

# Upgrading and Migrating VMware vRealize Orchestrator

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vRealize Orchestrator 8.1

You can find the most up-to-date technical documentation on the VMware website at:

<https://docs.vmware.com/>

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# Upgrading and Migrating VMware vRealize Orchestrator

1

*Upgrading and Migrating VMware vRealize Orchestrator* provides information and instructions about upgrading VMware® vRealize Orchestrator standalone or clustered deployments, and migrating to the latest version of vRealize Orchestrator.

## Intended Audience

This information is intended for advanced vRealize Orchestrator or vSphere administrators.

# Upgrading vRealize Orchestrator

# 2

Upgrade vRealize Orchestrator 8.x to the latest product version.

This chapter includes the following topics:

- [Upgrade a Standalone or Clustered vRealize Orchestrator 8.0 Deployment](#)
- [Upgrade a Standalone or Clustered vRealize Orchestrator 8.0.1 Deployment](#)

## Upgrade a Standalone or Clustered vRealize Orchestrator 8.0 Deployment

You can upgrade your vRealize Orchestrator 8.0 deployment to the latest product version by using a mounted ISO image. Upgrading vRealize Orchestrator 7.x or earlier to vRealize Orchestrator 8.x is not supported.

### Prerequisites

Download and mount the ISO image:

- 1 Download the ISO image from the official VMware download site.
- 2 Connect the CD-ROM drive of the vRealize Orchestrator Appliance virtual machine in vSphere. See the *vSphere Virtual Machine Administration* documentation.

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**Note** After connecting the CD-ROM drive, navigate to your vRealize Orchestrator Appliance VM settings page and verify that **Connect At Power On** is enabled.

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- 3 Mount the ISO image to the CD-ROM drive of the vRealize Orchestrator Appliance virtual machine in vSphere. See the *vSphere Virtual Machine Administration* documentation.

### Procedure

- 1 Log in to the vRealize Orchestrator Appliance command line as **root**.
- 2 Run the `blkid` command, and note the device name for the vRealize Orchestrator Appliance CD-ROM drive.

- 3 Mount the CD-ROM drive.

```
mount /dev/xxx /mnt/cdrom
```

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**Important** For clustered vRealize Orchestrator deployments, you must perform steps 2 and 3 on all nodes in the cluster.

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- 4 Run the `vracli upgrade exec -y --prepare --profile lcm --repo cdrom://` command.
- 5 Power off your vRealize Orchestrator nodes.
- 6 Back up your vRealize Orchestrator deployment by taking a virtual machine (VM) snapshot. See [Taking a Snapshot](#).

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**Caution** vRealize Orchestrator 8.x does not currently support memory snapshots. Before taking the snapshot of your vRealize Orchestrator deployment, verify that the **Snapshot the virtual machine's memory** option is disabled.

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- 7 Power on your vRealize Orchestrator deployment.
- 8 To finish the upgrade, run the `vracli upgrade exec` command on one of the nodes in your deployment.

## Results

You have upgraded your vRealize Orchestrator deployment.

# Upgrade a Standalone or Clustered vRealize Orchestrator 8.0.1 Deployment

You can upgrade your vRealize Orchestrator 8.0.1 deployment to the latest product version by using a mounted ISO image. Upgrading vRealize Orchestrator 7.x or earlier to vRealize Orchestrator 8.x is not supported.

## Prerequisites

Download and mount the ISO image:

- 1 Download the ISO image from the official VMware download site.
- 2 Connect the CD-ROM drive of the vRealize Orchestrator Appliance virtual machine in vSphere. See the *vSphere Virtual Machine Administration* documentation.

---

**Note** After connecting the CD-ROM drive, navigate to your vRealize Orchestrator Appliance VM settings page and verify that **Connect At Power On** is enabled.

---

- 3 Mount the ISO image to the CD-ROM drive of the vRealize Orchestrator Appliance virtual machine in vSphere. See the *vSphere Virtual Machine Administration* documentation.

## Procedure

- 1 Log in to the vRealize Orchestrator Appliance command line as **root**.
- 2 Run the `blkid` command, and note the device name for the vRealize Orchestrator Appliance CD-ROM drive.
- 3 Mount the CD-ROM drive.

```
mount /dev/xxx /mnt/cdrom
```

**Important** For clustered vRealize Orchestrator deployments, you must perform steps 2 and 3 on all nodes in the cluster.

- 4 Back up your vRealize Orchestrator deployment by taking a virtual machine (VM) snapshot. See [Take a Snapshot of a Virtual Machine](#).

**Caution** vRealize Orchestrator 8.x does not currently support memory snapshots. Before taking the snapshot of your vRealize Orchestrator deployment, verify that the **Snapshot the virtual machine's memory** option is disabled.

- 5 To finish the upgrade, run the `vracli upgrade exec -y --profile lcm --repo cdrom://` command on one of the nodes in your deployment.

## Results

You have upgraded your vRealize Orchestrator deployment.

## What to do next

Validate that the vRealize Orchestrator Appliance upgrade was successful by navigating to `https://your_vro_FQDN/vco/api/about`. The page should display information about the current vRealize Orchestrator Appliance build, product version, and API version, such as the following:

```
<ns2:build-number>15962410</ns2:build-number>  
<ns2:build-date>2020-04-02T23:00:11Z</ns2:build-date>  
<ns2:version>8.1.0.15962410</ns2:version>  
<ns2:api-version>5.5.2</ns2:api-version>
```

# Migrating vRealize Orchestrator

# 3

You can migrate your existing vRealize Orchestrator 7.x deployment to a vRealize Orchestrator 8.1 environment. Migration is supported only for vRealize Orchestrator 7.x instances authenticated with vSphere.

