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Installation Guide

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# HP Integration Bridge overview

The HP Integration Bridge is a platform that enables two-way communication between Agile Manager and on-premise applications located behind firewalls, such as HP ALM.

# **Integration Bridge components**

The Integration Bridge is composed of:

- **The Integration Bridge agent.** A software component installed on the customer system to mediate between Agile Manager and the on-premise application. The agent initiates communications with—and receives tasks from—Agile Manager.
- **The Integration Bridge service.** The entry point for Agile Manager to submit tasks, and for Integration Bridge agents to request tasks. In addition to allowing task execution on Integration Bridge agents, the service is also responsible for agent registration and management, monitoring, secure communication, and so on.

# **Integration Bridge system requirements**

Verify that your system has the following minimum system requirements to install the Integration Bridge:

Operating system	One of the following:
	Windows Server 2008 R2 SP1 64-bit
	Windows Server 2012 R2 SP1 64-bit
Memory	8 GB
Free disk space	80 GB

**Note:** The Integration Bridge must be installed to a path named only with ASCII characters.

### Supported ALM/Quality Center versions

The Integration Bridge can interface with the following versions of ALM or Quality Center: 11.52 patch 5; 12.01 patch 1; 12.20

Earlier patch numbers are not supported.

**Note:** Synchronizer does not support SSO connections to ALM.

# Integration Bridge tasks

To start using NextGen Synchronizer, download and install the Integration Bridge, and then define credentials for connecting to ALM. For details, see:

- "Download and install the bridge" on the next page
- "Manage credentials" on page 10

Continue by creating synchronization links in Agile Manager. For details, see the Agile Manager Help Center (**Help > Help on This Page**).

See the following maintenance topics as needed.

- "Integration Bridge security" on page 24
- "Manage the bridge agent and service" on page 27
- "Uninstall/Remove the Integration Bridge" on page 29
- "Upgrade the Integration Bridge" on page 31
- "Integration Bridge troubleshooting" on page 34

# Download and install the bridge

Click **Configuration**  $\bigcirc$  on the top right of the page, and select **Integrations** from the navigation menu on the left.

Tab: Integrations > Synchronizer. This tab is visible to **Integration Administrators** only.

**Tip:** If you have just assigned yourself to the Integration Administrator role, you do not need to log out and log in again. Simply refresh your browser window to access the **Integrations** configuration area.

Install the bridge on a computer that can access both Agile Manager and ALM. Install and run the bridge as a Windows administrator user.

You can install multiple bridge agents. This is only necessary if you need to synchronize with ALM projects that reside on different networks, or if you define a large number of synchronization links and you want to distribute the load between multiple agents.

In this procedure, you will need to enter credentials for the Agile Manager user assigned to the **Integration Bridge** role, used to access Agile Manager from the Integration Bridge.

Assign a user to the Integration Bridge role on the **Site** > **Users** configuration page.

1. On the Integrations > Synchronizer configuration page, do one of the following:

Installation	Instruction
If this is the first time you are installing the bridge	In the checklist, click the link in the second step to download the bridge.
If you are installing an additional bridge or performing an upgrade	Select More Actions > Download Integration Bridge.

Extract the downloaded **hp-integration-bridge-windows.zip** file. You must extract this zip file to a path named only with English characters.

- 2. Run the **hp-integration-bridge.exe** file to begin the installation. When the wizard opens, click **OK** to get started.
- 3. Follow the instructions in the installation wizard to complete the installation.

**Note:** The Integration Bridge must be installed to a path named only with ASCII characters.

When provided, accept the default values, which are configured to connect to your workspace.

### On the **Setup connection** page:

Settings	Description
Bridge name	Define a name for the bridge.
URL	The URL of your Agile Manager site. By default, this URL is provided for you. This URL will be used in email notifications, such as to Integration Administrators.
	<b>Tip:</b> We recommend ensuring that this URL is accessible to email recipients and from the ALM client.
Login name and Password fields	Enter credentials for the user assigned to the <b>Integration Bridge</b> role.
IICIUS	If you need to modify these credentials later on, see "Set Agile Manager credentials" on page 20.

