

# Application Services Troubleshooting

vRealize Automation 6.2



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# Application Services Troubleshooting

*Application Services Troubleshooting* provides procedures for troubleshooting problems that might occur when you provision application deployments to a cloud environment.

## Intended Audience

This information is intended for anyone who wants to troubleshoot problems such as common errors, deployment failures, update process failures, and LDAP errors in the product. This audience includes application infrastructure administrators and application deployers who work in collaboration with application architects and cloud administrators.

# Updated Information

This *Application Services Troubleshooting* guide is updated with each release of the product or when necessary.

This table provides the update history of the *Application Services Troubleshooting* guide.

Revision	Description
001651-01	Minor editorial changes.
001651-00	Initial 6.2 release.

# Collecting Logs to Troubleshoot Failures

1

Application Services creates virtual machine-specific logs and an overall deployment log to aid in troubleshooting.

You can use the log pages in the Application Services user interface to find and correct some problems on your own. If a technical support representative requests more logs, you can retrieve them from the file system of the Application Services virtual appliance or the virtual machines that were created as part of an application deployment.

This chapter includes the following topics:

- [Retrieve Logs from the User Interface](#)
- [View Failed Virtual Machine Tasks](#)
- [Collect Logs from the Application Services Appliance](#)
- [Retrieve Logs for API Calls](#)
- [Collect Log Files from Deployed Virtual Machines](#)

## Retrieve Logs from the User Interface

With Application Services, you can use the user interface to copy the action script logs.

### Prerequisites

- Verify that you have access to the virtual machine where Application Services is installed and have the password for logging in with the `darwin_user` user account. This password was set during installation. See the *Using Application Services* documentation.
- Verify that you have credentials for logging in to the Linux-based virtual machine with root privileges or a Windows-based virtual machine with administrator privileges.

### Procedure

- 1 On the Application Services title bar, click the drop-down menu and select **Deployments**.
- 2 Click the name of the deployment and expand the **Execution Plan** status window.
- 3 (Optional) If the node is clustered, click the **Expand Cluster** button .
- 4 On the failed node, click the **View Task Information** button (▼).

- 5 From the drop-down menu, select **View Virtual Machine Logs** and copy all of the text in the log window.

#### What to do next

You can paste the log into a text file or email, or create a bug report to send it to a technical support engineer.

## View Failed Virtual Machine Tasks

You can use the Application Services user interface to view and troubleshoot failed tasks on a specific virtual machine.

#### Prerequisites

- Verify that you have access to the virtual machine where Application Services is installed and have the password for logging in with the `darwin_user` user account. This password was set during installation. See the *Using Application Services* documentation.
- Verify that you have credentials for logging in to the Linux-based virtual machine with root privileges or a Windows-based virtual machine with administrator privileges.

#### Procedure

- 1 On the Application Services title bar, click the drop-down menu and select **Deployments**.
- 2 Click the name of the deployment and expand the **VM Details** status window.
- 3 Locate the virtual machine and click the icon in the Log column.

#### What to do next

You can copy and paste the virtual machine log file to a text file or email, or create a bug report to send the log file to a technical support engineer.

## Collect Logs from the Application Services Appliance

You can access the `catalina.out` log file or the local host log file from the Application Services appliance.

#### Prerequisites

- Verify that you have credentials for logging in to the Linux-based virtual machine with root privileges or a Windows-based virtual machine with administrator privileges.

#### Procedure

- 1 Log in to the virtual machine.
- 2 Send `catalina.out` or `localhost.{$date}.log` output from the `/home/darwin/tcserver/darwin/logs` directory.

**What to do next**

Send the logs to a technical support representative.

## Retrieve Logs for API Calls

You can retrieve detailed logs for API calls made to the vCloud Director and Amazon EC2 back end from Application Services.

**Prerequisites**

Verify that you have access to the virtual machine where Application Services is installed and have the password for logging in with the `darwin_user` user account. This password was set during installation. See *Using Application Services*.

**Procedure**

- 1 Log in to Application Services.
- 2 Open the virtual machine and access the `logback.groovy` file in the `/home/darwin/tcserver/darwin/webapps/darwin/WEB-INF/classes` directory.
- 3 Locate the comment line `<!-- Begin - Cloud Provider Config -->` and navigate to the `<logger> ... </logger>` section.
- 4 Change the value attribute for the level tag from **OFF** to **DEBUG**.
- 5 Restart the Application Services server.

```
sudo service vmware-darwin-tcserver restart
```

**What to do next**

Access the API call logs from the `/home/darwin/tcserver/darwin/logs` directory.

## Collect Log Files from Deployed Virtual Machines

You can collect the log files of a virtual machine that was created as part of an application deployment from the directory where the temporary files are stored.

**Prerequisites**

Log in to a Linux-based virtual machine with root privileges or a Windows-based virtual machine with administrator privileges.

**Procedure**

- 1 Copy all of the log files on the deployed virtual machine.

Option	Action
Linux-based virtual machine	Navigate to the <code>/opt/vmware-appdirector/agent/log</code> directory.
Windows-based virtual machine	Navigate to the <code>\opt\vmware-appdirector\agent\log</code> directory.

- 2 Open the directory where the temporary files are stored.

This directory contains several log files relating to application components.

<b>Option</b>	<b>Action</b>
<b>Linux-based virtual machine</b>	Navigate to the <code>/tmp/runid</code> subdirectory and tar the subdirectory.
<b>Windows-based virtual machine</b>	Navigate to the <code>\Users\darwin\AppData\Local\Temp</code> subdirectory.

