Blueprint 6.3

Upgrade Guide

9/10/2015

blueprint®

Contents

Blueprint Upgrade Guide

Overview

This *Blueprint Upgrade Guide* is applicable if you have already installed Blueprint and you want to upgrade to a newer version. If you want to install Blueprint for the first time, please refer to the *Blueprint Installation Guide*. If you want to manually upgrade Blueprint instead, please refer to the *Blueprint Manual Upgrade Guide*.

Important Notices

Upgrade duration

The upgrade can take up to 60 minutes for large databases.

Backing up your data

It is strongly recommended that you backup your Blueprint data prior to starting the upgrade.

System Requirements

Please refer to the *Blueprint Installation Guide* for detailed information about Blueprint System Requirements.

Upgrade Steps

Step 1: Back up your data

Warning: It is strongly recommended that you backup your database before starting the upgrade.

To back up your data before performing an upgrade:

1. Stop the Blueprint application pool and Blueprint web site.

   Note: Your Blueprint application pool and Blueprint web site may have different names, depending on what you chose during installation.

2. Stop any installed components, including:

   - Job services
   - The HP ALM application pool and web site (formerly known as HP QC)

> **Note:** This step only applies if any job services or the HP ALM web site have been installed.

3. Backup the following data:
   - Blueprint database
   - Blueprint website, including:
     - the **`web.config`** file
     - any custom dictionary files (**`dictionary.dct`**)
     - logging configurations (**`Logging.config`** file)
   - **JobExecutorService** folder. This includes the **`BluePrintSys.RC.JobExecutor.exe.config`** for each job service that has been installed.

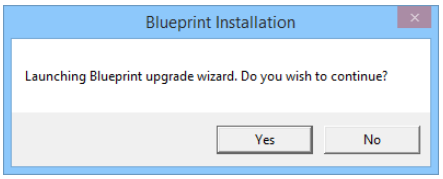
Step 2: Run BlueprintSetup.exe on the web application server

To complete this step:

> **Warning**: The database upgrade can take up to 60 minutes for large databases.

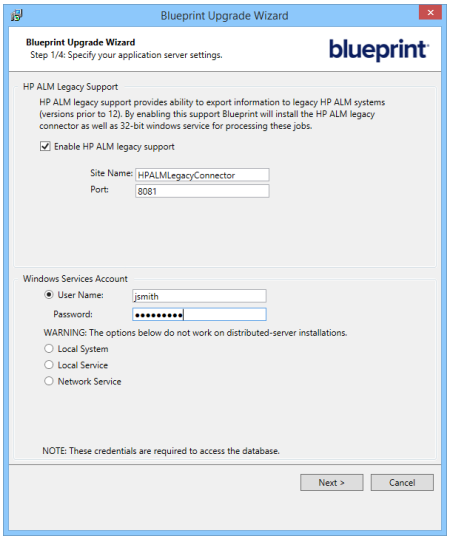
1. Run **`BlueprintSetup.exe`** to extract all of the new application files and configuration utilities that are required for the Blueprint upgrade.

   After you launch the **`BlueprintSetup.exe`** file, the wizard detects previous installations of Blueprint on your system and asks if you wish to continue upgrading Blueprint:

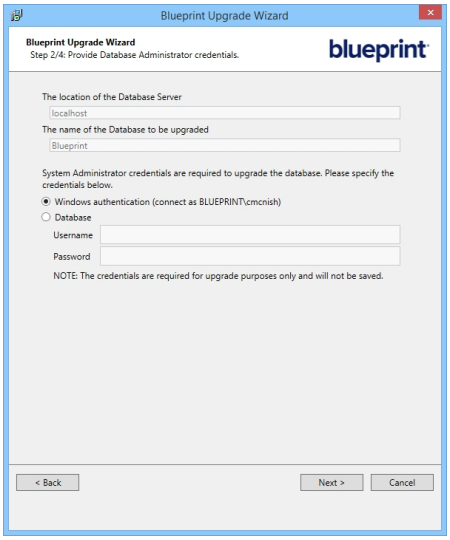
2. Click **Yes** to continue. If you click **No**, the upgrade wizard is canceled.

   If HP ALM legacy support was not installed, the *Blueprint Upgrade Wizard* dialog gives you the option of enabling legacy support for versions 12 and earlier of HP ALM:



3. Enter your Windows Service Account credentials to continue and then click **Next**.

   Next, the *Blueprint Upgrade Wizard* dialog appears and is pre-populated with the location and the name of your Blueprint Database:



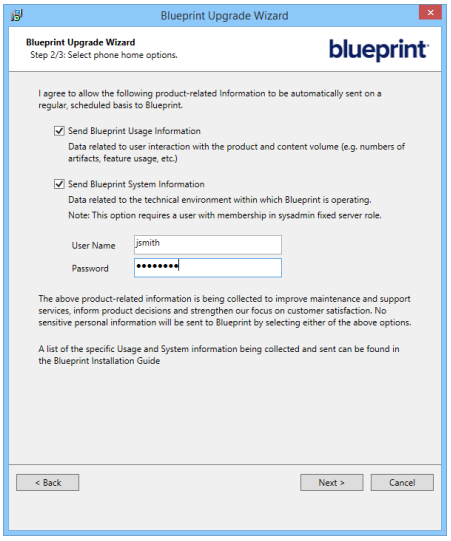
4. Enter the following information:

   - System Administrator Credentials: Choose whether you wish to authenticate using *Windows authentication* or *Database* authentication.

     Important: This user must be a Database System Administrator (SA). This allows the installer to create the new database and grant permissions to the database so the web application server can access the database. The SA credentials are not stored anywhere in the system. The SA user account is only required for installation purposes and is not used during normal operation of the application. During normal operation of Blueprint, the Blueprint Server User account (example: acme\rrunner) is used to facilitate communication between the web application and database servers.

- **Windows authentication**: If you choose windows authentication, the wizard automatically uses the user that is currently logged in. You must ensure that the user has SA privileges on the database server.
- **Database authentication**: If you choose database authentication, you must specify the username and password of an account that has SA privileges on the database server.