Settings	Description
Proxy server	If you will be using a proxy server to access Agile Manager, select <b>Use proxy server</b> .
	Enter details for the proxy server and the user who will be logging into the proxy server:
	<ul> <li>Host. A valid address for the proxy server.</li> </ul>
	• Port. A valid port number (integer, between 1-65535)
	For details about modifying the proxy credentials later, see "Configure a proxy for Agile Manager connections" on page 21.

**Tip:** Click **Test Connection** to verify that the bridge can connect to Agile Manager.

- 4. When the installation is finished, the **Installation complete** page is displayed. Click **Done** to quit the installer.
- The Endpoint Credentials Manager application opens automatically. Define credentials for connecting to ALM, as described in "Manage credentials" on the next page.

**Note:** You must configure ALM credentials before you configure your links.

If the Endpoint Credentials Manager does not open automatically, open it manually. The Endpoint Credentials Manager application is installed together with the Integration Bridge.

In Agile Manager, the new bridge is identified within a few moments. If you do not see your new bridge, refresh the page. From there, click **Create synchronization links** to start creating your links.

### See also

"Upgrade the Integration Bridge" on page 31

# Manage credentials

Credentials are used to provide secure, two-way communication between the Integration Bridge and Agile Manager or ALM.

The Endpoint Credentials Manager application, used to manage ALM credentials, opens automatically after installing the Integration Bridge.

**Note:** You must set ALM credentials before synchronizing entities between Agile Manager and ALM, and modify them later on if these credentials change.

If the Endpoint Credentials Manager does not open automatically after installation, or if you need to open it again later, open the application manually. The Endpoint Credentials Manager is installed together with the Integration Bridge.

- "Set ALM credentials (Endpoint Credentials Manager)" below
- "Set ALM credentials (CLI)" on the next page
- "Configure a proxy for ALM connections" on page 19
- "Set Agile Manager credentials" on page 20
- "Configure a proxy for Agile Manager connections" on page 21

# Set ALM credentials (Endpoint Credentials Manager)

Perform this procedure as a Windows administrator user.

1. On the Integration Bridge machine, open the Endpoint Credentials Manager application. The Endpoint Credentials Manager is installed together with the Integration Bridge.

- 2. Click **\* New** to create a set of credentials.
- 3. Enter the credentials on the right, and then click 🗎 **Save** .

Field	Description
Display name	The name used to identify this particular credentials record when configuring a link in Agile Manager.
User	The name of the user connecting to ALM.
Password	The password used to connect to ALM.
Confirm password	Enter the password a second time to confirm it.

Credentials are encrypted and stored on your system in the **credentialsStore.xml** and **bridgeCredentialStore.xml** files, located in the *sridge\_installation\_ directoryroduct/conf* folder.

- To update a credential record, select it and make your changes on the right. Then click 🖹 **Save**.
- To delete a credential record, select it, and click **X Delete**.

# Set ALM credentials (CLI)

Use the **credentials\_mng\_console.bat** command line tool to set the credentials used to connect to ALM.

This tool is located in the *Bridge\_installation\_directory*>\product\util\opb directory. Run this tool as a Windows administrator user.

You must set ALM credentials before synchronizing entities between Agile Manager and ALM, and later on if these credentials change.

**Note:** Alternatively, set ALM credentials using the Endpoint Credentials Manager. For details, see "Manage credentials" on the previous page. The **credentials\_mng\_console.bat** tool supports the following commands:

"list"	"listEndpointTypes"	"listCredentiallds"
"listEndpointTypeParams"	"create"	"update"
"delete"	"help"	

## list

Lists available credential records for connecting to ALM from the Integration Bridge.

### Usage

credentials\_mng\_console list -endpoint <ENDPOINT TYPE>

### Parameters

-endpoint	Endpoint type name, such as an ALM version (optional).
<endpoint type=""></endpoint>	This type name must be a value available in the "listEndpointTypes" command.

### **Sample Results**

```
Endpoint type : sample-endpoint-type-11.5
ID : 9460b7
Name : sample credentials record
User : sample username
Password : *****
Parameters :
Key | Value
......sample.secret.property | *****
```

sample.url.property | 123

# listEndpointTypes

Lists available ALM endpoint types accessible to the Integration Bridge, such as ALM versions. You can filter the endpoints by type name.

