

Installing, Configuring, and Upgrading vCloud Availability On-Premises

11 APR 2019

VMware vCloud Availability 3.0



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About Installing, Configuring, and Upgrading VMware vCloud Availability On-Premises

1

The *Installing, Configuring, and Upgrading VMware vCloud Availability On-Premises* document provides information on how to install, configure, upgrade and administer the VMware vCloud® Availability solution.

Intended Audience

This information is intended for VMware Cloud Provider Program service providers and experienced system administrators who are familiar with virtual machine technology and data center operations including but not limited to the following areas:

- VMware vSphere®
- VMware vCloud Director®
- VMware vCloud® Availability
- Secure Shell (SSH)
- Bash Scripting

VMware Technical Publications Glossary

VMware Technical Publications provides a glossary of terms that might be unfamiliar to you. For definitions of terms as they are used in VMware technical documentation, go to <http://www.vmware.com/support/pubs>.

Overview of VMware vCloud Availability

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The VMware vCloud Availability solution provides replication and failover capabilities for vCloud Director and vCenter Server workloads at both VM and vApp level.

The service operates through a VMware Cloud Provider Program, and depending on the installation type, it provides recovery for clouds and on-premises environments. The VMware vCloud Availability provides:

- Replication management and monitoring of replications from an on-premises site to a cloud site and back.
- Failback recovered in the cloud workloads to the on-premises site.
- Migration of protected VMs in the cloud site back to the on-premises appliance.
- Self-service protection and failover workflows per virtual machine (VM).
- Single installation package as a Photon-based virtual appliance.
- The capability of each deployment to serve as both source and recovery vCloud Director instance (site). There are no dedicated source and destination sites.
- Symmetrical replication flow that can be started from either the source or the recovery vCloud Director site.
- Replication and recovery of vApps and VMs between vCloud Director sites.
- Using a single-site vCloud Availability installation, you can migrate vApps and VMs between Virtual Data Centers that belong to a single vCloud Director Organization.
- Built-in Secure Tunneling requires no incoming open ports on the on-premises site.
- Integration with existing vSphere environments.
- Multi-tenant support.
- Built-in encryption or encryption and compression of replication traffic.
- Support for multiple vCenter Server and ESXi versions.

This chapter includes the following topics:

- [On-Premises Deployment Architecture](#)

On-Premises Deployment Architecture

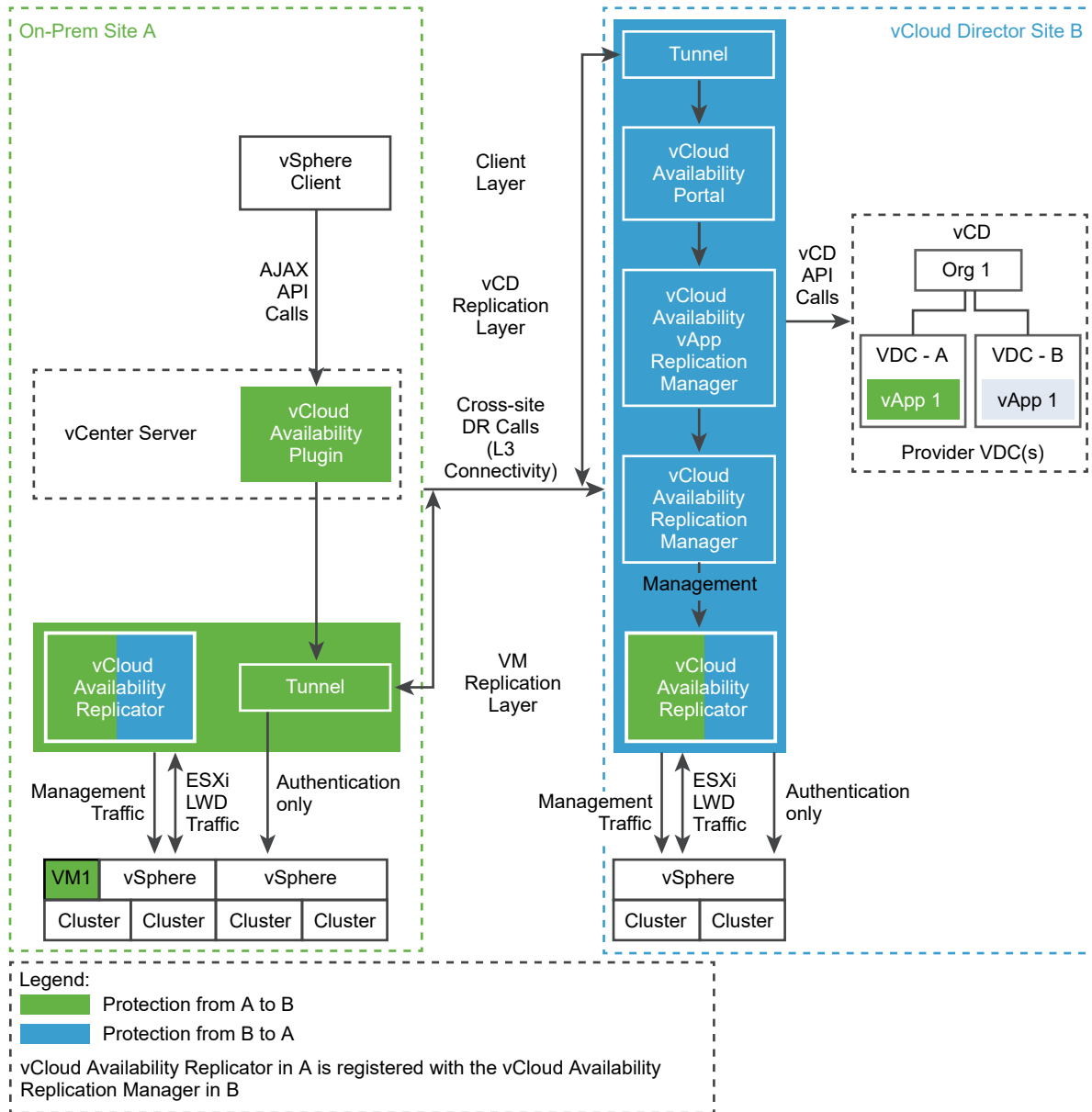
The architecture of the VMware vCloud Availability solution shows replication operations between the on-premises site and the cloud site.

