

Installing vRealize Automation with vRealize Easy Installer

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vRealize Automation 8.1

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

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What does vRealize Easy Installer do

1

The vRealize Easy Installer helps you install vRealize Automation and VMware Identity Manager in less time than it would take to install individual products. vRealize Automation is installed, configured, managed, and upgraded only through vRealize Suite Lifecycle Manager. This documentation provides the step-by-step process of deploying vRealize Automation, vRealize Suite Lifecycle Manager, and VMware Identity Manager by using the vRealize Easy Installer.

With vRealize Easy Installer, you can:

- Install vRealize Suite Lifecycle Manager
- Install a new instance of vRealize Automation
- Register vRealize Automation with VMware Identity Manager

This chapter includes the following topics:

- [System Resources](#)
- [Network Requirements for vRealize Automation](#)
- [Ports and Protocols for vRealize Automation](#)

System Resources

The following system resources are required to install vRealize Automation and VMware Identity Manager.

Note vRealize Automation 8 does not support nested virtual environments, such as ESX > ESX > vRA.

Requirements	vRealize Suite Lifecycle Manager	VMware Identity Manager	vRealize Automation
Total Disk Size	78 GB	60 GB	236 GB (Only for single node Installation)
Virtual CPU	2	8	12
Memory/RAM Size	6 GB	16 GB	40 GB
System Partition	10 GB	8 GB	50 GB
Data Partition	50 GB		144 GB
Metrics Partition			20 GB

Requirements	vRealize Suite Lifecycle Manager	VMware Identity Manager	vRealize Automation
Logs Partition			22 GB
Swap Size	8 GB	6 GB	
Tomcat Partition		10 GB	
var Partition		10 GB	
db Partition	10 GB	10 GB	
Maximum Network Latency			5 ms between each cluster node
Maximum Storage Latency			20 ms for each disk IO operation from any vRA node

vRealize Easy Installer supports

- VMware Identity Manager 3.3.1 (for import only) and 3.3.2
- vRealize Automation 8.0.0 and later.

Comply with Hardware sizing for VMware Identity Manager after Installation from vRealize Easy Installer - Hardware Requirements

- Specifications when integrated with vRealize Automation. For information, see vRealize Automation [Hardware Requirements](#).
- Specifications for VMware Identity Manager based on the number of users in the directories. For more information, see [System and Network Configurations Requirements](#).

Note To learn more about the hardware re-sizing of VMware Identity Manager through Lifecycle Manager, see [Hardware Sizing for VMware Identity Manager](#).

Load Balancer

The Load Balancing guide includes information on these configurations:

- NSX LB
- F5 LB
- Citrix NetScaler LB

For more information, see [vRealize Automation Load Balancing](#).

Network Requirements for vRealize Automation

Each vRealize Automation node requires a network setup.

The network requirements for vRealize Automation are:

- Single, static IPv4 and Network Address
- Reachable DNS server set manually

- Valid, Fully-qualified domain name, set manually that can be resolved both forward and in reverse through the DNS server

Note IP address change or hostname change after installation is not supported and results in a broken setup that is not recoverable.

Ports and Protocols for vRealize Automation

This section describes information of ports and protocols used for vRealize Automation.

vRealize Automation can currently be accessed over port 443. The 443 port is secured with a self-signed certificate that is generated during the installation. When using an external load balancer, it must be set up to balance on port 443. The table provides an overview of the Ports and Port number used for vRealize Automation. For more information on Ports and Protocols for vRealize Automation where you can view port information of various VMware products in a single dashboard and also export an offline copy of the selected data, see [VMware Ports and Protocols](#).

Protocol	Port Number
TCP	80
TCP	443
TCP	2379
TCP	2380
TCP	6443
TCP	8008
TCP	10250
TCP	16000
TCP	20849
TCP	30333
TCP	30821
TCP	31090
UDP	500
UDP	4500
UDP	8285
ESP	
AH	

Table 1-1. Requirement for Ports for Product and Integration Communications

Product or Integration	TCP Port Number
vRealize Automation Appliance	5480, 443, 22
Identity Manager Appliances	8443, 443, 9999, 9898, 9000, 9694 (Use these for a cluster)

Table 1-1. Requirement for Ports for Product and Integration Communications (continued)

Product or Integration	TCP Port Number
vCenter Server Instances	443
ESXi Host Instances	443

For more information on ports, see [vRealize Suite Lifecycle Manager Ports](#).