5. The *Blueprint Application Configuration Wizard* dialog gives you the option of enabling phone home data collection:

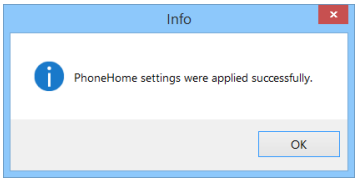


If you choose to enable phone home data collection, select the information you want to send to Blueprint and then click **Finish**:

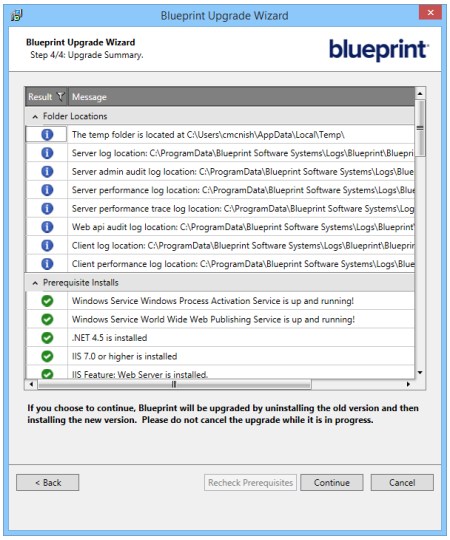
- **Send Blueprint Usage Information**
- **Send Blueprint System Information**: If you select this option, you must specify the username and password of an account that has SA privileges on the database server.

For more information about phone home, see About allowing Blueprint to collect phone home data.

The following dialog is displayed after phone home data collection has been enabled:



6. Next, an upgrade summary appears:

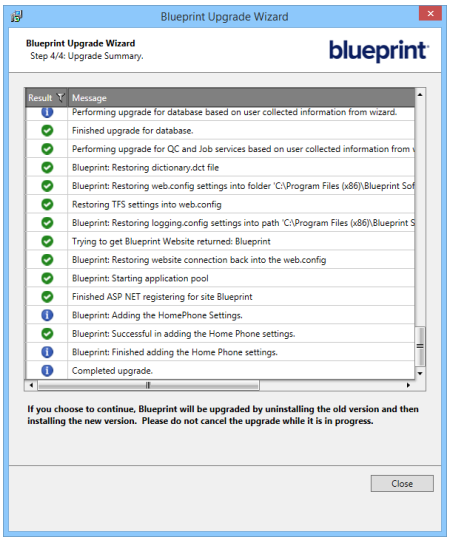


If any errors appear, you must resolve them before continuing with the upgrade.

> **Tip:** Depending on the error that may appear, you may not need to close the upgrade dialog to resolve the error. You may be able to fulfill the system requirement in a separate system dialog and then click **Recheck Prerequisites** to perform another system check. The **Continue** button becomes available when the system prerequisites have been met.

Click **Continue** to proceed with the upgrade.

Once the prerequisites are met, the **Close** button becomes available on the dialog:



7. Click **Close** to complete the upgrade.

Step 3: Blueprint client setup

Configuring elevated trust in-browser

Blueprint must be configured to run with elevated trust in-browser before you can use some advanced features, such as:

- screen capture capabilities
- pasting images into diagrams
- Visio integration, such as importing and exporting diagrams
- rich text table integration with other applications

Elevated trust in-browser can be configured manually on each client machine, or the configurations can be pushed to Windows computers in a centralized manner.

Using group policy to push the elevated trust-in browser configurations to Windows computers in a centralized manner

The recommended way to configure Blueprint to run with elevated trust in-browser is to use Group Policy. Group Policy allows IT Administrators to push configurations to Windows computers in a centralized manner.

For overview information about Group Policy, refer to Microsoft's Group Policy documentation at: http://technet.microsoft.com/en-us/windowsserver/bb310732.aspx.

To configure Blueprint to use elevated trust in-browser, your Group Policy configuration must do the following:

1. Set one of the following registry values:
   - On 32-bit computers:
     Set the **`HKEY_LOCAL_MACHINE\Software\Microsoft\Silverlight\AllowElevatedTrustAppsInBrowser`** registry value to **`0x00000001`**.
   - On 64-bit computers:
     Set the **`HKEY_LOCAL_MACHINE\Software\Wow6432Node\Microsoft\Silverlight\AllowElevatedTrustAppsInBrowser`** registry value to **`0x00000001`**.

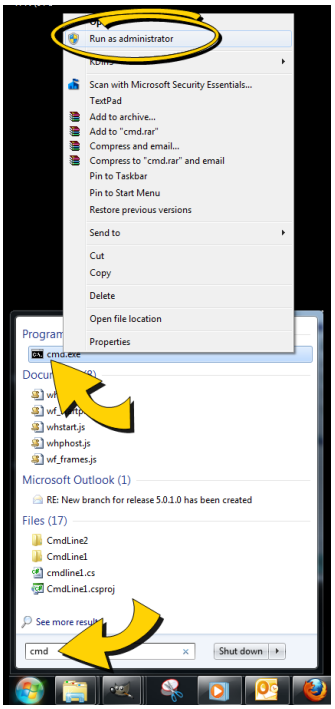
   To learn more about setting a registry value through Group Policy, please refer to the Microsoft documentation that explains how to configure a registry item at: http://technet.microsoft.com/en-us/library/cc753092.aspx.
2. Download the elevated trust in-browser package from the Blueprint Customer Portal.
3. Add the **`publicBlueprintCertificate2017.cer`** certificate to the Trusted Publishers Store.

   To learn more about adding a certificate through Group Policy, please refer to the Microsoft documentation that explains how to deploy certificates by using group policy (http://technet.microsoft.com/en-us/library/cc770315(v=ws.10).aspx).

