HP Continuous Delivery Automation

for the Microsoft Windows and Linux operating systems

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Troubleshooting Guide

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Contents

1 About This Guide . . . 9
Purpose of This Document . . . 9
Triage . . . 9
Determine Where the Integration is Failing . . . 10
Check Log Files . . . 10
Verify Individual Products . . . 10

2 Troubleshooting HP CDA Installation Errors . . . 11
HP CDA Cannot Subsequently be Installed Once an Installation Attempt Has Failed . . . 11
Solution: . . . 11

3 Troubleshooting HP CDA Access Errors . . . 13
Errors While Accessing the HP CDA Console . . . 13
Solution: . . . 13
Cannot Log into HP CDA if HP CDA Was Installed With an Invalid License Key and User Does Not have a Valid License Key . . . 14
Solution: . . . 14
Logging on to HP CDA Displays a Blank Page . . . 14
Solution: . . . 15
Events by all Users are not Visible for a Domain Administrator . . . 15
Solution: . . . 15
HP CDA Stops Responding . . . 15
Solution: . . . 15
The cdaexec Command Generates an SSLHandshakeException . . . 16
Solution: . . . 16
Unable to Access Resources Outside the Local Network Using HP CDA . . . 16
Solution: . . . 16

4 Troubleshooting Integration Issues with Other Applications . . . 19
Integration with HP CloudSystem Matrix Stops Working when an HTTP Proxy is Configured in HP CDA 19
Solution: . . . 19
Connection Failure Between HP CloudSystem Matrix and HP CDA . . . 20
Failure Message: . . . 20
Solution: . . . 21
Test Connection Fails for the CVS or SVN Artifact Providers . . . 22
Solution: . . . 22
HP CloudSystem Matrix Test Connection Option Fails with Error . . . 22
Solutions: . . . 22
Launching the HP ALM Execution Report Displays a Blank Page . . . 24

Solution: . . . 24
Deployment Failure When Using the HP Server Automation Deployer . . . 24
Solution: . . . 24
5 Troubleshooting Application Deployment and Provisioning . . . 27
Read Timed Out Error During Provisioning . . . 27
Solution: . . . 27
The Opscode Chef bootstrap Process Fails with a HostKeyMismatch Error . . . 28
Solution: . . . 28
Running a Script on Microsoft Windows Platforms Generates an Error . . . 29
Solution: . . . 29
Unable to Register Servers with Deployers During Platform Provisioning . . . 29
Solution: . . . 30
The Platform Provisioning Process or the Application Deployment Process Runs for a Long Period of Time Without Getting Completed . . . 30
Solution: . . . 31
Invoking the De-provision Operation Displays an Error Message . . . 32
Solution: . . . 32
HP Operations Manager (HP OM) Nodes are Not Removed from the HP OM Server when a Platform is De-Provisioned Using HP CDA . . . 32
Solution: . . . 32
Failure in Deploying or Un-deploying an Application or Failure During Platform Provisioning . . . 33
Solution: . . . 33
The Test Connection Operation for the Opscode Chef Server Plug-in Fails . . . 34
Solution: . . . 34
Failure to Register Nodes in Opscode Chef Server . . . 34
Solution: . . . 35
Deployment Wizard does not Provide Sufficient Information . . . 35
Solution: . . . 35
Provisioning Fails with HostKeyMisMatch Error . . . 36
Solution: . . . 36
Deployment of Placed File Component Fails when Using HP Server Automation Deployer . . . 36
Solution: . . . 37
A Placed Directory Deployment Operation Fails with the Chef Deployer . . . 37
Solution: . . . 38
Placing a Directory or File into a Non-Existent Folder is Performed Differently with the Chef, SSH and SA Deployers . . . 38
Solution: . . . 38
Large Files Fail to Download to Target Machines in Placed File Programming Operations or as Software Artifacts in Software Bundles . . . 39
Solution: . . . 39
Provisioning or Deployment Operations Result in a Null Pointer Exception . . . 39
Solution: . . . 39
6 Troubleshooting Monitoring . . . 41
Deployment does not Provide Links for HP Diagnostics Monitors . . . 41
Solution: . . . 41

HP CDA does not Display the Present Monitoring Status when Using HP Diagnostics as the Monitoring Provider 42
Solution: 42
Deployment does not Provide Links for HP SiteScope Monitors 42
Solution: 43
HP CDA does not Display the Present Monitoring Status when Using HP SiteScope as the Monitoring Provider 43
Solution: 44
Presence of `Received Opr XML event with deployId=, status=null` event in the cda_debug.log file. 45
Solution: 45
HP SiteScope Status Event Updates do not Get Displayed on HP CDA 46
Solution: 46
HP CDA does not Display the Present Monitoring Status when Using Nagios as the Monitoring Provider 46
Solution: 47
Page Not Found Error when Accessing the Nagios URL. 47
Solution: 48
Contextual links are not working for Nagios 48
Solution: 48
Contextual URL for Nagios does not Show the Status of the Monitored Host. 49
Solution: 49
Unable to Deploy the Nagios Monitor. 50
Solution: 50
Nagios Content is not Being Displayed in HP CDA and a Connection Error is Shown for Windows Target Machines. 51
Solution: 51

1 About This Guide

Purpose of This Document

This document provides troubleshooting information for HP Continuous Delivery Automation (HP CDA), including basic triage information.

Triage

HP CDA integrates with several other products. First, you must determine which product or integration has failed. In order to triage issues in HP CDA, see the following table that provides the log file location details. The list includes the details of products that integrate with HP CDA.

Product	**Location of Log Filed**	**Additional Information**
HP CDA	General product logging: <InstallDir>\ <jboss version>\standalone\log\cda_debug.log	*HP Continuous Delivery Automation Installation and Configuration Guide*
HP CDA Installer	Installer Log: <InstallDir>\ log\install.log	*HP Continuous Delivery Automation Installation and Configuration Guide*
HP SiteScope	<InstallDir>\SiteScope\logs\error.log	HP SiteScope Documentation available at: **http://h20230.www2.hp.com/selfsolve/manuals**
HP Diagnostics	<InstallDir>\MercuryDiagnostics\Server\log\server.logs	HP Diagnostics Documentation available at: **http://h20230.www2.hp.com/selfsolve/manuals**
Nagios	/usr/local/nagios/var/nagios.log	Nagios documentation

Determine Where the Integration is Failing

In some cases, you can determine quickly which product has failed. If the problem source is not obvious, you can check log files or run verification tests to isolate the cause. If the source of the failure is one of the integrated products, see the HP CDA Support Matrix for resource information. The *HP Continuous Delivery Automation Support Matrix* can be found on the **http://h20230.www2.hp.com/selfsolve/manuals/** web site.

Check Log Files

Log files exist for most of the integrated products. Check the log files to identify the cause of the failure.

Verify Individual Products

The *HP Continuous Delivery Automation Installation and Configuration Guide* contains installation checkpoints prior to product integration and end-to-end verification after configuration. Verification tasks for individual products are provided in the respective product documentation.

2 Troubleshooting HP CDA Installation Errors

HP CDA Cannot Subsequently be Installed Once an Installation Attempt Has Failed

This troubleshooting scenario applies specifically to the situation where the HP CDA installation that has failed was set to install the PostgreSQL 9.1 Embedded database.

Symptoms	After an attempt to install HP CDA fails where the database to be installed was set to PostgreSQL 9.1 Embedded, subsequent attempts to install HP CDA fail.
Primary Software Components	HP CDA, PostgreSQL database - embedded version
Failure Message	Build failed in target 'execute': The following error occurred while executing this line: c:\Program Files\Hewlett-Packard\CDA\1.10\conf\setup\steps\rdbms_setup\build.xml:648: Program '"c:\Program Files\Hewlett-Packard\CDA\1.10\postgresql-windows.exe" did not finish correctly.
Probable Cause	The HP CDA installer installs the Postgres software and a user named “postgres” even if the HP CDA installation ultimately fails. When the HP CDA installer is then subsequently run, the Postgres portion of the install process fails because Postgres already exists.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

1. Manually uninstall the PostgreSQL program from the HP CDA server machine. On a Windows server, you can do this in the Control Panel (**Start** > **Control Panel** > **Programs and Features**).

2 Delete the PostgreSQL user named “postgres” from the HP CDA server. On a Windows server, you can do this in the Server Manager (**Start** > **Administrative Tools** > **Server Manager**) by going to **Local Users and Groups** > **Users** and deleting “postgres.”

You might need to reboot the HP CDA server after performing the above two steps.