### Usage

```
credentials_mng_console listEndpointTypes -endpoint <ENDPOINT TYPE>
```

### Parameters

<pre>-endpoint <endpoint type=""></endpoint></pre>	Endpoint type name (optional)	

### **Sample Results**

Endpoint types :

1. alm-11.5

# listCredentialIds

Lists all ALM credential record IDs and the ALM endpoint type related to each credential ID.

### Usage

```
credentials_mng_console listCredentialIds -endpoint <ENDPOINT TYPE>
```

### Parameters

-endpoint <endpoint type=""></endpoint>	Endpoint type name, such as the ALM version (optional).
	This type name must be a value available in the "listEndpointTypes" command.

### **Sample Results**

Endpoint type : alm-11.5

# listEndpointTypeParams

Lists the specific parameters required for saving credentials for each ALM endpoint type.

### Usage

credentials\_mng\_console listEndpointTypeParams -endpoint <ENDPOINT TYPE>

### Parameters

	-endpoint	Endpoint type name, such as an ALM version (optional).
<endpoint type=""></endpoint>	This type name must be a value available in the "listEndpointTypes" command.	

### **Sample Results**

Endpoint type : sample-endpoint-type-11.5 Output format: Parameter: Label: Description: Mandatory: ------Endpoint type specific parameters: Parameter: sample.url.property Label: Server URL Description: URL address for sample server Mandatory: true Parameter: sample.secret.property Label: Secret key Description: Secret key for sample server Mandatory: false

### create

Creates a credentials record for accessing ALM from the Integration Bridge.

### Usage

credentials\_mng\_console create -file <path to data file> -user <USER> pass <PASSWORD> -endpoint <ENDPOINT TYPE> -name <CREDENTIALS RECORD NAME>
-param <KEY> <VALUE> -param <KEY> <VALUE>

### Usage example - generic

credentials\_mng\_console create -user <USER> -pass <PASSWORD> -endpoint
sample-endpoint-type-11.5 -name <CREDENTIALS NAME> -param
sample.url.property <PARAMETER\_VALUE> -param sample.url.property
<PARAMETER\_VALUE>

### Usage example - ALM specific

credentials\_mng\_console create -user <USER> -pass <PASSWORD> -endpoint
alm-11.5 -name <CREDENTIALS NAME>

### Parameters

-file <file></file>	Read parameters from the property file (optional). Parameters will be overwritten if they are specified in the console.
-user <user></user>	User name
-pass <password></password>	Password
-endpoint <endpoint type=""></endpoint>	Endpoint type name, such as an ALM version. This type name must be a value available in the "listEndpointTypes" command.
-name <credentials NAME&gt;</credentials 	Credentials record name
-param <key> <value></value></key>	Custom parameters (optional)
-replace	Replace all existing parameters with input parameters (optional)

The property file is a text file that describes the credential's properties. The file format is:

endpoint=<ENDPOINT TYPE>

name=<NAME>

user=<USER>

pass=<PASSWORD>

customParam1=value1

customParam2=value2

### **Sample Results**

endpoint=<ENDPOINT TYPE>

name=<NAME>

customParam1=value1

customParam2=value2

### update

Updates an existing credentials record for accessing ALM from the Integration Bridge.

### Usage

credentials\_mng\_console update -user <USER> -pass <PASSWORD> credentialsId <CREDENTIALS ID> -endpoint <ENDPOINT TYPE> -param <KEY>
<VALUE> -param <KEY> <VALUE> -replace

### Usage example

```
credentials_mng_console update -user <USER> -pass <PASSWORD> -
credentialsId <CREDENTIALS ID> -endpoint alm-11.5 -replace
```

#### Parameters

-file <file></file>	Reads parameters from the property file (optional).
	Parameters will be overwritten if they are specified in the console.
-user <user></user>	New user name

-pass <password></password>	New password
<pre>-credentialsId <credentials id=""></credentials></pre>	The credentials record ID you want to update
-endpoint <endpoint type=""></endpoint>	New endpoint name, such as an ALM version. This type name must be a value available in the "listEndpointTypes" command.
-param <key> <value></value></key>	Custom parameters (optional)
-replace	Replace all existing parameters with input parameters (optional)

# delete

Deletes an ALM credential record.

