



# Release Control

Software Version: 9.50

For the supported Windows® and UNIX® operating systems

# Deployment Guide

Document Release Date: April 2017

Software Release Date: October 2016



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# Welcome to This Guide

Welcome to the HPE Release Control Deployment Guide, which explains how to install and deploy HPE Release Control software and how to upgrade to the latest version. HPE Release Control provides a common platform of decision support for Change Advisory Board members and implementation teams during the release life cycle. HPE Release Control analyzes each change request in the system and provides real-time information and alerts during implementation. In addition, HPE Release Control enables collaboration, feedback, and review throughout the release life cycle.

This chapter includes:

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## How This Guide Is Organized

This guide contains the following parts:

- ["Installing and Deploying HPE Release Control" on page 9](#)  
Provides instructions on how to install and deploy HPE Release Control.
- ["Upgrading HPE Release Control" on page 50](#)  
Provides instructions on how to upgrade to the latest version of HPE Release Control.

## Who Should Read This Guide

This guide is intended for the HP service engineers who are responsible for installing and deploying or upgrading HPE Release Control.

# Release Control Documentation

HPE Release Control comes with the following documentation:

**HPE Release Control Deployment Guide** explains how to install and deploy HPE Release Control. This guide is accessible in the following formats, from the following locations:

- in PDF format in the HPE Release Control installation package
- in PDF format by selecting **Help > Documentation Library** from the HPE Release Control application

**HPE Release Control User Guide** explains how to use and configure the HPE Release Control application. This guide is accessible in the following formats, from the following locations:

- in PDF format in the HPE Release Control installation package
- in both PDF format and online HTML help format by selecting **Help > Documentation Library** from the HPE Release Control application
- in HTML help format, from specific HPE Release Control application windows, by clicking in the window and pressing **F1**, or by selecting **Help** from the main menu

**HPE Release Control API Reference** explains how to work with HPE Release Control's API. The API Reference is available in CHM format in the HPE Release Control installation package, or from the HPE Release Control application by selecting **Help > Documentation Library**.

**HPE Release Control Release Notes** provides information on what's new in the current version of the product as well as comprehensive information on known problems and limitations. The Release Notes is available in HTML format in the HPE Release Control installation package.

**Note:** Anything published in PDF format can be read and printed using Adobe Reader, which can be downloaded from the Adobe Web site (<http://www.adobe.com>).

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Most of the support areas require that you register as an HPE Passport user and sign in. Many also require a support contract. To find more information about access levels and register for an HPE Passport user ID, go to [the HPE Software Support web site](#) as well.

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# Installing and Deploying HPE Release Control

This chapter provides instructions on how to install and deploy HPE Release Control.

This chapter includes:

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## The Deployment Process: Basic Steps

This following diagram describes the basic steps involved in getting your HPE Release Control environment up and running:

1. Review pre-installation information (see ["Before You Install" on the next page](#))
2. Run the installation (see ["Installing HPE Release Control" on page 13](#))
3. Set up the database (see ["Configuring the Database or User Schema" on page 14](#))

4. Launch (see ["To configure your database on Linux"](#))
5. Configure the server (see ["Configuring the HPE Release Control Server" on page 20](#))
6. Configure related settings (see ["Configuring HPE Universal CMDB" on page 21](#))
7. Configure the service desk (see ["Configuring the Service Desk Integration" on page 24](#))

## Before You Install

HPE strongly recommends you to review the *Release Control 9.50 Support Matrix* carefully before you install HPE Release Control.

This section includes:

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## Server System Requirements

The following table describes the system requirements for the HPE Release Control server:

CPU	Intel Pentium 4
Memory (RAM)	Minimum of 2 GB
Free Disk Space	Minimum of 5 GB

For more server system support information, including operating system, database, web server and so on, refer to the *HPE Release Control Support Matrix*.