Each organization administrator in a vCenter Server environment can protect or migrate on-premises vSphere workloads to a cloud site and failover the recovered virtual machines from the cloud site back to the on-premises site. vCloud Availability always initiates the network connection from the on-premises site to the cloud site.

On-premises Appliance Deployment

In the on-premises site, vSphere administrators deploy and configure one or more on-premises vCloud Availability appliances. Each appliance contains a vCloud Availability Replicator and a vCloud Availability Tunnel service.

In the diagram, the cells without color show the existing components in your on-premises environment and the colored cells show the vCloud Availability services that you deploy in the vCloud Availability appliance installation and configuration procedures.



Installing and Configuring VMware vCloud Availability On-Premises

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After deploying and setting up a service provider cloud site, you install and configure a vCloud Availability appliance on-premises to enable the replication and the failover capabilities from the on-premises vCenter Server to the cloud and reverse.

This chapter includes the following topics:

- [vCloud Availability On-Premises Network Requirements](#)
- [Deploy an On-Premises vCloud Availability Appliance by Using the vSphere Client](#)
- [Deploy an On-Premises vCloud Availability Appliance by Using the OVF Tool](#)
- [Configure the On-Premises vCloud Availability Appliance](#)
- [Configure Local Placement](#)

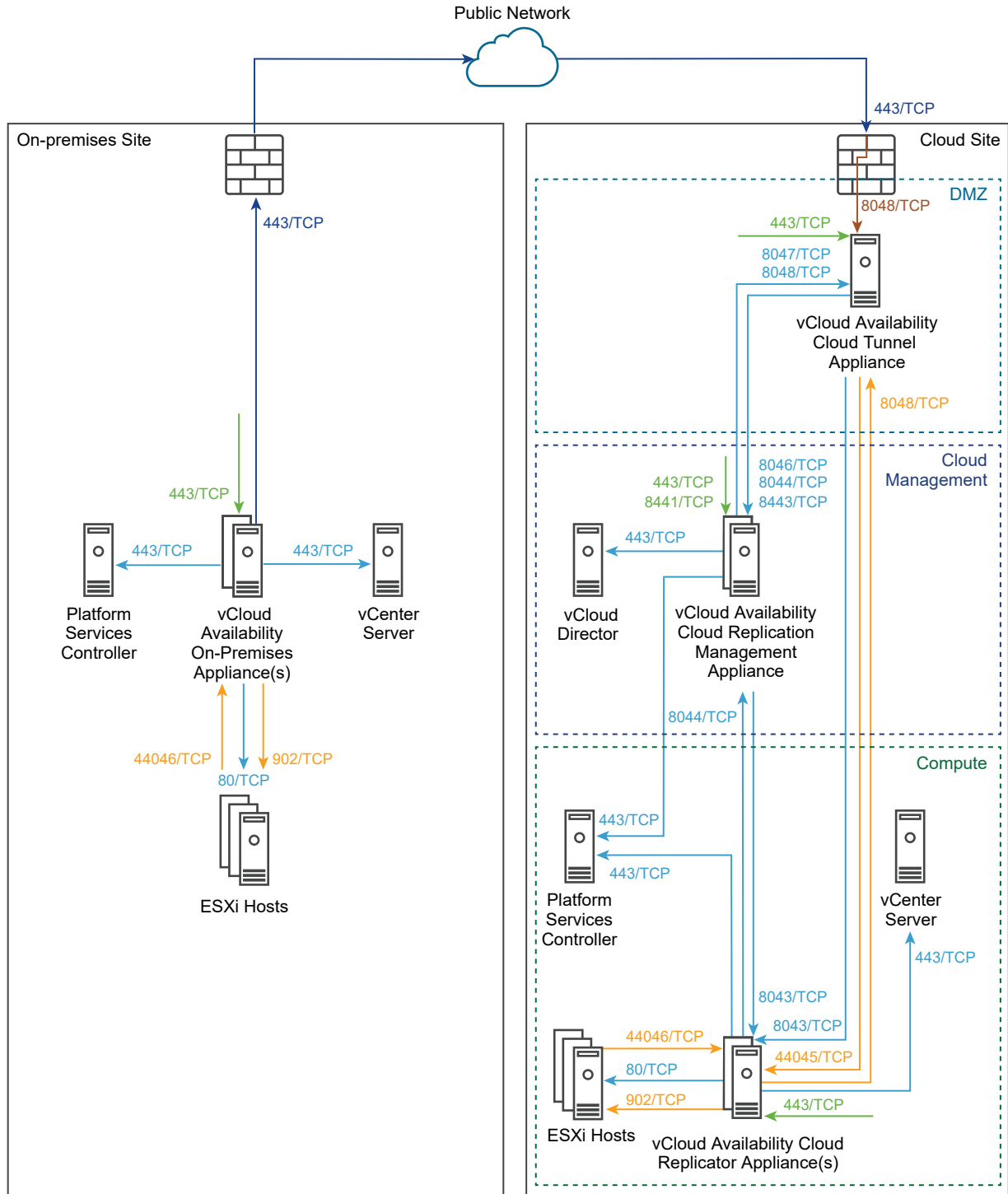
vCloud Availability On-Premises Network Requirements

Before you start deploying and configuring the vCloud Availability on-premises appliance, ensure that the required network ports are opened and allow the communication within the on-premises site and the cloud site.

Network Ports Configuration

For the required network ports to be opened for the vCloud Availability on-premises appliance communication in the-premises site, see [vCloud Availability Network Ports](#).

The following diagram shows the direction of the data flow, the data traffic type, and the required network ports for the communication between the vCloud Availability on-premises appliance and the disaster recovery infrastructure.



Traffic type:

- Replication data traffic
- Administration traffic
- vCloud Availability service management traffic
- DNAT vCloud Availability Public API endpoint:443 to vCloud Availability Tunnel:8048
- Replication data traffic and VMware Cloud Director Availability service management traffic

Deployment Requirements

- In the ESXi hosts, a VMkernel interface can be dedicated for the replication traffic. By default, ESXi handles the replication traffic through its management VMkernel interface. As a good practice, you can separate the management traffic from the replication traffic by creating a dedicated replication VMkernel interface. Use the following tags when creating a VMkernel interface for the replication traffic:
 - Use the vSphere `Replication` tag to configure the ESXi host for the outgoing replication traffic.
 - Use the vSphere `Replication NFC` tag to configure the ESXi host for the incoming replication traffic.

Configure the replication VMkernel interface in its own IP subnet and connect the vCloud Availability on-premises appliance to the same virtual port group. Using this configuration, the replication traffic between the ESXi hosts and the vCloud Availability on-premises appliance stays in the same broadcast domain. As a result, uncompressed replication traffic avoids crossing a router and saves the network bandwidth. For information about configuring a dedicated replication VMkernel interface, see [Set Up a VMkernel Adapter for vSphere Replication Traffic on a Source Host](#) in the vSphere Replication documentation.

- If more than one vCenter Server instances exist in the on-premises site:
 - vCenter Server instances dedicated for management operations
 - vCenter Server instances dedicated for resources

vCloud Availability uses the resource vCenter Server instances to locate and authenticate to resources and create or edit inventory objects. Register the vCloud Availability on-premises appliance with the vCenter Server Lookup service, provided by the Platform Services Controller used by the resource vCenter Server instances.

vCloud Availability Interoperability

Before installing the vCloud Availability on-premises appliance, verify the supported versions of ESXi and vSphere. For the interoperability between vCloud Availability and other VMware products, see [VMware Product Interoperability Matrices](#).