Manually configuring a computer to run with elevated trust in-browser

To configure Blueprint to run with elevated trust in-browser, perform the following steps on each client:

1. Download the elevated trust in-browser configuration files.
2. Unzip the package and note the directory where the files are located.
3. Run **`cmd.exe`** as Administrator.
    1. Click the Windows **Start** menu and type **cmd.exe** into the search bar.
    2. Right-click the **cmd.exe** program that appears under the Programs heading and then select **Run as administrator**:



    3. When the confirmation dialog appears, click **Yes**.

       The **`cmd.exe`** application launches with Administrator privileges:

4. Use the **`cd`** command to navigate to the folder where you unzipped the files.

   For example:

```
cd c:\temp\elevated_trust
```

5. Enter the following commands to allow elevated trust to run on your local machine:
    - For 64-bit operating systems:

```
regedit.exe /s AllowElevatedTrustAppsInBrowser64.reg
```

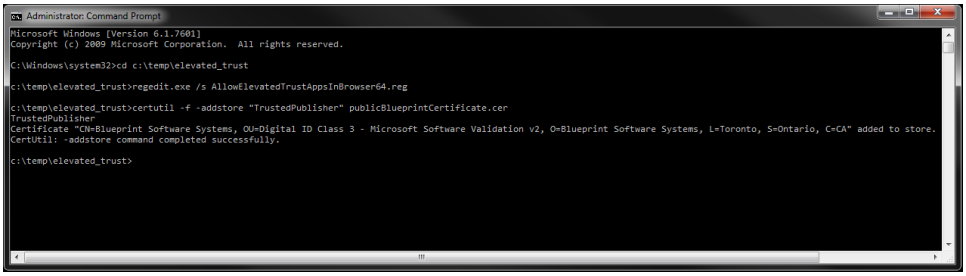
- For 32-bit operating systems:

```
regedit.exe /s AllowElevatedTrustAppsInBrowser.reg
```

6. Run the following `certutil` command to apply the Blueprint public certificate:

```
certutil.exe –f –addstore "TrustedPublisher"
publicBlueprintCertificate2017.cer
```

Here is an example of the commands run on a 64-bit operating system:



7. Restart your web browser for the changes to take effect.

Appendix

About allowing Blueprint to collect phone home data

Blueprint collects system and usage data on a monthly basis to improve Blueprint features, services and customer satisfaction. Blueprint does not collect personal, private or classified information. The option to allow Blueprint to collect system and/or usage data is presented in the installer.

> **Note:** Administrators can stop the collection of phone home data by editing the relevant value in the Blueprint web configuration file. For more information about stopping phone home, see *The Blueprint IT Administration Guide*.

What data is collected?

When you enable *system* data collection, the following information is collected:

- SQL version
- SQL memory
- CPU count

When you enable *usage* data collection, the following information is collected:

- Log-in statistics
- Job execution statistics
- Project data statistics
- License usage
- Blueprint Analytics usage

Configuration utility command reference

> **Tip**
>
> You can type the following commands to view more information about the command parameters:
>
> ```
> blueprintwebcmd.exe /help
> blueprintdbcmd.exe /help
> blueprintqcwebcmd.exe /help
> blueprintphonehomecmd.exe /help
> ```

Web Application Server Configuration Parameters (`blueprintwebcmd.exe`)

Parameter	Description	Default	Example
/object	Defines the object type of the command. This parameter can be set to one of the following values: ■ SITE - administration of web sites ■ APPPOOL - administration of application pools ■ DBCONFIG - administration of database connection configuration sections		
/command	Defines the command to perform. This parameter can be set to one of the following values: ■ LIST - list the existing objects in the server ■ ADD - add new objects to the server ■ DELETE - delete the object from the server ■ START - start the object instance on the server ■ STOP - stop the object instance on the server ■ SET - sets the specific configuration values. Currently supported only by DBCONFIG object.		
/httpHostname	Hostname for the site		
/https	Flag specifying SSL install of the site		
/sslcert	Name of IIS server certificate		
sslcertstore	Name of IIS certificate store		
/multisite	Flag used for multi-site deploy		
/wsname	Defines the name of the site. This should be the same as the application pool name.	Blueprint	Blueprint
/wsid	Defines the ID of the site.		25
/port	Defines the port number used for the site.		8080
/dir	Defines the location of the Blueprint installation.		C:\Program Files (x86)\Blueprint Software Systems\Blueprint\Web
/apppoolname	Defines the name of the application pool. This should be the same as the site name.	Blueprint	Blueprint
/datasource	Defines your database and instance names.		DBSERVER\INSTANCE01
/catalog	Defines the name of the database.	Blueprint	

Parameter	Description	Default	Example
/integratedsec	Defines whether or not Windows security is used. This parameter can be set to one of the following values: ■ TRUE ■ FALSE If /integratedsec is set to FALSE, you must specify a /userid and /password.		
/userid	Defines the username of the Service Account/Application Pool user.		
/password	Defines the password of the Service Account/Application Pool user.		

Database Server Configuration Parameters (`blueprintdbcmd.exe`)

Parameter	Description	Default	Example
/object	Defines the object type of the command. This parameter can be set to one of the following values: ■ DB - administration of database ■ USER - administration of database user		
/command	Defines the command to perform. This parameter can be set to one of the following values: ■ ADD - add new object to the server ■ INIT - initialize the object. Currently supported only for DB object. ■ UPGRADE - upgrade the object. Currently only supported for DB object.		
/datasource	Defines your database and instance names.		DBSERVER\INSTANCE01
/catalog	Defines the name of the database.	Blueprint	BlueprintDB
/integratedsec	Defines whether or not Windows security is used. This parameter can be set to one of the following values: ■ TRUE ■ FALSE If /integratedsec is set to FALSE, you must specify a /userid and /password.		
/userid	Defines the username of the *Database System Administrator* user. This parameter is only required if /integratedsec is set to FALSE.		

Parameter	Description	Default	Example
/password	Defines the password of the *Database System Administrator* user. This parameter is only required if /integratedsec is set to FALSE.		
/nuseridentity	Defines the username of the *Blueprint Server User*.		acme\rrunner

HP ALM Legacy Connector Configuration Parameters (`blueprintqcwebcmd.exe`)

Parameter	Description	Default	Example
/object	Defines the object type of the command. This parameter can be set to one of the following values: ■ SITE - administration of web sites ■ APPPOOL - administration of application pools ■ DBCONFIG - administration of QC connection configuration sections		
/command	Defines the command to perform. This parameter can be set to one of the following values: ■ LIST - list the existing objects in the server ■ ADD - add new object to the server ■ DELETE - delete the object from the server ■ START - start the object instance on the server ■ STOP - stop the object instance on the server ■ SET - sets the specific configuration values. Currently supported only by CONFIG object.		
/httpHostname	Hostname for the site		
/wsname	Defines the name of the site. This should be the same as the application pool name.		HPALMLegacyConnector
/wsid	Defines the ID of the site.		25
/port	Defines the port number used for the site.		8081
/httpHostname	Defines the host name for the site.		
/dir	Defines the location of the connector installation.		C:\Program Files (x86)\Blueprint Software Systems\Blueprint\QcLiteWeb
/apppoolname	Defines the name of the application pool. This should be the same as the site name.		HPALMLegacyConnector

Parameter	Description	Default	Example
/userid	Defines the username of the Service Account/Application Pool user.		
/password	Defines the password of the Service Account/Application Pool user.		