## Client Requirements

The following table describes the client requirements for viewing HPE Release Control:

Internet Protocol	IPv4, IPv6
Screen Resolution	Minimum 1024x768 Recommended 1280x1024
Color Quality	Minimum of 16 bit <b>Note:</b> If you are logging on to the HPE Release Control server through a remote connection, ensure that the Remote Desktop color display setting is set to a minimum of 16 bit.

For more client support information, including web browser, Flash Player browser plugin and so on, refer to the *HPE Release Control Support Matrix*.

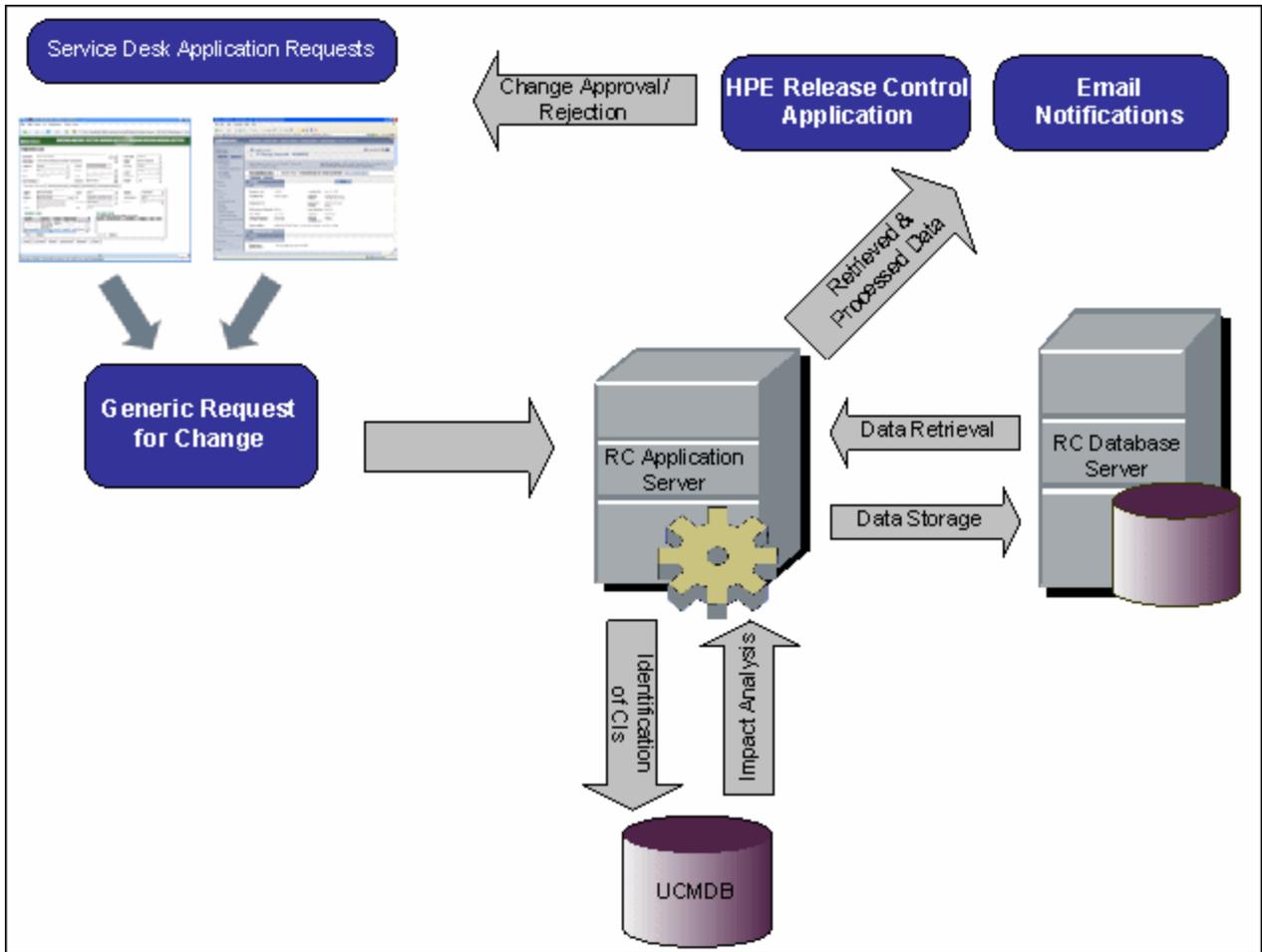
## HPE Release Control Advanced Deployment Options