Deploy an On-Premises vCloud Availability Appliance by Using the vSphere Client

In the vSphere Client, you can deploy an on-premises vCloud Availability appliance by using a single OVA file.

Prerequisites

- Download the vCloud Availability 3.0 Appliance for Tenants (On-premise Sites) vCloud-Availability-OnPrem-*release_number-xxx-build_number*_OVF10.ova file, containing the binaries for the VMware vCloud Availability appliance.

- If your vSphere version is earlier than 6.5, install the Client Integration Plug-in to be able to use the **Deploy OVF Template** option in the vSphere Web Client.

Procedure

- 1 Log in to your vCenter Server by using the vSphere Client.
 - 2 Navigate to a target object where you want to deploy the on-premises vCloud Availability appliance. As a target object you can use a data center, a folder, a cluster, a resource pool, or a host.
 - 3 Right-click the target object and from the drop-down menu select **Deploy OVF Template**. The **Deploy OVF Template** wizard opens.
 - 4 On the **Select an OVF template** page, browse to the `VMware-vCloud-Availability-OnPrem-release_number-xxx-build_number_OVF10.ova` file location and click **Next**.
 - 5 On the **Select a name and folder** page, enter a name for the on-premises appliance, select a deployment location, and click **Next**.
 - 6 On the **Select a compute resource** page, select a host, or cluster as a compute resource to run the appliance on, and click **Next**.
 - 7 On the **Review details** page, verify the OVF template details and click **Next**.
 - 8 On the **License agreements** page, select the **I accept all license agreements** check box and click **Next**.
 - 9 On the **Select storage** page, select the virtual disk format and the storage policy for the appliance and click **Next**.
 - 10 On the **Select networks** page, optionally configure the network settings, then click **Next**.
 - 11 On the **Customize template** page, customize the deployment properties of the on-premises appliance and click **Next**.
 - a Enter and confirm the initial password for the appliance **root** user.
You must change the initial **root** user password when you log in for the first time.
 - b (Required) Select the **Enable SSH** check box.
 - c In the **NTP Server** section, enter the NTP server address for the appliance to use.
-
- Important** Ensure that vCenter Server, ESXi, vCloud Director, Platform Services Controller, and the vCloud Availability appliance all use the same NTP server.
-
- 12 On the **Ready to complete** page, review the settings, optionally select **Power on after deployment** and to begin the OVA installation process, click **Finish**.

Results

The **Recent Tasks** pane shows a new task for initializing the OVA deployment. After the task is complete, the new appliance is created on the selected resource.

Deploy an On-Premises vCloud Availability Appliance by Using the OVF Tool

In the OVF Tool console, you can deploy an on-premises vCloud Availability appliance by using a single OVA file. You define deployment parameters in the OVF Tool console and run the deployment script.

Prerequisites

- Download the vCloud Availability 3.0 Appliance for Tenants (On-premise Sites) vCloud–Availability–OnPrem–*release_number-xxx-build_number_OVF10*.ova file, containing the binaries for the VMware vCloud Availability appliance.
- Verify that the OVF Tool is installed and configured.

Procedure

- 1 Log in to a server where the OVF Tool is running, by using a Secure Shell (SSH) client.
- 2 Define deployment parameters in the OVF Tool console by running the following commands.

```
# VMNAME="Name-to-be-Assigned-to-the-VM"

# VSPHERE_DATASTORE="vSphere-datastore"

# VSPHERE_NETWORK="VM-Network"

# OVA="local_client_path/VMware-vCloud-Availability-OnPrem-release_number-xxx-
build_number_OVF10.ova"

# VSPHERE_USER="vCenter-Server-admin-user"

# VSPHERE_USER_PASSWORD="vCenter-Server-admin-user-password"

# VSPHERE_ADDRESS="vCenter-Server-IP-address"

# VSPHERE_LOCATOR="vSphere-locator"
```

- 3 Deploy an on-premises vCloud Availability appliance.

