

| Set Options Field | Equivalent JobOptions Class |
|-------------------|-----------------------------|
| Job name | JobOptions.Name |

Mirror, Verify & Orphaned Files

| Set Options Field | Equivalent JobOptions Class |
|---|---|
| Choose a comparison method and whether to mirror the entire file or only the bytes that differ in each file | JobOptions.CoreConnectionOptions.ConnectionStartParameters.MirrorParameters.MirrorComparisonCriteria. JobOptions.CoreConnectionOptions.ConnectionStartParameters.MirrorParameters.MirrorOperationOptions |
| Enable scheduled verification | JobOptions.CoreConnectionOptions.ConnectionStartParameters.Schedule.Verify.IsEnabled |
| Verify on this interval | JobOptions.CoreConnectionOptions.ConnectionStartParameters.Schedule.Verify.Interval |
| Begin immediately | JobOptions.CoreConnectionOptions.ConnectionStartParameters.Schedule.Verify.StartTime |
| Begin at this time | JobOptions.CoreConnectionOptions.ConnectionStartParameters.Schedule.Verify.StartTime |
| Report only | JobOptions.CoreConnectionOptions.ConnectionStartParameters.Schedule.Verify.Criteria |
| Report and mirror files | JobOptions.CoreConnectionOptions.ConnectionStartParameters.Schedule.Verify.Criteria JobOptions.CoreConnectionOptions.ConnectionStartParameters.Schedule.Verify.Options |

| Set Options Field | Equivalent JobOptions Class |
|--|--|
| Calculate size of protected data upon connection | JobOptions.CoreConnectionOptions.ConnectionStartParameters. MirrorParameters.MirrorOperationOptions |
| Delete orphaned files | JobOptions.CoreConnectionOptions.ConnectionStartParameters. MirrorParameters.MirrorOperationOptions |

Network Adapter Options

| Set Options Field | Equivalent JobOptions Class |
|---|---|
| Map source network adapter to target network adapters | JobOptions.SystemStateOptions.NicMappings |

Network Route

| Set Options Field | Equivalent JobOptions Class |
|--|--|
| Send data to this target IP address | JobOptions.CoreConnectionOptions.TargetAddress |
| Receive commands on this source IP address | JobOptions.SourceNetworkIdForManagementService |
| Use default route | JobOptions.ManagementServiceTargetPort |

Path Mapping

| Set Options Field | Equivalent JobOptions Class |
|------------------------------------|--|
| Mappings | JobOptions.CoreConnectionOptions.PathTransformations |
| Block target paths upon connection | JobOptions.CoreConnectionOptions.ConnectionStartParameters. IsPathBlockingEnabled |

Replica Virtual Machine Configuration

| Set Options Field | Equivalent JobOptions Class |
|------------------------------------|--|
| Display name | JobOptions.VRAOptions.ReplicaApplianceInfo.DisplayName |
| Sockets | JobOptions.VRAOptions.ReplicaVmInfo.CPUs |
| Cores per socket | JobOptions.VRAOptions.ReplicaVmInfo.CorsPerProcessor |
| Processors | JobOptions.VRAOptions.ReplicaVmInfo.CPUs |
| Memory | JobOptions.VRAOptions.ReplicaVmInfo.Memory |
| Replica boot system | JobOptions.VRAOptions.ReplicaVmVersion |
| Replica virtual machine generation | JobOptions.VRAOptions.ReplicaVmVersion |
| Network adapter type | JobOptions.VRAOptions.Volumes.DiskProvisioningType |
| Replica virtual switch | JobOptions.VRAOptions.VirtualSwitchMapping.TargetVirtualSwitch |
| Set VLAN on Replica | JobOptions.VRAOptions.ReplicaNetworkInterfaceInfo.VLAN_ID |
| Replica VLAN | JobOptions.VRAOptions.ReplicaNetworkInterfaceInfo.VLAN_ID |
| Power on replica after failover | JobOptions.VRAOptions.WorkloadCustomizationOptions. PowerupReplicaAfterFailover |

Replica Virtual Machine Location

| Set Options Field | Equivalent JobOptions Class |
|--|---|
| Select the datastore on the target ESX server that will hold the replica virtual machine | JobOptions.VRAOptions.Volumes.VirtualDiskPath |
| Select the volume and folder on the target server that will hold the replica virtual machine | JobOptions.VRAOptions.Volumes.VirtualDiskPath |
| Full path where the replica virtual machine will be stored | JobOptions.VRAOptions.Volumes.VirtualDiskPath |
| Local File Volume | None. This is an interface control only so the console can display the appropriate fields depending on the selected option. |
| SMB Share | None. This is an interface control only so the console can display the appropriate fields depending on the selected option. |
| File server name | JobOptions.VRAOptions.Volumes.VirtualDiskPath |
| Share name | JobOptions.VRAOptions.Volumes.VirtualDiskPath |
| Folder | JobOptions.VRAOptions.Volumes.VirtualDiskPath |

Replica Virtual Machine Network Settings

| Set Options Field | Equivalent JobOptions Class |
|---|---|
| Use advanced settings for replica virtual machine network configuration | JobOptions.VRAOptions.IsWanFailoverEnabled |
| Replica IP addresses | JobOptions.VRAOptions.ReplicaNetworkInterfaceInfo.IPAddresses |
| Replica Default Gateways | JobOptions.VRAOptions.ReplicaNetworkInterfaceInfo.Gateways |
| Replica DNS Server addresses | JobOptions.VRAOptions.ReplicaNetworkInterfaceInfo.DnsServers |

Replica Virtual Machine Volumes

| Set Options Field | Equivalent JobOptions Class |
|---|---|
| Replica Disk Size | JobOptions.VRAOptions.Volumes.DesiredSize JobOptions.VRAOptions.ReverseOptions.Volumes.DesiredSize |
| Replica Disk Format | JobOptions.VRAOptions.Volumes.DiskProvisioningType JobOptions.VRAOptions.ReverseOptions.Volumes.DiskProvisioningType |
| Storage Controller | JobOptions.VRAOptions.Volumes.DiskControllerType |
| Target Volume Target Datastore | JobOptions.VRAOptions.Volumes.VirtualDiskPath JobOptions.VRAOptions.ReverseOptions.Volumes.VirtualDiskPath |
| Virtual Disk | None. This is an interface control only so the console can display the appropriate fields depending on the selected option. |
| Pre-existing Disk Path | JobOptions.VRAOptions.Volumes.PreexistingDiskPath |
| Create disks match source | None. This is an interface control only so the console can display the appropriate fields depending on the selected option. |
| Create disks per volume | None. This is an interface control only so the console can display the appropriate fields depending on the selected option. |
| Disk Properties, Virtual disk | None. This is an interface control only so the console can display the appropriate fields depending on the selected option. |
| Disk Properties, Datastore | JobOptions.VRAOptions.DiskOptions.VirtualDiskPath |
| Disk Properties, Pre-existing disk path | JobOptions.VRAOptions.DiskOptions.PreexistingDiskPath |
| Disk Properties, Replica disk format | JobOptions.VRAOptions.DiskOptions.DiskProvisioningType |
| Disk Properties, Desired disk size | JobOptions.VRAOptions.DiskOptions.DesiredSizeInB |

| Set Options Field | Equivalent JobOptions Class |
|---|---|
| Volume Group Properties, Virtual disk | None. This is an interface control only so the console can display the appropriate fields depending on the selected option. |
| Volume Group Properties, Datastore | JobOptions.VRAOptions.LvmOptions.VolumeGroup.LogicalVolume.VirtualDiskPath JobOptions.VRAOptions.LvmOptions.VolumeGroup.PhysicalVolume.VirtualDiskPath |
| Volume Group Properties, Pre-existing disk path | JobOptions.VRAOptions.LvmOptions.VolumeGroup.PreexistingDisksPath |
| Volume Group Properties, Replica disk format | JobOptions.VRAOptions.LvmOptions.VolumeGroup.PhysicalVolume.DiskProvisioningType |
| Volume Group Properties, Physical volume maximum size | JobOptions.VRAOptions.LvmOptions.VolumeGroup.MaxPhysicalVolumeSize |
| Volume Group Properties, Volume Group Size | JobOptions.VRAOptions.LvmOptions.VolumeGroup.SourceVolumeGroupSize |
| Logical Volume Properties, Replica volume size | JobOptions.VRAOptions.LvmOptions.VolumeGroup.LogicalVolume.DesiredSize |
| Partition Properties, Virtual disk | None. This is an interface control only so the console can display the appropriate fields depending on the selected option. |
| Partition Properties, Datastore | JobOptions.VRAOptions.Volumes.VirtualDiskPath |
| Partition Properties, Pre-existing disk path | JobOptions.VRAOptions.Volumes.PreexistingDiskPath |
| Partition Properties, Replica disk format | JobOptions.VRAOptions.Volumes.DiskProvisioningType |
| Partition Properties, Replica volume size | JobOptions.VRAOptions.Volumes.DesiredSize |

Reverse Protection and Routing

| Set Options Field | Equivalent JobOptions Class |
|--|---|
| Send data to this target IP address | JobOptions.CoreConnectionOptions.TargetAddress |
| Receive commands on this source IP address | JobOptions.SourceNetworkIdForManagementService |
| Use default route | JobOptions.ManagementServiceTargetPort |
| Enable reverse protection | JobOptions.FullServerFailoverOptions.CreateBackupConnection |
| Select a reserved IP address on the source | JobOptions.SystemStateOptions.SourceReservedAddress |
| Select a reserved IP address on the target | JobOptions.SystemStateOptions.TargetReservedAddress |

Scripts

| Set Options Field | Equivalent JobOptions Class |
|---------------------------------------|--|
| Script file | JobOptions.CoreConnectionOptions.ConnectionStartParameters.ScriptPoints.Path JobOptions.CoreConnectionOptions.ConnectionStartParameters.ScriptPoints.Type |
| Arguments | JobOptions.CoreConnectionOptions.ConnectionStartParameters.ScriptPoints.Arguments |
| Allow script to interact with desktop | JobOptions.CoreConnectionOptions.ConnectionStartParameters.ScriptPoints.InteractionMode |
| Delay until script completes | JobOptions.CoreConnectionOptions.ConnectionStartParameters.ScriptPoints.ExecutionMode |

Snapshots

| Set Options Field | Equivalent JobOptions Class |
|--|--|
| Disk space allocated for each snapshot | JobOptions.CoreConnectionOptions.ConnectionStartParameters.SnapshotSchedule.MaxNumberOfSnapshots |
| Enable scheduled snapshots | JobOptions.CoreConnectionOptions.ConnectionStartParameters.SnapshotSchedule.IsEnabled |
| Take snapshots on this interval | JobOptions.CoreConnectionOptions.ConnectionStartParameters.SnapshotSchedule.Interval |
| Maximum number of snapshots | JobOptions.CoreConnectionOptions.ConnectionStartParameters.SnapshotSchedule.MaxNumberOfSnapshots |
| Begin immediately | JobOptions.CoreConnectionOptions.ConnectionStartParameters.SnapshotSchedule.StartTime |
| Begin at this time | JobOptions.CoreConnectionOptions.ConnectionStartParameters.SnapshotSchedule.StartTime |