In addition to the regular deployment, HPE Release Control can also be deployed with the following options:

- Cluster deployment. HPE Release Control can be deployed on multiple nodes. For details, refer to the section about setting up a cluster deployment in the *HPE Release Control User Guide*.
- Web servers. You can configure HPE Release Control to work with a Web server. For details, refer to the section about configuring a Web server in the *HPE Release Control User Guide*.
- Identity management. You can configure HPE Release Control to work with a third party identity management solution such as CA SiteMinder. For details, refer to the section about identity management in the *HPE Release Control User Guide*.

## HPE Release Control Data Flow

The following diagram illustrates the data flow when running HPE Release Control:



- Change requests originate in the Service Desk application and are converted into generic requests.
- HPE Release Control sends the requests to HPE Universal CMDB for analysis and to determine the relationships between configuration items (CIs).
- HPE Release Control takes the data from HPE Universal CMDB and performs impact analysis.
- HPE Release Control further analyzes change requests, performing calculations such as risk and collision analysis.
- The information is stored on the HPE Release Control Database Server.
- Email notifications are sent according to configuration settings to decision makers, and changes are approved or rejected.

## System Architecture

HPE Release Control is a 3-tier application which consists of following:

- Flash-based (fat) client, accessed using a Web browser
- Application servers
- Database servers

The database servers and the HPE Release Control application servers must locate in high bandwidth and low latency network paths, which connect to the database server.

## Installing HPE Release Control

You can install HPE Release Control using the InstallShield Wizard for HPE Release Control on Windows. Or you can run a series of shell commands to install HPE Release Control on Linux.

To install HPE Release Control on Windows:

1. Click the setup-9.50.0001.exe file located in the Setup folder of your HPE Release Control installation package. The InstallShield Wizard for HPE Release Control opens. Click **Next**.
2. Accept the terms of the software license agreement that is displayed. Click **Next**.
3. Accept the default installation directory or click **Browse** to select a different directory.

**Note:** The directory you select cannot contain spaces.

Click **Next**.

4. Ensure that the information in the summary screen is correct.

To review or change any settings, click **Back**. To accept the settings and begin installing HPE Release Control, click **Next**.

5. When the installation process has successfully been completed, click **Finish** in the final InstallShield Wizard screen.

**Note:** If you are in the middle of performing the upgrade procedure, continue with [step 2 of "Stage 2: Install and Upgrade HPE Release Control" on page 52](#).

To install HPE Release Control on Linux:

1. Copy release-control-9.50.0001.x86\_64.rpm.bin to the target computer. The file resides in the Setup folder of HPE Release Control installation package.
2. Log in the Linux system as root.

3. Open a shell terminal and change the current working directory to where the rpm.bin file is located.
4. Execute the following command to ensure that the execute permission is set:

```
chmod u+x release-control-9.50.0001.x86_64.rpm.bin
```

5. Execute the following command to begin installing HPE Release Control:

```
./release-control-9.50.0001.x86_64.rpm.bin
```

The End User License Agreement is displayed and you are prompted to agree to its terms.

The default installation directory is /opt/HP/rc and the new user of release-control is created, which belongs to the hp group.

The new system service of release-control is registered, which can be verified by running the following command:

```
chkconfig --list|grep release-control
```

This service will start automatically upon system reboot.

## Configuring the Database or User Schema

**Caution:** Upgrade is not supported if the Oracle Server user schema is created manually.

To work with HPE Release Control, you must create either a Microsoft SQL Server database or an Oracle Server user schema. You can then configure connection properties for the HPE Release Control database or user schema by updating the database.properties file.