The following example script deploys a vCloud Availability appliance on-premises and sets a static IP address.

```
# echo $VMNAME

#./ovftool/ovftool --name="{VMNAME}" --datastore="{VSPHERE_DATASTORE}" --acceptAllEulas
--powerOn --X:enableHiddenProperties --X:injectOvfEnv --X:waitForIp
--ipAllocationPolicy=fixedPolicy --machineOutput --noSSLVerify
--overwrite --powerOffTarget "--net:VM Network={VSPHERE_NETWORK}" --diskMode=thin
--prop:guestinfo.cis.appliance.root.password='Your-Root-Password'
--prop:guestinfo.cis.appliance.ssh.enabled=True
--prop:guestinfo.cis.appliance.net.ntp='Your-ntp-server-ip-address'
--prop:vami.DNS.VMware_vCloud_Availability='Your-DNS-Server-Address'
--prop:vami.domain.VMware_vCloud_Availability='Your-Domain-Name'
--prop:vami.gateway.VMware_vCloud_Availability='Your-Gateway-IP-Address'
```

```
--prop:vami.ip0.VMware_vCloud_Availability='IP-to-be-Assigned-to-the-Appliance'
--prop:vami.netmask0.VMware_vCloud_Availability='Your-Netmask-Address'
--prop:vami.searchpath.VMware_vCloud_Availability='Your-Search-Path-Address'
"${OVA}" "vi://${VSPHERE_USER}:${VSPHERE_USER_PASSWORD}@${VSPHERE_ADDRESS}:${VSPHERE_LOCATOR}"
```

The console outputs the IP address of the vCloud Availability appliance.

Configure the On-Premises vCloud Availability Appliance

To configure the on-premises appliance, you change the initial **root** user password that you set during the OVA deployment, and register the on-premises appliance with a vCenter Server Lookup service.

Prerequisites

- Install and power on the on-premises vCloud Availability appliance.
- Verify that the cloud provider enabled the replication policy for your organization.
- Obtain the vCloud Availability Public API endpoint address from the cloud provider.

Procedure

- 1 In a Web browser, navigate to **https://On-Prem-Appliance-IP-address/ui/admin**.
- 2 Log in by using the **root** user password that you set during the OVA deployment.

The **Appliance Password** window opens.

- 3 Change the initial **root** user password.
 - a Enter the initial **root** user password set during the OVA deployment.
 - b Enter and confirm a new password.

Create a secured password with a minimum of eight characters and containing at least one of each of the following characters:

- Lowercase: a b c
 - Uppercase: A B C
 - Numeric: 1 2 3
 - Special: & # %
- c Click **Apply**.

The **Getting Started** tab opens.

- 4 Click **Run initial setup wizard**.
The **Initial Setup** wizard opens.
- 5 On the **Site Details** page, enter a **Site Name**, optionally enter a **Site Description**, and click **Next**.
- 6 On the **Lookup service details** page, enter **lookup-service-IP-address**, **single sign-on** user credentials, and click **Next**.

- 7 Accept the SSL certificate of the vCenter Server Lookup service and click **Next**.
- 8 On the **Cloud Details** page, pair the on-premises vCloud Availability appliance and the cloud organization.
 - a Enter the vCloud Availability Public API endpoint address.
 - b Enter the vCloud Director **user@org** user credentials.
 - c (Optional) Select **Allow Access from Cloud**.

By selecting this option you allow the cloud provider and the organization administrators to perform the following operations from the vCloud Availability Portal without authenticating to the on-premises site.

- Discover on-premises workloads and replicate them to the cloud.
- Reverse existing replications to the on-premises site.
- Replicate cloud workloads to the on-premises site.

By leaving this option deselected, only users authenticated to the on-premises vCloud Availability Portal can configure new replications and existing replications cannot be reversed from the vCloud Availability Portal.

- d Accept the SSL certificate of the vCloud Availability Public API endpoint and click **Next**.
- 9 You can optionally join the **VMware Customer Experience Improvement Program**, confirm your choice, and click **Next**.
- 10 On the **Ready to complete** page, optionally select to configure local placement and complete the initial setup wizard by clicking **Finish**.
 - You can configure data center to cloud replications, by leaving **Configure local placement now** deselected.
 - To enable cloud to data center replications, select **Configure local placement now**.

Note For more information, see [Configure Local Placement](#).

The on-premises vCloud Availability appliance is configured and after you log in to the vCloud Availability vApp Replication Manager appliance and navigate to **Sites**, you can see both cloud and on-premises sites available.

What to do next

If you skipped configuring local placement in the initial wizard, you can do that next.

Configure Local Placement

To enable replications between cloud and on-premises sites, you must specify local placement settings.

Follow this procedure if you skipped **Configure local placement now** during the initial setup wizard of the on-premises vCloud Availability appliance.