SQL Modernization Options

| Set Options Field | Equivalent JobOptions Class |
|---------------------------------------|--|
| Select the target SQL Server instance | JobOptions.ApplicationOptions.SQLMigrationOptions.TargetInstance |
| Credentials, Active Directory | JobOptions.ApplicationOptions.SQLMigrationOptions.AdCredentials.Credentials |
| Credentials, SQL Server | JobOptions.ApplicationOptions.SQLMigrationOptions.SourceSqlCredentials.Credentials |

| Set Options Field | Equivalent JobOptions Class |
|--|--|
| Restrict source database access during cutover | JobOptions.ApplicationOptions.SQLMigrationOptions.SourceSqlMigrationOptions.OfflineDatabaseBeforeCutover |
| Remove restrictions when no longer needed | JobOptions.ApplicationOptions.SQLMigrationOptions.SourceSqlMigrationOptions.OnlineDatabaseAfterCutover |
| Shutdown source server after cutover | JobOptions.ApplicationOptions.SQLMigrationOptions.SourceSqlMigrationOptions.Shutdown |

Staging Folder Options

| Set Options Field | Equivalent JobOptions Class |
|---|---|
| Select additional folders from the source server to be staged | JobOptions.FullServerFailoverOptions.AdditionalStagingFolders |

Target Paths

| Set Options Field | Equivalent JobOptions Class |
|------------------------------------|--|
| Block target paths upon connection | JobOptions.CoreConnectionOptions.ConnectionStartParameters.IsPathBlockingEnabled |

Target Services

| Set Options Field | Equivalent JobOptions Class |
|---|---|
| Services to leave running on the target during protection | JobOptions.TargetServicesOptions.FailoverServices |

Test Failover

| Set Options Field | Equivalent JobOptions Class |
|---|---|
| Use default replica virtual machine | JobOptions.VRAOptions.TestFailover.ReplicaDisplayName |
| Use alternate test replica virtual machine | JobOptions.VRAOptions.TestFailover.ReplicaDisplayName |
| Display name | JobOptions.VRAOptions.TestFailover.ReplicaDisplayName |
| Do not connect replica network adapter on test failover | JobOptions.VRAOptions.VirtualSwitchMappingTestFailover.TargetVirtualSwitch |
| Connect and map replica network adapters on test failover | JobOptions.VRAOptions.VirtualSwitchMappingTestFailover.SourceVirtualSwitch |
| Replica Virtual Switch | JobOptions.VRAOptions.VirtualSwitchMappingTestFailover.TargetVirtualSwitch |
| Set VLAN on Replica | JobOptions.VRAOptions.ReplicaNetworkInterfaceInfo.VLAN_ID_TestFailover |
| Replica VLAN | JobOptions.VRAOptions.ReplicaNetworkInterfaceInfo.VLAN_ID_TestFailover |
| Replica Disk Format | JobOptions.VRAOptions.TestFailover.Volumes.DiskProvisioningType |
| Target Volume Target Datastore | JobOptions.VRAOptions.TestFailover.Volumes.VirtualDiskPath |
| Disk Properties, Datastore | JobOptions.VRAOptions.TestFailover.DiskOptions.VirtualDiskPath |
| Disk Properties, Replica disk format | JobOptions.VRAOptions.TestFailover.DiskOptions.DiskProvisioningType |
| Volume Group Properties, Datastore | JobOptions.VRAOptions.TestFailover.LvmOptions.VolumeGroup.LogicalVolume.VirtualDiskPath |

| Set Options Field | Equivalent JobOptions Class |
|--|---|
| | JobOptions.VRAOptions.TestFailover.LvmOptions.VolumeGroup.PhysicalVolume.VirtualDiskPath |
| Volume Group Properties, Replica disk format | JobOptions.VRAOptions.TestFailover.LvmOptions.VolumeGroup.PhysicalVolume.DiskProvisioningType |
| Partition Properties, Datastore | JobOptions.VRAOptions.TestFailover.Volumes.VirtualDiskPath |
| Partition Properties, Replica disk format | JobOptions.VRAOptions.TestFailover.Volumes.DiskProvisioningType |
| Delete test failover virtual disks | JobOptions.VRAOptions.TestFailover.DeleteVirtualDisks |
| Send data to the test failover server using this route | JobOptions.FullServerTestFailoverOptions.TestFailoverServerAddress |
| Test failover server | JobOptions.FullServerTestFailoverOptions.TestFailoverServerCredential.TestFailoverServerHostUri |
| Delete snapshots taken during test failover | JobOptions.FullServerTestFailoverOptions.DeleteSnapshots |

Test Failover Scripts

| Set Options Field | Equivalent JobOptions Class |
|-----------------------------------|---|
| Post-failover script, Script file | JobOptions.ApplicationOptions.TestPostFailoverScript |
| Post-failover script, Arguments | JobOptions.ApplicationOptions.TestPostFailoverScriptArguments |
| Pre-failback script, Script file | JobOptions.ApplicationOptions.TestPreFailbackScript |
| Pre-failback script, Arguments | JobOptions.ApplicationOptions.TestPreFailbackScriptArguments |

Chapter 7 Server and job settings

The easiest way to view and change select server and job settings is through the Carbonite Replication Console. However, not all of the settings are available there, especially for Linux servers. To view and update the remaining settings, in addition to the settings available in the console, you will need to go to HKEY_LOCAL_MACHINE\SOFTWARE\NSI Software\Double-Take\CurrentVersion in the registry on a Windows server. For a Linux server, you can use DTSetup to modify the configuration settings or manually modify /etc/DT/DT.conf. For Windows or Linux, you can use the Carbonite PowerShell cmdlets Get-DtOption and Set-DtOptions.

The following table lists all of the Windows and Linux server and job settings, in decimal value.

- Windows server and job settings on page 542
- Linux server and job settings on page 577

Windows server and job settings

The following table lists all of the Windows server and job settings, in decimal value.



Carbonite products share the same set of server and job settings. You may only have a subset of the settings listed below depending on your Windows operating system and Carbonite product.

Carbonite Availability terminology is used in the following list. For example, failover is used for Carbonite Availability and cutover for Carbonite Migrate.

AcquireDataRetryLimit

Description—The length of time, in milliseconds, spent retrying a file read if there is a read error

Values—Any positive, integer value

Default—2000

Console setting—None

Service restart required—No

ActivationCode

Description—24-character Carbonite license key

Values—Unique value for each customer

Default—N/A

Console setting—Edit Server Properties page, Licensing section, Current license keys

Service restart required—No

AddOnCodes

Description—This setting is no longer used.

ArchiveLoopAttempts

Description—This setting is no longer used.

ArchiveLoopDelay

Description—This setting is no longer used.

AutoCalcEulaAccepted

Description—Used internally by Carbonite. Do not modify this entry.

AutoReconnect

Description—Specifies whether to reinstate the target connection(s) when the source machine is brought online after a source machine failure

Values—0 Do not reconnect, 1 Reconnect

Default—1

Console setting—Edit Server Properties page, Setup section, Automatically reconnect during source initialization

Service restart required—Yes

AutoRemirror

Description—Specifies whether to remirror when a source is brought online after an auto-disconnect

Values—0 Do not compare or send any files, 1 Compare file attributes and send the attributes and bytes that are different, 2 Do not compare files, just send all files (the entire file), 3 Compare file attributes and send the entire file for those that are different, 4 Compare file attributes and data and send the attributes and bytes that are different

Default—3

Console setting—Edit Server Properties page, Setup section, Behavior when automatically remirroring

Service restart required—No

AutoRemirrorRetry

Description—Specifies how often, in seconds, the source should check for connections that have been reconnected but still need to be remirrored

Values—any integer

Default—30

Console setting—None

Service restart required—No

AutoRetransmit

Description—Determines whether or not a source that has lost its connection with a target will attempt to reconnect to the target

Values—0 Do not attempt to reconnect, 1 Attempt to reconnect

Default—1

Console setting—None

Service restart required—No

BackupDir

Description—Location on the target of the backup of the protected data sets

Values—any valid path

Default—the location where the Carbonite files were installed

Console setting—None

Service restart required—No

CalculateByVolume

Description—Calculates the approximate size of a protected data set by using the size of the volume and subtracting the free space

Values—0 Disabled, 1 Enabled

Default—0

Console setting—None

Service restart required—Yes

CalculateOnConnect

Description—Specifies whether or not the amount of data to be mirrored should be calculated on connection

Values—0 Do not calculate on connection, 1 Calculate on connection

Default—1

Console setting—Edit Server Properties page, Source section, Calculate size of protected data upon connection

Service restart required—Yes

CertificateSubject

Description—Identifies a self-signed certificate

Values—Any valid string

Default—None

Console setting—None

Service restart required—No

ChangeJournalState

Description—An internal setting for change journal tracking. Do not modify this setting.

ChangeJournalSystemState

Description—An internal setting for change journal tracking. Do not modify this setting.

ChecksumAll

Description—Indicates if a mirror, verify, or restore will ignore all attributes and perform a checksum calculation on all files

Values—0 Compare files by attribute, 1 Compare files by checksums

Default—1

Console setting—None

Service restart required—No

ClusterDir

Description—Location of a Microsoft Cluster Service installation, if it exists

Values—any valid path

Default—determined by the Microsoft Cluster Service installation

Console setting—None

Service restart required—No

ConnectionFile

Description—Name of the database file containing connection information

Values—any valid file name

Default—connect.sts

Console setting—None

Service restart required—No

CreateDumpOnAckErrors

Description—Enables additional logging for out of order acknowledgement errors

Values—0 Do not create a logging file, 1 Create a logging file

Default—0

Console setting—None

Service restart required—No

DataPath

Description—The location of the Carbonite file attribute, protected data set, connection, and schedule database files

Values—any valid path

Default—the location where the Carbonite files were installed

Console setting—None

Service restart required—No

DefaultAddress

Description—The default primary IP address in a multi-homed server

Values—any valid IP address that will act as your primary IP address for connecting the source to the target

Default—<null>

Console setting—Edit Server Properties page, General section, Default address

Service restart required—Yes

DefaultProtocol

Description—The default protocol

Values—2 IPv4 protocol only, 23 IPv4 and IPv6 protocols, 3 TDU (Throughput Diagnostics Utility)

Default—23

Console setting—None

Service restart required—Yes

DefaultReaderType

Description—Internal setting used for recoveries. Do not modify this setting.