#### **What to do next**

Send the log files to a technical support representative.

# Troubleshooting Common Errors During Deployment

# 2

If an application deployment fails, the deployment summary page shows a reason for the failure. For the most common errors, you can correct the problem and redeploy the application.

See [Chapter 3 Troubleshooting Common Errors During an Update Process](#).

This chapter includes the following topics:

- [Application Services Agent Bootstrap Problems Cause Deployment Error](#)
- [A Task in the Execution Plan Failed](#)
- [Deployment Failed But Task Still Running](#)
- [Deployment in Progress Indefinitely](#)
- [Custom Task in Progress Indefinitely](#)
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- [PowerShell Background Job Is Unresponsive](#)
- [Cannot Extract Files to the Windows System Directory](#)
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- [Deployment to the Amazon EC2 Environment Fails](#)
- [Continuous Deployments to Amazon EC2 Causes Error](#)

## Application Services Agent Bootstrap Problems Cause Deployment Error

Application Services agent bootstrap problems causes a deployment to fail.

### Problem

One of the following error messages appears when you deploy or update an application to the cloud environment and the deployment or update process fails.

- ```
Run failed due to failure of task (node name, agent_bootstrap).
```
- ```
Agent did not respond while running task agent_bootstrap on the node LoadBalancer. Please check the agent logs located at /opt/vmware-appdirector/agent/logs/ on the VM LoadBalancer
Agent did not respond while running task agent_bootstrap on the node
```

In the Event Viewer of the Windows-based virtual machine, another error message appears.

```
A timeout was reached (30000 milliseconds) while waiting for the VMware vCloud Application Director agent bootstrap service service to connect.
```

- During the deployment or update process, an error appears if the password in the template expired.

```
The VMware vCloud Application Director agent bootstrap service failed to start due to the following error:
The service did not start due to a logon failure.
```

### Solution

The deployment failed because of one of the following reasons.

Cause	Solution
Agent bootstrap script is not present on the virtual machine template. See <i>Using Application Services</i> .	View the Application Services agent logs. <ul style="list-style-type: none"> <li>For a deployed Linux-based virtual machine, navigate to the <code>/opt/vmware-appdirector/agent/Logs</code> directory.</li> <li>For a Windows-based virtual machine, navigate to the files at <code>\opt\vmware-appdirector\bootstrap.log</code> and <code>\windows\system32\darwin-agentDate.log</code>.</li> </ul>
Application Services does not limit the amount of memory that you can allocate for virtual machines during deployment. Insufficient memory allocation might disrupt the virtual machine operating system boot sequence.	Resolve the resource allocation problem. <ul style="list-style-type: none"> <li>Increase the CPU or RAM resources on the virtual machine.</li> <li>For specific hardware and system requirements, see the operating system documentation.</li> <li>Deploy the application to a cloud environment with adequate resources.</li> </ul>
The agent bootstrap service on the Windows-based virtual machine does not restart within the 30 seconds limit causing a time out error message.	For the Application Services agent bootstrap service, set the Windows Recovery actions for the First failure, Second failure, and Subsequent failures to <b>Restart the Service</b> .
The darwin user password within the template has expired.	Update the darwin user password in the template. You can also create a password that does not expire.
Agent does not have network connectivity with the Application Services server and provisioned virtual machine.	Run network diagnostics to verify that you can ping the Application Services server from the virtual machine.
The NAT networking rules are not configured properly on the routed organization network in vCloud Director.	For the routed organization network, see the vCloud Director documentation to configure SNAT rules.
On Linux operating systems, the vCloud Automation Center guest agent service did not start.	<ol style="list-style-type: none"> <li>Change directory to the vCloud Automation Center guest agent service <code>cd/usr/share/gugent . ./rungugent.sh rpm -qa   grep dmidecode.</code></li> <li>Install the missing dmidecode package <code>rpm -i dmidecode-2.11-2.e16.x86_64.rpm/dmidecode-2.11-2.e16.i686.rpm .</code></li> </ol>

## A Task in the Execution Plan Failed

During an application deployment, one of the tasks in the execution plan failed.

### Problem

When a task fails during deployment the following error message appears.

```
Run failed due to failure of task (NodeName,TaskName).
```

## Cause

An execution plan task might fail for one of the following reasons.

- A property of type content is not set to a valid URL. The agent log displays the following message:

```
Exception while running task (<node name>,<task name>), message Cannot fetch
content, url http://192.0.2.255:8443/darwin/api/file/download/123 is not
accessible or invalid. cause IOException: Server returned HTTP response code:
500 for URL: http://192.0.2.255:8443/darwin/api/file/download/123 Run failed
due to failure of task (<node name>,<task name>)
```

- A property name contains hyphens and other characters that are not valid for shell scripts.
- The repository URL is not set to the correct operating system version.
- Action scripts might need Java installed on the cloud template and Java is not installed in the cloud template.

## Solution

- 1 Expand the **Execution Plan** status window on the deployment summary page and identify the task that failed.
- 2 If the node is clustered, click the **Expand Cluster** button () first.
- 3 Click the **View Task Information** button () and select **View Virtual Machine Logs** from the drop-down menu.
- 4 If the task log does not indicate the failure, examine the agent logs in the deployed virtual machine.

Option	Action
Linux-based virtual machine	Navigate to the <code>/opt/vmware-appdirector/agent/log</code> directory.
Windows-based virtual machine	Navigate to the <code>\opt\vmware-appdirector\bootstrap.log</code> and <code>\windows\system32\darwin-agentDate.log</code> files.

