

# Using the vRealize Orchestrator Plug-In for vSphere Replication 8.2

vSphere Replication 8.2

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# Using the vSphere Replication Plug-In

# 1

*Using vSphere Replication Plug-In* provides information and instructions about configuring and using the VMware<sup>®</sup> VMware vRealize Orchestrator plug-in for VMware vSphere Replication.

## Intended Audience

The information in *Using vSphere Replication Plug-In* is intended for experienced administrators who want to automate replication and configuration tasks on a vSphere environment using the vSphere Replication plug-in. The information is written for experienced users who are familiar with virtual machine technology, with VMware vRealize Orchestrator workflow development, and with VMware vSphere Replication.

For more information about VMware vRealize Orchestrator, see the *vRealize Orchestrator Documentation*.

For more information about vSphere Replication, see the *VMware vSphere Replication Documentation*.

# Automated Operations That VMware vRealize Orchestrator Plug-In for vSphere Replication Provides

## 2

The VMware vRealize Orchestrator plug-in for vSphere Replication extends automation capabilities for certain vSphere Replication operations.

The vSphere Replication plug-in includes VMware vRealize Orchestrator actions, workflows, and scripting objects to expose selected elements of the vSphere Replication API to workflows. With the plug-in you can automate the configuration of replication for virtual machines, run migrations and real recoveries, manage local and remote site, and synchronize virtual machine data.

The plug-in provides actions and workflows to configure and manage replications:

- Configure a forward replication for virtual machines to a target vCenter Server or cloud site.
- Configure a reverse replication for virtual machines from a target vCenter Server or cloud site.
- Pause, resume, or stop a forward replication for virtual machines to a target vCenter Server or cloud site.
- Pause, resume, or stop a reverse replication for virtual machines from a target vCenter Server or cloud site.

The plug-in provides actions and workflows to run recovery:

- Run a planned migration to or from a target cloud site.
- Run a real recovery to or from a target cloud site.
- Run a test clean to and from a target cloud site.
- Run a test recovery to and from a target cloud site.

The plug-in provides actions and workflows to manage remote sites:

- Pair the local site with a target vCenter Server or cloud site.
- Register a standalone organization, cloud, or vCenter Server site.
- Unregister standalone organization, cloud, or vCenter Server site.

The plug-in provides actions and workflows to synchronize virtual machine data:

- Full synchronization to a target vCenter Server or cloud site.
- Offline synchronization to or from a target cloud site.
- Offline synchronization to a target vCenter Server site.
- Synchronize a replication to or from a target cloud site.
- Synchronize a replication to a target vCenter Server site.

The plug-in provides actions and workflows to retrieve information about the status or configuration details of replications. You can use the results of the workflows as parameters in other workflows:

- Retrieve the status of a replication.
- Retrieves the configuration details of a replication.
- Retrieves a list of all the incoming or outgoing replications from a vCenter Server.

# Installing the vSphere Replication Plug-In

# 3

To create and run workflows on the local vSphere Replication site, you must install and configure the vSphere Replication plug-in in VMware vRealize Orchestrator.

This chapter includes the following topics:

- [Functional Prerequisites](#)
- [Installing, Upgrading, and Uninstalling the vSphere Replication Plug-In](#)

## Functional Prerequisites

To install and use the vSphere Replication plug-in, your system must meet certain functional prerequisites.

### vSphere Replication

Verify that the version of your vSphere Replication plug-in is compatible with your vSphere Replication.

For information about the compatibility between the vSphere Replication plug-in and vSphere Replication, see *VMware vRealize Orchestrator Plug-In for vSphere Replication 8.2 Release Notes*.

For information about setting up vSphere Replication, see the *vSphere Replication Installation and Configuration* documentation.

### VMware vRealize Orchestrator

Verify that you have a running instance of VMware vRealize Orchestrator and its version is compatible with the versions of your vSphere Replication and vSphere Replication plug-in.

For information about the compatibility between vSphere Replication and vRealize Orchestrator, see the *vSphere Replication 8.2 Release Notes* and the *Compatibility matrices for vSphere Replication* documentation.

For information about setting up VMware vRealize Orchestrator, logging in the vRealize Orchestrator client, and available authentication methods, see the *Installing and Configuring VMware vRealize Orchestrator* documentation.

## Other Prerequisites

- Verify that you have installed the vCenter Server plug-in for VMware vRealize Orchestrator. See the *Using the vCenter Server Plug-In* topic in the VMware vRealize Orchestrator documentation.
- Verify that you have added all vCenter Server instances that you want to use for replications, by using the Add vCenter Server workflow. For more information, see the *Configure the Connection to a vCenter Server Instance* topic in the VMware vRealize Orchestrator documentation.

## Installing, Upgrading, and Uninstalling the vSphere Replication Plug-In

You can use the vSphere Replication plug-in after you install it in an vRealize Orchestrator instance. The version of vSphere Replication plug-in must be compatible with your vSphere Replication and vRealize Orchestrator.

### Installing the vSphere Replication Plug-In

You can install the vSphere Replication plug-in if your vRealize Orchestrator instance is configured to work with your vSphere environment.

You must configure vRealize Orchestrator to use the vSphere environment. For information about how to configure your vRealize Orchestrator to work with a vSphere environment, see the *Configuring vRealize Orchestrator* section in the *Installing and Configuring VMware Realize Orchestrator* documentation.