3 Start the HP CDA installation wizard and install HP CDA. The installation should now be successful.

3 Troubleshooting HP CDA Access Errors

Errors While Accessing the HP CDA Console

Symptoms	Errors while accessing the HP CDA console or while executing the startup script for HP CDA: • You might see the following error when accessing HP CDA through a browser: `Your browser must support Java script in order to use this application.` • You might see the following message when you execute the startup script serverstart.bat: `JAVA_HOME must be set!`
Primary Software Components	HP CDA
Failure Message	• Your browser must support Java script in order to use this application. • JAVA_HOME must be set!
Probable Cause	JAVA_HOME variable is not present or defined in the system PATH variable on the computer where HP CDA is installed.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Add a valid JAVA_HOME path to the system PATH variable as follows:

4 On the system where HP CDA is installed, right-click **Computer** and select **Advanced System Settings** > **Environment Variables** > **System Variables** > **Path**.

5 Click **New** and provide the **Path** name as JAVA_HOME and the **Variable** as the < *JDK installation location* >

Cannot Log into HP CDA if HP CDA Was Installed With an Invalid License Key and User Does Not have a Valid License Key

Symptoms	During HP CDA installation where no valid license key is available, the user enters an invalid license key instead of choosing to install a 90 day instant-on license. After installation is complete and a user attempts to log into HP CDA, they are prompted for a valid license key. If a valid license key is not entered, HP CDA access is not allowed.
Primary Software Components	HP CDA
Failure Message	Not Applicable
Probable Cause	HP CDA limitation - If an invalid license key is entered during installation, HP CDA should still allow access under a temporary license, but does not.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Either of the following two workarounds can be used:

- Purchase a valid license key from HP and enter it into the pertinent dialog box when logging into HP CDA.
- Uninstall and then re-install HP CDA, choosing to install the 90 day instant-on license when prompted.

Logging on to HP CDA Displays a Blank Page

Symptoms	HP CDA application times out and presents a login screen. On providing the credentials, the application displays a blank screen.
Primary Software Components	HP CDA
Failure Message	Not Applicable
Probable Cause	Session time out
For More Information	Not applicable

Solution:

1. Make sure that the HP CDA service is running by going to the `<Install_Dir>\bin` directory. `<Install_Dir>` refers to the directory where HP CDA is installed.
2. If the HP CDA service is not running, start the service by running the `serverstart.bat` script.
3. Log on to the HP CDA application by switching to a new tab or instance of the browser.

Events by all Users are not Visible for a Domain Administrator

Symptoms	Logging on as a domain administrator does not show you the events from all the users.
Primary Software Components	HP CDA
Failure Message	Not applicable
Probable Cause	Not Applicable
For More Information	Not applicable

Solution:

You can see the events for all the users if you log in as a administrator in HP CDA.

HP CDA Stops Responding

Symptoms	HP CDA stops responding in the following scenario: The Remote Desktop Protocol (RDP) used to access HP CDA gets terminated during an operation and HP CDA times out the current login session.
Primary Software Components	HP CDA
Failure Message	Not applicable
Probable Cause	Not Applicable
For More Information	Not applicable

Solution:

You can open a new session in a browser to resolve this issue.

The cdaexec Command Generates an SSLHandshakeException

Symptoms	The `cdaexec` command generates an `SSLHandShakeException` when you run model-related commands and job-related commands. The error occurs when HP CDA is configured to be accessed using SSL.
Primary Software Components	HP CDA
Failure Message	`SSLHandShakeException`
Probable Cause	Usage of an incorrect port when an HTTPS-based URL is used with the command.
For More Information	See the solution provided.

Solution:

Ensure that SSL-based access is configured for HP CDA and that you specify port 8443 when using an HTTPS-based URL with the command.

Unable to Access Resources Outside the Local Network Using HP CDA

Symptoms	Unable to access resources outside the local network by using HP CDA.
Primary Software Components	HP CDA
Failure Message	Not applicable
Probable Cause	This problem occurs if you have not configured an HTTP proxy in HP CDA using the `server.bat` file.
For More Information	See the solution provided for resolving this issue.

Solution:

Configure an HTTP proxy in HP CDA to access resources outside the local network as follows:

1. Open the `serverstart.bat` or the `serverstart.sh` file depending on the operating system you are using to run HP CDA.
2. Add the required HTTP proxy configuration to your environment as follows:

```
set JAVA_OPTS=%JAVA_OPTS% -Dhttp.proxyHost=<proxy-server fqdn>
-Dhttp.proxyPort=<proxy port>
```

4 Troubleshooting Integration Issues with Other Applications

Integration with HP CloudSystem Matrix Stops Working when an HTTP Proxy is Configured in HP CDA

Symptoms	HP CDA fails to connect to the HP SiteScope server deployed in a public cloud environment while importing the monitoring templates. This issue occurs when an HTTP proxy is configured in HP CDA, which results in an integration failure with the HP CloudSystem Matrix server.
Primary Software Components	HP CDA, HP CloudSystem Matrix, HP SiteScope.
Failure Message	ERROR [com.hp.mon.sis.importer.SitescopeConfigurationImportor] (HPSOASystinetAsyncExecutor20) Sitescope remote API error: java.net.ConnectException: Connection timed out: connect at org.apache.axis.AxisFault.makeFault(AxisFault.java:10
Probable Cause	This problem occurs if an HTTP proxy is configured in HP CDA using the `serverstart.bat` file (for Microsoft Windows platforms) or the `serverstart.sh` file (for Linux platforms) and when HP CDA uses the HTTP proxy to access resources in the local network.
For More Information	See the solution provided for resolving this issue.

Solution:

To resolve this problem, you can add the following line in the `serverstart.bat` file or the `serverstart.sh` file to configure HP CDA to ignore the HTTP proxy configured when accessing resources in the local network: `set JAVA_OPTS=%JAVA_OPTS% set JAVA_OPTS=%JAVA_OPTS% -Dhttp.proxyHost=<proxy-server fqdn> -Dhttp.proxyPort=<proxy port> -Dhttp.nonProxyHosts=<fqdn for CloudSystem Matrix server>`

Connection Failure Between HP CloudSystem Matrix and HP CDA

Symptoms	Connection fails between HP CloudSystem Matrix and HP CDA
Primary Software Components	HP CDA, HP CloudSystem Matrix
Failure Message	See "Failure Message," below.
Probable Cause	The problem might be due to one of the following reasons: • The Fully Qualified Domain Name (FQDN) of the HP CloudSystem Matrix server is not configured in HP CDA. • The HP CloudSystem Matrix Server URL in HP CDA, specified to connect HP CDA to HP CloudSystem Matrix, does not include the name of the HP CloudSystem Matrix server for which the HP CloudSystem Matrix certificate is issued. • The above-mentioned HP CloudSystem Matrix Server URL ends with a backslash, for example: `https://<cs_matrix_srvr>:51443/hpio/` instead of: `https://<cs_matrix_srvr>:51443/hpio`
For More Information	See the following guides for more information: • *HP Continuous Delivery Automation Installation and Configuration Guide.* • *HP Continuous Delivery Automation User Guide*.