## Deployment Failed But Task Still Running

An application deployment has failed but a task is still running in the execution deployment summary.

### Problem

Task is still running in a failed deployment. This problem does not generate an error message.

### Cause

In some cases, one of the tasks in the application deployment is running. At the same time, another task fails to deploy. Application Services immediately marks the entire deployment as failed. The task that is in progress continues to run until it finishes or times out.

### Solution

- 1 Expand the **Execution Plan** status window on the deployment summary page.

- 2 Diagnose the cause of the long running task and fix the application blueprint.

If you do not do so, network connectivity problems might occur.

- 3 If the problem is intermittent, you can tear down the failed deployment from the cloud.

See *Using Application Services*.

## Deployment in Progress Indefinitely

An application deployment is in progress indefinitely and does not show either a pass or fail deployment status.

### Problem

Deployment is running indefinitely. This problem does not generate an error message.

### Cause

The process may be hung for some reason. There may be a loss of connection with the Tomcat service, the server restarts during a deployment process, or the agent bootstrap fails.

This problem does not occur for all connection failures. It happens based on the state of the deployment when the connection failure occurred.

---

**Note** If the deployment status does not change to STOPPED in a reasonable amount of time, the process may be hung, in which case you can force a hard stop by clicking **Stop** again. Clicking **Stop** a second time forces the deployment to stop immediately without completing the normal sequence of events employed by the stop process. You are prompted to confirm this action by clicking **OK**. Only force the process to stop if the deployment status has not changed to STOPPED after an unreasonably long time.

---

When you stop a deployment normally, currently running processes are stopped gracefully. When you force a stop, the deployment is stopped abruptly and currently running processes remain running. In either case, the associated VMs are not cleaned up.

### Solution

- 1 Expand the **Execution Plan** status window on the deployment summary page.
- 2 Diagnose the cause of the long-running task and fix the application blueprint or network connectivity problems.
- 3 If the problem persists, stop the deployment by clicking **Stop** and waiting for the deployment status to change to STOPPED.

This action gracefully stops the deployment and its related processes and marks the deployment as failed without stopping provisioning so that you can interact with the application. See *Using Application Services*.

- 4 If the deployment fails to stop (fails to return a STOPPED status) within a reasonable amount of time, you can force the deployment to stop by clicking **Stop** again and confirming the action when prompted.

This action immediately stops the deployment and leaves its associated processes running.

- 5 If the problem is intermittent, you can tear down the failed deployment from the cloud.

See *Using Application Services*.

## Custom Task in Progress Indefinitely

An application deployment with one or more custom tasks is in progress indefinitely and the vCloud Director deployment cannot be stopped from vCloud Automation Center Application Services.

### Problem

A custom task is running indefinitely and the deployment cannot be stopped. This problem does not generate an error message.

### Cause

The deployment cannot be stopped because a custom task has an infinite loop or is running a long process.

### Solution

- 1 In vCloud Director, stop the vApp corresponding to the deployment.

You can also reclaim the cloud resources from the vCloud Director application, if you have the appropriate privileges and delete the vApp corresponding to the deployment.

- 2 In the **Deployment Profile** wizard, verify that the custom tasks have names and redeploy the application.

See the *Using VMware vCloud Automation Center Application Services* guide.

- 3 If the problem persists, cancel the deployment.

This action marks the deployment as failed without stopping tasks so that you can interact with the application. See the *Using VMware vCloud Automation Center Application Services* guide.

## Join Domain Custom Task Fails to Run

The installation life cycle stage fails when you deploy an application on a Windows virtual machine configured to join a domain during deployment.

### Problem

The Join Domain installation life cycle stage fails during deployment.

### Cause

The domain name begins with darwin.

This is also a known issue in the Microsoft SQL Server installation program.

### Solution

- Rename the domain without using darwin as the prefix.
- Create or update a Windows template.
  - a Name the bootstrap service account something other than darwin.
  - b Configure the service to run as that account.

## Deployment Fails with a Timeout Error

One or more custom tasks or action scripts run indefinitely and the deployment fails with a timeout error.

### Problem

A custom task is running indefinitely and the deployment fails with a timeout error.

### Cause

Processes prompting for user interaction might pause the custom task or action script.

### Solution

- ◆ Close all of the processes that prompt for user interaction before running a custom task or action script.

## Error in the vCloud Director Cloud Environment

An application deployment to the vCloud Director cloud environment fails and an error message appears.

### Problem

An error occurred in the cloud: `com.vmware.darwin.cal.api.exceptions.CALOperationException: createVapp: Unable to perform this action. Contact your cloud administrator.`

### Cause

The deployment failed because of one of the following reasons.

- The virtual machine template used for deployment is not correct.
- The virtual machines cannot be created in the cloud environment.
- The password in the virtual machines cannot be set.

### Solution

- ◆ Follow the instructions for creating a vCloud Director custom virtual machine template in *Using Application Services*. If you are using a predefined template, contact your vCloud Director administrator to verify that the template is correctly uploaded to the cloud.

## Cloud Template EULA Not Accepted

The vCloud Director cloud templates do not require a EULA for application provisioning.

### Problem

Error in vCloud: The EULA of the entity must be accepted for it to be instantiated.

### Cause

The **Create EULA** option is enabled.

### Solution

- ◆ In the vCloud Director user interface, disable the **Create EULA** check box, because cloud templates should not have EULAs.

## Virtual Machines Cannot be Created in the vCloud Director Environment

New virtual machines for a *Using Application Services* application deployment cannot be created because the default virtual machine limit for the cloud environment is exceeded.