You can download the vSphere Replication plug-in installation .vmoapp file from the download page of vSphere Replication.

You can install the vSphere Replication 8.2 plug-in in VMware vRealize Orchestrator 7.6 by using the [https://your\\_orchestrator\\_server:8283/vco-controlcenter](https://your_orchestrator_server:8283/vco-controlcenter) configuration interface, click **Manage Plug-Ins** and upload the file. For more information about how to manage the vRealize Orchestrator plug-ins, see the *Manage the Orchestrator Plug-Ins* topic in the *Installing and Configuring VMware Realize Orchestrator* documentation.

### Upgrading the vSphere Replication Plug-In

You can upgrade your vSphere Replication plug-in by uninstalling the previous version and installing the new version.

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**Note** After you upgrade the vSphere Replication plug-in, you cannot revert to a previous version without doing a reinstallation.

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## Uninstalling the vSphere Replication Plug-In

For more information about uninstalling the vSphere Replication plug-in, see [Uninstall a Plug-in](#) or VMware knowledge base article <https://kb.vmware.com/s/article/2151653>.

# Using the vSphere Replication Plug-In Workflows

# 4

The vSphere Replication plug-in workflow library contains workflows that you can use to automate vSphere Replication tasks. With the predefined workflows you configure and control replication for virtual machines, add, pair or remove remote sites, run test, recovery, and cleanup to and from cloud sites. You can use the predefined workflows and the scripting API of the plug-in to create custom workflows.

This chapter includes the following topics:

- [Available Workflows in vSphere Replication Plug-In](#)
- [Prerequisites for Using the vSphere Replication Plug-In](#)
- [Remote Site Management Workflows](#)
- [Sync Workflows](#)
- [Configure Replication Workflows](#)
- [Pause Workflows](#)
- [Resume Workflows](#)
- [Stop Replication Workflows](#)
- [Recover to Cloud Workflows](#)
- [Recover from Cloud Workflows](#)
- [Replication Details Workflows](#)

## Available Workflows in vSphere Replication Plug-In

vSphere Replication plug-in provides Remote Site Management and Synchronization workflows, Configure, Pause, Resume and Stop Replication workflows, Recover from and to Cloud workflows, and Replication Details workflows.

**Table 4-1. Remote Site Management Workflows**

Workflow	Description of operation
Pair with a VC Site	Connect and pair local site to a remote vCenter Server site.
Pair with Cloud Site	Connect and pair local site to a remote cloud site.

**Table 4-1. Remote Site Management Workflows (continued)**

<b>Workflow</b>	<b>Description of operation</b>
Login to VC Site	Login to a selected remote vCenter Server site for replications within a single vCenter Server instance.
Register Cloud Site	Register login credentials for a paired cloud site.
Register Standalone Org	Register login credentials for a paired standalone organization.
Register VC site	Register login credentials for a paired vCenter Server site.
Unregister Cloud Site	Delete stored login credentials for a paired cloud site.
Unregister Standalone Org	Delete stored login credentials for a paired cloud site.
Unregister VC Site	Delete stored login credentials for a paired vCenter Server site.

**Table 4-2. Sync Workflows**

<b>Workflow</b>	<b>Description of operation</b>
Full Sync Replication to Cloud	Run initial full synchronization for a replicated virtual machine to cloud site.
Full Sync Replication to VC	Run initial full synchronization for a replicated virtual machine to remote vCenter Server site.
Offline Sync Replication from Cloud	Run offline synchronization for a replicated virtual machine from remote cloud site.
Offline Sync Replication to Cloud	Run offline synchronization for a replicated virtual machine to remote cloud site.
Offline Sync Replication to VC	Run offline synchronization for a replicated virtual machine to remote vCenter Server site.
Sync Replication from Cloud	Run delta synchronization for a replicated virtual machine from remote cloud site.
Sync Replication to Cloud	Run delta synchronization for a replicated virtual machine to remote cloud site.
Sync Replication to VC	Run delta synchronization for a replicated virtual machine to remote vCenter Server site.

**Table 4-3. Configure Replication Workflows**

<b>Workflow</b>	<b>Description of operation</b>
Configure Replication	Configure replication for a virtual machine from local site to a target vCenter Server site.
Configure Replication from Cloud	Configure replication for a virtual machine from target cloud site to local site.
Configure Replication to Cloud	Configure replication for a virtual machine from local site to a target cloud site.
Protect Multiple VMs	Configure replication for multiple virtual machines to target cloud or vCenter Server site.

**Table 4-3. Configure Replication Workflows (continued)**

<b>Workflow</b>	<b>Description of operation</b>
Reverse a Cloud Replication	Reverse replication for a recovered virtual machine on target cloud site.
Reconfigure Replication	Change the settings of a replication, including reconfiguring a replication on new virtual hard disks, excluding disks, and enabling the default seed to use a replica disk in the VM folder.

**Table 4-4. Pause Workflows**

<b>Workflow</b>	<b>Description of operation</b>
Pause Replication from Cloud	Pause replication for a virtual machine from cloud to local site.
Pause Replication to Cloud	Pause replication for a virtual machine from local to target cloud site.
Pause Replication to VC	Pause replication for a virtual machine from local site to remote vCenter Server site.