DelayGCArbitration

Description—This setting is no longer used.

DelayGCConnection

Description—This setting is no longer used.

DiffMirrorHardLinkCleanup

Description—This setting is no longer used.

DisableAttributeReplication

Description—Specifies whether or not attributes (read-only, hidden, and so on) are replicated to the target

Values—0 Enable attribute replication, 1 Disable attribute replication

Default—0

Console setting—None

Service restart required—No

DisconnectOnMarkDelete

Description—Used internally by Carbonite. Do not modify this entry.

DriverJournalValid

Description—An internal setting for change journal tracking. Do not modify this setting.

DropOpOnAccessDeniedError

Description—Specifies whether or not operations are dropped or retried after an access denied error

Values—0 The operation will be retried, 1 The operation will be dropped

Default—1

Console setting—None

Service restart required—No

DropOpOnHandleError

Description—Determines if an additional attempt is made to access a file by a Microsoft API call if the Carbonite call fails.

Values—0 When opening a file using the Carbonite driver fails, attempt to open the file using the Microsoft Win32 API, 1 When opening a file using the Carbonite driver fails, skip the file and document it in the Carbonite log

Default—1

Console setting—None

Service restart required—No

Notes—If the value is set to 0 and the Win32 call also fails, Carbonite will skip the file and document it in the Carbonite log

DTSetupType

Description—Used by the Carbonite installation program to maintain the installation settings for an upgrade. Do not modify this setting.

DumpDiskQuotaIntervalMinutes

Description—Specifies how often, in minutes, a snapshot of the disk quota is taken as a backup in case the live registry is not usable at failover or cutover

Values—any integer

Default—240

Console setting—None

Service restart required—No

DumpHiveIntervalMinutes

Description—Specifies how often, in minutes, a snapshot of the registry is taken as a backup in case the live registry is not usable at failover or cutover

Values—any integer

Default—240

Console setting—None

Service restart required—No

EnableCRCCheck

Description—Indicates if Carbonite will perform a cyclic redundancy check between the source and target to identify corrupted packets

Values—0 Disabled, 1 Enabled

Default—0

Console setting—None

Service restart required—No

Notes—This option only needs to be set on the source server. However, if you will be restoring or reversing, where the roles of the servers are reversed, then you will need to set this option on the target as well.

EnableDHCP

Description—Indicates if Carbonite DHCP support is enabled

Values—0 Disabled, 1 Enabled

Default—1

Console setting—None

Service restart required—No

EnableEFSVerify

Description—Indicates if Carbonite will verify Microsoft encryption on the source before transmitting the encrypted file to the target

Values—0 Disabled, 1 Enabled

Default—0

Console setting—None

Service restart required—No

EnableFileOpenTracing

Description—Specifies if debug-level messages are enabled to trace all mirroring and replicated files that are opened

Values—0 Do not trace files that are opened, 1 Trace files that are opened

Default—0

Console setting—None

Service restart required—Yes

Notes—This option should only be enabled (1) for temporary, debug sessions as instructed by technical support.

EnableRootEncryption

Description—Specifies if the top-level folders of a protected data set are encrypted on the source, they will be encrypted on the target as well

Values—0 Disabled, 1 Enabled

Default—1

Console setting—None

Service restart required—No

Notes—If the top-level folders in a protected data set are not encrypted, disabling this option may obtain a small performance improvement.

EnableShortFileNameProcessing

Description—Indicates if Carbonite will correct any short file names created by the operating system on the target during a mirror. It will also correct any short file names created or renamed by the operating system on the target during replication.

Values—0 Do not correct any short file names on the target, 1 Correct short file names on the target

Default—0

Console setting—None

Service restart required—No

Notes—This setting only needs to be enabled on the target.

EnableSnapshots

Description—Specifies whether Carbonite snapshot functionality is enabled

Values—0 Carbonite snapshot functionality is disabled, 1 Carbonite snapshot functionality is enabled

Default—1

Console setting—None

Service restart required—Yes

Notes—This setting only impacts Carbonite snapshot functionality. If this setting is disabled, other snapshot software such as Microsoft Volume Shadow Copy will be not be impacted.

EnableTaskCmdProcessing

Description—Queues tasks inline with replication data

Values—0 Disable task command processing, 1 Enable task command processing

Default—0

Console setting—Edit Server Properties page, Setup section, Enable task command processing

Service restart required—No

EncryptNetworkData

Description—Encrypts Carbonite data before it is sent from the source to the target

Values—0 Disable data encryption, 1 Enable data encryption

Default—0

Console setting—Edit Server Properties page, General section, Encrypt network data

Service restart required—No

Notes—Both the source and target must be Carbonite encryption capable (Carbonite version 7.0.1 or later), however this option only needs to be enabled on the source or target in order to encrypt data. Keep in mind that all jobs from a source with this option enabled or to a target with this option enabled will have the same encryption setting. Changing this option will cause jobs to auto-reconnect and possibly remirror.

FailoverData1

Description—An internal setting for failover. Do not modify this setting.

FailoverData2

Description—An internal setting for failover. Do not modify this setting.

FileAccessRetry

Description—The number of times a failed driver call will be retried by the service.

Values—1 - 65535

Default—10

Console setting—None

Service restart required—No

FileQueueSize

Description—When a mirror is started, one thread reads from the disk and builds the file queue. Another set of threads reads files off of the queue and sends them to the target. This setting is the maximum size of the queue in entries. If you had 100 files to be mirrored and this was set to 16 (the default value), the first thread would fill the queue to a maximum of 16 entries.

Values—1 - 65535

Default—16

Console setting—None

Service restart required—No

Notes—This value must be set prior to starting the mirror process. The higher the number, the more memory that is used.

ForceVerifyOnMirror

Description—Specifies if verification will be performed with every difference mirror

Values—0 Verification is not performed with every difference mirror, 1 Verification is performed with every difference mirror

Default—0

Console setting—None

Service restart required—No

HardlinkInterval

Description—This setting is no longer used.

HardLinkLogPath

Description—Specifies the location where hard links will be logged. If no path is specified, the location defined in LogDir will be used.

Values—any valid path

Default—None

Console setting—None

Service restart required—No

Note—This option is only used by servers running Carbonite version 8.0.x or earlier.

HBTTL

Description—Number of seconds without receiving a heartbeat before a remote machine is considered unavailable

Values—0 - 65535

Default—10

Console setting—None

Service restart required—No

HeartbeatIgnoreIPs

Description—This setting is no longer used.

HPQueueRatio

Description—Ratio of replication packets to one mirror packet

Values—1 - 65535

Default—5

Console setting—Edit Server Properties page, Source section, Number of replication packets per one mirror packet

Service restart required—No for future connections, Yes for the current connection

Notes—An HPQueueRatio of 5 allows Carbonite to dynamically change the ratio as needed based on the amount of replication data in queue. If you set a specific value other than the default (other than 5), the specified value will be used.

IgnoreAlternateStreamFiles

Description—Specifies alternate streams to skip during mirroring and replication

Values—a semi-colon separate list of stream names. The stream names are not case-sensitive

Default—none

Console setting—None

Service restart required—No

IgnoreArchiveBit

Description—Specifies if the archive bit is compared during verification

Values—0 Archive bit is compared during a verification, 1 Archive bit is not compared during a verification

Default—1

Console setting—None

Service restart required—No

IgnoreDeleteOps

Description—Specifies if file and directory delete operations will be replicated to the target

Values—0 Delete operations are replicated to the target, 1 Delete operations are not replicated to the target

Default—0

Console setting—None

Service restart required—No

IgnoreOpLockErrors

Description—Specifies how files that are locked open on the source are handled during mirroring

Values—0 Fail the mirror and record OpLock errors in the log. The job state will be set to mirror required, 1 Ignore the lock errors and continue the mirror. This option does not guarantee data integrity. There may be differences in the file that was locked.

Default—0

Console setting—None

Service restart required—No

IgnorePPPAddresses

Description—Identifies if Carbonite will use PPP (Point-to-Point Protocol) or SLIP (Serial Line Internet Protocol) adapters

Values—0 Carbonite will send out heartbeats across the PPP/SLIP adapter, 1 Carbonite will not send out heartbeats across the PPP/SLIP adapter

Default—1

Console setting—None

Service restart required—No

IgnoreSourceErrors

Description—This setting is no longer used.

IgnoreThumbnailStreams

Description—Specifies if thumbnails will be replicated to the target.

Values—0 Carbonite will mirror and replicate all data streams, 1 Carbonite will not mirror or replicate any data about the alternate data streams for thumbnail images. When comparing data for a verification or difference mirror, alternate data streams for thumbnails will not be reported as different.

Default—1

Console setting—None

Service restart required—If you change this value to 0, you must restart the Double-Take service in order for the Carbonite driver to begin sending all data stream information to the service. If you change this value to 1, you do not need to restart the service.

IgnoreWriteFailureOnTarget

Description—Specifies whether failures to write a file on the target are logged

Values—0 Log all write failures on the target, 1 or any larger integer indicates that number of write failures which will be ignored before starting to log the write failures

Default—0

Console setting—None

Service restart required—No

IncludeSysVolInfo

Description—Specifies whether the system volume information folder is mirrored and replicated

Values—0 Do not include the system volume information folder, 1 Include the system volume information folder

Default—0

Console setting—None

Service restart required—No

InstallPath

Description—Path specified during the Carbonite installation. Do not modify this entry.

InstallVersionInfo

Description—Installation number specified during the Carbonite installation. Do not modify this entry.

IntermediateQueueLimit

Description—Amount of memory, in KB, that may be allocated to the intermediate queue by the system memory manager when MemoryAllocatorMode is set to mixed mode (2).

Values—512-4194304

Default—65536

Console setting—None

Service restart required—Yes

KFAIOpenRetry

Description—Specifies the number of times an operation is retried if the driver return an error

Values—any valid integer

Default—10

Console setting—None

Service restart required—No

LanguageSelected

Description—Specifies the language of the verification log

Values—Depends on LanguagesSupported

Default—Language used during the installation

Console setting—Edit Server Properties page, Logging section, Language

Service restart required—Yes

LanguagesSupported

Description—Specifies the available languages for the verification log. Do not modify this setting.

LastModifiedReadDelay

Description—Specifies the length of time, in seconds, to wait before reading the last modified file time attribute

Values—any valid integer

Default—15

Console setting—None

Service restart required—No

Notes—This option is only used if SendLastModifiedTimeOnClose is disabled

LicenseAcceptedTime

Description—Used internally by Carbonite. Do not modify this entry.