Downloading vRealize Easy Installer

2

To deploy standalone vRealize Automation, download the executable file from the My VMware download page.

This chapter includes the following topics:

- [Access vRealize Easy Installer](#)
- [Install vRealize Suite Lifecycle Manager](#)
- [Install and Configure VMware Identity Manager](#)
- [Install and Configure vRealize Automation](#)

Access vRealize Easy Installer

You can access vRealize Easy Installer after you download the executable file from My VMware download page.

Prerequisites

Verify that you have downloaded the ISO file.

Procedure

- 1 After you download the file, mount the `vra-lcm-installer.iso` file.
- 2 Browse to the folder `vrlcm-ui-installer` inside the CD-ROM.
- 3 The folder contains three sub-folder for three operating systems. Based on your operating system, browse to the corresponding operating system folder inside `vrlcm-ui-installer` folder.

4 Click the installer file in the folder.

Operating System	File Path
Windows	lcm-installer\vr lcm-ui-installer\win32
Linux	a Login to Linux VM. b Run <code>apt-get install p7zip-full</code> . c Run <code>7z x vra-lcm-installer.iso</code> . d Run <code>chmod +x vr lcm-ui-installer/lin64/installer</code> e Run <code>apt install libnss3</code> (required only if libnss3 component is not installed.) f Run <code>vr lcm-ui-installer/lin64/installer</code> .
Mac	vr lcm-ui-installer/mac/Installer

The vRealize Easy Installer UI is specific to the operating system. Ensure that you are using the valid UI folder path to launch the installer.

Install vRealize Suite Lifecycle Manager

Before you install vRealize Suite Lifecycle Manager, you are required to first define the vCenter Server details, resource location to deploy your appliance, specify resources and then access vRealize Suite Lifecycle Manager.

Watch the vRealize Suite Lifecycle Manager Installation of with Easy Installer video:



(Installation of vRealize Suite Lifecycle with Easy Installer)

Prerequisites

Verify that you have the configuration details:

- vCenter Server details. For more information on adding vCenter Server, see *Assign a User Role in vCenter Server in the vRealize Suite Lifecycle Manager 8.2 Installation, Upgrade, and Management guide*.
- Network details of vRealize Automation
- Lifecycle VA deployment details

Procedure

- 1 Click **Install** on the **vRealize Easy Installer** window.
- 2 Click **Next** after reading the introduction.
- 3 Accept the License Agreement and click **Next**. Read the **Customer Experience Improvement Program** and select the checkbox to join the program.

- 4 To specify vCenter Server details, enter these details on the Appliance Deployment Target tab.
 - a Enter the **vCenter Server Hostname**.
 - b Enter the **HTTPs Port** number.
 - c Enter the **vCenter Server Username**, and **Password**.
- 5 Click **Next** and you are prompted with a Certificate Warning, click **Accept** to proceed.
- 6 You must specify a location to deploy virtual appliances.
 - a Expand the vCenter Server tree.
 - b Expand to any data center and map your deployment to a specific VM folder.
- 7 Specify a resource cluster on the Select a Compute Resource tab.
 - a Expand the data center tree to an appropriate resource location and click **Next**.
- 8 On the Select a Storage Location tab, select a datastore to store your deployment and click **Next**.
- 9 On the Network Configuration and Password Configuration tabs, set up your **Network** and **Password configuration** by entering the required fields, and clicking **Next**.
 - a For a vRealize Suite Lifecycle Manager VM, enter the **NTP Server** for the appliance and click **Next**.

The network configurations provided for all products are a one time entry for your configuration settings. The password provided is also common for all products and you need not enter the password again while you are installing the products.

Password should have minimum one upper case, one lower case, one number and one special character. Special characters can be !@#\$%^&*(). Colon(:) is not supported in the password for vRealize Automation 8.0 and 8.0.1.

- 10 Set up vRealize Suite Lifecycle Manager configuration settings,
 - a Enter a **Virtual Machine Name**, **IP Address**, and **Hostname**.
 - b Provide configuration information. Enter the **Data Center Name**, **vCenter Name** and **Increase the Disk Space** fields.
 - c Enable or disable the **FIPS Mode Compliance**, as required.
 - d Click **Next**.

What to do next

You can now start installing VMware Identity Manager.