**Note:** You cannot delete a single parameter from a credential record. You can only delete an entire credential record.

### Usage

credentials\_mng\_console delete -endpoint <ENDPOINT TYPE> -credentialsId
<CREDENTIALS ID>

### Parameters

-endpoint <endpoint type=""></endpoint>	Endpoint type name, such as the ALM version.
	This type name must be a value available in the "listEndpointTypes" command.
-credentialId <credentials id=""></credentials>	The credentials record ID

## help

Provides help for the current command when configuring ALM credentials for the Integration Bridge.

### Usage

```
credentials_mng_console help
```

# Configure a proxy for ALM connections

By default, the connection between the Integration Bridge and ALM is not authenticated by proxy. To configure a proxy, do the following, as a Windows administrator user.

- 1. In the <Integration Bridge installation directory>\product\domain\alm\conf folder, open the proxy.properties file.
- 2. To use a proxy, change the **setProxy** value to **true**.

If this value is **false**, proxy settings are ignored and no proxy is used.

- 3. Set the proxy host and port values:
  - a. Change the **proxyHost** value to the proxy IP address or server name.
  - b. Change the **proxyPort** value to the relevant port for the proxy.

When **proxyHost** has a value, **proxyPort** is mandatory.

Example
setProxy=true
proxyHost=123.45.6.7
proxyPort=1234
proxyUser=
proxyPass=

- 4. If the proxy requires authentication:
  - a. Change the **proxyUser** value to the proxy user name.
  - b. Change the **proxyPass** value to the proxy password.

When **proxyUser** has a value, **proxyPass** is mandatory.

Example
setProxy=true
proxyHost=123.45.6.7
proxyPort=1234
proxyUser=MyUserName
proxyPass=MyPassword

- 5. Save the **proxy.properties** file.
- 6. Restart the Integration Bridge. For details, see "Manage the bridge agent and service" on page 27.

**Tip:** If authentication fails, verify that the contents of the **proxy.properties** file are syntactically correct and contain valid values.

# Set Agile Manager credentials

Use the **agentAuthentication.bat** command line tool to set the credentials used to connect to Agile Manager.

This tool is located in the *<Bridge\_installation\_directory*>\product\util\opb directory. Run this tool as a Windows administrator user.

**Note:** Set Agile Manager credentials only if the credentials change from when you first installed the Integration Bridge agent.

The **agentAuthentication.bat** tool supports the following commands:

"setAuth" below

"help" below

## setAuth

Sets credentials for connecting to Agile Manager from the Integration Bridge.

**Note:** The user logging in to Agile Manager must be assigned to the Agile Manager **Integration Bridge** role.

For security purposes, the **Integration Bridge** user should not have any additional roles.

### Usage

agentAuthentication setAuth -user <USER> -pass <PASSWORD>

### Parameters

-user <user name=""></user>	The name of the user connecting to Agile Manager.
-pass <password></password>	The password of the user connecting to Agile Manager.

# help

Provides help for the current command when configuring Agile Manager credentials for the Integration Bridge.

### Usage

agentAuthentication help

# Configure a proxy for Agile Manager connections

Use the **proxyConfiguration.bat** command line tool to set credentials for accessing Agile Manager through a proxy server.

This tool is located in the *<Bridge\_installation\_directory*>\product\util\opb directory. Run this tool as a Windows administrator user.

### Note:

- Set proxy server credentials only if the credentials change from when you first installed the Integration Bridge.
- After making any changes, restart the Integration Bridge. For details, see "Manage the bridge agent and service" on page 27.

The **proxyConfiguration.bat** tool supports the following commands:

"setAddress"	"removeProxyConfiguration "
"setAuth"	"removeAuth"

"help" on the next page

## setAddress

Sets a host and port for accessing Agile Manager through a proxy server.