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**Important** Upgrading vRealize Orchestrator 7.x or earlier to vRealize Orchestrator 8.1 is not supported.

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Migration is supported for vRealize Orchestrator 7.3 or later.

The vRealize Orchestrator migration transfers an external source vRealize Orchestrator configuration to your current vRealize Orchestrator environment, overwriting all existing elements such as workflows, actions, configuration and resource elements, packages, tasks, policies, certificates, plug-ins, and so on.

---

**Note** Migration of embedded vRealize Orchestrator environments to external Orchestrator environments is not supported.

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The migrated vRealize Orchestrator configuration does not include the following data that might affect the target vRealize Orchestrator performance and use.

- The VCAC, VCACCAFE, VCACTest, GEF, Data Management, and Workflow documentation plug-ins of the source vRealize Orchestrator. Aside from workflow runs, all vRealize Orchestrator content associated with these plug-ins is not migrated to the vRealize Orchestrator Client of the target environment.
- Syslog server configuration in the **Logging Integration** page in Control Center.
- Workflow execution logs.
- Dynamic types plug-in configurations.

This chapter includes the following topics:

- [Migrate a Standalone vRealize Orchestrator 7.x to an External vRealize Orchestrator 8.1](#)

## Migrate a Standalone vRealize Orchestrator 7.x to an External vRealize Orchestrator 8.1

You can migrate an external standalone vRealize Orchestrator 7.x instance to a vRealize Orchestrator 8.1 environment. Migration is supported only for vRealize Orchestrator 7.x instances authenticated with vSphere.

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**Important** Upgrading vRealize Orchestrator 7.x or earlier to vRealize Orchestrator 8.1 is not supported.

---

The migration transfers an external standalone vRealize Orchestrator 7.x configuration to your vRealize Orchestrator 8.1 environment. The migration involves overwriting all existing elements in your vRealize Orchestrator 8.1 environment, such as workflows, actions, configuration and resource elements, packages, tasks, policies, certificates, plug-ins, and so on.

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**Note** Migration of clustered vRealize Orchestrator 7.x deployments to vRealize Orchestrator 8.1 is not supported. You can migrate the primary node of your clustered deployment by stopping the services of the replica nodes before you run the migration script.

```
service vco-server stop
service vco-configurator stop
```

---

You perform the migration by using the `vro-migrate` script bundled with the vRealize Orchestrator Appliance.

---

**Note** The migration script stops the vRealize Orchestrator services automatically.

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### Prerequisites

- Migration is supported for vRealize Orchestrator 7.3 or later.
- Download and deploy a vRealize Orchestrator 8.1 environment. See *Download and Deploy the vRealize Orchestrator Appliance* in *Installing and Configuring VMware vRealize Orchestrator*.
- Configure the authentication provider of your target vRealize Orchestrator environment. The authentication provider of the source vRealize Orchestrator instance is not migrated. See *Configuring a Standalone vRealize Orchestrator Server* in *Installing and Configuring VMware vRealize Orchestrator*.
- Back up the target vRealize Orchestrator environment.
- Verify that SSH access is enabled on the source vRealize Orchestrator instance and target vRealize Orchestrator environment. See *Enable or Disable SSH Access to the vRealize Orchestrator Appliance* in *Installing and Configuring VMware vRealize Orchestrator*.
- Verify that the source vRealize Orchestrator database is accessible from the target vRealize Orchestrator environment.

## Procedure

- 1 Log in to the vRealize Orchestrator Appliance command line of your target environment over SSH as **root**.
- 2 To start the migration, run the `vro-migrate` script.
- 3 Follow the command prompts to provide the fully qualified domain name (FQDN) and credentials of the source vRealize Orchestrator instance.
- 4 (Optional) To follow the migration progress, access the migration log:
  - a Log in to your target vRealize Orchestrator Appliance command line over a separate SSH session as **root**.
  - b Run the `tail -f /var/log/vro-migration.log` command.
- 5 (Optional) If you want to access your source vRealize Orchestrator 7.x environment after migration, restart the `vco-server` and `vco-configurator` services on the source system.

## Results

The migration process begins. You receive a notification on the target vRealize Orchestrator Appliance when the migration finishes.

# Additional Migration Requirements for Content Accessing the File System

# 4

Content migrated to the vRealize Orchestrator file system must follow the requirements of the new container-based appliance.

Because the vRealize Orchestrator Appliance is running in a container, it has limitations regarding access to the file system. The `js-io-rights.conf` file still determines if a file is accessible from the vRealize Orchestrator scripting API, but you cannot use arbitrary folders in the file system. The main folder accessible to the vRealize Orchestrator service is `/var/run/vco`. Under the vRealize Orchestrator Appliance file system, this folder is mapped under `/data/vco/var/run/vco`. All local files that access the vRealize Orchestrator scripting API must be moved to the specified main directory. Under the main directory, you can create subdirectories for your content.

For example, if you want to mount an external NFS volume to your vRealize Orchestrator Appliance, you must mount it in `/data/vco/var/run/vco/mount_directory_path`. Afterwards, the vRealize Orchestrator scripting API can access the mounted NFS volume at `/var/run/vco/mount_directory_path`.

## Kerberos Configuration

To use a Kerberos configuration, you can only use the `/data/vco/usr/lib/vco/app-server/conf/krb5.conf` file. For information on Kerberos debug logging, see *Enable Kerberos Debug Logging* in *Installing and Configuring VMware vRealize Orchestrator*.