Phone Home Configuration Parameters (`blueprintphonehomecmd.exe`)

Parameter	Description	Default	Example
/usageinfo	Defines whether usage information is being sent to Blueprint. This parameter can be set to one of the following values: ■ TRUE ■ FALSE		
/systeminfo	Defines whether system information is being sent to Blueprint. This parameter can be set to one of the following values: ■ TRUE ■ FALSE		
/wsname	Defines the name of your Blueprint web site.		
/userid	Defines the username of the *Database System Administrator* user.		
/password	Defines the password of the *Database System Administrator* user.		

Maintaining the Blueprint database

For best performance, we recommend that you perform routine maintenance on the Blueprint database. For more information, log on to the Blueprint Customer Portal (http://portal.blueprintsys.com) and refer to *Knowledge Base Article 1046, How to perform routine maintenance on the Blueprint database*.

Setting up a new database

In certain cases, a new database may be need to be set up. For more information on setting up a new database, see the "Setting up a new database" section in the *IT Administration Guide*.

Setting up federated authentication

Refer to the *Instance Administration Guide* for more information.

To configure your identity provider for Blueprint federated authentication, ensure the following requirements are met:

- The **Entity ID** must be set to:

  ```
  <Blueprint_URL>/Login/SAMLHandler.ashx
  ```

  where <Blueprint_URL> is your main Blueprint URL.

  > **Example**
  > For Blueprint cloud customers, the **Entity ID** will look something like this:
  > **`https://acme.blueprintcloud.com/Login/SAMLHandler.ashx`**
  > For Blueprint on-premise customers, the **Entity ID** will look something like this:
  > **`https://blueprint.acme.com/Login/SAMLHandler.ashx`**

- The **POST Endpoint** must be set to:

  ```
  <Blueprint_URL>/Login/SAMLHandler.ashx
  ```

  where <Blueprint_URL> is your main Blueprint URL.

- A **Username** attribute must be included in the SAML response (that is, the token).

  Blueprint reads the username from the **Username** attribute in the token (not the Subject). The name of this attribute must be **Username**. The username can be in the format you want, but must match the usernames as created in Blueprint. Valid options are regular usernames, Windows/AD account names (DOMAIN\user), e-mail addresses, Distinguished Names, or x509 Subjects.

- The SAML response must contain the identity provider certificate (x509).

To enable Blueprint federated authentication:

1. Open the *Instance Administration Console*.
2. Click **Federated Authentication**.
3. Select the **Enable Federated Authentication** option.
4. Set your federated authentication settings:

   - Click **Replace** to upload your Identity Provider Certificate. The certificate must be in DER format.

     > **Important**: Certificates have an expiry date. Make sure you replace your certificate before it expires or users will be unable to access Blueprint.

   - **Login URL**: Defines your Identity Provider Login Service URL. This is the URL that Blueprint navigates to when the user clicks the Go button on the login screen. At this time, the Identity Provider returns a authentication token to Blueprint to authenticate the user.

     Example: https://idp.domain.com/adfs/ls/

   - **Logout URL**: Defines the URL to navigate to after a user clicks the Logout button in Blueprint. This behavior is not applicable if a user is logged in with fallback authentication.
   - **Error URL (optional)**: If a token error occurs, the user is redirected to the specified URL. The specific error is included as a GET parameter in the URL.

     If an **Error URL** is not provided, Blueprint displays the token errors in the popup window.

- **Login Prompt (optional)**: Defines the login text that appears on the login screen when Federated Authentication is enabled:

The default text is:

Login with Corporate Credentials

5. Click **Save**.

Setting up email notifications

Email settings are required in Blueprint if you want to take advantage of Blueprint notifications. Blueprint notifications provide your users with information and reminders at key moments. Notifications can help users stay up-to-date with project developments. There are two types of notifications you can enable: review notifications and email integrated discussions notifications. For more information about notifications, see the *Instance Administration Guide*.

Setting up review notifications

Perform the following steps if you want to enable review notifications and configure the associated settings:

1. Open the *Instance Administration Console*.
2. Click **Configure Instance** > **E-mail Settings** on the ribbon (*Instance Admin* tab, *Instance* group).
3. Select the **Enable Review Notifications** check box to enable review notifications.
4. Enter your e-mail credentials in the *Email Credentials* section:
   - **E-mail Address**: Defines the e-mail address that will appear in the **From** address for all e-mail notifications.
   - **User Name**: Defines the user name of the e-mail account.
   - **Password**: Defines the password of the user.
5. Enter your outgoing mail server settings and preferences:
   - **Server IP / Hostname**: Defines the IP address or hostname of your SMTP server.
   - **Port**: Defines the port number of your SMTP server.

- **Enable SSL**: Defines whether or not the SMTP server requires SSL.
- **Authenticated SMTP**: Defines whether or not SMTP authentication is required. If authentication is required, select this option and enter a valid user name and password.
  - **User Name**: Defines the user name of a user with access to the SMTP server. This user name can be different from the user name provided in the *Email Credentials* section.

    Note: The SMTP user name is sometimes, but not always, the e-mail address of the user. The format of the user name is dependent on the server configuration.
  - **Password**: Defines the password of the user.

6. Click **Save**.

Tip: You can click the **Send Test E-mail** button to verify that e-mails can be sent successfully.

Setting up e-mail integrated discussions

Perform the following steps to enable and configure e-mail integrated discussion settings:

1. Open the *Instance Administration Console*.
2. Click **Configure Instance** > **E-mail Settings** on the ribbon (*Instance Admin* tab, *Instance* group).
3. Select the **Allow projects to enable discussions via E-mail** check box to enable e-mail-integrated discussions.