### Problem

Error in vCloud: The operation was aborted because you would exceed your stored virtual machine quota. 1 new virtual machine would have been created, and you are already using 100 of a limit of 100.

### Cause

The deployment error occurred because the cloud user exceeded the available virtual machine quota.

### Solution

- ◆ Stop and delete unwanted virtual machines in vCloud Director.

## Powered Off vCloud Director Virtual Machines Cause Provisioning Error

A deployment or update process fails because some virtual machines in the vCloud Director vApp are powered off.

### Problem

An error occurred when provisioning the cloud: Not all VMs in deployment 'appd-xxx-3.0.0-admin-9-9a7bd508-daf4-44e4-98f9-7c862758507f' are on. 4 are powered off

### Cause

Some of the virtual machines in the vApp might be powered off.

### Solution

- 1 Log in to vCloud Director.
- 2 Locate the deployment in vCloud Director.
- 3 Power on all of the virtual machines in the vApp.  
See the vCloud Director documentation.

## vCloud Director Windows Virtual Machine Login Problems

A randomly generated password replaced the administrator password when the Windows virtual machine instantiated.

### Problem

Error in vCloud: The parameter is not supported in the current context:  
AdminPassword

### Cause

The administrator password was replaced with a randomly generated password.

### Solution

- 1 Log in vCloud Director.
- 2 Shut down the Windows virtual machine and open the properties.
- 3 Click the **Guest Customization** tab.
- 4 In the Password Reset section, deselect **Allow local administrator password**.
- 5 Click **OK** to save your changes.

## vCenter Server Instance Not Connected to vCloud Director

Application deployment to vCloud Director fails because the vCenter Server instance is not connected to vCloud Director.

### Problem

An error occurred in the cloud: createVapp: The operation failed because VirtualCenter "Darwin-vCenter-5.0" is not connected.

### Cause

The vCenter Server instance is not connected to vCloud Director.

### Solution

- ◆ Request your cloud administrator to connect the virtual center to the vCloud Director instance.

## vSphere DRS Fails to Move Virtual Machine

An application deployment error occurs.

### Problem

An error occurred in the cloud: sendPowerOn: Unable to perform this action. Contact your cloud administrator.

### Cause

The vSphere Distributed Resource Scheduler failed to move a virtual machine from one ESX host to another.

### Solution

- ◆ Contact your cloud administrator.

## Insufficient Resources in the Cloud Environment

Deployment fails because of the lack of sufficient resources in the cloud environment.

### Problem

You might see the following error messages.

- ```
com.vmware.darwin.exceptions.CloudException:  
com.vmware.darwin.cal.api.exceptions.CALOperationException: Unable to compose  
vapp 'appd-xxx-1.0.0-admin-1028-0b37d0cf-1b0d-42a2-8212-a048e01bcb'
```
- ```
An error occurred in the cloud:  
sendPowerOn: There are insufficient CPU or memory resources to complete the  
operation.
```
- ```
Error in vCloud: There are  
insufficient IP addresses to complete the operation. You need to add IP  
addresses to the network that is associated with the object being created or  
deployed.
```

### Cause

The deployment error occurs because of one of the following reasons.

- Insufficient resources, such as IP addresses or storage, in the cloud.

- The virtual machine in vCloud Director has exceeded the available CPU or memory.
- Insufficient IP addresses in the vCloud Director network.

#### **Solution**

- Designate sufficient IP addresses or storage.
  - a Check the virtual machine logs or the vFabric tc Server log in the *Using Application Services* appliance for more detailed error messages from the cloud.
  - b Assign additional IP addresses to the network where the application is being deployed.
  - c For vCloud Director, check if the organization vDC has enough storage.
  - d Delete unwanted deployments from *Using Application Services* to free some IP addresses and storage space.
- Allocate sufficient CPU or memory.
  - a Reconfigure CPU or memory allocation in vCloud Director.
  - b Delete unwanted virtual machines that are consuming the same pool of resources in vCloud Director.

## **Network Connection to the Cloud Timed Out**

During an application deployment, the connection to the cloud environment times out, which causes the deployment to fail.

#### **Problem**

Timed out while connecting to the cloud

#### **Cause**

The DHCP server might have become unresponsive.

#### **Solution**

- ◆ Verify that the DHCP server is running properly.

## **Cannot Log In to the Cloud Provider**

The vCloud Automation Center server timed out during the application deployment.

#### **Problem**

An error occurred in the cloud: Unable to login to cloud provider. Please verify the user credentials as well as other parameters you entered.

#### **Cause**

The vCloud Automation Center login credentials are incorrect.

### Solution

- ◆ Use the correct vCloud Automation Center login credentials to access the cloud provider.

## Cannot Log In to Application Services with SSO

An SSO user cannot log in to an Application Services appliance.

### Problem

Unable to log in to Application Services 6.1 with vRealize Automation 6.1 Single Sign-On (SSO). The corresponding vRealize Automation 6.1 instance is running and healthy.

### Cause

The Application Services appliance might not be able to resolve the host name for vRealize Automation or SSO.

### Solution

- 1 Verify the contents of the DNS configuration file on the Application Services appliance.  
`/etc/sysconfig/network/config`
- 2 Enter or update values in the file as required and reboot the Application Services appliance.  
For example, the following parameters might require values.
  - `NETCONFIG_DNS_STATIC_SERVERS=`
  - `NETCONFIG_DNS_STATIC_SEARCHLIST=`

## Action Scripts Running Beyond the Default Time Cause Errors

During an application deployment or an update process, a service is set to reboot so that the agent bootstrap can restart the virtual machine after an action script runs successfully. If the action script runs beyond the default deployment time, the deployment or update process fails.