Failure Message:

```
com.hp.adam.common.exception.LocalizableException: Failed to connect to HP
CloudSystem Matrix Server at
com.hp.arm.intg.provisioner.moe.MOEPlugin.test(MOEPlugin.java:62) at
sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method) at
sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:57) at
sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.jav
a:43) at java.lang.reflect.Method.invoke(Method.java:601) at
com.hp.adam.plugin.ThreadProxyInvocationHandler.invoke(ThreadProxyInvocationHand
ler.java:52) at $Proxy212.test(Unknown Source) at
com.hp.adam.plugin.PluginManager.test(PluginManager.java:146) at
com.hp.arm.systinet.ui.plugins.TestPluginUtils.test(TestPluginUtils.java:32) at
com.hp.arm.systinet.ui.plugins.TestPluginConfigurationComponent.check(TestPlugin
ConfigurationComponent.java:56) at
com.hp.systinet.integration.ui.tools.NewConnectionCheckerComponent$1.run(NewConn
ectionCheckerComponent.java:31) at
com.hp.systinet.integration.tools.AsynchronousTaskRunnerServiceImpl$TaskWrapper.
run(AsynchronousTaskRunnerServiceImpl.java:114) at
```

```
com.hp.systinet.lang.thread.ClassLoaderSettingRunnable.run(ClassLoaderSettingRun
nable.java:27) at
com.hp.systinet.j2ee.LocalizedTaskExecutor$RunnableWithLocale.run(LocalizedTaskE
xecutor.java:70) at
org.springframework.core.task.SimpleAsyncTaskExecutor$ConcurrencyThrottlingRunna
ble.run(SimpleAsyncTaskExecutor.java:229) at
java.lang.Thread.run(Thread.java:722) Caused by:
javax.xml.ws.WebServiceException: Could not send Message. at
org.apache.cxf.jaxws.JaxWsClientProxy.invoke(JaxWsClientProxy.java:135) at
$Proxy240.listServices(Unknown Source) at
com.hp.arm.intg.provisioner.moe.utils.MOEUtil.listServices(MOEUtil.java:289) at
com.hp.arm.intg.provisioner.moe.MOEPlugin.test(MOEPlugin.java:60) ... 15 more
Caused by: org.apache.cxf.transport.http.HTTPException: HTTP response '404: Not
Found' when communicating with https://example:51443/hpio//controller/soap/v4 at
org.apache.cxf.transport.http.HTTPConduit$WrappedOutputStream.handleResponseInte
rnal(HTTPConduit.java:2255) at
org.apache.cxf.transport.http.HTTPConduit$WrappedOutputStream.handleResponse(HTT
PConduit.java:2193) at
org.apache.cxf.transport.http.HTTPConduit$WrappedOutputStream.close(HTTPConduit.
java:2037) at
org.apache.cxf.transport.AbstractConduit.close(AbstractConduit.java:56) at
org.apache.cxf.transport.http.HTTPConduit.close(HTTPConduit.java:697) at
org.apache.cxf.interceptor.MessageSenderInterceptor$MessageSenderEndingIntercept
or.handleMessage(MessageSenderInterceptor.java:62) at
org.apache.cxf.phase.PhaseInterceptorChain.doIntercept(PhaseInterceptorChain.jav
a:255) at org.apache.cxf.endpoint.ClientImpl.invoke(ClientImpl.java:516) at
org.apache.cxf.endpoint.ClientImpl.invoke(ClientImpl.java:313) at
org.apache.cxf.endpoint.ClientImpl.invoke(ClientImpl.java:265) at
org.apache.cxf.frontend.ClientProxy.invokeSync(ClientProxy.java:73) at
org.apache.cxf.jaxws.JaxWsClientProxy.invoke(JaxWsClientProxy.java:124) ... 18
more
```

Solution:

To resolve this issue, try the following options:

- After specifying the connection parameters required to connect HP CDA to HP CloudSystem Matrix, use the **Test Connection** option in HP CDA to validate all the connection parameters.
- Make sure that you have specified the FQDN of the HP CloudSystem Matrix server in the HP CloudSystem Matrix Server URL parameter.
- Make sure that the HP CloudSystem Matrix Server URL parameter does not contain a trailing backslash (for example, `https://<cs_matrix_srvr>:51443/hpio/`)
- Make sure that you have included the name of the HP CloudSystem Matrix server for which the HP CloudSystem Matrix certificate is issued in the HP CloudSystem Matrix Server URL parameter. For example, if the HP CloudSystem Matrix certificate is issued to the server named MOE75, make sure that the HP CloudSystem Matrix Server URL in HP CDA includes the server name as follows: **https://MOE75:51443/hpio**

Test Connection Fails for the CVS or SVN Artifact Providers

Symptoms	When a Test Connection operation is performed on a CVS or SVN provider from HP CDA, the connection fails.
Primary Software Components	HP CDA, Concurrent Versions System (CVS), Subversion (SVN)
Failure Message	Failed to communicate with the configured <*provider*> repository. Check that values are correct in the configuration.
Probable Cause	The license for the SVN or CVS client that is installed on HP CDA server has expired.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Update the license for the installed SVN or CVS client.

HP CloudSystem Matrix Test Connection Option Fails with Error

Symptoms	The **Test Connection** option for the configured HP CloudSystem Matrix server fails with the Connection Failed message.
Primary Software Components	HP CDA, HP CloudSystem Matrix
Failure Message	Connection Failed: sun.security.provider.certpath.SunCertPathBuilderException: unable to find valid certification path to requested.
Probable Cause	The HP CloudSystem Matrix host certificate is not present in the client.truststore
For More Information	Not applicable

Solutions:

When HP CDA is installed with the **Verify Certificates** option enabled, the code verifies the complete hierarchy of the certificates involved in any HTTPS connection. This directly affects the HP CloudSystem Matrix connectivity due to the way the default certificate is created in HP CloudSystem Matrix.

To resolve this issue, use one of the following solutions:

Solution 1 - Use this solution if you need to have the certificate verified always.

Solution 2 - Use this solution if certificate verification can be skipped, as when the certificate can always be trusted.

Solution 1:

You will import the HP CloudSystem Matrix certificate into the client.truststore in HP CDA. This establishes the trust between HP CDA and HP CloudSystem Matrix:

1. Access the HP CloudSystem Matrix server from a browser by going to the following URL: **https://<hp-cs_matrix_server fqdn>:51443/hpio**
2. Click **Certificate Error** and then click the **Details** tab.
3. Click **Copy to File** and complete the wizard to save this file in a DER-encoded binary format.
4. On the HP CDA server, stop the application server by executing `serverstop.bat` or `serverstop.sh` depending on whether you use Microsoft Windows platforms or Linux platforms.
5. Open the command prompt or the command terminal based on the operating system you are using and change the directory to the `CDA_HOME/conf` (for Linux platforms) or the `CDA_HOME\conf` (for Microsoft Windows platforms) directory.
6. Run the following command to import the HP CloudSystem Matrix certificate into the client.truststore: `keytool -import -alias <some name> -keystore client.truststore -file <full path to the.cer file>`

This command prompts you for a trust store password. The default password is **`changeit`**.

7. After completing this operation, start the HP CDA application server by executing `serverstart.bat` or `serverstart.sh`.
8. Log on to HP CDA and go to **Administration** > **Plugins** and access the HP CloudSystem Matrix plugin configuration.
9. Click the **Test Connection** button and confirm that the connection is successful.

Solution 2:

You will change the HP CDA configuration so that certificate verification is skipped:

1. Log into the HP CDA interface and click **Administration**.
2. Click **Configuration** at the bottom left of the screen and then click the **System Settings** tab.
3. Enter `platform.certVerification` in the text box that is at the top of the “Name” column.
4. If “skipped” is not shown in the “Value” column for the“platform.certVerification” setting, click **Edit** for the setting, enter “skipped” into the text box in the “Edit Property” dialog box that appears, and then save the setting.
5. Click the **Test Connection** button for the HP CloudSystem Matrix plugin configuration and confirm that the connection is successful.

Launching the HP ALM Execution Report Displays a Blank Page

Symptoms	Launching the HP ALM execution report from a remote machine using the host name of the HP ALM server displays a blank page.
Primary Software Components	HP CDA, HP ALM
Failure Message	Blank page
Probable Cause	Presence of hyphen (-) or underscore (_) symbols in the host name of the Microsoft Windows 2008 server that hosts the HP ALM server.
For More Information	See the solution provided.

Solution:

If you have the hyphen or the underscore symbols in the host name of the Microsoft Windows 2008 server that hosts the HP ALM server, you can access the server from a remote machine using the IP address of the server.

Deployment Failure When Using the HP Server Automation Deployer

Symptoms	Deployment fails when you use the HP Server Automation deployer.
Primary Software Components	HP CDA, HP SA
Failure Message	Encountered issue when attempting to execute a step.....
Probable Cause	The realized platform gets a new IP address after a reboot operation.
For More Information	See the solution provided.

Solution:

Manually remove the HP Server Automation Agent and install the HP Server Automation Agent again as follows:

1. Launch the HP SA Client (SA NGUI)
2. Select **Devices - All managed Servers**

3 Right click the server and select **Deactivate Server and Delete Server** from the options listed in the context menu.

4 Log on to the virtual machine and select **Uninstall Program: SA Agent** from the Control Panel.

5 Scan for the new IP address from the **SA NGUI, Devices- Unmanaged Servers**, right click the server, and select **Manage Server** from the context menu.

This completes the procedure.

5 Troubleshooting Application Deployment and Provisioning

Read Timed Out Error During Provisioning

Symptoms	HP CDA might display a `Read Timed Out` error occasionally during a provisioning operation.
Primary Software Components	HP CDA
Failure Message	`Read Timed Out`
Probable Cause	This problem might occur due to slow network communication or if the HP CloudSystem Matrix server is running slowly, thus taking more time than the configured timeout parameter settings.
For More Information	See the solution provided to resolve this issue.

Solution:

To resolve this issue, you can increase the values for the `Connection Timeout` and the `Receive Timeout` parameters while configuring the provisioning in HP CDA.

The Opscode Chef bootstrap Process Fails with a HostKeyMismatch Error

Symptoms	When you perform a provisioning operation immediately after a de-provision operation, the Opscode Chef bootstrap process fails with a `HostKeyMismatch` error.
Primary Software Components	Opscode Chef, HP CDA
Failure Message	`HostKeyMismatch`
Probable Cause	During the de-provision operation, HP CDA un-registers the nodes from the Opscode Chef server, but does not clean up the information from the `known_hosts` file. During a subsequent provisioning, the IP address gets reused causing a `HostKeyMismatch` error.
For More Information	See the sample solution provided to resolve this issue. You can also see the latest Opscode Chef documentation for more information.