Procedure

- 1 In a Web browser, navigate to **https://On-Prem-Appliance-IP-address/ui/admin**.
- 2 Log in by using the **root** user password that you changed during the initial setup of the appliance.
- 3 In the left pane, click **Configuration**.
- 4 Under **Site details**, next to **Placement to newly recovered VMs on this site** click **Edit**.
The **Configure Placement** wizard opens.
- 5 On the **VM Folder** page, select the location for storing the recovered virtual machines and click **Next**.
- 6 On the **Compute Resource** page, select the destination compute resource for the recovered virtual machines and click **Next**.
- 7 On the **Default Network** page, select the network that the virtual machines connect to after their failover and click **Next**.

If you skip to select a network, the incoming virtual machine replications are recovered with their NICs disconnected.

- 8 On the **Datastore** page, select the datastore in which to store the virtual machines and their disk files and click **Next**.

Datastore clusters are not supported for the on-premises local placement and the clusters are not listed to select.

- 9 On the **Ready To Complete** page, verify that the selected configuration is correct and click **Finish**.

To view the placement setup summary, expand **Placement to newly recovered VMs on this site**.

What to do next

You can start creating and managing replications from the on-premises site by accessing one of the interfaces:

- Log in to your vCenter Server by using vSphere Client, authenticate with the Single Sign-On administrator credentials and access the on-premises vCloud Availability plug-in. For more information, see *Accessing the vCloud Availability Plug-In* in .
- Navigate to the cloud portal vCloud Availability Public API endpoint and log in by using the organization administrator credentials.

Upgrading VMware vCloud Availability On-Premises

4

After the cloud site is upgraded, you can upgrade the on-premises appliance. Follow the upgrade path and use an upgrade method according to the current vCloud Availability version. Then select a source repository that contains the upgrade files and upgrade the on-premises vCloud Availability appliance.

Upgrade Paths

To upgrade the on-premises vCloud Availability appliance to the latest release, use the following upgrade methods according to the current vCloud Availability version.

Table 4-1. vCloud Availability On-Premises Upgrade Path

Currently Installed vCloud Availability Version	Next vCloud Availability Version	Upgrade Method
vCloud Availability 3.0.x	vCloud Availability 3.0.y	Use the service management interface, see Upgrading vCloud Availability On-Premises by Using the Service Management Interface .
vCloud Availability 3.0	vCloud Availability 3.0.y	Use the on-premises appliance command-line interface, see Upgrading vCloud Availability On-Premises by Using the Command-Line Interface .

Upgrade Repository

To upgrade VMware vCloud Availability on-premises, you can configure the on-premises vCloud Availability appliance to download the upgrade files from the following source repositories.

Repository	Description
Default VMware repository	Use the default repository when your environment allows the external Internet access to the VMware repository.
An ISO image	Use an upgrade ISO file mounted in the virtual appliance CD-ROM drive when your environment does not allow the external Internet access.
A specified repository	Use a specified local repository as a content mirror where you can upload the upgrade files. Use the local repository when your environment does not allow the external Internet access.

This chapter includes the following topics:

- [Upgrading vCloud Availability On-Premises by Using the Command-Line Interface](#)
- [Upgrading vCloud Availability On-Premises by Using the Service Management Interface](#)
- [Configure vCloud Availability On-Premises Post-Upgrade](#)

Upgrading vCloud Availability On-Premises by Using the Command-Line Interface

To upgrade the vCloud Availability on-premises appliance from version 3.0 you must use the appliance command-line interface.

Upgrade vCloud Availability On-Premises from the Command Line by Using the Default VMware Repository

You can upgrade the on-premises vCloud Availability appliance by using the default VMware repository.

Prerequisites

Provide the on-premises vCloud Availability appliance with an external Internet access to the VMware repository.

Procedure

- 1 Connect to the vCloud Availability appliance by using a Secure Shell (SSH) client.
 - a Open an SSH connection to *Appliance-IP-Address*.
 - b Log in by using the **root** user credentials.
- 2 Check for upgrades.

```
/usr/bin/sudo /opt/vmware/bin/vamicli update --check
```

- 3 Install the upgrade.

```
/usr/bin/sudo /opt/vmware/bin/vamicli update --install latest
```

- 4 Read and accept the end-user license agreement.
- 5 Reboot the on-premises vCloud Availability appliance.

```
reboot
```

What to do next

After you upgrade the on-premises vCloud Availability appliance, complete the upgrade with a post-upgrade configuration. For more information, see [Configure vCloud Availability On-Premises Post-Upgrade](#).

Upgrade vCloud Availability On-Premises from the Command Line by Using an ISO Image

You can upgrade the on-premises vCloud Availability appliance by using an ISO image file that contains the upgrade binaries.