Install and Configure VMware Identity Manager

You can install a new instance of VMware Identity Manager or import an existing instance when you are configuring the vRealize Easy Installer.

If you want to customize your VMware Identity Manager configuration, which can include deployment of VMware Identity Manager in a standard or a cluster mode, customized mode of Network, storage, you can skip the installation of VMware Identity Manager. If you have skipped, you are still prompted to configure the VMware Identity Manager on the vRealize Suite Lifecycle Manager UI. With vRealize Easy Installer you either import an existing VMware Identity Manager into vRealize Suite Lifecycle Manager or a new instance of VMware Identity Manager can be deployed. For more information on Hardware re-sizing for VMware Identity Manager, see [Re-sizing Hardware](#).

Prerequisites

Verify that you have a static IP address before you begin your configuration.

Procedure

- 1 To install a new instance, select **Install new vIDM**.
- 2 Enter the required text boxes under **Virtual Machine Name**, **IP Address**, **Hostname**, and **Default Configuration Admin**.

Note The vRealize Easy Installer creates the Default Configuration Admin user as a local user in VMware Identity Manager and the same user is used to integrate products with VMware Identity Manager.

- 3 To import an existing instance, select **Import Existing vIDM**.
 - a Enter the **Hostname**, **Admin Password**, **System Admin Password**, **SSH User Password**, **Root Password**, **Default Configuration Admin**, and **Default Configuration Password**.
 - b Select the **Sync group members to the Directory when user want to sync group member** while adding a group for the global configuration of VMware Identity Manager.

With vRealize Easy Installer	VMware Identity Manager supported version	Description
New installation of vRealize Suite Lifecycle Manager	3.3.2 only	
Import vRealize Suite Lifecycle Manager	3.3.1 and 3.3.2	
Deploy vRealize Automation	3.3.2	Note If you import VMware Identity Manager 3.3.1 and install vRealize Automation 8.2, the installation fails.

Note VMware Identity Manager will be supported if the scenarios are one of the following:

- Single or cluster instance with embedded Postgres database.
- VMware Identity Manager 3.3.1 and 3.3.2 with the given deployment type.

Note VMware Identity Manager will not be supported if the scenarios are one of the following:

- Single or cluster instance having external Database (Postgres/MSSQL and so on).
- Single or cluster instance with additional connectors (Windows and external connectors) other than the embedded ones.
- Earlier versions of VMware Identity Manager. (3.3.0 and earlier version)

Note If the older version of vRealize Suite Lifecycle Manager does not have VMware Identity Manager, it can either be installed or imported. VMware Identity Manager Lifecycle and extended day-2 functionalities are not supported from the vRealize Suite Lifecycle Manager if the imported VMware Identity Manager not in supported form factor:

Upgrade support from an older VMware Identity Manager version (3.3.0 and earlier) to the latest is only available if it is a single instance or a node vRealize Identity Manager with embedded postgres database.

Else you can upgrade outside vRealize Suite Lifecycle Manager. Once upgraded, it can any time be reimported by triggering Inventory Sync in vRealize Suite Lifecycle Manager.

4 Click **Next**.

If you cannot deploy vRealize Suite Lifecycle Manager VMware Identity Manager or vRealize Automation in VMC vCenter Server using vRealize Easy Installer, then use the vCenter Server that has an administrator privilege to deploy products.

Install and Configure vRealize Automation

The vRealize Easy Installer provides you with an option to install vRealize Automation with minimum steps. Installation of vRealize Automation is an optional procedure and you can skip this step if you do not want to install a new instance of vRealize Automation. To install vRealize

Automation using Lifecycle Manager, see *vRealize Suite Lifecycle Manager Installation, Upgrade and Administration Guide*.

The installer provides you with minimal or a clustered deployment options before you start your vRealize Automation configuration.

Note Starting with 8.1, you have the option to skip the installation of VMware Identity Manager. If you have skipped, then you cannot configure vRealize Automation. To configure vRealize Automation, you can either go back and configure VMware Identity Manager or complete the installation and configure vRealize Automation in vRealize Suite Lifecycle Manager UI.

vRealize Automation installation is optional and it can be deployed in a standard or a cluster mode. Standard supports a single node vRealize Automation and cluster mode supports three node vRealize Automation installation.