**Note:** For MS SQL Server and Oracle Server system requirements, see "[Server System Requirements](#)" on page 10.

For information and guidelines about configuring and maintaining MS SQL and Oracle Server databases, see the section about database configuration and maintenance in the HPE Release Control User Guide.

To configure your database on Windows:

1. Allocate a Microsoft SQL Server database or an Oracle Server user schema.
  - For Oracle: Grant the Oracle user only Connect and Resource roles. (Populate fails if the Oracle user has the Select any table privilege.)

**Note:** From Oracle 12c, the Resource role no longer provides the UNLIMITED TABLESPACE system privilege. You must add the privilege manually.

2. Verify the following information, which you need during this configuration process:
  - DB host name and port
  - DB user name and password
  - For MS SQL: Database name
  - For Oracle: SID
3. Before you update the database.properties file, consider the following:
  - You may need to specify advanced database properties, such as minimum and maximum pool size. For more information about these options, see [http://www.mchange.com/projects/c3p0/index.html#configuration\\_properties](http://www.mchange.com/projects/c3p0/index.html#configuration_properties).
  - You may need to specify the connection URL of the JTDS MSSQL in the database.properties file. There are two types of authentication:

- SQL authentication. Include a valid MS SQL server name and database name.

For example:

```
jdbc:jtds:sqlserver://myServer:1433/myDataBase;sendStringParametersAsUnicode=false
```

- Windows (NTLM) authentication. To apply Windows authentication, add the domain property to your JTDS connection URL in the database.properties file. Specify the Windows domain to authenticate,

For example:

```
jdbc:jtds:sqlserver://myServer:1433/myDatabase;sendStringParametersAsUnicode=false;domain=myDomain
```

You can use Windows (NTLM) authentication with or without Lightweight Single Sign-On Authentication Support (LW-SSO).

Using Windows (NTLM) authentication without LW-SSO. If the domain property is present and the user name and password are provided, JTDS uses Windows (NTLM) authentication instead of the usual SQL Server authentication. This means that the user and password provided are the domain user and password. This allows non-Windows clients to log in to servers which are only configured to accept Windows authentication.

Using Windows (NTLM) authentication with LW-SSO. If the domain parameter is present but no user name and password are provided, that is the user name and password

parameters use empty values, JTDS uses its own Single-Sign-On library and logs in with the logged Windows user's credentials. For this to work, you need to be using Windows, logged into a domain, and also have the LW-SSO library installed.

For details on how to install the LW-SSO library, refer to the readme.sso file, which can be downloaded from the latest distribution package at <http://jtds.sourceforge.net>.

**Note:** For details about configuring the jTDS URL format for MS SQL Server, see <http://jtds.sourceforge.net/faq.html#urlFormat>.

- You may need to specify the connection URL of the Oracle native driver. Include a valid Oracle server name and SID. Alternatively, if you are using Oracle RAC, specify the Oracle RAC configuration details.

To configure HPE Release Control to support Oracle RAC:

- i. Navigate to the <HPE Release Control 9.50 installation directory>\conf directory, and then open the database.properties file with a text editor.
- ii. Enter URL in the following format:

```
jdbc:oracle:thin:@(DESCRIPTION=(LOAD_BALANCE=on)(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=host1)(PORT=1621))(ADDRESS=(PROTOCOL=TCP)(HOST=host2)(PORT=1621)))(CONNECT_DATA=(SERVICE_NAME=MYDB)))
```

Each address points to a different cluster node. For example, if the previous URL is `jdbc.url=jdbc:oracle:thin:@16.186.78.69\1521\orc1`. To support RAC, this URL should be `jdbc:oracle:thin:@(DESCRIPTION=(LOAD_BALANCE=on)(ADDRESS_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=16.186.78.69)(PORT=1521)))(CONNECT_DATA=(SERVICE_NAME=orc1)))`.

- iii. Click **Next** to verify the connection.

For details about configuring the native Oracle JDBC URL format, see [http://www.orafaq.com/wiki/JDBC#Thin\\_driver](http://www.orafaq.com/wiki/JDBC#Thin_driver). For details about configuring the URL for Oracle RAC, see [http://download.oracle.com/docs/cd/B28359\\_01/java.111/e10788/rac.htm](http://download.oracle.com/docs/cd/B28359_01/java.111/e10788/rac.htm).