Solution:

Add the following lines to the file: `/usr/lib/ruby/gems/1.9.1/gems/chef-0.10.8/lib/chef/knife/bootstrap.rb`

```
begin
knife_ssh.run
rescue Net::SSH::AuthenticationFailed
unless config[:ssh_password]
puts "Failed to authenticate #{config[:ssh_user]} - trying password auth"
knife_ssh_with_password_auth.run
end
rescue Net::SSH::HostKeyMismatch => e
e.remember_host!
puts "Caught a HostKeyMismatch.  Retrying after calling remember_host!()"
knife_ssh.run
end
```

Running a Script on Microsoft Windows Platforms Generates an Error

Symptoms	When running a script on Microsoft Windows platforms, the following error might occur: `File cannot be loaded because the execution of scripts is disabled on this system. Please see "get-help about_signing" for more details..`
Primary Software Components	HP CDA, HP Server Automation
Failure Message	`File cannot be loaded because the execution of scripts is disabled on this system. Please see "get-help about_signing" for more details..`
Probable Cause	Windows PowerShell is not enabled to run the scripts.
For More Information	See the Windows PowerShell documentation.

Solution:

Change the PowerShell execution policy strategy on the target system as follows:

From PowerShell, run the following command to remove all the restrictions on PowerShell:
`Set-ExecutionPolicy Unrestricted`

Unable to Register Servers with Deployers During Platform Provisioning

Symptoms	While provisioning a platform, the step to register servers with the deployer is reported as failed in the job report.
Primary Software Components	HP CDA, Opscode Chef
Failure Message	com.hp.arm.intg.deployer.api.DeploymentException: Failed to register node(s): <node name(s)>. See the log file for details.
Probable Cause	• Failure during the Opscode Chef bootstrap process executed by HP CDA. • The server requires a key file for authentication, but the key file is missing.
For More Information	Not applicable

Solution:

Some of the reasons that might cause this failure along with the possible workaround options are as follows:

- HP CDA is unable to connect to the Opscode Chef server.

  Workaround: Make sure that a configuration for the Opscode Chef plug in is present under the **Administration** > **Plugin Configuration** section. Confirm that the Opscode Chef plug-in configuration details are correct and run **Test Connection** to confirm that HP CDA can access the Opscode Chef server.

- User name or password required for connecting to the provisioned servers is incorrect.

  Workaround: Make the required changes in the **Platform** > **Designer** tab for each server group and run the provision operation again.

- The Opscode Chef server is unable to connect to the target servers, which could be due to network issues or DNS issues.

  Workaround: Make sure that the SSH communication is working from the Opscode Chef server to the target nodes and run the provision operation again.

- The Opscode Chef server is unsuccessful in bootstrapping the target nodes.

  Workaround: Run the bootstrap operation manually from the Opscode Chef server and note if there are any errors during the operation. Based on the errors, you might want to review the **Opscode** website for solutions or refer to the section *Configuring the VM Templates with Opscode Chef-client Specific Files*.

- A key file required for authentication is missing.

  Workaround: Refer to the topics “Adding Provisioning Keys to a Centralized Key Store” and “Adding Authentication Keys to a Platform Plugin Configuration” in the *HP CDA online help* for information on how to install and specify the key file for the server.

The Platform Provisioning Process or the Application Deployment Process Runs for a Long Period of Time Without Getting Completed

Symptoms	Platform provisioning or application deployment runs for a long period of time without getting completed.
Primary Software Components	HP CDA

Symptoms	Platform provisioning or application deployment runs for a long period of time without getting completed.
Failure Message	Not Applicable
Probable Cause	If any of the steps for the platform provisioning process or the application deployment process includes a placed file component that is configured to use an external URL and if the URL is not accessible from the HP CDA server, the processes go into an infinite time out loop.
For More Information	Not applicable

Solution:

Cancel the platform provisioning process or the application deployment process. Configure the placed file component again to use the file from DSL and run the operation again.

The Provision Platform wizard contains an advanced option setting called “Job Timeout” that allows you to set a timeout that will cancel the provisioning operation once the timeout limit has been reached. Refer to the topic “Provisioning a Platform” in the *HP CDA online help* for information on setting the “Job Timeout” parameter.

Invoking the De-provision Operation Displays an Error Message

Symptoms	Unable to de-provision a provisioned platform.
Primary Software Components	HP CDA
Failure Message	De-provision is not possible as following realized topologies for this platform were found. <Realized Topology Name>
Probable Cause	A failed application deployment might have changed the state of the realized topology to an inconsistent state.
For More Information	Not applicable

Solution:

If the system has not been set to automatically perform a backout operation (referred to as a *forced backout*) upon failure of the de-provisioning operation, you will need to perform a manual backout or forced cleanup. Refer to the topics under the heading "Backing Out of Failed Operations" in the *HP CDA online help* for more information.

HP Operations Manager (HP OM) Nodes are Not Removed from the HP OM Server when a Platform is De-Provisioned Using HP CDA

Symptoms	HP CDA successfully deprovisions a platform that contained VMs that were being managed by HP OM, but the VMs are still shown in the HP OM server and interface as managed nodes.
Primary Software Components	HP CDA, HP OM
Failure Message	Not Applicable
Probable Cause	HP OM limitation.
For More Information	See the HP Operations Manager documentation.

Solution:

Either of the following two workarounds can be used:

- Remove the nodes manually from the HP Operations Manager admin console.

- Execute the following command on the HP Operations Manager server machine to remove the nodes:

  ```
  /opt/OV/bin/OpC/utils/opcnode -del_node node_name=<managed_node_name>
  net_type=NETWORK_IP
  ```

Failure in Deploying or Un-deploying an Application or Failure During Platform Provisioning

Symptoms	After installing HP CDA for the first time and configuring HP CloudSystem Matrix, when you try to synchronize the HP CloudSystem Matrix templates, the HP CDA server logs display the following SQLServerException: com.microsoft.sqlserver.jdbc.SQLServerException: Transaction (Process ID 90) was deadlocked on lock resources with another process and has been chosen as the deadlock victim. Rerun the transaction. This also results in a failure when you try to deploy or un-deploy an application or a failure when you try to provision a platform.
Primary Software Components	MS SQL Server 2008 R2
Failure Message	com.microsoft.sqlserver.jdbc.SQLServerException: Transaction (Process ID 90) was deadlocked on lock resources with another process and has been chosen as the deadlock victim. Rerun the transaction.
Probable Cause	Deadlock
For More Information	See the solution provided.

Solution:

Run the following queries in MS SQL Database to resolve this issue.

```
1  alter database db_name set allow_snapshot_isolation on;
2  alter database db_name set read_commited_snapshot on;
```

The Test Connection Operation for the Opscode Chef Server Plug-in Fails

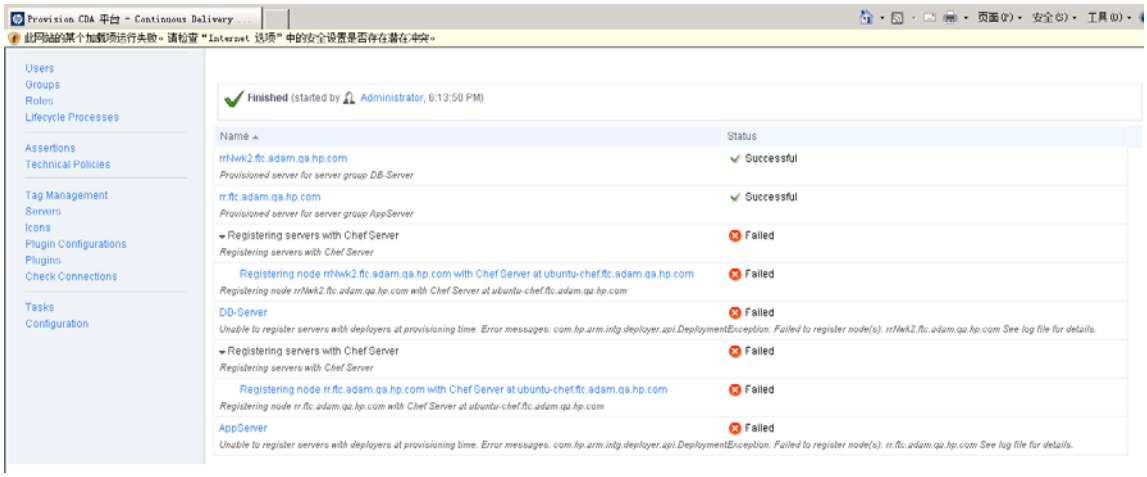
Symptoms	**Test Connection** operation for the Opscode Chef server plugin fails
Primary Software Components	HP CDA, Opscode Chef
Failure Message	Test Connection failed: Failed to connect to Chef Server <server name\IP> for user <username>. Verify hostname, username, and password are entered correctly, that the Chef server is available over the network via SSH, and that the user is a valid Knife API client.
Probable Cause	`Knife node list` command failure with error
For More Information	Not applicable

Solution:

1. Log on to the Opscode Chef server using the credentials specified in the Opscode Chef server plugin.
2. Run the `knife node list` command and make sure that the results are correct with no errors reported.
3. Run the **Test Connection** operation again.