   Note: By default, e-mail integrated discussions are set to only allow users to mention Blueprint registered users.

   To change this setting: click **Edit Settings**. Next, click **All users** to allow any user outside of Blueprint to contribute via e-mail to discussions.

   To restrict this setting to a subset of e-mail domains: ensure **Specify domains** is enabled, enter the domains you want to allow in e-mail integrated discussions and click **OK**.
4. Enter your e-mail credentials in the *Email Credentials* section:
   - **E-mail Address**: Defines the e-mail address that will appear in the **From** address for all e-mail notifications.
   - **User Name**: Defines the user name of the e-mail account.
   - **Password**: Defines the password of the user.
5. Enter your incoming mail server settings and preferences:
   - **IMAP/POP**: Defines the protocol of the incoming email server.
   - **Server IP/Hostname**: Defines the IP address or hostname of your IMAP/POP server.
   - **Port**: Defines the port number of your IMAP/POP server.
   - **Enable SSL**: Defines whether or not the IMAP/POP server requires SSL.

> **Tip**: You can click the **Test Connection** button to verify that e-mail integrated discussions can be delivered successfully.

6. Enter your outgoing mail server settings and preferences:
   - **Server IP / Hostname**: Defines the IP address or hostname of your SMTP server.
   - **Port**: Defines the port number of your SMTP server.
   - **Enable SSL**: Defines whether or not the SMTP server requires SSL.
   - **Authenticated SMTP**: Defines whether or not SMTP authentication is required. If authentication is required, select this option and enter a valid user name and password.
     - **User Name**: Defines the user name of a user with access to the SMTP server. This user name can be different from the user name provided in the *Email Credentials* section.

       > **Note**: The SMTP user name is sometimes, but not always, the e-mail address of the user. The format of the user name is dependent on the server configuration.

     - **Password**: Defines the password of the user.
7. Click **Save**.

Next, enable the e-mail integrated discussions setting within *Project Settings* (Project Administration).

Adding users to Blueprint

Refer to the *Instance Administration Guide* for more information.

Adding all Active Directory users

Complete the following steps to add all Active Directory users to Blueprint:

> **Important**: You can only add Windows users if Active Directory integration is enabled.

1. Click **Manage Users And Groups** > **Users** on the ribbon (*Instance Admin* tab, *Instance* group).
2. Click **New** > **New Windows User** on the ribbon (*Instance Admin* tab, *Manage Items* group).
3. Click the **Find** button to display all Active Directory users.

   > **Note**: If Active Directory integration is enabled, the Location is automatically populated so you can access the Active Directory.

4. Type **`Ctrl-a`** to select all users and then click **OK**.

Adding a database user in Blueprint

Complete the following steps to add a single database user to Blueprint:

1. On the *Users* tab, click **New** > **New Database User** on the ribbon (*Instance Admin* tab, *Manage Items* group).
2. Enter the user information on the right side of the window.
3. Click **Save**.

Creating license groups

Refer to the *Instance Administration Guide* for more information.

A license group is an instance-level group that allows you to control the type of license that a user consumes while logged into Blueprint. A user's effective access in Blueprint is the intersection of their project role assignment and their license.

> **Important**: Users must be added to an *Author* or *Collaborate* license group before they can take advantage of most Blueprint features. Users that are not added to an *Author* or *Collaborate* license group are limited to accessing Blueprint artifacts by URL.

Complete the following steps to create an **All Authors** group that is designated as an *Author* license group:

1. Click **Manage Users And Groups** > **Groups** on the ribbon (*Instance Admin* tab, *Instance* group).
2. Click **New** > **Database Group** on the ribbon (*Instance Admin* tab, *Manage Items* group).
3. Enter the group information:
   - **Name**: Set this field to **All Authors**.
   - **Description**: Specify a description for the group.
   - **Email**: Specify an email address for the group.
   - **Scope**: This field must be left blank. License groups cannot have an associated Scope.
   - **License Group?**: Enable this option so the group is a license group.
   - **License Type**: Change this option to **Author**.
4. Click the **Add** button to add members to the group. Type **`Ctrl-a`** to select all users, and then click **OK**.
5. Click **Save**.

Repeat the steps above to create an **All Contributors** group, but set the **License Type** to **Collaborate**.

Creating projects

Refer to the *Instance Administration Guide* for more information.

Complete the following steps to create the **Getting Started** project.

> **Note**: The purpose of the Getting Started project is to provide a location for users to experiment with Blueprint features and complete the tutorials in the Getting Started Guide.

1. Click the **Projects** button on the ribbon.
2. Right-click the *Blueprint* item on the left side of the window and select **New Folder**.
3. Specify the following folder information:

- **Name**: Getting Started
- **Description**: Folder containing getting started project(s).

4. Click **Save**.
5. Expand the *Blueprint* item on the left side of the window, right-click **Getting Started**, and select **New Project**.
6. Specify the project information:
   - **Name**: Getting Started
   - **Description**: Project for users to learn Blueprint using the Blueprint Getting Started Guide.
   - **Location**: This should be set to /Blueprint/Getting Started/
   - **Select Source**: Empty Project
7. Click **Save**.
8. Click the **Launch Project Administration** button. This button is located in the lower-right area of the window. The *Project Administration Console* is displayed.

Granting access to projects

Refer to the *Project Administration Guide* for more information.

> **Note**: A user's effective access in Blueprint is the intersection of their project role assignment and their license.

Complete the following steps to configure the **Getting Started** project so the **All Authors** group can modify the project.

1. Create an Authors role.
   1. In the *Project Admin Console*, click **Manage Access** > **Project Roles** on the ribbon (*Project Admin* tab, *Project* group)
   2. Click the **New** button on the ribbon (*Project Admin* tab, *Actions* group).
   3. Specify the role information:
      - **Name**: Authors
      - **Description**: This role has read, edit, trace, and comment privileges.
      - **Privileges**: Place a checkmark beside **Read**, **Edit**, **Trace**, and **Comment**.
   4. Click **Save**.
2. Assign the **Authors** role to the **All Authors** group for the **Getting Started** project.
   1. In the *Project Admin Console*, click **Manage Access** > **Project Role Assignments** on the ribbon (*Project Admin* tab, *Project* group)
   2. Click the **New** button on the ribbon (*Project Admin* tab, *Actions* group) and then click the *Groups* tab after the dialog appears.
   3. Select the **All Authors** group and click **OK**.
   4. Specify the project role assignment information:
      - **Identity**: Group : All Authors
      - **Role**: Authors
      - **Scope**: Project
   5. Click **Save**.