**Table 4-5. Resume Workflows**

<b>Workflow</b>	<b>Description of operation</b>
Resume Replication from Cloud	Resume replication for a virtual machine from cloud to local site.
Resume Replication to Cloud	Resume replication for a virtual machine from local to cloud site.
Resume Replication to VC	Resume replication for a virtual machine from local site to remote vCenter Server site.

**Table 4-6. Stop Replication Workflows**

<b>Workflow</b>	<b>Description of operation</b>
Stop Replication	Stop replication for a virtual machine from local site to remote vCenter Server site.
Stop Replication from Cloud	Stop replication for a virtual machine from cloud to local site.
Stop Replication to Cloud	Stop replication for a virtual machine from local to cloud site.

**Table 4-7. Recover to Cloud Workflows**

<b>Workflow</b>	<b>Description of operation</b>
Run Planned Migration to Cloud	Migrate a virtual machine from local site to target cloud site.
Run Real Recovery to Cloud	Recover a virtual machine replicated from local site to target cloud site.

**Table 4-7. Recover to Cloud Workflows (continued)**

Workflow	Description of operation
Run Test Cleanup at the Cloud Site	Clean up test recovery results for a replicated virtual machine at the target cloud site.
Run Test Cleanup to Cloud	Clean up test recovery result for a virtual machine replicated to target cloud site.
Run Test Recovery at the Cloud Site	Run a test recovery at the target cloud site for a virtual machine replicated to the target cloud site.
Run Test Recovery to Cloud	Run a test recovery at the local site for a virtual machine replicated to the target cloud site.

**Table 4-8. Recover from Cloud Workflows**

Workflow	Description of operation
Run Planned Migration from Cloud	Migrate a virtual machine from target cloud site to local site.
Run Real Recovery from Cloud	Recover a virtual machine replicated from remote cloud site to local site.
Run Test Cleanup from Cloud	Clean up test recovery results for a replicated virtual machine from remote cloud site to local site.
Run Test Recovery from Cloud	Run a test recovery for a replicated virtual machine from remote cloud site to local site.

**Table 4-9. Replication Details Workflows**

Workflow	Description of operation
Check Replication Status	Retrieves the status of a replication. You can use the replication value as a parameter in another workflow.
Get Replication Configuration	Retrieves the configuration details of a replication. You can use the replication value as a parameter in another workflow.
Get Replication List	Retrieves a list of all the incoming or outgoing replications from a vCenter Server. You can use the replication value as a parameter in another workflow.

## Prerequisites for Using the vSphere Replication Plug-In

To use the vSphere Replication plug-in, your environment must meet certain requirements.

- Before managing the objects in your vSphere inventory by using vRealize Orchestrator and running workflows on the objects, you must configure the vCenter Server plug-in and define the connection parameters between vRealize Orchestrator and the vCenter Server you want to orchestrate. For information about how to configure your vRealize Orchestrator to work with a vSphere environment, see the *Configuring vRealize Orchestrator* section in the *Installing and Configuring VMware Realize Orchestrator* documentation.

- Before running workflows to or from a target site, verify that you have registered the target site with the available workflows under **vSphere Replication > Remote Site Management**.
- Before running workflows to or from a target site, verify that you have added the vCenter Server by running the **Add a vCenter Server Instance** workflow. For more information, see the *vRealize Orchestrator Product Documentation*.
  - While running the **Add a vCenter Server Instance** workflow, deselect the **Session per user** check box.

## Remote Site Management Workflows

With **Remote Site Management** workflows, you can configure the connection between the local site and the remote site managed by a different vCenter Server or the remote cloud site. Before you configure replication tasks to the remote sites, you must pair the local and the remote sites.

### Pair with a vCenter Server Site Workflow

The workflow configures the connection between the local site and a remote vCenter Server site.

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Pair with a VC Site** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

Table 4-10. Pair with a vCenter Server Site Workflow Inputs

Input		Description
Local site	Local site	Local vCenter Server site.
	Local site Lookup Service address	IP address or domain name of the server where the Lookup Service runs.
Remote site	Remote site Lookup Service address	IP address or domain name of the server where the Platform Services Controller of the remote vCenter Single Sign-On domain runs.
	Remote username	Remote vCenter Single Sign-On user.
	Password	Password for the remote vCenter Single Sign-On user.

### Pair with Cloud Site Workflow

The workflow configures the connection between the local site and the target cloud site.

Before you configure replication tasks to the cloud, you must configure the connections between your vSphere environment and virtual data centers that belong to your cloud organizations.

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Pair with Cloud Site** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-11. Pair with Cloud Site Workflow Inputs**

Input		Description
Local Site	Local site	Local vCenter Server site.
Cloud Site	Remote cloud API endpoint address	The IP address of your cloud provider.
	Cloud organization name	Standalone organization name.
	Username for cloud organization	Cloud user credentials.
	Password	

## Log In to a vCenter Server Site Workflow

The workflow performs a login to a selected vCenter Server site for replications within a single vCenter Server instance.

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Login to VC Site** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select a vCenter Server site and click **Run**.

## Register vCenter Server Site Workflow

The workflow registers the login credentials for a remote vCenter Server site.

#### Prerequisites

Verify that the local site is paired with a vCenter Server site. See [Pair with a vCenter Server Site Workflow](#).