Failure to Register Nodes in Opscode Chef Server

Symptoms	Clock error in the server log and failure to register nodes in the Opscode Chef server.
Primary Software Components	HP CDA, Opscode Chef
Failure Message	See the following screen capture.
Probable Cause	Time mismatch between the Opscode Chef server and the Target server.
For More Information	Not applicable



Solution:

Perform the steps listed to resolve this issue:

1. Connect to both the Opscode Chef server and the target server.
2. Identify the time and time zone for both the servers.
3. If there is a time and time zone mismatch between both the servers, set the time and the time zone on the target server to the time and the time zone of the Opscode Chef server.

Deployment Wizard does not Provide Sufficient Information

Symptoms	The deployment wizard does not provide sufficient information to identify the cause when the wizard fails to locate a realized platform.
Primary Software Components	HP CDA
Failure Message	Not applicable
Probable Causes	• No realized platform found for the configured stage. • No applicable package found for the stage.
For More Information	Not applicable

Solution:

Not applicable.

Provisioning Fails with HostKeyMisMatch Error

Symptoms	Provisioning fails with `HostkeyMismatch: fingerprint` error. The step to register the node fails.
Primary Software Components	HP CDA, Amazon EC2
Failure Message	STDERR: ERROR: Net::SSH::HostKeyMismatch: fingerprint....
Probable Causes	There might be an entry already present in the `known_ hosts` file. A mismatch in the information during the validation generates this error.
For More Information	See the solution provided.

Solution:

You can do as follows to resolve this issue:

1. Connect to the Opscode Chef server.
2. Delete the entry in the `/root/.ssh/known_hosts` file
3. Perform the provisioning again.

Deployment of Placed File Component Fails when Using HP Server Automation Deployer

Symptoms	Deployment of placed file component fails when using HP Server Automation Deployer.
Primary Software Components	HP CDA, HP Server Automation

Symptoms	Deployment of placed file component fails when using HP Server Automation Deployer.
Failure Message	Deployment of 'place file' failed with Exception: ID: HPSA-1106 Code: com.opsware.fido.FidoMessageSpec.AUTHORIZATION_DENIED Details: You do not have permission to perform this operation against the object(s). Operation: DefaultOperations.writeFolder Object(s): [{type=folder,id=1950001}].
Probable Causes	The user defined folder in HP Server Automation client does not have the required access privileges enabled.
For More Information	See the solution provided.

Solution:

Follow the steps listed to grant the required privileges to the user defined folder in HP Server Automation client:

1. Log on to the HP SA Client (SA NGUI) as a system administrator.
2. Select **Library** > **By Folder** > **Home** > **<User_Defined_Folder>**
3. Right click **<User_Defined_Folder>** and select **Folder Properties**.
4. Select **Grant Read, Write, or Execute Objects Within Folder Permissions to User Group**.

This completes the procedure.

A Placed Directory Deployment Operation Fails with the Chef Deployer

Symptoms	A Placed Directory deployment operation fails when Chef is used as the deployer.
Primary Software Components	HP CDA, Opscode Chef
Failure Message	Error executing action `install` on resource 'gem_package[rubyzip]
Probable Cause	Installation of "rubyzip" had failed on the target machine.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Log into the target machine and install rubyzip with the following command:

```
gem install rubyzip
```

Placing a Directory or File into a Non-Existent Folder is Performed Differently with the Chef, SSH and SA Deployers

Symptoms	When a non existent directory or folder location is specified as the destination in a Placed file/directory component, an error is thrown with the message “Directory does not exist” when the deployer is Chef or SSH. If the deployer is HP Server Automation, the non existent directory is created in the target machine and the file is successfully copied to it.
Primary Software Components	HP CDA, Opscode Chef, HP Server Automation
Failure Message	Directory does not exist (Chef or SSH deployers)
Probable Cause	Not applicable.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

If the Chef or SSH deployer is being used, ensure that the destination directory specified in Placed File/Directory component pre-exists in the target machine.

Large Files Fail to Download to Target Machines in Placed File Programming Operations or as Software Artifacts in Software Bundles

Symptoms	The download operation eventually fails and no file is downloaded to the target machine.
Primary Software Components	HP CDA, Opscode Chef
Failure Message	A failure message appears in the Report screen of the HP CDA user interface for the pertinent operation.
Probable Cause	A software defect in Opscode Chef.
For More Information	See the solution provided.

Solution:

Use the Executed Script programming operation to copy the file directly from the source to the target machine. The Executed Script operation bypasses Chef, which causes the failure.

Provisioning or Deployment Operations Result in a Null Pointer Exception

Symptoms	The provisioning or the deployment operations result in a null pointer exception.
Primary Software Components	HP CDA
Failure Message	NullPointerException.
Probable Causes	See the list of verification steps listed in the *Solution* section to identify the probable causes for this exception.
For More Information	See the solution provided.

Solution:

Check the following points for failed provision operations:

- Verify that you have defined the platform software for the platform that was attempted to be provisioned. See the stack trace and log files to troubleshoot the root cause of the failure.

- Verify that there is a valid configuration defined in the Administration-Plugins screen for your deployer (for example, Opscode Chef, HP SA, and so on). If there is no configuration defined, you must define a valid configuration.
- Verify that the deployer is selected in the **Deployer** tab of the Properties dialog box in the Platform Designer screen. Select the correct deployer if no deployers are currently selected and click **Save**.

Check the following points for failed deployment operations:

- Repeat the last two verification steps listed in the points to be checked for failed provision operations.
- Verify that a valid topology is defined for the application software in the **Deployment Topologies** tab in the Application Model screen. If there is no topology defined, you must define a topology.

6 Troubleshooting Monitoring

Deployment does not Provide Links for HP Diagnostics Monitors

Symptoms	Deployment does not provide links for HP Diagnostics monitors
Primary Software Components	HP CDA, HP Diagnostics
Failure Message	In the `cda_debug.log` file, look for any error messages after the `Prepare to deploy` statement.
Probable Cause	The possible causes might be one of the following: • Configuration problem in HP CDA • HP Diagnostics server is not running
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Verify that you have configured the following in HP CDA correctly:

- Check if the Topology Maps have associated policies.
- Check if the policies have the required monitors specified with HP Diagnostics deployer
- Verify that the topology has an HP Diagnostics provider configured.
- Verify that the provider has the correct HP Diagnostics host and port configured.
- Verify from a browser that the port of the host can be reached and that the HP Diagnostics UI shows up. You must also check if you can log on to HP Diagnostics using the same credentials configured from the HP CDA host.

HP CDA does not Display the Present Monitoring Status when Using HP Diagnostics as the Monitoring Provider

Symptoms	HP CDA does not display the present monitoring status on the Application Deployment Overview page when using HP Diagnostics as the monitoring provider.
Primary Software Components	HP CDA, HP Diagnostics
Failure Message	Not Applicable
Probable Cause	Incorrect configuration of HP CDA with HP Diagnostics.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Check the following details in the configuration:

- Verify that the application (for example, Pet Clinic) is running. The application includes a probe and the application must be running to report to HP Diagnostics.
- Verify that the probe directory exists under the following directory: `/opt/HPDiagnostics`. This is applicable to deployment on Linux environments.
- Verify that the `/opt/HPDiagnostics/etc/dispatcher.properties` file has an entry named `registrar` that points to your HP Diagnostics server: port. This is applicable to deployments on Linux environments.

Deployment does not Provide Links for HP SiteScope Monitors

Symptoms	Deployment does not provide links for HP SiteScope monitors.
Primary Software Components	HP CDA, HP SiteScope

Symptoms	Deployment does not provide links for HP SiteScope monitors.
Failure Message	In the `cda_debug.log` file, look for any error messages after the Prepare to deploy statement.
Probable Cause	The possible causes might be one of the following: • Configuration problem in HP CDA • HP SiteScope server is not running
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Verify that you have configured the following in HP CDA correctly:

- Check if the Topology Maps have associated policies.
- Check if the policies have the required monitors specified with HP SiteScope deployer
- Verify that the topology has HP SiteScope provider configured.
- Verify that the provider has the correct HP Site Scope host and port configured.
- Verify from the HP CDA host that the port of the host can be reached and that the HP Site Scope UI opens. You must also check if you can log on to HP SiteScope using the same credentials configured for the provider.
- Verify that the template used in the policy exists in HP SiteScope and the parameters in the HP CDA SiteScope template match the variables in the SiteScope template.