Web.config reference

> **Note:** Before upgrading Blueprint, we recommend backing up the **`web.config`** file. None of your existing customizations are preserved during the upgrade process. The backup file can be used as a reference to make changes to the new version of **`web.config`** after upgrading.

The **`web.config`** file contains many Blueprint web application settings, most of which should not be edited in common configuration scenarios. The following table identifies Blueprint settings that are commonly configured as well as their possible values:

Section	Parameter name	Default value	Description

`<system.web>`
`<authentication>`
`<forms>`
	loginUrl	Login/WinLogin.aspx	The default value (`Login/WinLogin.aspx`) causes a Windows log-in dialog to appear after Blueprint is opened. You have the option of removing the Windows dialog by changing this value.
			Caution: If the value is changed to `weblogin.aspx`, users will no longer be able to log on using LDAP credentials. Only Blueprint database users will be permitted to log on.
			Tip: If you change the `loginUrl` value, you can test the results by opening Blueprint in a browser.

`<appSettings>` `<add key="LdapGetTimeout">`	value	300	Indicates how many seconds it takes for LDAP retrieval to time out. By default, the LDAP retrieval timeout is `300` seconds (recommended). The value can be changed. The minimum value it can be changed to is `30` and the maximum is `600`.

Section	Parameter name	Default value	Description
<appSettings> <add key="UseLegacyDomainName">	value	false	The UseLegacyDomainName key indicates the domain name section. You can use the original parsing algorithm to determine the domain name. There is no need to change the default value in most circumstances. However, if you have problems integrating Blueprint with LDAP, you may need to change the value to TRUE. Please contact Blueprint Support before changing this value.
<appSettings> <add key="AttachmentsFolderPath">	value	None	The default value is empty. When Blueprint users save attachments to their system, the attachments get saved to their IIS Application Pool Temp folder by default. To store the attachment in another location, replace the empty value with the desired path.
<appSettings> <add key="UserSessionExpirationTimeoutInMinutes">	value	30	This section defines when the session times out from inactivity and, as a result, the user is logged off of Blueprint. The value is measured in minutes. The default session timeout is 30 minutes. The recommended value is 20. The minimum value it can be changed to is 10 and the maximum is 60.

Section	Parameter name	Default value	Description
<appSettings> <add key="QCMaxRetries">	value	30	This section defines the maximum number of connection re-attempts that will be made when connection to HP Quality Center initially fails. By default, the value is 30 (recommended). To change the value, the following tag must be manually added to the <connectionStrings> section first: <add key="QCMaxRetries" value="">"> The minimum value it can be changed to is 3 and the maximum is 60.
<appSettings> <add key="QCDelayInSeconds">	value	30	This section defines the delay between connection re-attempts that will be made when connection to HP Quality Center initially fails. The delay is measured in seconds. To change the value, the following tag must be manually added to the <connectionStrings> section first: <add key="QCDelayInSeconds" value="">"> The recommended value is 5. The minimum value it can be changed to is 5 and the maximum is 60.

Section	Parameter name	Default value	Description
`<appSettings>` `<add key="ExcelImportArtifactLimit">`	value	500	This section defines the amount of artifacts that a user can import from Microsoft Excel at a time. **Note:** We do not recommend changing this value unless it is necessary.
`<appSettings>` `<add key="ConnectionCheckInterval">`	value	2	This section defines the amount of minutes after which Silverlight checks if the user session on the server is expired. This interval triggers session renewal. **Important:** The `ConnectionCheckInterval` value should always be less than the `sessionState` value (timeout).
`<appSettings>` `<add key="EnablePhoneHome">`	value	false	Indicates whether the phone home service performing data collection is enabled. **Important:** If you are enabling the phone home service, the proceeding collection parameter must also be set to **TRUE** for phone home to operate.
`<appSettings>` `<add key="PhoneHomeAllowToCollectSysInfo">`	value	false	Indicates whether you are allowing Blueprint to collect usage and system data for the phone home service. **Important:** If you are enabling phone home data collection, the preceding service parameter must also be set to **TRUE** for phone home to operate.
`<connectionStrings>` `<add connectionString>`	data source	None	You can use this section to point the Blueprint instance to a different database instance.

Section	Parameter name	Default value	Description
<connectionStrings> <add connectionString>	initial catalog	None	Indicates the name of the Blueprint database.

Installing services manually

Note: Only Blueprint database users can manually install services. For more information about how to add a database user, see Adding users to Blueprint.

The following services are available to install if needed:

- **Job services (recommended)**

  This functionality is necessary to perform the following jobs in Blueprint: document generation, exporting artifacts to ALM systems and test generation.

- **Legacy support for HP ALM versions 12 and earlier (optional)**

  If you require support for HP ALM version 12 or earlier, setup of this component is necessary.

  Note: HP ALM support is only available for COM library. It is not available for the REST API.

To install services:

- Continue to the single-server section to host job services and the Blueprint database on the same server.
- Continue to the distributed-server section to host job services and the Blueprint database on separate servers.

Adding a database user (command line)

You can add any of the following database user types using the `/nuseridentity` parameter:

- Local Service: **LocalService**
- Local System: **LocalSystem**
- Network Service: **NetworkService**
- A Windows services account. Example: **blueprint\jsmith**.

Add a database user:

```
blueprintdbcmd.exe /object USER /command ADD /datasource
[DBSERVER\INSTANCE01] /catalog [BlueprintDB] /integratedsec FALSE /userid
[dbadmin] /password [pAssw0rd] /nuseridentity LocalService
```

Setting up services (single-server setup)

You can set up one or both of the following:

Setting up 64-bit job services (single-server)

Installing 64-bit job services involves completing the following steps:

Step One: Configuring 64-bit job services

1. Open the following configuration file in a text editor: **BluePrintSys.RC.JobExecutor.exe.config**
2. Make sure that the value in the `<add key="Service.Jobs">` tag is as follows:

```
<add key="Service.Jobs" value="
DocGen,TfsExport,HpAlmRestExport,TfsChangeSummary,HpAlmRestChangeSumma
ry,TfsExportTests,HpAlmRestExportTests" />
```

3. Make sure the `<add key="Service.Name">` tag specifies the 64-bit job service as follows:

```
<add key="Service.Name" value="Blueprint Job Service (64 bit)" />
```

> **Note:** If you are setting up the second 64-bit job service in this step, specify the `Service.Name` value as `Blueprint Job Service 2 (64 bit)` instead of the value listed above.