LogAllOrphans

Description—Specifies whether success messages regarding orphan files are logged to the Carbonite log

Values—0 Do not log orphan file success messages to the Carbonite log, 1 Log orphan file success messages to the Carbonite log

Default—0

Console setting—None

Service restart required—No

LogDir

Description—The location of the Carbonite messages/alerts, verification, and statistics log files

Values—any valid path

Default—the location where the Carbonite files were installed

Console setting—Edit Server Properties page, Logging section, Logging folder

Service restart required—Yes

LogFile

Description—The name of the Carbonite messages/alerts log file

Values—any valid file name

Default—DTLog

Console setting—None

Service restart required—No

LogMessageLevel

Description—Specifies the types of messages logged to the .dtl files

Values—0 No messages will be logged, 1 Only alert messages will be logged, 2 Alert and release messages will be logged, 3 Alert, release, and debug messages will be logged

Default—2

Console setting—None

Service restart required—No

MaxChecksumBlocks

Description—Specifies the number of checksum values retrieved from the target

Values—any integer

Default—32

Console setting—None

Service restart required—No

MaxConnections

Description—Number of network requests that can be processed simultaneously. Windows is limited to 5 simultaneous requests.

Values—0 - 65535

Default—5

Console setting—None

Service restart required—Yes

Notes—Carbonite recommends that you not change this value.

MaxLogFileSize

Description—Maximum size, in bytes, of any .dtl log file

Values—limited by available disk space

Default—5242880

Console setting—Edit Server Properties page, Logging section, Maximum size (under Messages & Alerts)

Service restart required—No

MaxLogPathname

Description—The maximum length of a file name (the entire volume\directory\filename including slashes, spaces, periods, extensions, and so on) that will be displayed in the Carbonite log file and the Windows Event Viewer. File names longer than the MaxDisplayablePath will be truncated and will be followed by an ellipsis (...).

Values—1-32760

Default—32760

Console setting—None

Service restart required—No

MaxNumberOfLogFiles

Description—Maximum number of .dtl log files that can exist at one time. When Carbonite creates a new .dtl file, if this number is exceeded, the oldest .dtl file is deleted.

Values—1 - 999

Default—20

Console setting—Edit Server Properties page, Logging section, Maximum number of files

Service restart required—No

MaxOpBufferSize

Description—An internal setting for memory buffering. Do not modify this setting.

MaxRemoveOrphansOpSize

Description—Determines whether or not Carbonite will send over multiple orphan operations. Carbonite will send over the operations if a directory has more files than this number.

Values—0 - 131072

Default—1000

Console setting—None

Service restart required—No

MaxRetry

Description—A generic, application wide setting specifying the number of retry attempts for processes such as creating sockets, starting the service, and so on

Values—any integer

Default—5

Console setting—None

Service restart required—Yes

MaxWriteChunkSize

Description—Maximum merged op size (in bytes) used during replication

Values—1 - 131072

Default—65536

Console setting—None

Service restart required—No

MemoryAllocatorCallbackMode

Description—Determines what action is taken when the MemoryQueueToDiskThreshold is met

Values—0 Auto-disconnect processing is initiated when theMemoryQueueToDiskThreshold has been met. Connections will be reestablished when auto-reconnect occurs, 1 The Double-Take service stops pulling operations from the driver when theMemoryQueueToDiskThreshold has been met. The target will pause the source. The service will resume pulling operations when the target tells the source to resume, 2 The source and target begin queuing operations to disk.

Default—2

Console setting—None

Service restart required—Yes

MemoryQueueToDiskThreshold

Description—A percentage of QmemoryBufferMax that will trigger queuing to disk.

Values—any valid percentage

Default—75

Console setting—None

Service restart required—Yes

MinCompressionFileSize

Description—The minimum file size, in bytes, that will be compressed. Files smaller than this size will not be compressed.

Values—any file size

Default—1024

Console setting—None

Service restart required—No

MirrorChunkSize

Description—Block size, in bytes, used in the mirroring process

Values—1 - 1048576

Default—65536

Console setting—Edit Server Properties page, Source section, Size of mirror packets

Service restart required—No

Notes—A higher block size value gives you better throughput, but only to a certain point, then it starts using more memory (this has to do with the way memory is allocated and deallocated). A lower block size value produces slower throughput, but uses memory efficiently.

MirrorEncryptedFiles

Description—Specifies if Windows 200x encrypted files are mirrored

Values—0 Encrypted files are not mirrored, 1 Encrypted files are mirrored

Default—1

Console setting—None

Service restart required—No

MirrorEnumRetryMinutes

Description—Length of time, in minutes, to wait during enumeration retries

Values—any valid integer

Default—30

Console setting—None

Service restart required—No

MirrorOverwrite

Description—Determines if the mirror process overwrites existing files

Values—0 never overwrite, 1 always overwrite, 2 overwrite if older

Default—1

Console setting—None

Service restart required—No

MirrorQueueLimit

Description—Maximum number of mirror operations that can be queued on the source machine

Values—1 - 65535

Default—1000

Console setting—Edit Server Properties page, Source section, Maximum pending mirror operations

Service restart required—No

MirrorRootAttributes

Description—Specifies whether or not root permissions from the source are mirrored to the target

Values—0 Root permissions are not mirrored to the target, 1 Root permissions are mirrored to the target

Default—1

Console setting—None

Service restart required—No

MirrorZeroKFiles

Description—Specifies whether or not empty files, zero byte files, are included in a mirror

Values—0 Zero byte files are skipped and not mirrored to the target, 1 All files are mirrored to the target

Default—1

Console setting—None

Service restart required—No

Notes—If MirrorZeroKFiles is enabled (0), zero byte files are skipped during a full mirror, file differences mirror, and a verification with synchronization. Zero byte files that contain alternate data streams that are not empty, will still be skipped if MirrorZeroKFiles is enabled.

MoveOrphanedFiles

Description—This entry is no longer used.

MoveOrphansDir

Description—This entry is no longer used.

NetworkRetry

Description—Specifies the interval, in seconds, at which Carbonite will attempt to reconnect to the target

Values—any positive number

Default—10

Console setting—None

Service restart required—No

NetworkStatusInterval

Description—An internal setting for network communications. Do not modify this setting.

NetworkTimeout

Description—The maximum length of time, in seconds, to wait on a network connection. If data is not received over a network connection within the specified time limit, the connection is closed. During idle periods, Carbonite sends small amounts of keep-alive data at an interval 1/6 of the NetworkTimeout value to keep the socket from being inadvertently closed.

Values—any integer

Default—120

Console setting—None

Service restart required—No

NodeLockedLicenseKey

Description—An internal setting for licensing. Do not modify this setting.

NodeLockedServerInfo

Description—An internal setting for licensing. Do not modify this setting.

OpBufferMax

Description—Specifies the number of operations that can be stored in the memory queue prior to queuing to disk

Values—0 There is no limit to the number of operations that can be stored in the memory queue, 1 or any larger integer

Default—200000

Console setting—None

Service restart required—No

OpBuffersCount

Description—An internal setting for memory buffering. Do not modify this setting.

OpLogging

Description—Specifies whether operations from the Carbonite driver are logged

Values—0 Do not log operations, 1 Log operations

Default—0

Console setting—None

Service restart required—Yes

OutOfOrderDiff

Description—The maximum number of operations that can be out of order before the connection is paused

Values—any integer

Default—10

Console setting—None

Service restart required—No

Notes—The larger the value, the more memory the Double-Take service on the target service will use.

Port

Description—Port connection for core Carbonite communications

Values—1025 - 65535

Default—6320

Console setting—Edit Server Properties page, General section, Port

Service restart required—Yes

ProductCode

Description—Used by the Carbonite installation program to maintain the installation settings for an upgrade. Do not modify this entry.

ProductName

Description—Used by the Carbonite installation program to maintain the installation settings for an upgrade. Do not modify this entry.

QJournalDir

Description—The location where the queue is stored.

Values—any valid path

Default—the location specified during the installation

Console setting—Edit Server Properties page, Queue section, Queue folder

Service restart required—No

Notes—For best results and reliability, you should select a dedicated, non-boot volume. The queue should be stored on a fixed, local NTFS volume. This location also stores the Carbonite driver pagefile.

QJournalFileSize

Description—The size, in MB, of each queuing transaction log file.

Values—any valid file size, up to 4095 MB

Default—5

Console setting—None

Service restart required—No

QJournalFreeSpaceMin

Description—The minimum amount of disk space, in MB, in the specified QJournalDir that must be available at all times.

Values—dependent on the amount of physical disk space available

Default—250

Console setting—Edit Server Properties page, Queue section, Minimum free disk space

Service restart required—No

Notes—The QJournalFreeSpaceMin should be less than the amount of physical disk space minus QJournalSpaceMax.

QJournalPreload

Description—The number of operations being pulled from the disk queue at one time. Do not modify this setting.

QJournalSpaceMax

Description—The maximum amount of disk space, in MB, in the specified QJournalDir that can be used for Carbonite queuing. When this limit is reached, Carbonite will automatically begin the auto-disconnect process.

Values—dependent on the amount of physical disk space available

Default—Unlimited

Console setting—Edit Server Properties page, Queue section, Limit disk space for queue

Service restart required—No

Notes—The unlimited setting allows the disk queue usage to automatically expand whenever the available disk space expands. Setting this option to zero (0) disables disk queuing. Even if you are using the unlimited option, Carbonite will only store 16,384 log files. If you are using the default 5MB file size, this is approximately 80GB of data. If you anticipate needing to be able to queue more data than this, you should increase the size of the log files.

QLogWriteThrough

Description—Specifies if the disk queues are write-through mode

Values—0 Disk queues are not write-through mode, 1 Disk queues are write-through mode

Default—0

Console setting—None

Service restart required—No

Notes—While write-through mode may decrease the frequency of auto-disconnects, it may also decrease the performance of the source server.

QMemoryBufferMax

Description—The amount of Windows system memory, in MB, that, when exceeded, will trigger queuing to disk.

Values—minimum 512, maximum is dependent on the server hardware and operating system

Default—1024

Console setting—Edit Server Properties page, Queue section, Amount of system memory to use

Service restart required—Yes

QueryOnQuorumFile

Description—Identifies if the Double-Take service will reopen closed files on the quorum drive

Values—0 The Double-Take service will not attempt to reopen a closed file on the quorum drive to get security descriptors or last modified times, 1 The Double-Take service will attempt to reopen a closed file on the quorum drive to get security descriptors or last modified times.

Default—1

Console setting—None

Service restart required—No

QueueSizeAlertThreshold

Description—The percentage of the queue that must be in use to trigger an alert message

Values—any valid percentage

Default—50

Console setting—Edit Server Properties page, Queue section, Alert at this queue usage

Service restart required—Yes

RemapLink

Description—Used internally by Carbonite. Do not modify this entry.