### Usage

proxyConfiguration setAddress -host <PROXY HOST> -port <PROXY PORT>

### Parameters

-host <proxy host=""></proxy>	The address of the proxy server host.
-port <proxy port=""></proxy>	The port number of the proxy server.

### **removeProxyConfiguration**

Configures the Integration Bridge to access Agile Manager without a proxy server.

### Usage

proxyConfiguration removeProxyConfiguration

# setAuth

Saves credentials for connecting to a proxy server, when accessing Agile Manager through a proxy server.

### Usage

proxyConfiguration setAuth -user <USER> -pass <PASSWORD>

### Parameters

-user <user name=""></user>	The name of the user connecting to the proxy server.
-pass <password></password>	The password of the user connecting the proxy server.

### removeAuth

Deletes a set of credentials previously used to connect to Agile Manager through a proxy server.

### Usage

```
proxyConfiguration removeAuth
```

# help

Provides help for the current command when configuring access to Agile Manager through a proxy server.

### Usage

```
proxyConfiguration help
```

# Integration Bridge security

The Integration Bridge does not expose any internal information. Additionally, HP application JAR files are signed by HP, helping to validate the code's origin.

This topic includes:

- "Communication via SSL" below
- "Connections via self-signed certificates" below
- "Password encryption" on the next page
- "Security recommendations" on the next page

### **Communication via SSL**

Communication between the Integration Bridge and Agile Manager is secured by SSL.

The agent logs in to Agile Manager using the user credentials provided during installation, or later as described in "Set Agile Manager credentials" on page 20.

## **Connections via self-signed certificates**

To connect to a secured Agile Manager or ALM server using a self-signed certificate, import the server's certificate to the JRE's truststore in the following directory:

### <Integration Bridge installation directory>\product\util\3rd-party\jre1.7.0\_ 51\jre\lib\security\

Do the following:

- 1. With Agile Manager or ALM open in your browser window, export the certificate from the browser, and save it to a file named **server.cer**.
- 2. On the Integration Bridge machine, place the **server.cer** file in the **<Integration** Bridge installation\product\util\3rd-party\jre1.7.0\_51\jre\bin directory.

3. Use the keytool command from the <Integration Bridge installation>\product\util\3rd-party\jre1.7.0\_51\jre\bin directory to import the server.cer file to the <Integration Bridge installation>\product\util\3rdparty\jre1.7.0\_51\jre\lib\security\cacerts directory.

For example:

```
keytool.exe -import -v -trustcacerts -alias tomcat -file
server.cer -storepass <password> -keystore <Integration
Bridge installation>\product\util\3rd-party\jre1.7.0_
51\jre\lib\security\cacerts -keypass <password>
```

4. Restart the Integration Bridge.

# **Password encryption**

Passwords for connecting to endpoints are encrypted and saved on the customer's machine, preventing credentials from being transferred to another machine.

The encryption method uses keys that are randomly generated during installation. The agent uses AES 128 as the main encryption method.

## Security recommendations

Security recommendations	
Download sources	Do not download the Integration Bridge installation file or updates from unknown sources.
Integration Bridge agent machine	Install the Integration Bridge on a dedicated, hardened machine.

Security recommend	dations
Integration Bridge agent network	Deploy the Integration Bridge in an isolated network, with a firewall between the bridge and the target on-premise application.
	<ul> <li>Port 443 must be open for communication with Agile Manager.</li> </ul>
	<ul> <li>Additional ports may be required to be opened for internal communications with other on premise applications.</li> </ul>
Installation folder	The Integration Bridge service is run using the Windows Local System service user.
	You can protect the Integration Bridge installation folder by granting permissions to that folder only to administrators and the Local System service user.
Integration Bridge user	The Agile Manager user with the Integration Bridge role should not have any other additional roles.
On-premise application users	When defining permissions for users of on-premise applications that communicate with Agile Manager, such as ALM users, limit permissions to specifically required operations only.

# Manage the bridge agent and service

The Integration Bridge agent and service are automatically started when your system starts. This topic describes how to manage them manually.

These procedures must be performed as a Windows administrator user.