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.

- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Register VC Site** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the paired remote vCenter Server site address and click **Run**.

## Register Cloud Site Workflow

The workflow registers the login credentials for a cloud site that is paired with the local site.

### Prerequisites

Verify that the local site is paired with a cloud site. See [Pair with Cloud Site Workflow](#).

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Register Cloud Site** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the paired remote cloud site and click **Run**.

## Register Standalone Organization Workflow

The workflow registers the login credentials for a cloud organization. This workflow does not require the organization to be paired with a local site.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Register Standalone Org** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-12. Register Standalone Organization Workflow Inputs**

Input		Description
Cloud Organization Details	Cloud address	Remote cloud site address.
	Organization name	Name of the cloud organization.
	username	Remote cloud site user.
	password	Remote cloud site user password.

## Unregister Cloud Site Workflow

The workflow removes the stored credentials for a cloud site that is paired with the local site. The workflow does not break the pairing.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Unregister Cloud Site** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the cloud site that you want to unregister and click **Run**.

## Unregister Standalone Organization Workflow

The workflow removes the stored credentials for a registered cloud organization.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Unregister Standalone Org** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the standalone organization that you want to unregister and click **Run**.

## Unregister vCenter Server Site Workflow

The workflow removes the stored credentials for a vCenter Server site paired with the local site. The workflow does not break the pairing.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Unregister VC Site** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the vCenter Server site that you want to unregister and click **Run**.

## Sync Workflows

With synchronization workflows you can replicate data for virtual machines with configured replication between the local site and a remote vCenter Server or cloud sites.

## Full Sync Replication to Cloud Workflow

The workflow runs a full synchronization for a virtual machine with a configured forward replication from the local site to the target cloud site.

### Prerequisites

Verify that the virtual machine for which you want to run a full synchronization is powered on.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Full Sync Replication to Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the replication that you want to sync and click **Run**.

## Full Sync Replication to vCenter Server Workflow

The workflow runs a full synchronization for a virtual machine with a configured forward replication from the local site to the target vCenter Server site.

### Prerequisites

Verify that the virtual machine for which you want to run a full synchronization is powered on.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Full Sync Replication to VC** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the replication that you want to sync and click **Run**.

## Offline Sync Replication from Cloud Workflow

The workflow runs an offline synchronization for a virtual machine with a configured reverse replication from the target cloud site to the local site.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Offline Sync Replication From Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.

- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-13. Offline Sync Replication from Cloud Workflow Inputs**

Input	Description	
Common Parameters	Remote VDC site	Target cloud site.
	Replication to sync	Virtual machine with a configured reverse replication from the target cloud site for which to run the offline synchronization.

## Offline Sync Replication to Cloud Workflow

The workflow runs an offline synchronization for a virtual machine with a configured forward replication from the local site to the target cloud site.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Offline Sync Replication to Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the replication that you want to sync and click **Run**.

## Offline Sync Replication to vCenter Server Workflow

The workflow runs an offline synchronization for a virtual machine with a configured forward replication to the target vCenter Server site.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Offline Sync Replication to VC** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the replication that you want to sync and click **Run**.

## Sync Replication from Cloud Workflow

The workflow runs a delta synchronization for a virtual machine with a configured reverse replication from the target cloud site.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.

- 3 In the search box, enter **Sync Replication from Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-14. Sync Replication from Cloud Workflow Inputs**

Input	Description	
Common Parameters	Remote VDC site	Target cloud site.
	Replication to sync	Virtual machine with a configured reverse replication from the target cloud site for which to run the delta synchronization.

## Sync Replication to Cloud Workflow

The workflow runs a delta synchronization for a virtual machine with a configured forward replication to the target cloud site.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Sync Replication to Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the replication that you want to sync and click **Run**.

## Sync Replication to vCenter Server Workflow

The workflow runs a delta synchronization for a virtual machine with a configured forward replication to the target vCenter Server site.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Sync Replication to VC** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the replication that you want to sync and click **Run**.

## Configure Replication Workflows

With **Configure Replication** workflows in vSphere Replication plug-in, you can configure replication for virtual machines between the local site and remote vCenter Server or cloud sites.

When you configure a virtual machine for replication, vSphere Replication starts an initial configuration task during which the data of the virtual machine is sent to the target site. When you recover the replication, this creates the replica of the virtual machine and data synchronization occurs between the source and the target site. You can set multiple point in time (MPIT) instances in the recovery settings of the selected workflow. vSphere Replication retains a maximum of 24 of snapshot instances of the virtual machine on the target site.

You can configure replications for powered-off virtual machines, but the data synchronization begins when the virtual machine is powered on. When the source virtual machine is powered off, the replication appears in Not active status.

Each vSphere Replication local and remote site pair (A -> B) has four different possible relations. The regular site relations are A -> B and B -> A and the relations within the same vCenter Server are A -> A and B -> B.

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**Note** When you select a remote site in a workflow, it has the same name regardless if it is A -> B (regular local site - remote site pair) or B -> B (pair within the same vCenter Server). Make sure you select the correct site by checking `vcRemoteSite.uri` to get the source site address and `vcRemoteSite.localSiteUri` to get the target site address.

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## Configure Replication Workflow

The workflow configures replication for a virtual machine from the local site to another vCenter Server site.

