Upgrading VMware Cloud Director Availability

A Natural Partnership

For Tenants

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Introduction
Upgrading your VMware Cloud Director Availability to its most recent version (4.1) enables you to utilize all its latest and greatest features and support integrating it with VMware Cloud Director 10.2.x.

Also, the End of General Support date for 3.5 is approaching (2021-11-14).

Upgrade path
The only supported upgrade path is as follows: **3.5.x → 4.0.2 → 4.1.0**.

Interoperability
To guarantee that you will not experience any issues with your DR and Migration services due to the VMware Cloud Director Availability upgrade, you need to make sure your Cloud Provider is running a compatible version of the VMware Cloud Director Availability on-premises appliance. You can see the supported versions in the table below:

<table>
<thead>
<tr>
<th>VMware Cloud Director Availability On-Premises Appliance</th>
<th>Cloud Site 3.0</th>
<th>Cloud Site 3.5</th>
<th>Cloud Site 4.0</th>
<th>Cloud Site 4.1</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.0</td>
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<td>Supported</td>
<td>Supported</td>
<td>Unsupported</td>
</tr>
<tr>
<td>3.5</td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td>4.0</td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td>4.1</td>
<td>Unsupported</td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
</tr>
</tbody>
</table>

For ensuring the rest of your infrastructure will continue to operate without any disruptions, you can check the VMware Interoperability Matrix:

https://interopmatrix.vmware.com/#/Interoperability?isHideGenSupported=true&isHideTechSupported=true&isHideCompatible=false&isHideIncompatible=false&isHideNTCompatible=false&isHideNotSupported=true&isCollection=false&col=570,3622,4096,4715,4716&row=0

How to obtain the VMware Cloud Director Availability ISO files
To start the upgrade procedure, you need to request the proper ISO files from your provider. You need the following ones:

- VMware-Cloud-Director-Availability-4.0.0.4532-16407624.iso
- VMware-Cloud-Director-Availability-4.1.0.1660207-48e5972493.iso

If you are currently running VMware Cloud Director Availability 3.5.x, you need first to upgrade to 4.0.2. If your version is 4.0.x, you can skip this step.

Upgrade from a repository
Prerequisites
- Connectivity to the repository URL from the VMware Cloud Director Availability appliance host.

Steps for an upgrade from a repository through the UI

3.5.x → 4.0.2
1. Log in to the management interface at https://Appliance-IP-Address/ui/admin.
2. Go to the Configuration menu.
3. At the bottom, in the Version submenu, you will see the current product version and the repository.
4. Click **Edit** on the **Update repository** setting and select the **Use Specified Repository** option.

5. Enter the repository URL and username/password (only if required, otherwise leave blank).

**Update Repository**

![Update Repository](image)

**Figure 2 - Change repository**

6. Click **Apply**.

7. To start the upgrade process, click on **Check for update**.

8. After a few seconds, you will see that an update is available.

**Version**

<table>
<thead>
<tr>
<th>Product version</th>
<th>3.5.2.1642195-e6c2260d</th>
<th>Check for update</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update repository</td>
<td><a href="https://vapp-updates.vmware.com/vai-catalog/vmwm/00ce3011-d8b-48c7-bd2e-077f034c9649/2.5.2.1642195-update">URL</a></td>
<td>Edit</td>
</tr>
</tbody>
</table>

**Figure 3 - Updates check**

9. Click on **Update**.

10. The window will indicate that version 4.0.0.4532 will be installed. Click on **Apply**.

11. Scroll to the bottom and accept the End User License Agreement.

12. Click on **Apply**.

13. The upgrade will start, and VMware Cloud Director Availability will be unaccessible while it finishes. Do NOT close the browser window.

14. Once it is completed, the page will be automatically reloaded. Clear the browser cache, reload the page, and you will be able to log in again.
4.0.2 → 4.1.0

1. Log in to the management interface at https://Appliance-IP-Address/ui/admin.

2. Navigate again to the Configuration menu to verify that the version has changed.

3. To proceed with the upgrade to 4.1, click on Check for updates.

4. Select Use Specified Repository, enter the repository URL and click Next.

5. Select version 4.1.0.XXXX and click Next.

6. Accept the End User License Agreement by clicking Next.

7. Click Finish to finalize the process.

8. The upgrade will start, and VMware Cloud Director Availability will be unaccessible while it finishes. Do NOT close the browser window.

9. Once it is completed, the page will be automatically reloaded. Clear the browser cache, reload the page, and you will be able to log in again.

10. Navigate to the Settings menu to verify that the version has changed.

Figure 4 - VMware Cloud Director Availability version

Figure 5 - Change repository

Figure 6 - Select version for upgrade

Figure 7 - VMware Cloud Director Availability version after a successful upgrade
Steps for an upgrade from a repository through the command-line

3.5.x → 4.0.2
1. Connect to the appliance host through SSH and log in as root.
2. Specify the desired repository URL and webserver username/password (only if required) with the following command:
   ```
   sudo /opt/vmware/bin/vamicli update --repo "http://172.26.46.251/40/update/" --user "upgrade" --password "upgrade"
   ```
3. The output should look like this:

   ![Figure 8 - Change repository command-line output](image)

4. Check for updates with the following command:
   ```
   sudo /opt/vmware/bin/vamicli update --check
   ```
5. The output should look like this:

   ![Figure 9 - Check for updates from command-line](image)

6. Install the update with the following command:
   ```
   sudo /opt/vmware/bin/vamicli update --install latest --accepteula
   ```
7. After the upgrade is done, you will be disconnected from your SSH session due to a reboot.
8. Once the VM is accessible again, you can open the management interface and log in.
9. Verify that the version has changed under Version in the Configuration menu.