Prerequisites

- Verify that you have the static IP address of the VM, host name, and VM name. vRealize Automation requires VMware Identity Manager 3.3.2 for an import or a new installation. Manual installation of vRealize Automation through OVA is not supported.
- Verify that you have an external load balancer configured for cluster deployments.

Procedure

- 1 Enter the vRealize Automation **Environment Name**.
- 2 Under the vRealize Automation license, enter the **License Key**.
- 3 After configuring your VMware Identity Manager settings, you have the option to install vRealize Automation. For a standard deployment with a master node, enter the **Virtual Machine Name**, **IP Address**, and **FQDN Hostname** of vRealize Automation. Skip to step 6.
- 4 For a cluster deployment with three nodes, you are required to enter the **Load Balancer IP address** and **FQDN**.

Note If the SSL is terminated at load-balancer, select the **SSL terminated at load-balancer** check box. Deselect the check box, if the SSL pass-through is enabled in the load-balancer. If a wrong value is provided for the property, then vRealize Automation deployment to fails.

- 5 For a cluster deployment, create a master node by using step 2 as a guideline.
- 6 For a cluster deployment, create secondary nodes, enter the required text boxes, and proceed.
- 7 (Optional) In the Advanced Configuration for vRealize Automation section, you can manually enter K8S Cluster and Service IP ranges by selecting Configure internal pods and service subnets. If left unselected, vRealize Automation uses the default values.
- 8 Click **Next**.

- 9 Read the Summary page with the entered data and click **Submit**.

For example, the installation time depends on copying binaries from the source machine to vRealize Suite Lifecycle Manager VA for VMware Identity Manager and vRealize Automation deployment, which varies based on the network speed.

Results

After submitting your details, the installer takes about 30 minutes to install the vRealize Suite Lifecycle Manager, copy binaries, and then start the installation process which depends on the network speed. After the vRealize Automation installation, you can also start configuring vRealize Log Insight. For more information, see [How do I configure log forwarding to vRealize Log Insight](#) in *Administering vRealize Automation*.

Access vRealize Suite Lifecycle Manager Dashboard

3

After you configure the products, you can view the installation progress of VMware Identity Manager and vRealize Automation. You are then directed to the vRealize Suite Lifecycle Manager dashboard from where you can access the deployed products.

Procedure

- 1 Click the IP address on the installation progress bar.
You can now view Lifecycle Manager in a separate browser.
- 2 Login to vRealize Suite Lifecycle Manager UI with the username as `admin@local` and the password provided in the vRealize Easy Installer.
- 3 Click Lifecycle Operations service to access the vRealize Suite Lifecycle Manager UI.
- 4 Navigate to **Environments** > **Global Environment**, to access the VMware Identity Manager tile.
- 5 Navigate to **Environments** > **vRealize Automation**, to access the vRealize Automation tile.

vRealize Easy Installer Post-Installation Tasks

4

After you install vRealize Easy Installer, there are post-installation tasks that might need your attention in the vRealize Suite Lifecycle Manager UI.

- You can configure license, for more information on License Configuration for vRealize Automation through vRealize Suite Lifecycle Manager, see [Configure License within Locker](#).
- You can configure certificate, see [Generate Certificate within Locker](#).
- You can configure AD Groups in vRealize Suite Lifecycle Manager, [Add Active Directory with Integrated Windows Authentication Active Directory over LDAP](#).
- You can configure vRealize Suite Lifecycle Manager appliance root password outside vRealize Easy Installer with vRealize Suite Lifecycle Manager UI. See [Configure your Password within Locker](#).
- You can replace a license, see [Replacing of License](#).
- Inventory Sync can also be performed after installation of vRealize Automation. This function identifies the current state of vRealize Automation deployment.

Monitor Your Request Status

5

The request page provides the overall deployment status of your environment.

Procedure

- 1 On the left side of Lifecycle Manager home page, click **Request**.

You can monitor the request status of the product deployment and troubleshoot for any failures of the requests by clicking the failed request button.

- 2 Click the Failed request status.

The request graph appears. If a red highlight appears on the graph, click the red button to see the details of the failure.

- 3 To retry the failed request, click **Retry**.