#### Note:

- Both the agent and service must be running for Agile Manager to communicate with on-premise applications such as ALM. For details about these components, see "HP Integration Bridge overview" on page 5.
- If you have upgraded your ALM projects, you'll need to restart the Bridge manually after upgrade to continue synchronizing data between ALM and Agile Manager.

### Start the Bridge agent

Search or browse for, and select the **Start HP Integration Bridge** application.

### Stop the Bridge agent

Search or browse for, and select the **Stop HP Integration Bridge** application.

### Manage the service using Windows Services

- 1. Run the **services.msc** command.
- 2. Select the **HP Integration Bridge** service.
- 3. Stop or start the service as required.

# Manage the service from the command line

Use the following commands:

Task	Command
Run agent in a console	<bridge_installation_ directory&gt;/product/bin/HPIntegrationBridge.bat console</bridge_installation_ 
Install agent as a service	<bridge_installation_ directory&gt;/product/bin/HPIntegrationBridge.bat install</bridge_installation_ 
Start service	<bridge_installation_ directory&gt;/product/bin/HPIntegrationBridge.bat start</bridge_installation_ 
Stop service	<bridge_installation_ directory&gt;/product/bin/HPIntegrationBridge.bat stop</bridge_installation_ 
Restart service	<bridge_installation_ directory&gt;/product/bin/HPIntegrationBridge.bat restart</bridge_installation_ 
Remove service	<bridge_installation_ directory&gt;/product/bin/HPIntegrationBridge.bat remove</bridge_installation_ 

# Uninstall/Remove the Integration Bridge

Uninstall a bridge if you no longer need it, or before upgrading.

Remove a bridge from the Link Configuration navigation tree if you no longer need it, or are no longer using it.

1. In the Agile Manager **Integrations** > **I Link Configuration** page, expand the navigation tree on the left.

Verify that the bridge has no links configured. If there are any existing links, remove them.

Select the link in the tree and then select **More Actions** > **Remove**.

2. Do the following:

Task	Description
Uninstall the bridge	Uninstall the Integration Bridge using the <b>Start</b> menu option or via the Windows Control Panel, as a Windows administrator user.
	In the uninstall wizard, select <b>Remove credentials</b> if you also want to remove any associated credentials. By default, credentials are kept, and you can use them in a subsequent installation or upgrade.
Remove the bridge from user interface (optional)	Select the bridge name and either select <b>Remove Bridge</b> from the context menu, or select <b>More Actions &gt; Remove</b> .
	<b>Caution:</b> Only remove the bridge from the user interface if you have no intention of recovering it.
	You cannot recover a bridge removed from the NextGen Synchronizer, even if you have not yet uninstalled it.

When you uninstall the Integration Bridge, properties customized in the **server-connection.conf** file are deleted.

The information in the **server-connection.conf** file is backed up in the **serverconnection.bak** file. If you need to use this information later, such as to upgrade the bridge, rename the backup file and copy it to a folder for a new installation.

For more details, see "Upgrade the Integration Bridge" on the next page.

# Upgrade the Integration Bridge

Upgrade the Integration Bridge using one of the following methods:

- "Upgrade an existing bridge on the same server as the previous bridge" below
- "Upgrade the Integration Bridge, and install it in new location" on the next page

# Upgrade an existing bridge on the same server as the previous bridge

This procedure registers the upgraded bridge as an existing bridge.

- 1. Uninstall the Integration Bridge, as described in "Uninstall/Remove the Integration Bridge" on page 29. In the uninstall wizard, do *not* select **Remove credentials**.
- 2. Download the new version of the Integration Bridge from the Integrations > Link Configuration page. Click More Actions > Download Integration Bridge.
- 3. Extract the new **hp-integration-bridge-windows.zip** file to a new folder.
- 4. Copy values from the previous installation to the new installation. Do the following:
  - a. In the installation directory of the previous version, access the **\product\conf\server-connection.bak** file.
  - b. In a parallel window, browse to the **server-connection.conf** file downloaded with the new version of the Integration Bridge, and open it for editing.
  - c. Copy the value of the **agent.guid** property from the previous installation file, and append it to the new file. Save the new file.
- 5. Run the newly downloaded **hp-integration-bridge.exe** to begin the installation.