   ![Figure 10 - VMware Cloud Director Availability version](image)

4.0.2 → 4.1.0
The only option for upgrading VMware Cloud Director Availability 4.0.2 to 4.1.0 through the command-line is using an ISO file. There is no option for a different repository.

You can perform the upgrade through the UI (Upgrade steps for an online upgrade through the UI), or you can download the VMware Cloud Director Availability 4.1.0 upgrade disk ISO file and proceed with an offline upgrade through the command-line(Upgrade steps for an offline upgrade through the command line).

Upgrade from an ISO file
Prerequisites
- VMware Cloud Director Availability 4.0.2 and 4.1.0 update disk ISO files. See the How to obtain ISO files for more information.
The downloaded ISO files need to be uploaded to a Datastore accessible by the VMware Cloud Director Availability hosts so they can be mounted to their CD/DVD drive.

Steps for an upgrade from an ISO file through the UI

3.5.x → 4.0.2

1. Log in to the management interface at https://Appliance-IP-Address/ui/admin.
2. Go to the Configuration menu.
3. At the bottom, in the Version submenu, you will see the current product version and the repository.

4. Change the repository to CDROM by clicking Edit.

5. To start the upgrade process, click on Check for update.
6. After a few seconds, you will see that an update is available.

7. Click on Update.
8. The window will indicate that version 4.0.0.4532 will be installed. Click on Apply.
9. Scroll to the bottom and accept the End User License Agreement.
10. Click on Apply.
11. The upgrade will start, and VMware Cloud Director Availability will be unaccessible while it finishes. Do NOT close the browser window.
Upgrading VMware Cloud Director Availability

12. Once it is completed, the page will be automatically reloaded. Clear the browser cache, reload the page, and you will be able to log in again.

**4.0.2→4.1.0**

1. Log in to the management interface at [https://Appliance-IP-Address/ui/admin](https://Appliance-IP-Address/ui/admin).

2. Navigate again to the **Configuration** menu to verify that the version has changed.

3. To proceed with the upgrade to 4.1, click on **Check for updates**.

4. Select **Use CDROM Updates** and click **Next**.

5. Select version **4.1.0.XXXX** and click **Next**.

6. Accept the **End User License Agreement** by clicking **Next**.

7. Click **Finish** to finalize the process.

8. The upgrade will start, and VMware Cloud Director Availability will be unaccessible while it finishes. Do NOT close the browser window.

9. Once it is completed, the page will be automatically reloaded. Clear the browser cache, reload the page, and you will be able to log in again.

10. Navigate to the **Settings** menu to verify that the version has changed.
Steps for an upgrade from an ISO file through the command-line

\[3.5.x \rightarrow 4.0.2\]
1. Mount the VMware Cloud Director Availability 4.0.2 ISO file to the appliance host CD/DVD drive through the vSphere Client and make sure the drive is connected.
2. Connect to the appliance host through SSH and log in as root.
3. Change the repository to CDROM with the following command:
   ```bash
   sudo /opt/vmware/bin/vamicli update --repo cdrom://
   ```
4. The output should look like this:
   ![Figure 18 - Change the repository through the command-line](image)

5. Check for updates with the following command:
   ```bash
   /usr/bin/sudo /opt/vmware/bin/vamicli update --check
   ```
6. The output should look like this:
   ![Figure 19 - Check for updates through the comand-line](image)

7. Install the update with the following command:
   ```bash
   sudo /opt/vmware/bin/vamicli update --install latest --accepteula
   ```
8. After the upgrade is done, you will be disconnected from your SSH session due to a reboot.
9. Once the VM is accessible again, you can open the management interface and log in.
10. Verify that the version has changed under Version in the Configuration menu.

\[4.0.2 \rightarrow 4.1.0\]
1. Mount the VMware Cloud Director Availability 4.1.0 ISO file to the appliance host CD/DVD drive through the vSphere Client and make sure the drive is connected.
2. Connect to the appliance host through SSH and log in as root.
3. Mount the ISO file to the guest OS with the following command:
   ```bash
   mount /mnt/cdrom
   ```
4. Review the End User License Agreement with the following command:
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5. Click q to accept it.
6. Install the update with the following command:
   
   `python3 /mnt/cdrom/update/iso-upgrade.py eula | less`

7. When the installation is done, reboot the system with the following command:
   
   `reboot`

8. Once the VM is accessible again, you can open the management interface and log in.

9. Navigate to the Settings menu to verify that the version has changed.

Note: If you encounter any problems with the upgrade, please check /var/log/upgrade.log.

Post-upgrade procedures

1. Perform a backup of all the VMware Cloud Director Availability appliances. You can find more information about the backups at:
   

Changelog

<table>
<thead>
<tr>
<th>Date</th>
<th>Release</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 21</td>
<td>1.0</td>
<td>Initial release that covers upgrade path from VMware Cloud Director Availability 3.5 to 4.1</td>
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