Procedure

- 1 Download the vCloud Availability 3.0.x Upgrade Disk Image `VMware-vCloud-Availability-release_number-xxx-build_number.iso` file from the My VMware download site.
- 2 Copy the ISO image file to a datastore that is accessible from the vCenter Server instance that you use with vCloud Availability.
- 3 Mount the ISO image to the on-premises vCloud Availability appliance.
 - a Log in to the vSphere Client in the site where you want to upgrade vCloud Availability.
 - b On the **Home** page, click **Hosts and Clusters**.
 - c Right-click the virtual machine that hosts the vCloud Availability component and select **Edit Settings**.
 - d On the **Virtual Hardware** tab, select **CD/DVD Drive > Datastore ISO File**.
 - e Follow the prompts and add the CD/DVD drive to the vCloud Availability virtual machine and select the **Connected** option.
- 4 Upgrade the on-premises vCloud Availability appliance.
 - a Connect to the on-premises appliance by using a Secure Shell (SSH) client and log in as the **root** user.
 - b Set the virtual CD/DVD drive of the on-premises appliance as a repository that contains the upgrade files.

```
/usr/bin/sudo /opt/vmware/bin/vamicli update --repo cdrom://
```

- c Check for upgrades.

```
/usr/bin/sudo /opt/vmware/bin/vamicli update --check
```

- d Install the upgrade.

```
/usr/bin/sudo /opt/vmware/bin/vamicli update --install latest
```

- e Read and accept the end-user license agreement.
- f Reboot the on-premises vCloud Availability appliance.

```
reboot
```

What to do next

After you upgrade the vCloud Availability appliance, complete the upgrade with a post-upgrade configuration. For more information, see [Configure vCloud Availability On-Premises Post-Upgrade](#).

Upgrade vCloud Availability On-Premises from the Command Line by Using a Specified Repository

You can upgrade the on-premises vCloud Availability appliance by using a specified repository that contains the upgrade binaries.

Prerequisites

Provide the on-premises vCloud Availability appliance with a network access to the specified repository.

Procedure

- 1 Prepare the specified repository for upgrades.
 - a Install and configure a local Web server.
 - b Download the vCloud Availability 3.0.x Upgrade Disk Image VMware-vCloud-Availability-release_number-xxx-build_number.iso file from the My VMware download site.
 - c Mount the ISO image file to a local computer.
 - d From the mounted ISO, copy the update directory containing the manifest and the package-pool sub-directories to the local Web server.
- 2 Upgrade the on-premises vCloud Availability appliance.
 - a Connect to the on-premises appliance by using a Secure Shell (SSH) client and log in as the **root** user.
 - b Use the specified repository as an upgrade source.

```
/usr/bin/sudo /opt/vmware/bin/vamicli update --repo specified-repository-URL
```

- c Check for upgrades.

```
/usr/bin/sudo /opt/vmware/bin/vamicli update --check
```

- d Install the upgrade.

```
/usr/bin/sudo /opt/vmware/bin/vamicli update --install latest
```

- e Read and accept the end-user license agreement.
- f Reboot the on-premises vCloud Availability appliance.

```
reboot
```

What to do next

After you upgrade the on-premises vCloud Availability appliance, complete the upgrade with a post-upgrade configuration. For more information, see [Configure vCloud Availability On-Premises Post-Upgrade](#).

Upgrading vCloud Availability On-Premises by Using the Service Management Interface

To upgrade the vCloud Availability components from version 3.0.x, you can use the service management interface.

- If upgrading from vCloud Availability 3.0, you must follow the [Upgrading vCloud Availability On-Premises by Using the Command-Line Interface](#) procedure.
- If upgrading from vCloud Availability 3.0.x, you can follow the current chapter and use the service management interface for the upgrade.

Upgrade vCloud Availability On-Premises by Using the Default Repository

You can configure the on-premises vCloud Availability appliance to use the default VMware repository for the upgrade.

Procedure

- 1 In a Web browser, navigate to `https://On-Prem-Appliance-IP-address/ui/admin`.
- 2 Install updates.
 - a On the **Configuration** tab, click **Edit** against the **Update repository** entry .
 - b Select **Use Default Repository** and click **Apply**.
 - c Click **Check for update** against the **Product version** entry.
 - d Click **Update** and wait for the update to install.

The appliance restarts automatically.

What to do next

After you upgrade the on-premises vCloud Availability appliance, complete the upgrade with a post-upgrade configuration. For more information, see [Configure vCloud Availability On-Premises Post-Upgrade](#).