Try deploying the template to a known host to verify that the template is functional in HP SiteScope.

HP CDA does not Display the Present Monitoring Status when Using HP SiteScope as the Monitoring Provider

Symptoms	HP CDA does not display the present monitoring status on the Application Deployment Overview page when using HP SiteScope as the monitoring provider.
Primary Software Components	HP CDA, HP SiteScope

Symptoms	HP CDA does not display the present monitoring status on the Application Deployment Overview page when using HP SiteScope as the monitoring provider.
Failure Message	Not Applicable
Probable Cause	Incorrect configuration of HP CDA with HP SiteScope.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Check the following details in the configuration:

- Verify that the alerts are being recorded in HP SiteScope in the log file (`generic_event_integration.log`) by going to **Server Statistics** > **Log Files**. If the log file is not present, you can enable the log file by following the procedure:
  - Copy the `Generic Event Integration` strings from `log4j.properties.debug` to `log4j.properties` file. The `log4j properties` file is present at the following location: `%SITESCOPE_HOME%\conf\core\Tools\log4j\PlainJava`
- Verify that the **Preferences** > **HTTP Preferences** has an entry for HP CDA and has the URL set to **http://<CDA-HOST>:8080/mon-sis-wer/sisreceiver**
- Verify that there is an entry for HP CDA under **Preferences** > **Search/Filter Tags**
- Verify that there is an entry for HP CDA under **Preferences** > **Integration Preferences** and this entry
  - references a connector that is the entry (**HTTP Preferences**) listed in the second bullet in this section.
  - references the tag (**Search/ Filter Tags**) listed in the third bullet in this section.
- Verify that the tag listed in the third bullet in this section is used in the template **Search / Filter Tags**
- Verify that you have configured HP CDA event mapping under **Preferences** > **Common Event Mappings** and associated the mapping with the HP SiteScope template used. This enables HP SiteScope to send event related details to HP CDA.

Presence of `Received Opr XML event with deployId=, status=null` event in the cda_debug.log file

Symptoms	The `cda_debug.log` file displays the following event: `Received Opr XML event with deployId=, status=null`
Primary Software Components	HP CDA, HP SiteScope
Failure Message	16:02:23,530 DEBUG [com.example.mon.producer.OprEventUnmarshaller] (http--0.0.0.0-8080-1) Unexpected MetricStatus 16:02:23,530 INFO [com.example.mon.sis.receiver.OprEventReceiverServlet] (http--0.0.0.0-8080-1) Received Opr XML event with deployId=, status=null. 16:02:23,538 DEBUG [com.example.mon.sis.receiver.OprEventReceiverServlet] (http--0.0.0.0-8080-1) DeployId in event not found in Systinet model. DeployId:
Probable Cause	Events from HP SiteScope monitors that are not deployed using HP CDA might send events to the HP CDA events receiver URL configured in **Preferences** > **HTTP Preferences** These events display a NULL value for the status and a blank value for the deployment ID as seen in the Failure Message section of this table. You can safely ignore this event in the `cda_debug.log` file.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Check the following points that might help you resolve this issue:

- To prevent events being sent to the HP CDA events receiver URL from HP SiteScope monitors that are not deployed using HP CDA, you can opt for separate HP SiteScope instances in your environment
- Verify the steps listed in the *Solution* section of the previous troubleshooting item: HP CDA does not Display the Present Monitoring Status when Using HP SiteScope as the Monitoring Provider on page 43.

HP SiteScope Status Event Updates do not Get Displayed on HP CDA

Symptoms	HP SiteScope status events do not get displayed on HP CDA.
Primary Software Components	HP CDA, HP SiteScope
Failure Message	Exception with unmarshalling Opr XML event stream: null. You can find this failure message in the `CDA server.log` file.
Probable Cause	The **GZIP compression** option under the Generic Event Integration Preferences Settings section in HP SiteScope is enabled.
For More Information	See the HP SiteScope documentation for more information related to specifying generic event integration preferences settings.

Solution:

From HP SiteScope, go to the Generic Event Integration Preferences Settings section by navigating using the **Preferences** > **Integration Preferences** > **Generic Event Integration** options and clear the **GZIP compression** option if this option is selected.

HP CDA does not Display the Present Monitoring Status when Using Nagios as the Monitoring Provider

Symptoms	HP CDA does not display the present monitoring status on the Application Deployment Overview page when using Nagios as the monitoring provider.
Primary Software Components	Nagios, HP CDA
Failure Message	Not applicable
Probable Cause	Configuration issue in HP CDA.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Check the following details in the configuration

1. Check for any error in the Diagnostics alerting log by selecting **Maintenance** > **Logging** > **View Log Files** > …./Nagios
2. Check that the metric has an **Alert Rule (**a red alarm bell in the user interface) specified that includes the **Optional Actions** option including the `execute the following scripts` option. Make sure that the script set to execute is the `postToCDA.groovy` script.
3. If *step 2* in this procedure failed, follow the steps listed to check whether the monitors are deployed:
   a. Verify that the **Topology Maps** include attached policies.
   b. Verify that the policies include the required monitors specified with a Nagios deployer.
   c. Verify that the Topology has a Nagios provider configured.

You can also verify the following details:

- Make sure that the provider has the correct Nagios host and port details configured.
- Verify from a browser the host port can be reached, the Nagios UI shows up, and that you can log on with the same credentials as configured with the provider.
- Verify the following details in the configuration:
  - Verify that the application (such as Pet clinic) is running. The application includes a probe and must be running to report to Nagios.
  - Verify that the probe directory exists under the `/opt/Nagios` directory and includes the software. This is applicable only to deployments on Linux environments.
- Verify that the `/opt/Nagios/etc/dispatcher.properties` includes a registrar that points to the Nagios server: port. This is applicable only to deployments on Linux environments.

Page Not Found Error when Accessing the Nagios URL

Symptoms	Accessing the Nagios server **http://<nagios-server>/nagios** gives a `Page Not Found` error.
Primary Software Components	Nagios, HP CDA
Failure Message	Page Not Found
Probable Cause	The required monitors are not added to the Nagios configuration.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Verify the following to resolve this issue:

- Configuration issue with Nagios. To check, use the following command:

  `/usr/local/nagios/bin/nagios -v /usr/local/nagios/etc/nagios.cfg`

- Security-Enhanced Linux (SELinux) is enabled on Red Hat Enterprise Linux or Community ENTerprise Operating System (CentOS).

  Check the following file: `cat /etc/selinux/config` and check the value of `SELINUX`. The value of `SELINUX` must be as follows: `SELINUX=disabled`

- The Nagios service is not started. To start the service, run the following command:

  `/etc/init.d/nagios restart`

Contextual links are not working for Nagios

Symptoms	Contextual links are redirected to the invalid extended information screen, and an extended information error message is displayed.
Primary Software Components	HP CDA, Nagios
Failure Message	Extended information error message
Probable Cause	When the nagios3 server is installed on Ubuntu, for example, by default it creates the Apache alias to http://<*nagios-server*>/nagios3, however, the nagios deployer contextual URL points to http://<*nagios-server*>/nagios and not nagios3.
For More Information	Not applicable.

Solution:

Either change the contextual url to http://<nagios-server>/nagios3 or change the alias on the Nagios apache server as shown below:

1. Log into the Nagios server and navigate to the following location:

   `/etc/apache2/conf.d/`

2. Edit the nagios3.conf file and update the nagios server alias ("http://<*nagios-server*>/nagios3" by default on Ubuntu) from nagios3 to nagios:

Before:

```
ScriptAlias /cgi-bin/nagios3 /usr/lib/cgi-bin/nagios3
ScriptAlias /nagios3/cgi-bin  /usr/lib/cgi-bin/nagios3
Alias /nagios3/stylesheets /etc/nagios3/stylesheets
```

```
Alias /nagios3/usr/share/nagios3/htdocs
```

After:

```
ScriptAlias /cgi-bin/nagios  /usr/lib/cgi-bin/nagios3
ScriptAlias /nagios/cgi-bin  /usr/lib/cgi-bin/nagios3
Alias /nagios/stylesheets /etc/nagios3/stylesheets
Alias /nagios /usr/share/nagios3/htdocs
```

Contextual URL for Nagios does not Show the Status of the Monitored Host

Symptoms	After a successful deployment of the Nagios monitor from HP CDA, the contextual URL for Nagios does not show the status of the actual monitored host.
Primary Software Components	Nagios, HP CDA
Failure Message	It appears as though you do not have permission to view information for this host.
Probable Cause	Monitors are not added to the Nagios configuration.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Perform the following verification steps to resolve the problem:

- Check the `/usr/local/nagios/var/objects.cache` file for the hostname configuration as follows:

  ```
  grep  -i "<ip-address | hostname >" /usr/local/nagios/var/objects.cache
  ```

  This command returns a value if the configuration files are created and are being used by Nagios.