- HPE recommends you to encrypt your password in the database properties file.
4. Navigate to the <HPE Release Control 9.50 installation directory>\conf directory, and then update the database.properties file.

**Note:** If you are in the middle of performing the upgrade procedure, continue with [step 4](#) of "[Stage 2: Install and Upgrade HPE Release Control](#)" on page 52.

5. When you complete the database configuration, populate the database as follows:

Change the command line directory to <HPE Release Control installation directory>\bin and run the following command:

**Populate.bat i**

To configure your database on Linux:

1. Browse to <HPE Release Control installation directory>/examples/database-config-examples. Based on you database type, copy database.properties.mssql, database.properties.oracle9i or database.properties.oracle10g to <HPE Release Control installation directory>/conf. Rename this file to database.properties.
2. Open database.properties with a text editor. Change the strings in [] to correct value and save your changes.
3. When you complete the database configuration, populate the database as follows:
  - a. Run the following command to log in to HPE Release Control with the user name release-control:

**su - release-control**

- b. Change the command line directory to /opt/HP/rc/bin and run the following command:

**./Populate.sh i**

## Configuring JRE

As of version 9.50, HPE Release Control adds support for Open Java Development Kit (OpenJDK).

**Important:** An OpenJDK is bundled with the Windows installation package so that you do not have to manually install a JRE for them. For the Linux installation package, you need to manually install either an OpenJDK or an Oracle JRE.

You have the option to use either Oracle JRE or OpenJDK with HPE Release Control. For the supported versions, see the *HPE Release Control Support Matrix*.

## JRE bitness

For the Windows server: use 32-bit or 64-bit JRE.

For the Linux Server: use 64-bit JRE.

## How to use OpenJDK with HPE Release Control

Use OpenJDK with HPE Release Control as described in the following table.

Installation Package	How to use OpenJDK
Windows	<p>An OpenJDK (32-bit by default) folder is already bundled with the package. No installation is required.</p> <p>If you want to use 64-bit and you need:</p> <ol style="list-style-type: none"><li>1. Rename the &lt;HPE Release Control 9.50 installation directory&gt;\java folder to create a backup copy.</li><li>2. Rename the &lt;HPE Release Control 9.50 installation directory&gt;\java_x64 folder to java.</li><li>3. Run the <b>CreateNode.bat</b> command to create a new service and use this service to start HPE Release Control windows server.</li></ol>
Linux	<ol style="list-style-type: none"><li>1. Before you proceed, make sure that OpenJDK is already installed on the corresponding system.</li><li>2. Update the JAVA_HOME environment variable to make it point to the OpenJDK folder.</li></ol>

## How to use Oracle JRE with HPE Release Control

Use Oracle JRE with HPE Release Control as described in the following table.

Installation Package	How to use Oracle JRE
Windows	<ol style="list-style-type: none"><li>1. Rename the &lt;HPE Release Control 9.50 installation path&gt;\java folder to create a backup copy.</li><li>2. Download an appropriate version of 32-bit/64-bit Oracle JRE from the Oracle website.</li><li>3. Copy the Oracle JRE folder to the &lt;HPE Release Control 9.50 installation path&gt; and change its folder name to java.</li><li>4. Run the <b>CreateNode.bat</b> command to create a new service and use this service to start HPE Release Control windows server.</li></ol>
Linux	<ol style="list-style-type: none"><li>1. Before you proceed, make sure that Oracle JRE is already installed on the corresponding system.</li></ol>

Installation Package	How to use Oracle JRE
	2. Update the <code>JAVA_HOME</code> environment variable to make it point to the Oracle JRE.

## Launching HPE Release Control

This section describes how to launch HPE Release Control.

To launch HPE Release Control on Windows:

1. If you are using an Apache Web server, restart your Web server.
2. Start the HPE Release Control service.
  - a. From the Windows menu, select **Start > Run** and type `services.msc`.
  - b. In Services window, select **HPE Release Control 9.50 <server name>** and click **Start Service**.