### Prerequisites

- Verify that the vSphere Replication appliance is deployed at the source and the target sites.
- To enable the quiescing of virtual machines that run Linux guest OS, install the latest version of VMware Tools on each Linux machine that you plan to replicate.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Configure Replication** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-15. Configure Replication Workflow Inputs**

Input		Description
Source	Site	Local vCenter Server site.
	Source VM	Virtual machine to be replicated.
Target	Site	Remote vCenter Server site.
	Target Datastore	Remote datastore to replicate to.

**Table 4-15. Configure Replication Workflow Inputs (continued)**

Input		Description
Replication Settings	RPO in minutes	Recovery point objective in minutes (default value is 240).
	Guest OS quiescing	Enabling OS quiescing improves data consistency, but limits RPO time.
	Network compression	Enabling replication data compression reduces the network bandwidth, but increases CPU utilization.
	Point in time instances	Maximum supported number of snapshots per virtual machine is 24.
	Points in time enabled	Instances per day (multiplied by number of days should not exceed 24)
	Number of days	Number of days for which snapshots are kept.

## Configure Replication to Cloud Workflow

The workflow configures replication for a virtual machine from the local site to a registered cloud site.

If the virtual machine is not powered on, replication is configured but full initial synchronization is completed upon powering on the virtual machine. You cannot run the workflow for a virtual machine which has a configured replication.

### Prerequisites

- Verify that you have configured the connection between your vSphere environment and a virtual data center. For more information on how to pair with a cloud site, see [Pair with Cloud Site Workflow](#).
- Verify that you have registered the login credentials for the cloud site that you want to use. See [Register Cloud Site Workflow](#).

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Configure Replication to Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.

- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-16. Configure Replication to Cloud Workflow Inputs**

Input		Description
Source	Site	Local vCenter Server site.
	Source VM	Virtual machine to be replicated.
Target	Cloud Site	Remote cloud site.
	Use replication seeds	Use virtual machine disk files for initial synchronization.
	A previously imported vApp to use as a replication seed	vApp or virtual machine with imported replication seed.
Replication Settings	RPO in minutes	Recovery point objective in minutes (default value is 240).
	Guest OS quiescing	Enabling OS quiescing improves data consistency, but limits RPO time.
	Network compression	Enabling replication data compression reduces the network bandwidth, but increases CPU utilization.
	Point in time instances	Maximum number of supported snapshots per virtual machine is 24.
	Points in time enabled	Instances per day (multiplied by number of days should not exceed 24)
	Number of days	Number of days for which snapshots are kept.

## Configure Replication from Cloud Workflow

The workflow configures replication for a virtual machine or vApp from a cloud site to the local site.

If the virtual machine is not powered on, replication is configured but full initial synchronization is completed when the virtual machine is powered on. You cannot run the workflow for a virtual machine which has a configured replication.

### Prerequisites

- Verify that you have configured the connection between your vSphere environment and a virtual data center. For more information on how to pair with a cloud site, see [Pair with Cloud Site Workflow](#).
- Verify that you have registered the login credentials for the cloud site that you want to use. See [Register Cloud Site Workflow](#).

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Configure Replication from Cloud** and press **Enter**.

- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-17. Configure Replication from Cloud Workflow Inputs**

Input		Description
Source	Cloud Site	Remote cloud site.
	Source vApp	vApp or virtual machine to be replicated.
Target	Datastore	Local datastore to replicate to.
Replication Settings	RPO in minutes	Recovery point objective in minutes (default value is 240).
	Guest OS quiescing	Enabling OS quiescing improves data consistency, but limits RPO time.
	Network compression	Enabling replication data compression reduces the network bandwidth, but increases CPU utilization.
	Point in time instances	Maximum supported number of snapshots per virtual machine is 24.
	Points in time enabled	Instances per day (multiplied by number of days should not exceed 24)
	Number of days	Number of days for which snapshots are kept.

## Protect Multiple Virtual Machines Workflow

The workflow configures replication for multiple virtual machines from the local site to remote vSphere or cloud site.

If one or all of the selected virtual machines are not powered on, replication is configured but full initial synchronization is completed upon powering on the virtual machines. You can run the workflow with a replicated virtual machine included in the VM array, however the workflow does not reconfigure the replication for that virtual machine. The rest of the virtual machines included in the VM array which are not already replicated are configured for replication.

### Prerequisites

- Verify that you have configured the connection between your local site and the remote vCenter Server or cloud site. For more information, see [Pair with a vCenter Server Site Workflow](#) or [Pair with Cloud Site Workflow](#).
- Verify that you have registered the login credentials for the remote vCenter Server or cloud site that you want to use. See [Register vCenter Server Site Workflow](#) or [Register Cloud Site Workflow](#).

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.