RemoveAllOrphans

Description—This entry is no longer used.

RemoveOrphansTime

Description—This entry is no longer used.

ReplicateNtSecurityByName

Description—Determines whether or not Carbonite replicates permissions and attributes assigned to local (non-domain) users and groups

Values—0 Do not replicate by name, 1 Replicate by name

Default—0

Console setting—Edit Server Properties page, Source section, Replicate NTFS security attributes by name

Service restart required—No

ReplicationDiskCheckScript

Description—Specifies the script to run if validation of the replication drive fails

Values—Any valid path and script file

Default—<null>

Console setting—None

Service restart required—No

ReplicationDiskCheckTimeOut

Description—Specifies the interval, in seconds, between validation checks when ReplicationDiskCheckScript is populated

Values—any integer

Default—300

GUI Setting—None

Service restart required—No

RepSetDBName

Description—Name of the database that contains protected data set information

Values—any valid file name

Default—DbITake.db

Console setting—None

Service restart required—No

RunDTInfoOnCutover

Description—Specifies if DTInfo is launched before a failover or cutover when protecting an entire server

Values—0 Do not launch DTInfo, 1 Launch DTInfo

Default—1

Console setting—None

Service restart required—No

RunScriptatSnaptime

Description—If a script is specified, the script is launched on the target before Carbonite executes any snapshots. The snapshot will not be executed until the script has completed. If the script returns an error, the snapshot will still execute.

Values—any valid path and script name

Default—<null>

Console setting—None

Service restart required—No

RunScriptInsteadofSnap

Description—Specifies if a script specified in RunScriptAtSnaptime is executed

Values—0 Execute script specified in RunScriptAtSnaptime, 1 Do not execute script specified in RunScriptAtSnaptime

Default—1

Console setting—None

Service restart required—No

SaveStatFile

Description—Determines if the statistic.sts (statistics logging) file is saved or overwritten

Values—0 overwrite, 1 saved as statistic-old.sts

Default—1

Console setting—None

Service restart required—No

ScheduleFile

Description—Name of the database file that contains transmission scheduling information

Values—any valid file name

Default—Schedule.sts

Console setting—None

Service restart required—Yes

ScheduleInterval

Description—The number of seconds to wait before checking the transmission schedules to see if transmission should be started or stopped

Values—1 - 3600

Default—1

Console setting—None

Service restart required—Yes

SendDirLastModifiedTime

Description—Specifies if the last modified time for directories will be transmitted to the target during a difference mirror

Values—0 last modified time on directories will not be sent to the target, 1 last modified time on directories will be sent to the target

Default—1

Console setting—None

Service restart required—No

SendFileTimesOnCreate

Description—Specifies whether a file is accessed twice so that the file's creation time can be modified to match the source

Values—0 The Double-Take service will not access newly created files that have not been modified. These files on the target will have the date and time of when the file was created on the target, 1 The Double-Take service will access newly created files. These files on the target will have the same date and time as the source.

Default—0

Console setting—None

Service restart required—No

Notes—New files created on the source that have not been modified will have the date and time of when the file is created on the target. The date and time will be corrected to match the source's true file attributes when a remirror or verification modifies them to match the source or the file is modified by a user or application on the source. For example, if the source machine's clock is set to 2:00 PM and the target machine is set to 4:00 PM, a newly created file that has not been modified will have a time stamp of 4:00 PM when it is applied to the target. If this option is enabled (1), Carbonite will access the file twice, to correctly set the time to 2:00 PM to reflect the file's true attributes. If this option is disabled (0), Carbonite will not access the file twice, and the file will have the target time of 4:00 PM until it is modified (remirror, verification, or user or application update).

SendLastModifiedTimeOnClose

Description—Specifies that the last modified time attribute is sent when a file is closed

Values—0 Last modified time is sent when Carbonite has not received any additional operations for the file in the time period specified by LastModifiedReadDelay, 1 Last modified time is sent when a file is closed, which may not be immediately depending on system processing

Default—1

Console setting—None

Service restart required—No

Notes—If system processing delays (such as the system cache manager not flushing quickly enough) are causing delays in processing the last modified time, you may want to consider disabling this option (0).

ServerUUID

Description—Used internally by the Double-Take service to identify Carbonite connections and IP addresses used between servers

Values—Unique identifier generated by Carbonite

Default—Generated by Carbonite

Console setting—None

Service restart required—Yes

Notes—If you are certain that the server is not being used by any jobs, you can delete the ServerUUID. For example, you may want to delete the ServerUUID so that you can create an image of a server after installing Carbonite. A deleted ServerUUID will be re-created the next time the Double-Take service is started. Keep in mind, if you delete the ServerUUID and the server is being used by any jobs, you will have problems with all aspects of Carbonite including mirroring, replication, and failover.

ServicePriority

Description—The priority level at which the Double-Take service runs.

Values—2 normal priority, 3 high priority

Default—2

Console setting—None

Service restart required—Yes

Notes—The Double-Take service runs at normal priority by default. This option should not be modified, however, if the priority is raised to high (3), it can be done through Windows Task Manager.

ServicesToKeepRunning

Description—Services that will not be stopped on the target

Values—Semi-colon separated list of service names

Default—<null>

Console setting—Set Options page, Target Services section, Services to leave running on the target server during protection

Service restart required—No

Notes—You can specify the service name using the service executable file name or the service display name. There is no need to use quotation marks, even if the names have spaces in them. Only separate the names by a semi-colon (;).

ServiceStopState

Description—Used internally by the Double-Take service. Do not modify this entry.

ShortFileNameScanIntervalMinutes

Description—Specifies how often, in minutes, the registry is scanned for short file names

Values—any valid integer

Default—240

Console setting—None

Service restart required—No

ShutdownRebootTimeoutMinutes

Description—Specifies the amount of time, in minutes, to wait for the source to shutdown during failover or cutover

Values—any valid integer

Default—5

Console setting—None

Service restart required—No

ShutdownTimeout

Description—The amount of time, in seconds, for the service to wait prior to completing the shutdown so that Carbonite can persist data on the target in an attempt to avoid a remirror when the target comes back online

Values—any valid number of seconds where 0 (zero) indicates waiting indefinitely and any other number indicates the number of seconds

Default—0

Console setting—Edit Server Properties page, Setup section, Time allowed to complete shutdown operations

Service restart required—No

Notes—This setting only controls the service shutdown from the Carbonite clients. It does not control the service shutdown through a reboot or from the Service Control Manager.

SkipCompressionFileExt

Description—A period delimited list of file types that are not compressed, even if compression is enabled.

Values—any period delimited list of file types

Default—mp3.exe.wmv.wma.qt.mpg.mpeg.zip.jpg.jpeg.tiff.tar.rar.cab

Console setting—None

Service restart required—No

SnapshotType

Description—Specifies the type of snapshot that Carbonite takes

Values—0 Create a client-accessible or non-client-accessible snapshot based on the job type, 1 Always create a client-accessible snapshot, 2 Always create a non-client-accessible snapshot

Default—0

Console setting—None

Service restart required—No

SourcePendingAcks

Description—The number of operations received by the target queue in which the source is waiting for a response

Values—100 - 20,000

Default—2000

Console setting—None

Service restart required—No

SSMShutdownServices

Description—Used by full server jobs to determine services to shutdown during failover or cutover. Do not modify this entry.

StartupScript

Description—Used by full server jobs to control the post-failover script after reboot after failover. Do not modify this entry.

StatsDriverLogFlags

Description—Indicates which driver statistics are logged to the Carbonite log

Values—0 No driver statistics are logged, 1 State, 2 Operations, 4 Paging, 8 Timing

Default—0

Console setting—None

Service restart required—Yes

Notes—Use the sum of various values to log multiple driver statistics. For example, a setting of 5 would log paging and state statistics. A setting of 7 would log paging, operations, and state statistics. A setting of 15 would log all driver statistics.

StatsFileName

Description—Default file for logging statistics

Values—any valid file name

Default—statistic.sts

Console setting—Edit Server Properties page, Logging section, Filename (under Statistics)

Service restart required—No

StatsLoggingOn

Description—Specifies if Carbonite logs statistics at startup

Values—0 Stats logging does not start when Carbonite starts, 1 Stats logging starts when Carbonite starts

Default—0

Console setting—Edit Server Properties page, Setup section, Setup Options, Log statistics automatically

Service restart required—No

StatsMaxFileSize

Description—Maximum size, in MB, for the statistic.sts file

Values—limited by available disk space

Default—10485760

Console setting—Edit Server Properties page, Logging section, Maximum size (under Statistics)

Service restart required—No

StatsWriteInterval

Description—Interval, in minutes, in which statistics are written to the statistic.sts file

Values—0 - 65535

Default—5

Console setting—Edit Server Properties page, Logging section, Write interval

Service restart required—No

SystemMemoryLimit

Description—Set by the Double-Take service, each time it is started, to record the amount of available memory.

TargetPaused

Description—Internal setting that indicates if the target machine is paused. Do not modify this setting.

TargetPausedVirtual

Description—Internal setting that indicates which target machines are paused. Do not modify this setting.

TCPBufferSize

Description—Size of the TCP/IP buffer in bytes.

Values—4096-7500000

Default—375000

Console setting—None

Service restart required—Yes

Notes—The default setting creates a TCP window that will accommodate most environments. In most environments, this value will not need to be adjusted. However, if your Carbonite network has a long end-to-end route and the throughput is not where you would expect it to be, then adjusting this parameter may have beneficial results. This value is the bandwidth delay product, which is calculated using the bandwidth of the network (in

bits/second) times the round trip time (in seconds) between the two ends. Use the following recommended settings to improve Carbonite throughput performance.

- 100Mbit LAN—The setting should be around 37500.
- 1Gbit LAN—The setting should be around 375000.
- WAN—The setting should be around 130000.

While the calculations are fairly straight forward, the values that have been suggested are not exact because they depend on round trip time. Some improvements could be gained by adjusting these values either higher or lower. The value suited for your environment can best be determined through trial and error testing.

TempDir

Description—Temporary directory used when replicating Windows 200x encrypted files.

Values—Any valid path

Default—\Program Files\Carbonite\Replication\Temp

Console setting—None

Service restart required—No

TGApplyMntPntSecurity

Description—Applies security settings to the volume of a mount point instead of applying them to the directory that the mount point is mounted to.

Values—0 Security will be applied to the directory, 1 Security will be applied to the volume

Default—0

Console setting—None

Service restart required—Yes

Notes—This setting needs to be applied to the target server.