### Problem

Action scripts in the application that take more than 15 minutes to provision and reboot might cause the deployment or an update process to fail.

### Cause

The task scheduler that pings the server times out after 15 minutes.

### Solution

- 1 Use the SSH client to log in to the *Using Application Services* appliance as the user `darwin_user`.
- 2 Open a command prompt.

- 3 Switch user to root.

```
sudo su -
```

- 4 Open the `/etc/init.d/vmware-darwin-tcserver` file.
- 5 In the `CATALINA_OPTS` section, change the `java system nodetask.time out` property to more than 15 minutes.
- 6 Restart the *Using Application Services* server.

```
sudo service vmware-darwin-tcserver restart
```

## Invalid Property Value Causes Deployment Error

A deployment error occurs.

### Problem

Exception while running task (*node name, task name*), message Cannot fetch content, url `https://192.0.2.255:8443/darwin/api/file/download/` is not a accessible or invalid. cause `SunCertPathBuilderException: unable to find valid certification path to requested target`

### Cause

The URL value for the content property might not have a valid value assigned to it or the value is not accessible.

### Solution

- 1 If the content property value is invalid, add a valid URL value.
- 2 If the content property value is inaccessible, make the value accessible.
- 3 Redeploy the application.

See *Using Application Services* guide.

## PowerShell Background Job Is Unresponsive

Windows deployment running a PowerShell background job is unresponsive.

### Problem

The PowerShell script that includes a `Start-Job` command for running jobs in the background is unresponsive.

### Cause

The PowerShell script exits because the `Start-Job` command is not running the jobs in the background successfully.

### Solution

- ◆ Use the `Start-process` command in the PowerShell script with the appropriate parameters to start the job in a separate process.

## Cannot Extract Files to the Windows System Directory

The `C:\Windows\System32` Windows system directory does not allow files to be extracted to it and the application deployment is not marked as failed.

### Problem

The Media application component does not extract files to the `C:\Windows\System32` directory for a Windows-based application deployment and the deployment is not marked as failed.

This problem does not generate an error message.

### Cause

The `C:\Windows\System32` directory is a Windows protected directory that prohibits unauthorized file creation. The deployment is not marked as failed because the file extraction utility is not exiting with an error status.

### Solution

- 1 Set full Administrator privileges for the Windows system directory to allow files to be extracted to the `C:\Windows\System32` folder.
- 2 Redeploy the Windows-based application.

See the *Using Application Services*.

## Invalid Amazon EC2 Cloud Tunnel IP Address Causes Deployment Failure

Deployment fails if the Amazon EC2 deployment environment has an invalid cloud tunnel IP address.

### Problem

Application deployment to the Amazon EC2 environment fails.

### Cause

The deployment error occurred because the cloud tunnel IP address in the deployment environment is inaccurate.

### Solution

- 1 Verify that the IP address for the cloud tunnel is valid.
- 2 Verify that the Endpoint VM is correctly set up.

See *Using Application Services*.

## Deployment to the Amazon EC2 Environment Fails

Deployments to the Amazon EC2 environment from within a corporate network fail.

### Problem

Application deployment to the Amazon EC2 environment fails.

### Cause

The deployment fails because of one of the following reasons.

- A network problem might cause the cloud tunnel connection to be lost.
- The Endpoint VM is selected in the wrong VPC.
- Security group or internal IP address settings for the Endpoint VM are incorrect.

### Solution

- 1 Reestablish the lost cloud tunnel network connection.
- 2 Assign the Endpoint VM to the correct VPC in the Amazon Region.
- 3 Determine whether the Endpoint VM has the correct security group or internal IP address settings.

See *Using Application Services*.

## Continuous Deployments to Amazon EC2 Causes Error

When you continuously deploy applications to the Amazon EC2 environment, you might exceed the default limits for the number of Amazon EC2 instances, Elastic IP addresses for an account, or API requests.

### Problem

When you deploy several applications to Amazon EC2 continuously, the deployments fail and a request limit exceeded error appears. When you attempt to tear down the deployment, the process seems to be successful in Application Services, but the applications still exist in the Amazon EC2 environment.

### Cause

You might have exceeded the allocated Elastic IP address limit, the number of Amazon EC2 instances, or the number of API requests allowed in an hour.

### Solution

- 1 Open the AWS management console.
- 2 Release the Elastic IP addresses.
- 3 Remove the Amazon EC2 instances.
- 4 Contact Amazon support to request an increase in the instance, Elastic IP address, or API request limit.

# Troubleshooting Common Errors During an Update Process

# 3

If an update process fails, the deployment summary page shows a reason for the failure. For the most common errors, you can use the recommended solutions and initiate another update process.

---

**Note** vCloud Automation Center Application Services 5.2 does not support updating existing deployments in Amazon EC2.

---

See [Chapter 2 Troubleshooting Common Errors During Deployment](#) and *Using Application Services*.

This chapter includes the following topics:

- [Update Process Fails](#)
- [Multiple Updates and Rollbacks Failures](#)
- [Auto Cleanup Leads to Wait Time after Scaleout Failure](#)
- [Rollback Option Is Misleading when an Update Failure Occurs](#)
- [Incorrect Deprovisioning Does Not Throw a Warning Message and Subsequent Update Fails](#)
- [Update Process to Modify Configuration Fails](#)
- [Network Connection to the Application Services Server Timed Out](#)
- [Changes in Application Component of External Service Do Not Appear in the Update Profile](#)
- [Update Configuration CLI Command Fails](#)
- [Application Deployment Not Found](#)
- [RabbitMQ Server Connection Problems Causes Update Error](#)

## Update Process Fails

You might attempt to initiate an update process that previously failed.