- 3 In the search box, enter **Protect multiple VMs** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-18. Protect Multiple Virtual Machines Workflow Inputs**

Input	Description	
Source	vCenter Server managing the VM to be protected	Local vCenter Server site.
	Select the type of the target site	Type of target site - remote vCenter Server site or cloud site.
	Virtual machine to be replicated	Array of virtual machines to be replicated to the remote site.
Target Site	Site to be used as replication target	Choose available vCenter Server or cloud site depending on the type of target site you selected in the previous step.
Target location	Target vCenter Server site	Datastore to replicate to if target is vCenter Server site.
	Target cloud site	Use replication seeds A previously imported vApp to use as a replication seed
Replication Settings	Guest OS quiescing	Enabling OS quiescing improves data consistency but limits RPO time.
	RPO in minutes	Recovery point objective in minutes (default value is 240).
	Network compression	Enabling replication data compression reduces the network bandwidth, but increases CPU utilization.
	Point in time instances	Maximum supported number of snapshots per virtual machine is 24.
	Points in time enabled	Instances per day (multiplied by number of days should not exceed 24)
	Number of days	Number of days for which snapshots are kept.

## Reverse a Cloud Replication Workflow

The workflow reverses and reconfigures the replication for a virtual machine recovered at the cloud site.

### Prerequisites

Verify that the virtual machine is in the Recovered state and is powered off on the local vCenter Server site.

**Procedure**

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Reverse a Cloud Replication** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-19. Reverse a Cloud Replication Workflow Inputs**

Input	Description	
Replication	Site	Target cloud site.
	Replication	Virtual machine replicated to or from the selected cloud site.

## Reconfigure Replication Workflow

With this workflow, you can change the settings of a replication, including reconfiguring a replication on new virtual hard disks and enabling the default seed to use a replica disk in the VM folder.

**Prerequisites**

- Verify that the vSphere Replication appliance is deployed at the source and the target sites.
- To enable the quiescing of virtual machines that run Linux guest OS, install the latest version of VMware Tools on each Linux machine that you plan to replicate.

**Procedure**

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Reconfigure Replication** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-20. Reconfigure Replication Workflow Inputs**

Input	Description		
Source	Replication	The replication you want to reconfigure.	
Replication Settings	Disks	Use default replication seeds	Use the default virtual machine disk files for an initial synchronization.
		Enabled Disks for Replication	Array of disks to be replicated to the remote site.
		Excluded Disks From Replication	Array of disks to be excluded from the replication to the remote site.

Table 4-20. Reconfigure Replication Workflow Inputs (continued)

Input		Description
	Target Datastore for All Enabled Disks	Remote datastore to replicate to. When you change this datastore, all disks move to the new target datastore.
Details	RPO in minutes	Recovery point objective in minutes (default value is 240).
	Guest OS quiescing	Enabling OS quiescing improves data consistency, but limits RPO time.
	Network compression	Enabling replication data compression reduces the network bandwidth, but increases CPU utilization.
	Point in time instances	Maximum supported number of snapshots per virtual machine is 24.
MPIT	Instances per day (multiplied by number of days should not exceed 24)	Number of snapshots taken per day.
	Number of days	Number of days for which snapshots are kept.

## Pause Workflows

With **Pause** workflows, you can pause replications for virtual machines between the source and the target sites. When a replication is paused, all synchronization calls are blocked and no data is synchronized between the source and the target sites. The replication is not unconfigured and can be resumed.

### Pause Replication to vCenter Server

The workflow pauses the replication for a virtual machine from the local site to a remote vCenter Server site.

#### Prerequisites

Verify that you have a configured replication from the local site to a remote vCenter Server site. See [Configure Replication Workflow](#) or [Protect Multiple Virtual Machines Workflow](#).

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Pause Replication to VC** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the virtual machine for which you want to pause the replication and click **Run**.

## Pause Replication to Cloud Workflow

The workflow pauses the replication for a virtual machine from the local site to a remote cloud site.

### Prerequisites

Verify that you have a configured a replication from the local site to a remote cloud site. See [Configure Replication to Cloud Workflow](#).

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Pause Replication to Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the virtual machine for which you want to pause the replication and click **Run**.

## Pause Replication from Cloud Workflow

The workflow pauses the replication of a vApp or virtual machine from a remote cloud site to the local site.

### Prerequisites

Verify that you have a configured replication from a remote cloud site to the local site. See [Configure Replication from Cloud Workflow](#).

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Pause Replication from Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-21. Pause Replication from Cloud Workflow Inputs**

Input	Description	
Common parameters	Remote VDC site	Remote cloud site.
	Replication to pause	Replicated from cloud site virtual machine or vApp for which to pause replication.

## Resume Workflows

With **Resume** workflows, you can resume paused replications configured between the local site and remote vCenter Server or cloud sites.

### Resume Replication to vCenter Server Workflow

The workflow resumes a paused forward replication to the target vCenter Server site.

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Resume Replication to VC** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the replication that you want to resume and click **Run**.

### Resume Replication to Cloud Workflow

The workflow resumes a paused forward replication to the target cloud site.

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Resume Replication to Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the replication that you want to resume and click **Run**.

### Resume Replication from Cloud Workflow

The workflow resumes a paused reverse replication from the target cloud site.

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Resume Replication from Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.

- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-22. Resume Replication from Cloud Workflow Inputs**

Input	Description	
Common parameters	Remote VDC site	Remote cloud site.
	Replication to resume	Replicated from cloud site virtual machine for which to resume the replication.

## Stop Replication Workflows

With **Stop Replication** workflows, you can stop replications for virtual machines configured between the local and remote vCenter Server or cloud sites. When you stop a replication, the replication is unconfigured and replicated data at the target location is removed.

### Stop Replication Workflow

The workflow stops a forward replication for a virtual machine to a target vCenter Server site.