TGBlockOnConnect

Description—Blocks the target path for all connections, regardless of the source, so that the data cannot be modified

Values—0 Target paths are not blocked, 1 Target paths are blocked

Default—0

Console setting—None

Service restart required—No

TGCloseDelay

Description—The length of time, in milliseconds, a file is held open on the target

Values—0 - 2000

Default—1000

Console setting—None

Service restart required—No

Notes—If disk caching on the target is disabled either manually or by default (for example, by default on disks that host Active Directory database files), the target system may be slow during a mirror. If so, decreasing this setting to 100, 10, and 0 will result in incremental improvements, with 0 returning the system performance to normal.

TGDaysToKeepMovedFiles

Description—Specifies the length of time, in days, to keep moved files if TGMoveFilesOnDelete is enabled

Values—any valid integer

Default—0

Console setting—Edit Server Properties page, Target section, Remove deleted files after this number of days

Service restart required—No

TGDisableAttributeReplication

Description—Specifies whether or not the attributes compression, ACL, and file mask are written to the target during mirroring and replication

Values—0 Enable attribute replication, 1 Disable attribute replication and check attributes during data verification, 2 Disable attribute replication and do not check attributes during data verification, 4 Enable attribute replication except security attributes

Default—0

Console setting—None

Service restart required—Yes

Notes—The default value 0 is the recommended setting. If you need to rely on the data verification process, do not select value 1 because the attributes will not match during verification.

TGExecutionRetryLimit

Description—The number of times an unfinished operation will be retried on the target before it is discarded. If this value is set to zero (0), an operation will never be discarded and will be retried on the target until it is applied.

Values—0 - 65536

Default—0

Console setting—None

Service restart required—No

TGFileAlloc

Description—Indicates that Carbonite allocates an entire file on the first write of a mirror operation

Values—0 Disabled 1 Enabled

Default—1

Console setting—None

Service restart required—No

Notes—To help eliminate file fragmentation on the target server, Carbonite should allocate the entire file first. With extremely large files, the file allocation may take a long time. Therefore, you may want to disable the file allocation. If you disable file allocation, you will have more fragmentation on the target disk.

TGHLIntellimirror

Description—Used internally by Carbonite. Do not modify this entry.

TGMirrorCapacityHigh

Description—Maximum percentage of system memory that can contain mirror data before the target signals the source to pause the sending of mirror operations.

Values—2-75

Default—20

Console setting—Edit Server Properties page, Target section, Pause mirroring at this level

Service restart required—No

TGMirrorCapacityLow

Description—Minimum percentage of system memory that can contain mirror data before the target signals the source to resume the sending of mirror operations.

Values—1-75

Default—15

Console setting—Edit Server Properties page, Target section, Resume mirroring at this level

Service restart required—No

Notes—The maximum value for TGMirrorCapacityLow is either 75 or TGMirrorCapacityHigh, whichever is lower.

TGMoveFilesOnDelete

Description—Specifies whether files deleted on the source are actually moved to a different location on the target rather than being deleted on the target

Values—0 Files deleted on the source will be deleted on the target, 1 Files deleted on the source will be moved to a different location on the target

Default—0

Console setting—Edit Server Properties page, Target section, Moved deleted files to this folder

Service restart required—No

Notes—If this option is enabled, the deleted files will be moved to the location specified in TGMoveFilesPath.

TGMoveFilesPath

Description—Specifies where deleted files on the source are being moved to on the target

Values—any valid path

Default—<null>

Console setting—Edit Server Properties page, Target section, Moved deleted files to this folder

Service restart required—No

TGMoveFilesSingleDirectory

Description—Specifies if deleted files that will be moved on the target (see **TGMoveFilesOnDelete**) will be moved to a single directory structure

Values—0 Use the same directory structure on the target as the source to store deleted files, 1 Use a single directory structure on the target to store deleted files

Default—0

Console setting—None

Service restart required—No

TGRetryLocked

Description—Minimum number of seconds to wait before retrying a failed operation on a target

Values—0-65536

Default—3

Console setting—Edit Server Properties page, Target section, Retry delay for incomplete operations

Service restart required—No

TGUnfinishedOpEvent

Description—Specifies whether or not unfinished operations on the target are logged to the Event Viewer

Values—0 Unfinished operation messages are not logged, 1 Unfinished operation messages are logged

Default—1

Console setting—None

Service restart required—No

TGWriteCache

Description—Specifies whether or not Carbonite uses the intermediate cache

Values—0 Bypass the intermediate cache and write directly to disk, 1 Do not bypass the intermediate cache

Default—1 for all other job types

Console setting—None

Service restart required—No

TGWriteFailureBeforeNotification

Description—Specifies the number of times an operation will be retried on the target before a notification is sent to update the target status

Values—0-1024

Default—10

Console setting—None

Service restart required—Yes

Notes—If you change the setting to 0, the notification will be disabled. Changing this option will only affect how the target status is displayed. To solve the underlying issue of why the operations are failing will require investigation into the Carbonite log files.

UpgradeCode

Description—Used by the Carbonite installation program to maintain the installation settings for an upgrade. Do not modify this entry.

UseChangeJournal

Description—Specifies if the Carbonite driver change journal is used to track file changes. If the source is rebooted, only the files identified in the change journal will be remirrored to the target. This setting helps improve mirror times.

Values—0 Do not track file changes and use the selected AutoRemirror option, 1 Track file changes and remirror only changed files on source reboot. If the change journal cannot be used, the selected AutoRemirror option will be used

Default—1

Console setting—Edit Server Properties page, Setup section, Mirror only changed files when source reboots

Service restart required—Yes

Notes—If you reboot your source into safe mode and changes are made to the protected data and then the source is rebooted normally, the Carbonite driver change journal will try but not be able to synchronize the source and target correctly because it was not loaded in safe mode. Therefore, you should manually start a difference mirror.

UseScheduledPause

Description—Used by Carbonite for internal schedule processing. Do not modify this setting.

VerifyLogAppend

Description—Specifies whether the DTVerify.log file will be appended to or overwritten

Values—0 Overwrite, 1 Append

Default—1

Console setting—Edit Server Properties page, Logging section, Append

Service restart required—No

VerifyLogLimit

Description—Maximum size of the DTVerify.log file in bytes

Values—limited by available hard drive space, up to 4 GB

Default—1048576

Console setting—Edit Server Properties page, Logging section, Maximum size (under Verification)

Service restart required—No

VerifyLogName

Description—Name of the verification log file

Values—any valid file name

Default—DTVerify.log

Console setting—Edit Server Properties page, Logging section, File name (under Verification)

Service restart required—No

VerifyRetryInterval

Description—The time, in minutes, between when one verification fails and a retry is scheduled to begin.

Values—any valid number

Default—3

Console setting—None

Service restart required—No

VerifyRetryLimit

Description—The number of time a verification will be retried.

Values—any valid number

Default—5

Console setting—None

Service restart required—No

VersionInfo

Description—The version of Carbonite that was installed. Do not modify this entry.

WatchDogFailureProcessDump

Description—Creates a troubleshooting dump file if the Carbonite driver stops running

Values—0 Do not create a dump file, 1 Create a dump file

Default—0

Console setting—None

Service restart required—No

WatchDogFailureScript

Description—Specifies the script to run if the Carbonite driver stops running

Values—Any valid path and script file

Default—<null>

Console setting—None

Service restart required—No

Linux server and job settings

The following table lists all of the Linux server and job settings, in decimal value.



Carbonite products share the same set of server and job settings. You may only have a subset of the settings listed below depending on your Linux operating system and Carbonite product.

Carbonite Availability terminology is used in the following list. For example, failover is used for Carbonite Availability and cutover for Carbonite Migrate.

ActivationCode

Description—24-character Carbonite license key

Values—Unique value for each customer

Default—N/A

Console setting—Edit Server Properties page, Licensing section, Current license keys

Service restart required—No

AdapterFlags

Description—Specifies the adapter to use when establishing a connection. This option should not be changed.

Values—2 Encryption, 4 Network Data Representation

Default—4

Console setting—None

Service restart required—No

Advertisement

Description—This setting is no longer used.

AllFailover

Description—Specifies which IP addresses to failover

Values—0 Failover only monitored IP addresses, 1 Failover all IP addresses

Default—1

Console setting—None

Service restart required—No

AllMustFail

Description—Specifies whether or not all IP addresses must fail for failover to take place

Values—0 Any IP address can fail, 1 All IP addresses must fail

Default—1

Console setting—None

Service restart required—No

AutoReconnect

Description—Specifies whether to reinstate the target connection(s) when the source machine is brought online after a source machine failure

Values—0 Do not reconnect, 1 Reconnect

Default—1

Console setting—None

Service restart required—Yes

AutoRemirror

Description—Specifies whether to remirror when a source is brought online after an auto-disconnect

Values—0 Do not compare or send any files, 1 Compare file attributes and send the attributes and bytes that are different, 2 Do not compare files, just send all files (the entire file), 3 Compare file attributes and send the entire file for those that are different, 4 Compare file attributes and data and send the attributes and bytes that are different

Default—3

Console setting—Edit Server Properties page, Setup section, Behavior when automatically remirroring

Service restart required—No

AutoRemirrorRetry

Description—Specifies how often, in seconds, the source should check for connections that have been reconnected but still need to be remirrored

Values—any integer

Default—30

Console setting—None

Service restart required—No

AutoRetransmit

Description—Determines whether or not a source that has lost its connection with a target will attempt to reconnect to the target

Values—0 Do not attempt to reconnect, 1 Attempt to reconnect

Default—1

Console setting—None

Service restart required—No

BackupDir

Description—Location on the target of the backup of the protected data sets

Values—any valid path

Default—the location where the Carbonite files were installed

Console setting—None

Service restart required—No

CalculateOnConnect

Description—Specifies whether or not the amount of data to be mirrored should be calculated on connection

Values—0 Do not calculate on connection, 1 Calculate on connection

Default—1

Console setting—None

Service restart required—Yes

CaseSensitiveRepSetQueries

Description—This entry is no longer used.

ChecksumAll

Description—Indicates if a mirror, verify, or restore will ignore all attributes and perform a checksum calculation on all files

Values—0 Compare files by attribute, 1 Compare files by checksums

Default—1

Console setting—None

Service restart required—No

Cleaner

Description—Specifies if a clean mirror will delete files on the target before mirroring

Values—0 Do not delete files before mirroring, 1 Delete files before mirroring

Default—0

Console setting—None

Service restart required—No

Notes—This option is only valid if you have this option enabled and use the clean option with the DTCL mirror command.

ClientLog

Description—This setting is no longer used.

ClientLogName

Description—This setting is no longer used.