4. Replace the following `connectionString` value with the Blueprint database connection string:

```
<connectionStrings>
<add name="InstanceContainer" connectionString="
metadata=res://*/Models.Instance.csdl|res://*/Models.Instance.ssdl|res
://*/Models.Instance.msl;provider=System.Data.SqlClient;provider
connection string=&quot;Data Source=.\MSSQLSERVER;Initial
Catalog=Blueprint;Integrated
Security=True;Pooling=True;MultipleActiveResultSets=True&quot;"
providerName="System.Data.EntityClient" />
</connectionStrings>
```

> **Note:** `Data Source` must specify the SQL instance name and the Blueprint instance name. If your SQL instance has a name that is different from **`MSSQLSERVER`** and/or your Blueprint instance is not named **`Blueprint`**, you need to change the value(s).

Step Two: Finalizing the 64-bit job services setup

1. Install both 64-bit job services by running the following command with your user name and password:

```
BluePrintSys.RC.JobExecutor.exe -c Install -a User -u [USERNAME] -p [PASSWORD]
```

> **Note:** To install the service using the default Windows account, run the following command instead:
>
> `BluePrintSys.RC.JobExecutor.exe -c Install -a LocalService`

2. Start the 64-bit job services with the following command:

```
BluePrintSys.RC.JobExecutor.exe -c Start
```

You have successfully deployed the 64-bit job services.

> **Important:** Repeat steps one and two to configure the second 64-bit job service.

Setting up HP ALM legacy support (single-server)

Installing HP ALM legacy support involves completing the following steps:

- Step One: Setting up the HP ALM legacy support connector
- Step Two: Configuring 32-bit job services for HP ALM legacy support
- Step Three: Finalizing the HP ALM legacy support setup

Step One: Setting up the HP ALM legacy support connector

1. Set up the HP ALM application pool by running the following command:

```
blueprintqcwebcmd.exe  /object AppPool /command ADD /apppoolname HPQCLegacyConnector
```

2. Set up the HP ALM web site by running the following command (where the number after `/port` is `QcLiteWeb`'s port number):

```
blueprintqcwebcmd.exe  /object Site /command ADD /wsname HPQCLegacyConnector /dir "C:\Program Files (x86)\Blueprint Software Systems\Blueprint\QcLiteWeb" /port [8081] /apppoolname HPQCLegacyConnector
```

3. Start the HP ALM application pool by running the following command:

```
blueprintqcwebcmd.exe  /object AppPool /command START /apppoolname HPQCLegacyConnector
```

4. Start the HP ALM web site by running the following command:

```
blueprintqcwebcmd.exe  /object SITE /command START /wsname
HPQCLegacyConnector
```

5. Set the HP ALM key for Blueprint with the following command (where the number after `/port` is `QcLiteWeb`'s port number):

```
blueprintqcwebcmd.exe /object Config /command SET /dir "C:\Program
Files (x86)\Blueprint Software Systems\Blueprint\Web" /port [8081]
```

You have successfully set up the HP ALM legacy support connector.

Step Two: Configuring 32-bit job services for HP ALM legacy support

1. Open the following configuration file in a text editor: **BluePrintSys.RC.JobExecutor32.exe.config**
2. Make sure that the value within `<add key="Service.Jobs">` is as follows:

```
<add key="Service.Jobs" value="QcExport,QcChangeSummary,QcExportTests"
/>
```

3. Make sure the `<add key="Service.Name">` tag includes the Blueprint HP ALM legacy job service as follows:

```
<add key="Service.Name" value="Blueprint HP QC Legacy Job Service (32
bit)" />
```

4. Replace the following `connectionString` value with the Blueprint database connection string:

```
<connectionStrings>
<add name="InstanceContainer" connectionString="
metadata=res://*/Models.Instance.csdl|res://*/Models.Instance.ssdl|res
://*/Models.Instance.msl;provider=System.Data.SqlClient;provider
connection string=&quot;Data Source=.\MSSQLSERVER;Initial
Catalog=Blueprint;Integrated
Security=True;Pooling=True;MultipleActiveResultSets=True&quot;"
providerName="System.Data.EntityClient" />
</connectionStrings>
```

> **Note:** `Data Source` must specify the SQL instance name and the Blueprint instance name. If your SQL instance has a name that is different from **`MSSQLSERVER`** and/or your Blueprint instance is not named **`Blueprint`**, you need to change the value(s).

Step Three: Finalizing the HP ALM legacy support setup

1. Install the 32-bit service by running the following command with your user name and password:

```
BluePrintSys.RC.JobExecutor32.exe -c Install -a User -u [USERNAME] -p [PASSWORD]
```

> **Note:** To install the service using the default Windows account, run the following command instead:
>
> `BluePrintSys.RC.JobExecutor32.exe -c Install -a LocalService`

2. Next, start the 32-bit job executor Windows service with the following command:

```
BluePrintSys.RC.JobExecutor32.exe -c Start
```

You have successfully set up legacy support for HP ALM.

Setting up services (distributed-server setup)

Setting up services on a separate machine (distributed-server) involves these steps:

- Step One: Configuring services
- Step Two: Testing the connection to the database
- Step Three: Finalizing the job services setup

Step One: Configuring services

You have the option of setting up the following services:

- 64-bit job services
- HP Quality Center legacy support

Configuring the 64-bit services

> **Note:** In certain cases, the job services folder and files mentioned in the instructions below are located in the **C:\Program Files** directory instead of the **C:\Program Files (x86)** directory.