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Stop Replication** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-23. Stop Replication Workflow Inputs**

Input	Description
Site	Remote vCenter Server site.
Replication	Virtual machine for which replication is stopped.

### Stop Replication to Cloud Workflow

The workflow stops a forward replication from the local site to the target cloud site.

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Stop Replication to Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.

- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-24. Stop Replication to Cloud Workflow Inputs**

Input	Description
Cloud site	Remote target cloud site.
Replication	Virtual machine for which the forward replication is stopped.

## Stop Replication from Cloud Workflow

The workflow stops a reverse replication from a target cloud site to the local site.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Stop Replication from Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-25. Stop Replication from Cloud Workflow Inputs**

Input	Description
Cloud site	Remote cloud site.
Replication	Virtual machine for which the reverse replication is stopped.

## Recover to Cloud Workflows

With **Recover to Cloud** workflows, you can run planned migration, test, and real recoveries to a remote cloud site from the local site. Each workflow runs for a single virtual machine at a time.

### Run Test Recovery to Cloud Workflow

The workflow runs a test recovery on the local site for a virtual machine with a configured forward replication to a cloud site.

The recovery is tested on the local site. You must select a virtual machine with a configured forward replication to the target cloud site. Verify that any previous test recovery results are cleaned before running the workflow. When the workflow finishes, the virtual machine test status is changed and must be cleaned up to run planned migration or real recovery.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.

- 3 In the search box, enter **Run Test Recovery to Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-26. Run Test Recovery to Cloud Workflow Inputs**

Input		Description
Replication	Site	Target cloud site to which the test recovery is run.
	Replication	Virtual machine with a configured forward replication for which the test recovery is run.
Recovery Settings	Power on recovered virtual machine	Select to power on the recovered virtual machine after recovery.
	Synchronize recent changes	Online synchronization of changes to the virtual machine within the RPO period.

## Run Test Recovery at the Cloud Site Workflow

The workflow runs a test recovery on the remote cloud site for a virtual machine with a configured forward replication to the target cloud site.

The workflow runs on the target cloud site. You must run the workflow for a virtual machine with a configured forward replication from the local to the target cloud site.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Run Test Recovery at the Cloud Site** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-27. Run Test Recovery at the Cloud Site Workflow Inputs**

Input		Description
Recovery settings	Replication	Virtual machine with a configured forward replication to the target cloud site for which to run the test recovery.
	Synchronize recent changes	Online synchronization of changes to the virtual machine within the RPO period.
	Power on the recovered virtual machine	Select to power on the recovered virtual machine after recovery.

## Run Test Cleanup to Cloud Workflow

The workflow cleans up test recovery results on the local site for a virtual machine with a configured forward replication to the target cloud site.

The workflow checks the virtual machine test status before running. You must run the workflow for a virtual machine that has been tested for recovery. You must select a virtual machine with a configured forward replication to the target cloud site.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Run Test Cleanup to Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-28. Run Test Cleanup to Cloud Workflow Inputs**

Input		Description
Site	Cloud Site	Target cloud site to which the test recovery is run.
Replication	Replication	Virtual machine with a configured forward replication from the local site to the target cloud site.

## Run Test Cleanup at the Cloud Site Workflow

The workflow cleans up test recovery results on the remote cloud site for a virtual machine with a configured forward replication to the target cloud site.

### Prerequisites

The workflow runs on the target cloud site. You must run a test recovery on the target cloud site for the virtual machine before running the workflow.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Run Test Cleanup at the Cloud Site** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the replication for which you want to run cleanup test recovery and click **Run**.

## Run Planned Migration to Cloud Workflow

The workflow runs a planned migration for a virtual machine with a configured forward replication from the local site to the target cloud site.

You must select a virtual machine with a configured forward replication from the local site to the target cloud site.

### Prerequisites

If you have run test recoveries for the virtual machine that you want to migrate, verify that you have cleaned up the results. You can view the virtual machine test status in the vSphere Replication user interface.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Run Planned Migration to Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-29. Run Planned Migration to Cloud Workflow Inputs**

Input		Description
Replication	Cloud site	Target cloud site to which the virtual machine will be migrated.
	Replication	Virtual machine migrated to the cloud site.
Recovery settings	Power on recovered virtual machine	Select to power on the recovered virtual machine after recovery.
	Guest shutdown (requires VMware Tools)	Select to delay the recovery and give the operational system time to shut down.
	Shutdown timeout in seconds	Specify shutdown timeout in seconds.

## Run Real Recovery to Cloud Workflow

The workflow recovers a virtual machine from the local site to the target cloud site.

You must select a virtual machine with a configured forward replication to the target cloud site.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.

- 3 In the search box, enter **Run Real Recovery to Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-30. Run Real Recovery to Cloud Workflow Inputs**

Input		Description
Recovery Settings	Replication	Virtual machine to be recovered to cloud site.
	Power on the recovered virtual machine	Select to power on the recovered virtual machine after recovery.

## Recover from Cloud Workflows

With **Recover from Cloud** workflows, you can run planned migration, test, and real recoveries from a remote cloud site to the local site. Each workflow runs for a single virtual machine at a time.

### Run Test Recovery from Cloud Workflow

The workflow runs a test recovery on the local site for a virtual machine with a configured reverse replication from the target cloud site.