### Problem

Error appears on the page when you select a failed deployment and try to initiate an update process.

```
An error occurred when provisioning the cloud: Virtual Machine 'vmName_2_' already exists
```

**Cause**

A previously failed deployment exists in the cloud environment.

**Solution**

- ◆ Locate the vApp in vCloud Director and delete the failed virtual machine.

## Multiple Updates and Rollbacks Failures

Multiple updates and rollbacks fail without notification.

**Problem**

When you deploy an application and create update profiles to update a property, after multiple updates and rollbacks the action fails with this error.

```
Disk space not available to download content.
```

**Cause**

Disk space is insufficient and it is consumed during content download.

**Solution**

- ◆ Manually delete the backup files.

If you use the `appd_functions.sh` and `appd_functions.ps1` scripts for content files backup and restore, a backup is created.

| Virtual Machine Type | Location                                                                        |
|----------------------|---------------------------------------------------------------------------------|
| Linux                | <code>/opt/vmware-appdirector/agent/backups</code> or any user-defined folder   |
| Windows              | <code>C:/opt/vmware-appdirector/agent/backups</code> or any user-defined folder |

Application Services does not clean up these backup files automatically. You must manually remove them when the disk is out of space. After you remove the backup files from the backup location, rollback is skipped during rollback of the update and the failure does not occur.

## Auto Cleanup Leads to Wait Time after Scaleout Failure

After a scaleout failure, automatic cleanup of virtual machines leads to a wait time.

**Problem**

When the `VM_CLEANUP_AFTER_UPDATE_FAILURE` value is set to `true`, and the scaleout operation fails, deprovisioning of virtual machines is done to ensure cleanup before the next scaleout update. During deprovisioning, if you query for the state of deployment, it might result in a failed task and the `DEPLOYMENT_WITH_ISSUES` state appears even as the update process continues. When this state appears, you must wait for sometime for deprovisioning to complete before trying another update process.

If you start another update process, the `Cannot create update because update is still in progress . error` appears.

**Cause**

You might be trying to schedule an update operation while the previous task has failed and the backend cleanup is still in progress.

**Solution**

- When you see the `Cannot create update because update is still in progress error`, retry the update operation with a delay of at least 120 seconds.
- If you do not want to encounter this error and delay the update process, turn off the cleanup flag using CLI or REST API commands:

```
update-global-prop --name VM_CLEAN_UP_AFTER_UPDATE_FAILURE --value false
```

After you turn off the flag, you must delete the new virtual machines manually.

For example, if a new virtual machine, `appserver_3`, was created in a scaleout update that failed, you must manually search for `appserver_3` in the cloud provider virtual machines list and delete it.

## Rollback Option Is Misleading when an Update Failure Occurs

When an update failure occurs, the rollback option is misleading.

**Problem**

The operations menu is misleading when the update fails.

**Cause**

The update fails because of policy violation. Nothing changes because of policy violation and you do not need to rollback.

**Solution**

- Make the policy non-critical and try the update process again.

## Incorrect Deprovisioning Does Not Throw a Warning Message and Subsequent Update Fails

A warning message for manual deletion of virtual machines does not appear after a scale in failure.

### Problem

A warning message to delete the virtual machines manually does not appear after a scale in deprovisioning fails completely. The scale in operation is marked successful in the first update. However, the deprovisioning is not complete and subsequent updates will fail with this error.

```
An error occurred when running flow: Cannot find vm <VM name e.g. 'CentOS63_32bit_v1.0_3_'> in the NodeRepresentation list.
```

The following warning message is added to the Application Services logs:

```
WARNING: Could not deprovision some virtual machines in scale in operation. Please delete them from the cloud provider side using appropriate tools or APIs. Host Names of machines to be deleted is mentioned below: 1. <Host Name of VM e.g. appser-2IQQ48A6>
```

### Cause

Application Services cannot recognize if the deletion of virtual machines was successful or not.

### Solution

- 1 Identify the virtual machines to manually delete.
  - The virtual machine names to be deleted are in the warning message that is saved in the Application Services log file.
  - The virtual machine names are also in the error messages available in the subsequent updates.
- 2 Delete the virtual machine from the cloud provider backend by using cloud provider tools.
  - a From the CLI, set the value of the following flag to **False**:

```
UPDATE_RETRY_VM_DEPROVISIONING_AFTER_FAILURE_FLAG
```

Setting this flag to **False** marks the scaled in deployment as failed when one or more virtual machines are not deleted and lists the following error message:

```
An error occurred in the cloud: <Error message text>. VM Deprovisioning of the scaled in node failed.
Initiate another scale in update, clear the update and teardown script content, and deploy the update.
```

- b Retry the scale in operation after you change the scripts as listed in the error message and after Application Services retries the deletion of virtual machines.

After you successfully delete the virtual machine, subsequent updates work.

## Update Process to Modify Configuration Fails

An update process to modify configuration fails and an error message appears.

### Problem

On the deployment summary page, the following error appears.

```
A value must be provided for property 'PropertyName' of component 'PropertyName'
because the previous update task was unsuccessful in the update wizard.
```

### Cause

The update process failed because of the following reasons.