1. Open the following configuration file in a text editor: **BluePrintSys.RC.JobExecutor.exe.config**
2. Make sure that the value in the `<add key="Service.Jobs">` tag is as follows:

```
<add key="Service.Jobs" value="
DocGen,TfsExport,HpAlmRestExport,TfsChangeSummary,HpAlmRestChangeSummary,TfsExportTests,HpAlmRestExportTests" />
```

3. Make sure the `<add key="Service.Name">` tag specifies the 64-bit job service as follows:

```
<add key="Service.Name" value="Blueprint Job Service (64 bit)" />
```

Note: If you are setting up the second 64-bit job service in this step, specify the `Service.Name` value as `Blueprint Job Service 2 (64 bit)` instead of the value listed above.

4. Replace the following `connectionString` value with the Blueprint database connection string:

```
<connectionStrings>
<add name="InstanceContainer" connectionString="
metadata=res://*/Models.Instance.csdl|res://*/Models.Instance.ssdl|res
://*/Models.Instance.msl;provider=System.Data.SqlClient;provider
connection string=&quot;Data Source=.\MSSQLSERVER;Initial
Catalog=Blueprint;Integrated
Security=True;Pooling=True;MultipleActiveResultSets=True&quot;"
providerName="System.Data.EntityClient" />
</connectionStrings>
```

Note: `Data Source` must specify the SQL instance name and the Blueprint instance name. If your SQL instance has a name that is different from **`MSSQLSERVER`** and/or your Blueprint instance is not named **`Blueprint`**, you need to change the value(s).

Important: Repeat all of the steps above to configure the second 64-bit job service.

Setting up HP ALM legacy support

Setting up legacy support for HP ALM involves the following steps:

- Step One: Setting up the HP ALM legacy support connector
- Step Two: Configuring the 32-bit job services

STEP ONE: SETTING UP THE HP ALM LEGACY SUPPORT CONNECTOR

1. Set up the HP ALM application pool by running the following command:

```
blueprintqcwebcmd.exe  /object AppPool /command ADD /apppoolname
HPQCLegacyConnector
```

2. Set up the HP ALM web site by running the following command (where the number after `/port` is `QcLiteWeb`'s port number):

```
blueprintqcwebcmd.exe  /object Site /command ADD /wsname
HPQCLegacyConnector /dir "C:\Program Files (x86)\Blueprint Software
Systems\Blueprint\QcLiteWeb" /port [8081] /apppoolname
HPQCLegacyConnector
```

3. Start the HP ALM application pool by running the following command:

```
blueprintqcwebcmd.exe  /object AppPool /command START /apppoolname
HPQCLegacyConnector
```

4. Start the HP ALM web site by running the following command:

```
blueprintqcwebcmd.exe  /object SITE /command START /wsname
HPQCLegacyConnector
```

5. Set the HP ALM key for Blueprint with the following command (where the number after `/port` is `QcLiteWeb`'s port number):

```
blueprintqcwebcmd.exe /object Config /command SET /dir "C:\Program
Files (x86)\Blueprint Software Systems\Blueprint\Web" /port [8081]
```

You have successfully set up the HP ALM legacy support connector.

STEP TWO: CONFIGURING THE 32-BIT JOB SERVICES

> **Note:** In certain cases, the job services folder and files mentioned in the instructions below are located in the **`C:\Program Files`** directory instead of the **`C:\Program Files (x86)`** directory.

Complete the following instructions, pasting the copied files onto your target machine:

1. Open the following configuration file in a text editor: **BluePrintSys.RC.JobExecutor32.exe.config**
2. Make sure that the value within `<add key="Service.Jobs">` is as follows:

```
<add key="Service.Jobs" value="QcExport,QcChangeSummary,QcExportTests"
/>
```

3. Make sure the `<add key="Service.Name">` tag includes the Blueprint HP ALM legacy job service as follows:

```
<add key="Service.Name" value="Blueprint HP QC Legacy Job Service (32
bit)" />
```

4. Replace the following `connectionString` value with the Blueprint database connection string:

```
<connectionStrings>
<add name="InstanceContainer" connectionString="
metadata=res://*/Models.Instance.csdl|res://*/Models.Instance.ssdl|res
://*/Models.Instance.msl;provider=System.Data.SqlClient;provider
connection string=&quot;Data Source=.\MSSQLSERVER;Initial
Catalog=Blueprint;Integrated
Security=True;Pooling=True;MultipleActiveResultSets=True&quot;"
providerName="System.Data.EntityClient" />
</connectionStrings>
```

> **Note:** `Data Source` must specify the SQL instance name and the Blueprint instance name. If your SQL instance has a name that is different from **`MSSQLSERVER`** and/or your Blueprint instance is not named **`Blueprint`**, you need to change the value(s).

Step Two: Testing the connection to the database

> **Note:** This step must be performed for each job service you intend to set up.

This testing procedure must validate the configuration of the following values:

- The `Service.Name` value is unique and no other job service has this name on the current machine
- The `connectionString` value is valid and the job service can connect to Blueprint database.

If the test is not successful, you must specify the correct value(s) in the job service configuration file and re-attempt the test.

To test the job services connection to the Blueprint database:

- Run the following command (where `[JobServiceExecutableFile]` is the name of the job service executable file):

```
[JobServiceExecutableFile] -c test
```

> **Note:** The 32-bit job services file name is typically **BluePrintSys.RC.JobExecutor32.exe** and the 64-bit job services file name is typically **BluePrintSys.RC.JobExecutor.exe**.

Step Three: Finalizing the job services setup

> **Note:** This step must be performed for each job service you intend to set up.

This is the final step in setting up job services on a separate machine from the Blueprint database.

To finalize the setup:

1. Install the job service by running the following command (where `[JobServiceExecutableFile]` is the name of the job service executable file):

```
[JobServiceExecutableFile] -c install
```

2. Start the job service by running the following command (where `[JobServiceExecutableFile]` is the name of the job service executable file):

```
[JobServiceExecutableFile] -c start
```

You have deployed job services.

To verify whether job services have been successfully installed and configured:

1. Log on to Blueprint.
2. Open the *Instance Administration Console* from the **Menu** 

.

   The *Instance Administration Console* appears.
3. Click **Job Services**.

   The *Job Services* screen appears.

Any job services that have been successfully installed and configured appear in the *Job Services* list. Information about the configured service name and supported jobs also is available in the list.