In the installation wizard, on the **Select installation** folder screen, select the

installation folder that was used for the previous version.

For more details, see "Download and install the bridge" on page 7.

# Upgrade the Integration Bridge, and install it in new location

This procedure installs the upgraded Integration Bridge in a new directory on the same server as the previous version, or on an entirely new machine.

- 1. Uninstall the Integration Bridge, as described in "Uninstall/Remove the Integration Bridge" on page 29. In the uninstall wizard, do *not* select **Remove credentials**.
- 2. Download the new version of the Integration Bridge from the Integrations > III Link Configuration page. Click More Actions > Download Integration Bridge.
- 3. Extract the downloaded **hp-integration-bridge-windows.zip** file to a new folder.
- 4. Copy files and values from the previous installation to the new installation. Do the following:
  - a. In the directory where you want to install the new version, create the following folder structure:**product/conf**
  - b. Copy the following files from the installation directory of the previous version to the **conf** directory you created in the previous step.
    - credentialsStore.xml
    - key.bin
  - c. In the installation directory of the previous version, access the \product\conf\server-connection.bak file.
  - d. In a parallel window, browse to the **server-connection.conf** file downloaded with the new version of the Integration Bridge, and open it for editing.
  - e. Copy the value of the **agent.guid** property from the previous installation file, and append it to the new file. Save the new file.

5. Run the **hp-integration-bridge.exe** to begin the installation.

In the installation wizard, on the **Select installation** folder screen, select the directory where you want to install the new version.

For more details, see "Download and install the bridge" on page 7.

Both upgrade methods retain the configured endpoint credentials.

# Integration Bridge troubleshooting

This topic covers the following scenarios:

- "Bridge is not identified after installation" below
- "Bridge name is displayed in red in Agile Manager" on the next page
- "Bridge connection status displayed as Unknown in Agile Manager" on the next page
- "Bridge cannot log in to Agile Manager or ALM" on the next page
- "A '403' or 'Authorization Exception' error occurs" on the next page
- "Enable additional endpoint flows" on page 36

## Bridge is not identified after installation

If the bridge does not appear on the **Integrations** > **Synchronizer** or **E Link Configuration** page in Agile Manager after installation is complete, click **Refresh Agent**, or refresh the browser page.

• If the bridge still does not appear, verify whether the agent and service has started. For details, see "Manage the bridge agent and service" on page 27.

The Integration Bridge service attempts to start the agent several times. If it is not successful, the application shuts down and the service stops.

- If the agent is not started, verify whether the value of the Drmi.server.port in the <installation folder>\product\log\controller\wrapper.log file is set to an available port.
- If the defined port is in use by another application when the Integration Bridge service attempts to start the agent, the following errors are printed to log files:

In the <b>wrapper</b> log file	<pre>java.rmi.server.ExportException: Port already in use: <port></port></pre>
In the <b>controller</b> log file	java.rmi.NotBoundException: ControllerAPI

# Bridge name is displayed in red in Agile Manager

The Integration Bridge service is down. In Agile Manager, click the agent name to view the last time the agent accessed the service.

# Bridge connection status displayed as Unknown in Agile Manager

Check the following log files in the Integration Bridge log folder (**Stidge\_installation\_ directory**>\product\log\controller):

- controller.log
- wrapper.log

Additionally, check the **<Endpoint type name>.log** file located in the **<Bridge\_ installation\_directory>\product\log\<Endpoint type name>** directory.

# Bridge cannot log in to Agile Manager or ALM

The credentials defined for the endpoint may be incorrect. For details about verifying or modifying credentials, see "Manage credentials" on page 10.

# A '403' or 'Authorization Exception' error occurs

The user accessing Agile Manager from the Integration Bridge is not defined with the **Integration Bridge** role.

Modify this user's role in the Agile Manager configuration area (**Site** > **Users**).

Note: For security purposes, the Integration Bridge user should not have any

additional roles.

# **Enable additional endpoint flows**

By default, the Integration Bridge is run using the Windows Local System user. If you need to enable flows for additional endpoint types, you can modify the Local System user to include additional required access rights.

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