- You might be attempting to initiate an update process to modify configuration on a previously failed update by resetting the failed property, such as port number, and trying to proceed.
- You might be trying to initiate an update process to modify configuration by changing a property that has a dependent property. The task on the changed component succeeds, but the task on the dependent component fails. When you initiate another update process to modify configuration, the dependent property is highlighted as failed as you try to proceed with the update process.

### Solution

- Add new values to all of the failed properties.  
If you do not want to change the properties, modify the action script to ignore the failed properties.
- Add new value to the property of the failed update.  
If you do not want to change the properties, modify the action script to ignore the failed properties.

## Network Connection to the Application Services Server Timed Out

When you initiate an update process on a failed update deployment, the connection to the Application Services server times out, which causes the update process to fail.

### Problem

```
Error communicating with the server. Please contact the administrator
```

The error appears when you update a failed deployment and the network connection times out.

### Cause

The Application Services server times out during the update process.

### Solution

- ◆ Reestablish the network connection with the Application Services server.

## Changes in Application Component of External Service Do Not Appear in the Update Profile

Modifications in an application component of an external service are not available in the update profile review.

### Problem

If you have an application component in an external service in the blueprint, updates to this application component during the update are not available on the review page of the update wizard.

### Cause

The user interface was not designed to display the updates.

### Solution

- ◆ Ignore the unavailability in the review page and proceed.  
The changes to the updates are available in the Execution Plan page.

## Update Configuration CLICommand Fails

An update process using the CLI command to modify a configuration generates an error message. The appliance license edition version does not support the update process.

### Problem

The update configuration CLI command fails and a `No properties are specified for this update.` error appears.

### Cause

The vCloud Automation Center Application Services appliance is running a license edition that does not support updating the configuration of a deployed application.

### Solution

- 1 Create a vCloud Automation Center Application Services appliance.  
See *Using VMware vCloud Automation Center Application Services*.
- 2 Deploy an application successfully.
- 3 Use the update configuration CLI command to modify configurations of existing services or application components in a deployed application.

## Application Deployment Not Found

You cannot update an application deployment that does not exist in the cloud environment.

### Problem

The deployment no longer exists on the cloud

The error message appears when you click a deployed application from the **Deployments** page.

### Cause

The application deployment might have been deleted from the cloud.

### Solution

- 1 In the supported cloud environment, verify whether the deployment is deleted.  
If it is deleted, you cannot initiate an update process.
- 2 Successfully deploy another application.
- 3 Initiate an update process to scale or modify the configuration of the deployment.

## RabbitMQ Server Connection Problems Causes Update Error

If the RabbitMQ server is not available, an update process for a deployed application fails with an error message.

### Problem

Could not connect to messaging server

### Cause

vCloud Automation Center Application Services is not able to connect to the RabbitMQ server.

### Solution

- 1 Log in as a root user.
- 2 At the command prompt, type **service rabbitmq-server status** to verify that the RabbitMQ server is running.
- 3 Troubleshoot any RabbitMQ server connection problems.

# Troubleshooting Application Services Errors

# 4

Known Application Services troubleshooting information can assist you in solving common problems.

See [Chapter 3 Troubleshooting Common Errors During an Update Process](#) and *Using Application Services*.

This chapter includes the following topics:

- [PowerShell Script Does Not Run](#)
- [New Cloud Provider Registration Fails with an Authentication Error](#)
- [Number of Additional Disks in Disk Layout Is Incorrect in vRealize Automation](#)
- [Appliance Stops Responding with OutOfMemory Error](#)
- [Blank Application Services Web Interface](#)
- [CentOS Logical Template Error](#)
- [Sample Clustered DotShoppingCart Application Not Loading](#)
- [Security Certificate Error with REST Client](#)
- [Error Messages You Can Safely Ignore](#)
- [Application Version Cannot be Saved](#)
- [CLI Session Status Error](#)

## PowerShell Script Does Not Run

When you run a batch file using a PowerShell script in Application Services, the script might not run but the task completes successfully.

### Problem

The PowerShell script in Application Services is not running.

### Cause

The PowerShell script might need an expression to run successfully.

**Solution**

- ◆ Add an invoke-expression expression to the PowerShell script.

For example, to start and stop a Windows vFabric tc Server, type

`invoke-expression $service_stop` and `invoke-expression $service_start` expressions to the script.

## New Cloud Provider Registration Fails with an Authentication Error

For some users, when they register a new vCloud Director, vCloud Automation Center, or Amazon EC2 cloud provider, a peer authentication error appears.

**Problem**

Could not connect to the cloud provider at *HostName*: An error occurred with the cloud provider: peer not authenticated

**Cause**

The certificate of the cloud provider is signed by a certificate authority that is not in the openssl trusted list of the Application Services server.

**Solution**

- 1 Use the administrator credentials to connect to the cloud provider.
- 2 Export and save the certificate file of the vCloud Director, vCloud Automation Center, or Amazon EC2 server from a supported Web browser.

If you are using the Firefox browser, save the top-level certificate authority and all of the intermediary certificate authorities.

- 3 Import the certificate to the Application Services appliance.

Verify that the certificate is not expired.

- 4 From the command prompt, log in as root and add the certificate file to the Application Services appliance trusted list.

```
keytool -importcert -trustcacerts -alias UniqueAlias -file CertFilePath.crt -storepass "" -keystore /home/darwin/keystore/appd.truststore
```

- 5 For Amazon EC2, open the `/etc/init.d/vmware-darwin-tcserver` file and append the `CATALINA_OPTS: -Djavax.net.ssl.trustStore=PathTo/appd.truststore` command.