ConnectionFile

Description—Name of the database file containing connection information

Values—any valid file name

Default—connect.sts

Console setting—None

Service restart required—No

DataPath

Description—The location of the Carbonite file attribute, protected data set, connection, and schedule database files

Values—any valid path

Default—the location where the Carbonite files were installed

Console setting—None

Service restart required—No

DefaultProtocol

Description—The default protocol

Values—1 IPv4 protocol only

Default—1

Console setting—None

Service restart required—Yes

DirUNetPort

Description—Port used for directed UDP communications

Values—1025 - 65535

Default—1505

Console setting—None

Service restart required—Source yes, Target no

DisableAttributeReplication

Description—Specifies whether or not attributes (user, group, or other permissions) are replicated to the target

Values—0 Enable attribute replication, 1 Disable attribute replication

Default—0

Console setting—None

Service restart required—Yes

EnablePerformanceTracking

Description—This entry will be used in the future.

EnableSparseFileMirroring

Description—Specifies if sparse files are mirrored

Values—0 Disable mirroring of sparse files, 1 Enable mirroring of sparse files

Default—1

Console setting—None

Service restart required—No

EnableTaskCmdProcessing

Description—Queues tasks inline with replication data

Values—0 Disable task command processing, 1 Enable task command processing

Default—0

Console setting—None

Service restart required—No

EnableVolumeLevelReplication

Description—Used by internally for full server jobs

EncryptionCipherFilter

Description—Encryption uses AES 256. Public key exchange uses industry-defined methods implemented by OpenSSL.

EncryptNetworkData

Description—Encrypts Carbonite data before it is sent from the source to the target

Values—0 Disable data encryption, 1 Enable data encryption

Default—0

Console setting—Edit Server Properties page, General section, Encrypt network data

Service restart required—No

Notes—Both the source and target must be Carbonite encryption capable (Carbonite version 8.0.0 or later), however this option only needs to be enabled on the source or target in order to encrypt data. Keep in mind that all jobs from a source with this option enabled or to a target with this option enabled will have the same encryption setting. Changing this option will cause jobs to auto-reconnect and possibly remirror.

ExtendedAttributes

Description—Specifies whether or not extended attributes are replicated to the target

Values—0 Extended attributes are not mirrored or replicated, 1 Extended attributes are mirrored and replicated

Default—0

Console setting—None

Service restart required—No

ExtensionNumber

Description—Used by the Carbonite log files.

FileQueueSize

Description—When a mirror is started, one thread reads from the disk and builds the file queue. Another set of threads reads files off of the queue and sends them to the target. This setting is the maximum size of the queue in entries. If you had 100 files to be mirrored and this was set to 16 (the default value), the first thread would fill the queue to a maximum of 16 entries.

Values—1 - 65535

Default—16

Console setting—None

Service restart required—No

Notes—This value must be set prior to starting the mirror process. The higher the number, the more memory that is used.

HBExternalRate

Description—Number of seconds between heartbeats

Values—0 - 65535

Default—3

Console setting—None

Service restart required—No

Notes—Carbonite recommends a value that is less than 10 (see HBTTL). Zero (0) turns the heartbeats off.

HBInternalRate

Description—This entry is no longer used

HBLoopback

Description—This entry is no longer used.

HBTrace

Description—Specifies whether heartbeat debugging information is generated

Values—0 not generated, 1 Generated

Default—0

Console setting—None

Service restart required—No

HBTTL

Description—Number of seconds without receiving a heartbeat before a remote machine is considered unavailable

Values—0 - 65535

Default—10

Console setting—None

Service restart required—No

HPQueueRatio

Description—Ratio of replication packets to one mirror packet

Values—1 - 65535

Default—5

Console setting—None

Service restart required—No for future connections, Yes for the current connection

Notes—An HPQueueRatio of 5 indicates 5 replication packets to 1 mirror packet.

IgnoreDeleteOps

Description—Specifies if file and directory delete operations will be replicated to the target

Values—0 Delete operations are replicated to the target, 1 Delete operations are not replicated to the target

Default—0

Console setting—None

Service restart required—No

LoadSourceTarget

Description—Specifies the functionality of the loaded modules

Values—0 Neither the source nor target modules are loaded, 1 Only the source module is loaded, 2 Only the target module is loaded, 3 Both the source and target modules are loaded

Default—3

Console setting—None

Service restart required—Yes

LogAllOrphans

Description—Specifies whether success messages regarding orphan files are logged to the Carbonite log

Values—0 Do not log orphan file success messages to the Carbonite log, 1 Log orphan file success messages to the Carbonite log

Default—0

Console setting—None

Service restart required—No

LogDir

Description—The location of the Carbonite messages/alerts, verification, and statistics log files

Values—any valid path

Default—the location where the Carbonite files were installed

Console setting—None
Service restart required—Yes

LogFile

Description—The name of the Carbonite messages/alerts log file
Values—any valid file name
Default—DTLog
Console setting—None
Service restart required—No

LogMessageLevel

Description—Specifies the types of messages logged to the .dtl files
Values—0 No messages will be logged, 1 Only alert messages will be logged, 2 Alert and release messages will be logged, 3 Alert, release, and debug messages will be logged
Default—2
Console setting—None
Service restart required—No

MaxChecksumBlocks

Description—Specifies the number of checksum values retrieved from the target
Values—any integer
Default—32
Console setting—None
Service restart required—No

MaxConnections

Description—Number of network requests that can be processed simultaneously.
Values—0 - 65535
Default—5
Console setting—None
Service restart required—Yes
Notes—Carbonite recommends that you not change this value.

MaxLogFileSize

Description—Maximum size, in bytes, of any .dtl log file
Values—limited by available disk space
Default—5242880
Console setting—None
Service restart required—No

MaxNumberOfLogFiles

Description—Maximum number of .dtl log files that can exist at one time. When Carbonite creates a new .dtl file, if this number is exceeded, the oldest .dtl file is deleted.

Values—1 - 999

Default—20

Console setting—None

Service restart required—No

MaxRemoveOrphansOpSize

Description—Determines whether or not Carbonite will send over multiple orphan operations. Carbonite will send over the operations if a directory has more files than this number.

Values—0 - 131072

Default—1000

Console setting—None

Service restart required—No

MaxRetry

Description—A generic, application wide setting specifying the number of retry attempts for processes such as creating sockets, starting the service, and so on

Values—any integer

Default—5

Console setting—None

Service restart required—Yes

MaxWriteChunkSize

Description—Maximum merged op size (in bytes) used during replication

Values—1 - 131072

Default—65536

Console setting—None

Service restart required—No

MemoryQueueToDiskThreshold

Description—A percentage of QmemoryBufferMax that will trigger queuing to disk.

Values—any valid percentage

Default—100

Console setting—None

Service restart required—Yes

MinCompressionFileSize

Description—The minimum file size, in bytes, that will be compressed. Files smaller than this size will not be compressed.

Values—any file size

Default—1024

Console setting—None

Service restart required—No

MirrorChunkSize

Description—Block size, in bytes, used in the mirroring process

Values—1 - 1048576

Default—65536

Console setting—None

Service restart required—No

Notes—A higher block size value gives you better throughput, but only to a certain point, then it starts using more memory (this has to do with the way memory is allocated and deallocated). A lower block size value produces slower throughput, but uses memory efficiently.

MirrorOverwrite

Description—Determines if the mirror process overwrites existing files

Values—0 never overwrite, 1 always overwrite, 2 overwrite if older

Default—1

Console setting—None

Service restart required—No

MirrorPrompting

Description—This entry is no longer used.

MirrorQueueLimit

Description—Maximum number of mirror operations that can be queued on the source machine

Values—1 - 65535

Default—1000

Console setting—None

Service restart required—No

MirrorZeroKFiles

Description—Specifies whether or not empty files, zero byte files, are included in a mirror

Values—0 Zero byte files are skipped and not mirrored to the target, 1 All files are mirrored to the target

Default—1

Console setting—None

Service restart required—No

Notes—If MirrorZeroKFiles is enabled (0), zero byte files are skipped during a full mirror, file differences mirror, and a verification with synchronization.

MissedPackets

Description—Specifies the number of requests sent by the target that go unanswered by the source before failover occurs, when using network responses to monitor for failover

Values—1 - 65535

Default—5

Console setting—None

Service restart required—No

MoveOrphanedFiles

Description—Specifies if orphaned files are deleted or moved to the directory specified by MoveOrphansDir

Values—1 Move, 0 Delete

Default—0

Console setting—None

Service restart required—No

MoveOrphansDir

Description—Indicates the name of the directory where orphaned files will be moved if MoveOrphanedFiles=1

Values—any valid path

Default—the location where the Carbonite files were installed

Console setting—None

Service restart required—No

NetPort

Description—Port connection for TCP communications

Values—1025 - 65535

Default—1500

Console setting—None

Service restart required—Yes

NetworkRetry

Description—Specifies the interval, in seconds, at which Carbonite will attempt to reconnect to the target

Values—any positive number

Default—10

Console setting—None

Service restart required—No

NetworkStatusInterval

Description—An internal setting for network communications. Do not modify this setting.

NetworkTimeout

Description—The maximum length of time, in seconds, to wait on a network connection. If data is not received over a network connection within the specified time limit, the connection is closed. During idle periods, Carbonite sends small amounts of keep-alive data at an interval 1/6 of the NetworkTimeout value to keep the socket from being inadvertently closed.

Values—any integer

Default—120

Console setting—None

Service restart required—No

Notes—If you are archiving files and it takes longer than the NetworkTimeout specified (for example, this may happen if the DTArchiveBin is located on an alternate volume), the archive operation will complete on the target, but the full file will not be changed to a link on the source because the source detected the network timeout.

NodeLockedLicenseKey

Description—An internal setting for licensing. Do not modify this setting.

OpBufferSize

Description—Specifies the number of operations that can be stored in the memory queue prior to queuing to disk.

Values—0 There is no limit to the number of operations that can be stored in the memory queue, 1 or any larger integer

Default—0

Console setting—None

Service restart required—No

PingFrequency

Description—Specifies, in seconds, how often a ping is sent to the source from a monitoring target

Values—1 - 65535

Default—5

Console setting—None

Service restart required—No

PreFailbackWait

Description—Specifies whether or not to wait for the target pre-failback script to complete before finishing a failback

Values—0 Do not wait, 1 Wait

Default—0

Console setting—None

Service restart required—No

PreFailoverWait

Description—Specifies whether or not to wait for the target pre-failover script to complete before finishing a failover

Values—0 Do not wait, 1 Wait

Default—0

Console setting—None

Service restart required—No

QJournalDir

Description—The location where the queue is stored.

Values—any valid path

Default—the location specified during the installation

Console setting—None

Service restart required—No

Notes—For best results and reliability, you should select a dedicated, non-boot volume. The queue should be stored on a dedicated, high-performance local volume (like SSD or high-speed HDD backed volume). The volume should not be used for any high I/O activity applications.

QJournalFileSize

Description—The size, in MB, of each queuing transaction log file.