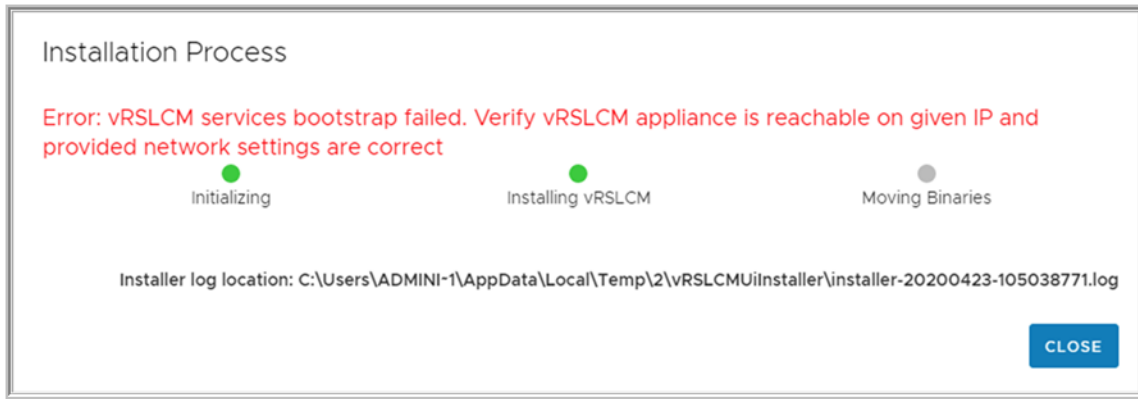
When vRealize Automation deployment fails then you can access the Request tab in the vRealize Suite Lifecycle Manager UI to detect the reason for the failure and click retry option in the failed request. You can provide retry parameters in case you have provided the wrong inputs.

If the vRealize Automation deployment shows failed in the vRealize Easy Installer, then you can access the Request tab in the vRealize Suite Lifecycle Manager UI to see the reason for the failure, and then user can either retry the failed request or click **REDEPLOY** in the failed Environment card to re-deploy the vRealize Automation through vRealize Suite Lifecycle Manager UI.

Types of Errors

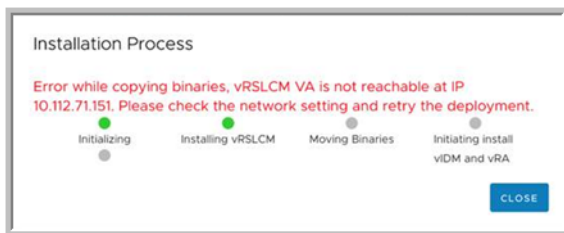
This topic provides the errors that you might view on the Easy Installer Request Status.

- If the Lifecycle Manager services are not up after deployment due to some network configuration issues.



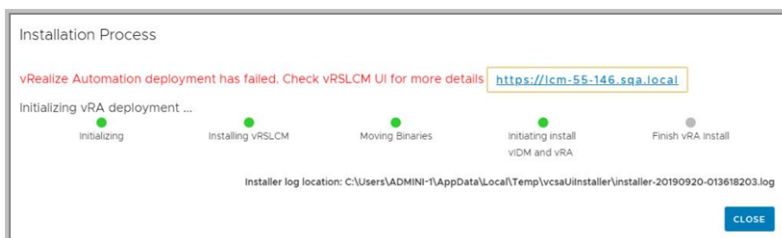
Workaround: Check your network settings and re-trigger the vRealize Easy Installer deployment.

- When the Lifecycle Manager VA is not reachable while copying product binaries to Lifecycle Manager VA.



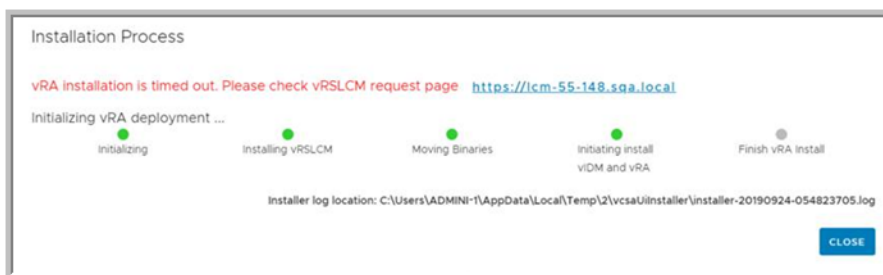
Workaround: Check your network settings and re-trigger the vRealize Easy Installer deployment.

- If vRealize Automation Installation is failed.