- Check the configuration file in the following directory using the command listed: `/usr/local/nagios/etc/mal/hosts/`

  ```
  grep -ir "<ip-address | hostname > " /usr/local/nagios/etc/mal/hosts/
  ```

  If the command returns the value, check the configuration file associated with the hostname.

- Check the permissions for the files in the following directory using the command shown: `ls -ltrh /usr/local/nagios/etc/mal/hosts/`

  All the files in this directory must be accessible for the Nagios user and the Nagios group.

- Reload the Nagios server configuration using the following command: `/etc/init.d/nagios reload`

  If the monitors are not available or created, this indicates an issue with the HP CDA Nagios monitor deployer.

Unable to Deploy the Nagios Monitor

Symptoms	Deployment of the Nagios monitor is successful, but the Nagios URL does not show the host monitored.
Primary Software Components	Nagios, HP CDA
Failure Message	It appears as though you do not have permission to view information for this host.
Probable Cause	Monitors are not added to the Nagios configuration.
For More Information	See the *HP Continuous Delivery Automation Installation and Configuration Guide* for more details regarding HP CDA configuration.

Solution:

Perform the following steps to resolve this issue:

- "Check if the `/usr/local/nagios/var/remote_config` directory contains any files. For a working integration, this directory must be empty.
- Check for the required file permission using the following command: `ls -ltrh /usr/local/nagios/var/remote_config`

  All the files must have the owner and group set to Nagios.
- If the owner and group is not set to Nagios for all the files, use the command:

  `chown nagios.nagios *` to set the ownership to Nagios.
- Check for the HTTPD / Apache2 web server and php5 status on the Nagios server.
- Verify if the link h**ttp://<nagios-server>/nrdp** is accessible from HP CDA.

Nagios Content is not Being Displayed in HP CDA and a Connection Error is Shown for Windows Target Machines

Symptoms	Nagios content is not being displayed in HP CDA and a connection error is shown.
Primary Software Components	HP CDA, Nagios
Failure Message	Connection refused error is displayed for deployed Nagios Windows monitors on the Nagios server and in HP CDA.
Probable Cause	NSClient++ 64 bit software is required to be installed on Windows target machines to check the monitors for Nagios, but the software is not installed.
For More Information	See: http://www.nsclient.org/nscp/

Solution:

1. Install the NS Client++ 64 bit software on the target machine being monitored by Nagios.
2. Modify the NSC.ini file that is in the directory "C:\Program Files\NSClient++" on the target machine and modify it with the content shown under *NSC.ini*, below.
3. In the NSC.ini file, modify the "allowed_hosts" entries with the IP address of the Nagios server (`allowed_hosts=<nagios_server_ip>`).
4. Restart the NS client++ service in the target machine.