The recovery is tested on the local site.

#### Prerequisites

- You must select a virtual machine with a configured reverse replication from the target cloud site.
- Verify that any previous test recovery results are cleaned up before running the workflow.

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Run Test Recovery from Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.

- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-31. Run Test Recovery from Cloud Workflow Inputs**

Input		Description
Replication	Cloud site	Target cloud site from which the test recovery is run.
	Replication	Virtual machine with configured reverse replication for which the test recovery is run.
Recovery settings	VM folder	Virtual machine folder on the local vCenter Server in which the virtual machine recovery is tested.
	Resource pool	Resource pool on the local vCenter Server in which the virtual machine recovery is tested.
	Synchronize recent changes	Online synchronization of changes to the virtual machine within the RPO period.
	Power on the recovered virtual machine	Select to power on the recovered virtual machine after recovery.

#### What to do next

The virtual machine test status is changed and must be cleaned up to run planned migration or real recovery.

## Run Test Cleanup from Cloud Workflow

The workflow cleans up test recovery results on the local site for a virtual machine with a configured reverse replication from the target cloud site.

The workflow does not check the virtual machine test status before running. You can run the workflow for a virtual machine which has not been tested for recovery. You must select a virtual machine with a configured reverse replication from the remote cloud site to the local site.

#### Prerequisites

- [Run Test Recovery from Cloud Workflow](#)

#### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Run Test Cleanup from Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.

- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-32. Run Test Cleanup from Cloud Workflow Inputs**

Input		Description
Site	Cloud site	Target cloud site from which the test recovery is run.
Replication	Replication	Virtual machine with configured reverse replication from target cloud site to local site.

## Run Planned Migration from Cloud Workflows

The workflow runs a planned migration of a virtual machine with a configured reverse replication from a remote cloud site to the local site.

You must select a virtual machine with configured reverse replication from the remote cloud site to the local site.

### Prerequisites

If you have run test recoveries for the virtual machine that you want to migrate, verify that you have cleaned up the results. You can view the virtual machine test status in the vSphere Replication user interface.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Run Planned Migration from Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

**Table 4-33. Run Planned Migration from Cloud Workflow Inputs**

Input		Description
Replication	Cloud site	Target cloud site from which the virtual machine is migrated.
	Replication	Virtual machine to be migrated to the local site.
Recovery settings	VM folder	Virtual machine folder on the local vCenter Server in which to migrate VM.
	Resource pool	Resource pool on the local vCenter Server in which to migrate the virtual machine.
	Power on recovered virtual machine	Select to power on the recovered virtual machine after recovery.

Table 4-33. Run Planned Migration from Cloud Workflow Inputs (continued)

Input	Description
Guest shutdown (requires VMware Tools)	Select to delay the recovery and give the operational system time to shut down.
Shutdown timeout in seconds	Specify shutdown timeout in seconds.

## Run Real Recovery from Cloud

The workflow recovers a virtual machine from the target cloud site to the local site.

You must select a virtual machine with a configured reverse replication from the target cloud site. You must select a virtual machine folder and resource pool for the recovered virtual machine which are in the same data center.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Run Real Recovery from Cloud** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

Table 4-34. Run Real Recovery from Cloud Workflow Inputs

Input	Description	
Replication	Cloud site	Target cloud site from which the virtual machine is recovered.
	Replication	Virtual machine to be recovered to the local site.
Recovery settings	VM folder	Virtual machine folder on the local vCenter Server in which to recover the VM.
	Resource pool	Resource pool on the local vCenter Server in which to recover the virtual machine.
	Power on recovered virtual machine	Select to power on the recovered virtual machine after recovery.

## Replication Details Workflows

With the **Replication Details** workflows, you can retrieve information about the status or configuration details of replications. You can retrieve a list of all incoming or outgoing replications

from a source vCenter Server. You can use the results of the workflows as parameters in other workflows.

## Check Replication Status Workflow

The workflow retrieves the status of a replication.

### Prerequisites

Verify that you have a configured replication.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Check Replication Status** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select a replication for which you want to run a verification of the status and click **Run**.

You can view the replication status in the **Value** column of the **Variables** tab of the workflow. You can use the value as a parameter in another workflow.

## Get Replication Configuration Workflow

The workflow retrieves the configuration details of a replication.

### Prerequisites

Verify that you have a configured a replication.

### Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter **Get Replication Configuration** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Select the replication for which you want to retrieve the configuration information and click **Run**.

You can view the replication configuration information in the **Value** column of the **Variables** tab of the finished workflow. You can use the value as a parameter in another workflow.

## Get Replication List Workflow

The workflow retrieves a list of all the incoming or outgoing replications from a vCenter Server.

## Procedure

- 1 Log in to vRealize Orchestrator client as an administrator.
- 2 Navigate to **Workflows > Library**.
- 3 In the search box, enter the **Get Replication List** and press **Enter**.
- 4 Click the workflow and click **Run**.
- 5 Enter the input parameters that the workflow requires, and click **Run**.

Table 4-35. Get Replication List Workflow Inputs

Input	Description
Source VC	Source vCenter Server Site.
Replication direction	Direction of the replication that you want to retrieve.

You can view the list of replications in the **Value** column of the **Variables** tab of the finished workflow. You can use the value as a parameter in another workflow.