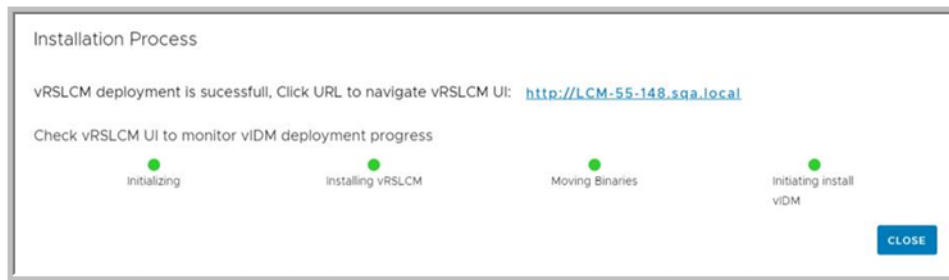
Workaround: For resolution, see [Chapter 5 Monitor Your Request Status](#)

- If vRealize Automation Installation is timed out and not complete.

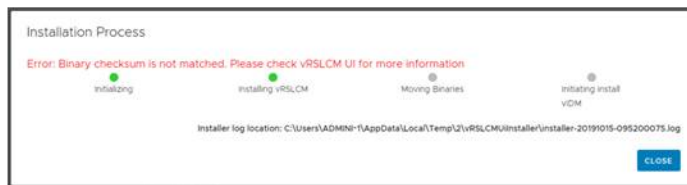


Workaround: For resolution, see [Chapter 5 Monitor Your Request Status](#)

- If vRealize Automation is not selected as part of the deployment, then only VMware Identity Manager is be deployed.



- If the download ISO contains a corrupted product OVA files and the check sum values of the OVA is not correct.



Workaround: Check if the downloaded ISO file is not corrupt.

Access vRealize Automation

6

The vRealize Automation instance can be accessed through the vRealize Suite Lifecycle Manager dashboard.

To log in, navigate to **Manage Environments > vRealize**. Copy and paste the **https://<FQDN>** address in a new browser. For more information, see *Administering vRealize Automation*.

vRealize Suite Lifecycle Manager URL will Not Open in Linux based vRealize Easy Installer

7

vRealize Suite Lifecycle Manager URL does not open in the browser when the URL is accessed on the vRealize Easy Installer progress wizard.

Problem

When vRealize Easy Installer is triggered in the Linux OS, vRealize Suite Lifecycle Manager URL may not open in the browser when you click the vRealize Suite Lifecycle Manager URL in the installer progress wizard.

Cause

The default browser might not have set or the operating system is not allowing you to click links.

Solution

- ◆ Copy the vRealize Suite Lifecycle Manager URL in the installer progress wizard and paste the URL in the browser to access the vRealize Suite Lifecycle Manager UI.

vRealize Easy Installer Fails at Deployment



When the vRealize Easy Installer fails at the time of deployment due to Infrastructure issues in vCenter Server, the Easy installer fails with an error message.

Problem

During deployment, if there are any infrastructure issues with vCenter Server, then vRealize Easy Installer fails with the generic error message:

"A problem occurred during installation.Check the installer logs and retry"..

Cause

- If a host is rebooted during installation:

```
<Type>ovftool.http.send</Type>
  <LocalizedMessage> Failed to send http data </LocalizedMessage>

  <Error>
    <Type>ovftool.system.error</Type>
    <LocalizedMessage> Reached maximum wait time of 5 minutes when aborting.</
LocalizedMessage>
  </Error>
```

- If the datastore gets filled up to 100% at the time of installation:

```
<Error>
  <Type>ovftool.http.post</Type>
  <LocalizedMessage>Bad response code (500) from POST request</LocalizedMessage>
  <Arg>500</Arg>
</Error>
```

- If easy installer is not able to connect to ESXi Host:

```
info: output:ERROR
+ <Errors>
+ <Error>
+ <Type>ovftool.http.send</Type>
+ <LocalizedMessage>
```

```
+ Failed to send http data  
+ </LocalizedMsg>  
+ </Error>  
+ </Errors>
```

Solution

- 1 Select the Host to return to a healthy state if it reboots at the time of installation.
- 2 If the datastore gets filled up, clear the datastore memory and retry.
- 3 Add DNS FQDN entries of the target vCenter Server and all ESXi servers in the cluster to the system hosts file: C:\Windows\System32\drivers\etc\hosts. For Linux and Mac, /etc/hosts.