NSC.ini

```
[modules]
;# NSCLIENT++ MODULES
;# A list with DLLs to load at startup.
;  You will need to enable some of these for NSClient++ to work.
; ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
; *                                                               *
; * N O T I C E ! ! ! - Y O U   H A V E   T O   E D I T   T H I S *
; *                                                               *
; ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
FileLogger.dll
CheckSystem.dll
CheckDisk.dll
NSClientListener.dll
NRPEListener.dll
SysTray.dll
CheckEventLog.dll
CheckHelpers.dll
;CheckWMI.dll
CheckNSCP.dll
;
; Script to check external scripts and/or internal aliases.
;CheckExternalScripts.dll
```

```
;
; NSCA Agent if you enable this NSClient++ will talk to NSCA hosts repeatedly (so
don't enable unless you want to use NSCA)
;NSCAAgent.dll
;
; LUA script module used to write your own "check daemon".
;LUAScript.dll
;
; RemoteConfiguration IS AN EXTREM EARLY IDEA SO DONT USE FOR PRODUCTION
ENVIROMNEMTS!
;RemoteConfiguration.dll
; Check other hosts through NRPE extreme beta and probably a bit dangerous! :)
;NRPEClient.dll
; Extremely early beta of a task-schedule checker
;CheckTaskSched.dll

[crash]
; Archive crash dump files if a crash is detected
;archive=1

; Submit crash reports to a crash report server (this overrides archive)
;submit=0

; Restart service if a crash is detected
;restart=1

[Settings]
;# OBFUSCATED PASSWORD
;  This is the same as the password option but here you can store the password in
an obfuscated manner.
;  *NOTICE* obfuscation is *NOT* the same as encryption, someone with access to
this file can still figure out the
;  password. Its just a bit harder to do it at first glance.
;obfuscated_password=Jw0KAUUdXlAAUwASDAAB
;
;# PASSWORD
;  This is the password (-s) that is required to access NSClient remotely. If you
leave this blank everyone will be able to access the daemon remotely.
;password=secret-password
;
;# ALLOWED HOST ADDRESSES
;  This is a comma-delimited list of IP address of hosts that are allowed to talk
to the all daemons.
;  If leave this blank anyone can access the daemon remotely (NSClient still
requires a valid password).
;  The syntax is host or ip/mask so 192.168.0.0/24 will allow anyone on that
subnet access
;allowed_hosts=127.0.0.1/32
;
;# USE THIS FILE
;  Use the INI file as opposed to the registry if this is 0 and the use_reg in the
registry is set to 1
;  the registry will be used instead.
use_file=1
allowed_hosts=10.1.195.32
;
; # USE SHARED MEMORY CHANNELS
;  This is the "new" way for using the system tray based on an IPC framework on
top shared memory channels and events.
;  It is brand new and (probably has bugs) so don enable this unless for testing!
```

```
;  If set to 1 shared channels will be created and system tray icons created and
such and such...
;shared_session=0


[log]
;# LOG DEBUG
;  Set to 1 if you want debug message printed in the log file (debug messages are
always printed to stdout when run with -test)
;debug=1
;
;# LOG FILE
;  The file to print log statements to
;file=nsclient.log
;
;# LOG DATE MASK
;  The format to for the date/time part of the log entry written to file.
;date_mask=%Y-%m-%d %H:%M:%S
;
;# LOG ROOT FOLDER
;  The root folder to use for logging.
;  exe = the folder where the executable is located
;  local-app-data = local application data (probably a better choice then the old
default)
;root_folder=exe


[NSClient]
;# ALLOWED HOST ADDRESSES
;  This is a comma-delimited list of IP address of hosts that are allowed to talk
to NSClient daemon.
;  If you leave this blank the global version will be used instead.
;allowed_hosts=
;
;# NSCLIENT PORT NUMBER
;  This is the port the NSClientListener.dll will listen to.
port=12489
;
;# BIND TO ADDRESS
;  Allows you to bind server to a specific local address. This has to be a dotted
ip address not a hostname.
;  Leaving this blank will bind to all available IP addresses.
;bind_to_address=
;
;# SOCKET TIMEOUT
;  Timeout when reading packets on incoming sockets. If the data has not arrived
within this time we will bail out.
;socket_timeout=30

[NRPE]
;# NRPE PORT NUMBER
;  This is the port the NRPEListener.dll will listen to.
;port=5666
;
;# COMMAND TIMEOUT
;  This specifies the maximum number of seconds that the NRPE daemon will allow
plug-ins to finish executing before killing them off.
;command_timeout=60
;
;# COMMAND ARGUMENT PROCESSING
```

```
;  This option determines whether or not the NRPE daemon will allow clients to
specify arguments to commands that are executed.
;allow_arguments=0
;
;# COMMAND ALLOW NASTY META CHARS
;  This option determines whether or not the NRPE daemon will allow clients to
specify nasty (as in |`&><'"\[]{}) characters in arguments.
;allow_nasty_meta_chars=0
;
;# USE SSL SOCKET
;  This option controls if SSL should be used on the socket.
;use_ssl=1
;
;# BIND TO ADDRESS
;  Allows you to bind server to a specific local address. This has to be a dotted
ip address not a hostname.
;  Leaving this blank will bind to all available IP addresses.
; bind_to_address=
;
;# ALLOWED HOST ADDRESSES
;  This is a comma-delimited list of IP address of hosts that are allowed to talk
to NRPE daemon.
;  If you leave this blank the global version will be used instead.
;allowed_hosts=
;
;# SCRIPT DIRECTORY
;  All files in this directory will become check commands.
;  *WARNING* This is undoubtedly dangerous so use with care!
;script_dir=scripts\
;
;# SOCKET TIMEOUT
;  Timeout when reading packets on incoming sockets. If the data has not arrived
within this time we will bail out.
;socket_timeout=30

[Check System]
;# CPU BUFFER SIZE
;  Can be anything ranging from 1s (for 1 second) to 10w for 10 weeks. Notice
that a larger buffer will waste memory
;  so don't use a larger buffer then you need (ie. the longest check you do +1).
;CPUBufferSize=1h
;
;# CHECK RESOLUTION
;  The resolution to check values (currently only CPU).
;  The value is entered in 1/10:th of a second and the default is 10 (which means
ones every second)
;CheckResolution=10
;
;# CHECK ALL SERVICES
;  Configure how to check services when a CheckAll is performed.
;  ...=started means services in that class *has* to be running.
;  ...=stopped means services in that class has to be stopped.
;  ...=ignored means services in this class will be ignored.
;check_all_services[SERVICE_BOOT_START]=ignored
;check_all_services[SERVICE_SYSTEM_START]=ignored
;check_all_services[SERVICE_AUTO_START]=started
;check_all_services[SERVICE_DEMAND_START]=ignored
;check_all_services[SERVICE_DISABLED]=stopped

[External Script]
```

```
;# COMMAND TIMEOUT
;  This specifies the maximum number of seconds that the NRPE daemon will allow
plug-ins to finish executing before killing them off.
;command_timeout=60
;
;# COMMAND ARGUMENT PROCESSING
;  This option determines whether or not the NRPE daemon will allow clients to
specify arguments to commands that are executed.
;allow_arguments=0
;
;# COMMAND ALLOW NASTY META CHARS
;  This option determines whether or not the NRPE daemon will allow clients to
specify nasty (as in |`&><'"\[]{}) characters in arguments.
;allow_nasty_meta_chars=0
;
;# SCRIPT DIRECTORY
;  All files in this directory will become check commands.
;  *WARNING* This is undoubtedly dangerous so use with care!
;script_dir=c:\my\script\dir

[Script Wrappings]
vbs=cscript.exe //T:30 //NoLogo scripts\lib\wrapper.vbs %SCRIPT% %ARGS%
ps1=cmd /c echo scripts\%SCRIPT% %ARGS%; exit($lastexitcode) | powershell.exe
-command -
bat=scripts\%SCRIPT% %ARGS%

[External Scripts]
;check_es_long=scripts\long.bat
;check_es_ok=scripts\ok.bat
;check_es_nok=scripts\nok.bat
;check_vbs_sample=cscript.exe //T:30 //NoLogo scripts\check_vb.vbs
;check_powershell_warn=cmd /c echo scripts\powershell.ps1 | powershell.exe
-command -

[External Alias]
alias_cpu=checkCPU warn=80 crit=90 time=5m time=1m time=30s
alias_cpu_ex=checkCPU warn=$ARG1$ crit=$ARG2$ time=5m time=1m time=30s
alias_mem=checkMem MaxWarn=80% MaxCrit=90% ShowAll=long type=physical
type=virtual type=paged type=page
alias_up=checkUpTime MinWarn=1d MinWarn=1h

alias_disk=CheckDriveSize MinWarn=10% MinCrit=5% CheckAll FilterType=FIXED
alias_disk_loose=CheckDriveSize MinWarn=10% MinCrit=5% CheckAll FilterType=FIXED
ignore-unreadable
alias_volumes=CheckDriveSize MinWarn=10% MinCrit=5% CheckAll=volumes
FilterType=FIXED
alias_volumes_loose=CheckDriveSize MinWarn=10% MinCrit=5% CheckAll=volumes
FilterType=FIXED ignore-unreadable

alias_service=checkServiceState CheckAll
alias_service_ex=checkServiceState CheckAll "exclude=Net Driver HPZ12"
"exclude=Pml Driver HPZ12" exclude=stisvc
alias_process=checkProcState "$ARG1$=started"
alias_process_stopped=checkProcState "$ARG1$=stopped"
alias_process_count=checkProcState MaxWarnCount=$ARG2$ MaxCritCount=$ARG3$
"$ARG1$=started"
alias_process_hung=checkProcState MaxWarnCount=1 MaxCritCount=1 "$ARG1$=hung"
```

```
alias_event_log=CheckEventLog file=application file=system MaxWarn=1 MaxCrit=1
"filter=generated gt -2d AND severity NOT IN ('success', 'informational') AND
source != 'SideBySide'" truncate=800 unique descriptions "syntax=%severity%:
%source%: %message% (%count%)"

alias_file_size=CheckFiles "filter=size > $ARG2$" "path=$ARG1$" MaxWarn=1
MaxCrit=1 "syntax=%filename% %size%" max-dir-depth=10
alias_file_age=checkFile2 filter=out "file=$ARG1$" filter-written=>1d MaxWarn=1
MaxCrit=1 "syntax=%filename% %write%"

alias_sched_all=CheckTaskSched "filter=exit_code ne 0" "syntax=%title%:
%exit_code%" warn=>0
alias_sched_long=CheckTaskSched "filter=status = 'running' AND
most_recent_run_time < -$ARG1$" "syntax=%title% (%most_recent_run_time%)"
warn=>0
alias_sched_task=CheckTaskSched "filter=title eq '$ARG1$' AND exit_code ne 0"
"syntax=%title% (%most_recent_run_time%)" warn=>0

alias_updates=check_updates -warning 0 -critical 0

check_ok=CheckOK Everything is fine!

[Wrapped Scripts]
;check_test_vbs=check_test.vbs /arg1:1 /arg2:1 /variable:1
;check_test_ps1=check_test.ps1 arg1 arg2
;check_test_bat=check_test.bat arg1 arg2
;check_battery=check_battery.vbs
;check_printer=check_printer.vbs
;check_updates=check_updates.vbs


; [includes]
;# The order when used is “reversed” thus the last included file will be “first”
;# Included files can include other files (be careful only do basic recursive
checking)
;
; myotherfile.ini
; real.ini


[NSCA Agent]
;# CHECK INTERVALL (in seconds)
;   How often we should run the checks and submit the results.
;interval=5
;
;# ENCRYPTION METHOD
;   This option determines the method by which the send_nsca client will encrypt
the packets it sends
;   to the nsca daemon. The encryption method you choose will be a balance
between security and
;   performance, as strong encryption methods consume more processor resources.
;   You should evaluate your security needs when choosing an encryption method.
;
; Note: The encryption method you specify here must match the decryption method
the nsca daemon uses
;       (as specified in the nsca.cfg file)!!
; Values:
;0 = None(Do NOT use this option)
;1 = Simple XOR  (No security, just obfuscation, but very fast)
;   2 = DES
```

```
;   3 = 3DES (Triple DES)
;4 = CAST-128
;6 = xTEA
;8 = BLOWFISH
;9 = TWOFISH
;11 = RC2
;14 = RIJNDAEL-128 (AES)
;20 = SERPENT
;encryption_method=14
;
;# ENCRYPTION PASSWORD
;  This is the password/passphrase that should be used to encrypt the sent
packets.
;password=
;
;# BIND TO ADDRESS
;  Allows you to bind server to a specific local address. This has to be a dotted
ip address not a hostname.
;  Leaving this blank will bind to "one" local interface.
; -- not supported as of now --
;bind_to_address=
;
;# LOCAL HOST NAME
;  The name of this host (if empty "computername" will be used.
;hostname=
;
;# NAGIOS SERVER ADDRESS
;  The address to the nagios server to submit results to.
;nsca_host=192.168.0.1
;
;# NAGIOS SERVER PORT
;  The port to the nagios server to submit results to.
;nsca_port=5667
;

;# CHECK COMMAND LIST
;  The checks to run every time we submit results back to nagios
;  Any command(alias/key) starting with a host_ is sent as HOST_COMMAND others
are sent as SERVICE_COMMANDS
;  where the alias/key is used as service name.
;
[NSCA Commands]
;my_cpu_check=checkCPU warn=80 crit=90 time=20m time=10s time=4
;my_mem_check=checkMem MaxWarn=80% MaxCrit=90% ShowAll type=page
;my_svc_check=checkServiceState CheckAll exclude=wampmysqld exclude=MpfService
;host_check=check_ok

;# REMOTE NRPE PROXY COMMANDS
;  A list of commands that check other hosts.
;  Used by the NRPECLient module
[NRPE Client Handlers]
check_other=-H 192.168.0.1 -p 5666 -c remote_command -a arguments

;# LUA SCRIPT SECTION
;  A list of all Lua scripts to load.
;[LUA Scripts]
;scripts\test.lua
```