- 6 Restart the Application Services server.

```
sudo service vmware-darwin-tcserver restart
```

## Number of Additional Disks in Disk Layout Is Incorrect in vRealize Automation

The number of additional disks defined in the disk layout is incorrect in vRealize Automation if more than one disk is in the virtual machine blueprint.

### Problem

After you define additional disks in the blueprint node and provision a virtual machine on that node, the actual number of disks attached to the new virtual machine is incorrect.

### Cause

The linked-clone type for the vRealize Automation blueprint does not support multiple disks in the disk layout.

### Solution

- ◆ Set the clone type for the vRealize Automation blueprint to full clone.  
This mode supports multiple disks in the disk layout.

## Appliance Stops Responding with OutOfMemory Error

The appliance virtual machine stops responding when you try to run commands in the CLI.

### Problem

An OutOfMemory error appears when you try to run commands in the CLI in the appliance virtual machine. The appliance virtual machine stops responding in such a situation.

### Cause

The appliance virtual machine stops responding because multiple instances of darwin CLI are running in the appliance virtual machine.

### Solution

- ◆ Run the darwin CLI from outside of the appliance virtual machine.

## Blank Application Services Web Interface

Typing the Application Services Web interface URL without HTTPS renders a blank page in the Web browser.

### Problem

The Application Services Web Interface appears as a blank page in the Web browser.

**Cause**

The 8443 port is expecting to connect through HTTPS. The port does not respond to an HTTP request, which is the default protocol of the Web browser.

**Solution**

- ◆ Change HTTP to HTTPS in the URL.

## CentOS Logical Template Error

For CentOS logical templates, guest customization does not successfully finish, which causes a failure in the agent bootstrap script and the overall deployment fails.

**Problem**

```
Agent did not respond while running task agent_bootstrap on the node
CentOS_x32_5.6. Please check agent logs.
```

**Cause**

The guest customization failed because of one of the several reasons.

- Having more than five NICs on a node in a CentOS virtual machine might cause the problem.
- The network used for the application deployment does not have connectivity to the Application Services appliance.
- VMware Tools is not installed in the vCloud Director template.
- The Application Services agent bootstrap service or JRE is not installed properly.

**Solution**

- Reduce the number of NICs for an individual node on the CentOS virtual machines.  
*See [Using Application Services](#).*
- Check the application deployment network and infrastructure settings.
- Install VMware Tools in your vCloud Director template.
- Verify that the agent bootstrap service or JRE is installed properly on the vCloud Director template, vCloud Automation Center blueprint, or Amazon EC2 AMI.

## Sample Clustered DotShoppingCart Application Not Loading

When you use vCloud Automation Center to deploy a Clustered DotShoppingCart application, the application does not load but the deployment status is successful.

**Problem**

The Clustered DotShoppingCart application does not load in the Web browser.

**Cause**

The Asp.net v4.0 IIS Application Pool is not available in the vCloud Automation Center Windows template.

**Solution**

- 1 Install the Asp.net v4.0 IIS Application Pool in the Windows template.
- 2 Deploy the Clustered DotShoppingCart application from *Using Application Services*.
- 3 Open the Clustered DotShoppingCart application in a Web browser.

## Security Certificate Error with REST Client

A browser-based REST client does not work when connecting to vCloud Automation Center Application Services.

**Problem**

When you open a REST client in a browser and configure the header for a valid Application Services user and browse a Application Services URL, the client provides no response. No further information or error message is displayed.

**Cause**

Browser-based REST clients fail silently when the server certificate is not trusted.

**Solution**

The browser must trust the Application Services certificate before the browser-based REST client communicates with the Application Services servers. Add the certificate to the browser truststore in advance to allow the browser based REST clients to connect to the Application Services server. Confirm that the browser can trust the server certificate before you use the Application Services user interface or REST interface in a browser. Adding a certificate to a browser is different for different browsers. In general, go to a server URL, for example a log in URL. During the certificate warning you can add the certificate to a browser trust store temporarily or permanently.

## Error Messages You Can Safely Ignore

You can safely ignore some error messages that appear in the Application Services user interface without negative effects.

**Problem**

You might see the following error message.

```
/usr/lib/python2.4/site-packages/Cheetah/Compiler.py:1508:
  UserWarning: You don't have the C version of NameMapper installed! I'm
  disabling Cheetah's useStackFrames option as it is slow with the Python version
  of NameMapper. You should get a copy of Cheetah with the compiled C version of
  NameMapper. warnings.warn(
```

### Cause

After you deploy the Clustered Dukes Bank application, an error message mistakenly appears in the JBoss install and configure log file.

### Solution

You can safely ignore the error message.

## Application Version Cannot be Saved

An application version cannot be saved if an application architect is updating the blueprint or a deployer is deploying the application in one session and another application architect is attempting to update and save the same application blueprint in a different session.

### Problem

An error message appears when an application architect tries to modify and save an application blueprint.

```
Could not save Application version because another session has modified it.
```

### Cause

While an application architect is saving an application blueprint or a deployer is deploying an application, if another application architect attempts to access the same blueprint, the error message appears in the browser of the second application architect.

### Solution

- ◆ Click **Refresh** to reload the application blueprint.

---

**Note** Refreshing the application blueprint might cause you to lose the current changes made to the blueprint.

---

## CLI Session Status Error

When you type the CLI session status command, it shows that you are logged in. However, you receive an error when you use the CLI.

### Problem

```
Your session has expired or been invalidated, please login again.
```

### Cause

The CLI session has timed out.

### Solution

- 1 Log out of the CLI session.
- 2 Log in to resume.