Values—any valid file size, up to 4095 MB

Default—5

Console setting—None

Service restart required—No

QJournalFreeSpaceMin

Description—The minimum amount of disk space, in MB, in the specified QJournalDir that must be available at all times.

Values—dependent on the amount of physical disk space available

Default—250

Console setting—None

Service restart required—No

Notes—The QJournalFreeSpaceMin should be less than the amount of physical disk space minus QJournalSpaceMax.

QJournalPreload

Description—The number of operations being pulled from the disk queue at one time. Do not modify this setting.

QJournalSpaceMax

Description—The maximum amount of disk space, in MB, in the specified QJournalDir that can be used for Carbonite queuing. When this limit is reached, Carbonite will automatically begin the auto-disconnect process.

Values—dependent on the amount of physical disk space available

Default—Unlimited

Console setting—None

Service restart required—No

Notes—The unlimited setting allows the disk queue usage to automatically expand whenever the available disk space expands. Setting this option to zero (0) disables disk queuing. Even if you are using the unlimited option, Carbonite will only store 16,384 log files. If you are using the default 5MB file size, this is approximately 80GB of data. If you anticipate needing to be able to queue more data than this, you should increase the size of the log files.

QLogWriteThrough

Description—Specifies if the disk queues are write-through mode

Values—0 Disk queues are not write-through mode, 1 Disk queues are write-through mode

Default—0

Console setting—None

Service restart required—No

Notes—While write-through mode may decrease the frequency of auto-disconnects, it may also decrease the performance of the source server.

QMemoryBufferMax

Description—The amount of system memory, in MB, that, when exceeded, will trigger queuing to disk.

Values—minimum 32, maximum 4095

Default—256

Console setting—None

Service restart required—Yes

QueueSizeAlertThreshold

Description—The percentage of the queue that must be in use to trigger an alert message

Values—any valid percentage

Default—50

Console setting—None

Service restart required—Yes

RemapLink

Description—Specifies how Carbonite handles a soft link

Values—0 If a soft link exists in a replication set and points to a file or directory inside the replication set, the path contained in the link will retain its original mapping, 1 If a soft link exists in a replication set and points to a file or directory inside the replication set, Carbonite will remap the path contained in that link based on the Carbonite target path

Default—1

Console setting—None

Service restart required—No

RemoveAllOrphans

Description—Specifies if all orphan files will be removed or only those based on RemoveOrphanTime

Values—0 Remove orphans based on the entry RemoveOrphansTime, 1 Remove all orphans

Default—1

Console setting—None

Service restart required—No

RemoveOrphansTime

Description—Specifies the amount of time, in minutes, that must be expired before an orphan file is removed

Values—1 - 131072

Default—60

Console setting—None

Service restart required—No

ReplaceTarget

Description—Specifies whether or not to replace the target identity with the source identity during a failover

Values—0 Do not replace, 1 Replace

Default—0

Console setting—None

Service restart required—No

RepSetDBName

Description—Name of the database that contains protected data set information

Values—any valid file name

Default—DbITake.db

Console setting—None

Service restart required—No

RestoreOverwrite

Description—Determines if the restoration process overwrites existing files

Values—0 never overwrite, 1 always overwrite, 2 overwrite if older

Default—2

Console setting—None

Service restart required—No

RestorePrompting

Description—This entry is no longer used.

RestoreSpecialExecutableHandling

Description—Specifies if an alternate file is created and updated during a restoration for executables that are in use

Values—0 Do not use alternate files for executables that are in use, 1 Use alternate files for executables that are in use

Default—1

Console setting—None

Service restart required—No

SaveStatFile

Description—Determines if the statistic.sts (statistics logging) file is saved or overwritten

Values—0 overwrite, 1 saved as statistic-old.sts

Default—1

Console setting—None

Service restart required—No

ScheduleFile

Description—Name of the database file that contains transmission scheduling information

Values—any valid file name

Default—Schedule.sts

Console setting—None

Service restart required—Yes

ScheduleInterval

Description—The number of seconds to wait before checking the transmission schedules to see if transmission should be started or stopped

Values—1 - 3600

Default—1

Console setting—None

Service restart required—Yes

ShareUpdateInterval

Description—Specifies how often, in minutes, the share file will be sent to the target

Values—1 - 65535

Default—60

Console setting—None

Service restart required—No

SkipCompressionFileExt

Description—A period delimited list of file types that are not compressed, even if compression is enabled.

Values—any period delimited list of file types

Default—

mp3.exe.wmv.wma.qt.mpg.mpeg.zip.jpg.jpeg.tiff.rar.cab.tgz.bz.bz2.z.pkg.sea.sit.sitx

Console setting—None

Service restart required—No

SmallFileThreshold

Description—Identifies the size of a small file. The entire file will be mirrored if the file size is below this threshold, thus improving mirror speeds.

Values—any integer

Default—65536

Console setting—None

Service restart required—No

SourcePendingAcks

Description—The number of operations received by the target queue in which the source is waiting for a response

Values—100 - 20,000

Default—2000

Console setting—None

Service restart required—No

StatsFileName

Description—Default file for logging statistics

Values—any valid file name

Default—statistic.sts

Console setting—None

Service restart required—No

StatsLoggingOn

Description—Specifies if Carbonite logs statistics at startup

Values—0 Stats logging does not start when Carbonite starts, 1 Stats logging starts when Carbonite starts

Default—0

Console setting—None

Service restart required—No

StatsMaxFileSize

Description—Maximum size, in MB, for the statistic.sts file

Values—limited by available disk space

Default—10485760

Console setting—None

Service restart required—No

StatsMaxObjects

Description—This entry is no longer used.

StatsPort

Description—Port used by DTStat to gather Carbonite statistics

Values—1025 - 65535

Default—1506

Console setting—None

Service restart required—No

StatsShmSize

Description—This entry is no longer used.

StatsWriteInterval

Description—Interval, in minutes, in which statistics are written to the statistic.sts file

Values—0 - 65535

Default—5

Console setting—None

Service restart required—No

SystemMemoryLimit

Description—Set by the Double-Take service, each time it is started, to record the amount of available memory.

TargetPaused

Description—Internal setting that indicates if the target machine is paused. Do not modify this setting.

TargetPausedVirtual

Description—Internal setting that indicates which target machines are paused. Do not modify this setting.

TCPBufferSize

Description—Size of the TCP/IP buffer in bytes.

Values—4096-7500000

Default—375000

Console setting—None

Service restart required—Yes

Notes—This is an operating system buffer, not a Carbonite buffer. If this option is set to zero (0), Linux kernel versions 2.6.7 or later can automatically tune this buffer setting for best server performance. Therefore, the recommended setting is 0 for automatic tuning, if you are using a version 2.6.7 or later Linux kernel. If you want to reduce or control network traffic, you can configure this option to a static size. The default is 375000 for a 1 GB network.

Modifications should be relative to that speed using the calculation $37500 * \text{network_speed_in_bits_per_second} / 100 \text{ Mbit}$.

TGCloseDelay

Description—The length of time, in milliseconds, a file is held open on the target

Values—0 - 2000

Default—1000

Console setting—None

Service restart required—No

Notes—If disk caching on the target is disabled either manually or by default (for example, by default on disks that host Active Directory database files), the target system may be slow during a mirror. If so, decreasing this setting to 100, 10, and 0 will result in incremental improvements, with 0 returning the system performance to normal.

TGExecutionRetryLimit

Description—The number of times an unfinished operation will be retried on the target before it is discarded. If this value is set to zero (0), an operation will never be discarded and will be retried on the target until it is applied.

Values—0 - 65536

Default—0

Console setting—None

Service restart required—No

TGMirrorCapacityHigh

Description—Maximum percentage of system memory that can contain mirror data before the target signals the source to pause the sending of mirror operations.

Values—2-75

Default—20

Console setting—None

Service restart required—No

TGMirrorCapacityLow

Description—Minimum percentage of system memory that can contain mirror data before the target signals the source to resume the sending of mirror operations.

Values—1-75

Default—15

Console setting—None

Service restart required—No

Notes—The maximum value forTGMirrorCapacityLow is either 75 or TGMirrorCapacityHigh, which ever is lower.

TGRetryLocked

Description—Minimum number of seconds to wait before retrying a failed operation on a target

Values—0-65536

Default—3

Console setting—None

Service restart required—No

TGThreadCount

Description—This setting is no longer used

TGUseExtendedQueue

Description—Specifies whether or not Carbonite uses the extended queue

Values—0 Use the extended queue, 1 Do not use the extended queue

Default—1

Console setting—None

Service restart required—No

TGWriteCache

Description—Specifies whether or not Carbonite uses the intermediate cache

Values—0 Bypass the intermediate cache and write directly to disk, 1 Do not bypass the intermediate cache

Default—0 for full server to ESX jobs, 1 for all other job types

Console setting—None

Service restart required—No

TGWriteFailureBeforeNotification

Description—Specifies the number of times an operation will be retried on the target before a notification is sent to update the target status

Values—0-1024

Default—10

Console setting—None

Service restart required—Yes

Notes—If you change the setting to 0, the notification will be disabled. Changing this option will only affect how the target status is displayed. To solve the underlying issue of why the operations are failing will require investigation into the Carbonite log files.

UNetPort

Description—Port connection for UDP communications

Values—1025 - 65535

Default—1500

Console setting—None

Service restart required—Yes

UpdateInterval

Description—Interval, in seconds, at which the Failover Control Center updates the monitored machines display

Values—1 - 9999

Default—1

Console setting—None

Service restart required—No

UserIntervention

Description—Specifies whether or not user intervention is required to initiate a failover

Values—0 User intervention is not required, 1 User intervention is required

Default—1

Console setting—None

Service restart required—No

UseShareFile

Description—Specifies whether to create and use a share file or to use the shares that are currently stored in the target memory

Values—0 Use the shares that are currently stored in the target memory, 1 Create and use a file containing the share information

Default—1

Console setting—None

Service restart required—No

VerifyLogAppend

Description—Specifies whether the DTVerify.log file will be appended to or overwritten

Values—0 Overwrite, 1 Append

Default—1

Console setting—None

Service restart required—No

VerifyLogLimit

Description—Maximum size of the DTVerify.log file in bytes

Values—limited by available hard drive space, up to 4 GB

Default—1048576

Console setting—None

Service restart required—No

VerifyLogName

Description—Name of the verification log file

Values—any valid file name

Default—DTVerify.log

Console setting—None

Service restart required—No

VerifyRetryInterval

Description—The time, in minutes, between when one verification fails and a retry is scheduled to begin.

Values—any valid number

Default—3

Console setting—None

Service restart required—No

VerifyRetryLimit

Description—The number of time a verification will be retried.

Values—any valid number

Default—5

Console setting—None

Service restart required—No

WarningPings

Description—This entry is no longer used.