Upgrade vCloud Availability On-Premises by Using an ISO Image

You can configure the on-premises vCloud Availability appliance to download the upgrade package from an ISO image file that is mounted to the CD-ROM drive of the appliance.

Procedure

- 1 Download the vCloud Availability 3.0.x Upgrade Disk Image VMware–vCloud–Availability–*release_number–xxx–build_number*.iso file from the My VMware download site.
- 2 Copy the ISO image file to a datastore that is accessible from the vCenter Server instance that you use with vCloud Availability.
- 3 Mount the ISO file to the on-premises vCloud Availability appliance.
 - a Log in to the vSphere Client.
 - b In the Home page, click **Hosts and Clusters**.
 - c Right-click the virtual machine that hosts the vCloud Availability appliance and select **Edit Settings**.
 - d On the **Virtual Hardware** tab, select **CD/DVD Drive > Datastore ISO File**.
 - e Follow the prompts to add the CD/DVD drive to the vCloud Availability virtual machine and select the **Connected** option.
- 4 In a Web browser, navigate to **https://On-Prem-Appliance-IP-address/ui/admin**.
- 5 Install updates.
 - a On the **Configuration** tab, click **Edit** against the **Update repository** entry .
 - b Select the **Use CDRom Updates** option and click **Apply**.
 - c Click **Check for update** against the **Product version** entry.
 - d Click **Update** and wait for the update to install.

The appliance restarts automatically.
- 6 Unmount the ISO image.
 - a In the vSphere Client, shut down the virtual machine that hosts the vCloud Availability appliance.
 - b Right-click the virtual machine and select **Edit Settings**.
 - c In the **Virtual Hardware** tab, select **CD/DVD Drive** and deselect **Connected** and **Connect At Power On**.
 - d Power on the virtual machine.

What to do next

After you upgrade the on-premises vCloud Availability appliance, complete the upgrade with a post-upgrade configuration. For more information, see [Configure vCloud Availability On-Premises Post-Upgrade](#).

Upgrade vCloud Availability On-Premises by Using a Specified Repository

You can configure the on-premises vCloud Availability appliance to use a local repository for the upgrade.

Procedure

- 1 Prepare the local repository for upgrades.
 - a Install and configure a local Web server.
 - b Download the vCloud Availability 3.0.x Upgrade Disk Image `VMware-vCloud-Availability-release_number-xxx-build_number.iso` file from the My VMware download site.
 - c Mount the ISO image and copy the update directory to the local Web server.
The update directory should contain `manifest` and `package-pool` directories.
- 2 In a Web browser, navigate to `https://On-Prem-Appliance-IP-address/ui/admin`.
- 3 Install updates.
 - a On the **Configuration** tab, click **Edit** against the **Update repository** entry .
 - b Select the **Use Specified Repository** option.
 - c Enter the URL address of the local repository by pointing to the update directory of the local Web server.
For example, `http://local-web-server-address/update`.
 - d To authenticate to the repository, enter your user name and password.
 - e Click **Apply**.
 - f Click **Check for update** against the **Product version** entry.
 - g Click **Update** and wait for the update to install.
The appliance restarts automatically.

What to do next

After you upgrade the on-premises vCloud Availability appliance, complete the upgrade with a post-upgrade configuration. For more information, see [Configure vCloud Availability On-Premises Post-Upgrade](#).

Configure vCloud Availability On-Premises Post-Upgrade

After upgrading the on-premises vCloud Availability appliance, complete the upgrade by reconfiguring the on-premises appliance with the vCenter Server Lookup service.

Procedure

- 1 Log in to the on-premises vCloud Availability appliance management interface.
 - a In a Web browser, go to `https://On-Prem-Appliance-IP-address/ui/admin`.
 - b Log in as the **root** user.

- 2 Reconfigure the on-premises vCenter Server Lookup service appliance with the vCenter Server Lookup service.
 - a In the left pane, click **Configuration**.
 - b Under **Service endpoints**, next to **Lookup service address** click **Edit**.
 - c In the **Lookup Service Details** window, enter the single sign-on user name and password, and click **Apply**.
- 3 Verify that the vCloud Availability vSphere Client Plug-In is upgraded.
 - a Log in to your vCenter Server by using the vSphere Client.
 - b From the **Home** menu, select **Administration**.
 - c In the left pane, under **Solutions**, click **Client Plug-Ins**.
 - d On the **Client Plug-Ins** page, verify that under **Version**, vCloud Availability shows the upgraded version.

Results

The on-premises vCloud Availability appliance is successfully upgraded and you can configure new replications. For more information, see *Using vCloud Availability*.