It may take a few minutes for the server to complete the startup process.

3. Enter the appropriate URL to access HPE Release Control (depends on the user authentication mode you are using). For example, `http://server:8080/ccm`.
4. Log in to HPE Release Control with the user name `admin` and the password `admin`. Ensure that you change this password once you log in. For details on changing your password and creating HPE Release Control users, see the section about configuring users in the HPE Release Control User Guide.

**Note:** If you are working with HPE Release Control's identity management solution or LDAP authentication, see the section about security configuration in the HPE Release Control User Guide for details on adding an administrator and users to HPE Release Control.

To launch HPE Release Control on Linux:

1. Log in the Linux system as `release-control`.
2. Execute either of the following commands to start the Release Control daemon:

```
/etc/init.d/release-control
```

```
/opt/HP/rc/start.sh
```

3. Make sure port 8080 is open for INPUT in the firewall setting.

# Configuring the HPE Release Control Server

This section describes how to configure the HPE Release Control server.

1. Log on to HPE Release Control (See "[Launching HPE Release Control](#)" on the previous page).

**Caution:** By default, HPE Release Control supports integration with HPE Universal CMDB 9.x and above.

2. Select **Module > Administrator > Configuration > Server** and define the following settings in the Server pane:

UI Elements	Description
Server name	Enter the server's Fully Qualified Domain Name (FQDN). <b>Note:</b> <ul style="list-style-type: none"><li>○ Do not use the default value localhost or the IP address.</li><li>○ If you cluster two or more HPE Release Control servers behind a load balancer, specify the domain name of the load balancer.</li></ul>
Server address	Specify the HPE Release Control server address as follows: <ul style="list-style-type: none"><li>○ If you install one HPE Release Control server, specify the URL of this machine. <b>Note:</b> If you are using a web server, use the port of the web server.</li><li>○ If you cluster two or more HPE Release Control servers behind a load balancer, specify the URL of the load balancer.</li></ul>
SMTP host	Enter the host name of the SMTP mail server machine.
SMTP port	Specify the port to be used to connect to the SMTP mail server.
SMTP username	Specify the user name required to connect to the SMTP mail server, if one is required.
SMTP password	Enter the password required to connect to the SMTP mail server. If the password must be encrypted, see the section about password encryption in the HPE Release Control User Guide.

3. Save a draft of your configuration set. (See "[Saving a Draft Configuration Set](#)" on page 48.)

4. When you are satisfied with your configuration changes, activate the draft. (See "[Activating Configuration Changes](#)" on page 49.)
5. Stop the HPE Release Control service:
  - a. From the Windows menu, select **Start > Run** and type `services.msc`.
  - b. In Services window, select **HPE ReleaseControl 9.50 <server name>** and click **Stop Service**.
6. Start the HPE Release Control service again.

## Configuring HPE Universal CMDB

This section contains mandatory configuration settings for configuring HPE Release Control interaction with HPE Universal CMDB.

For information on optional HPE Universal CMDB configuration settings, see the section about HPE Universal CMDB configuration in the HPE Release Control User Guide.

**Note:** If you are working without HPE Universal CMDB (Standalone mode), see the section about configuring HPE Release Control to work in Standalone mode in the HPE Release Control User Guide.

To configure the HPE Universal CMDB:

1. Deploy the `rc_package.zip` file in the HPE Universal CMDB.

The `rc_package.zip` file is located in the `<HPE Release Control installation directory>\uCmdb\ucmdb-<version>\extensions` folder. For more information about deploying packages, see the HPE Universal CMDB documentation.
2. Log in to HPE Release Control.
3. Select the HPE Universal CMDB version number.
  - a. In HPE Release Control, select **Module > Administrator > Configuration tab > Integrations > HPE Universal CMDB**.
  - b. In the right pane, In the **HPE Universal CMDB** version box, select the appropriate version.
4. Enter the HPE Universal CMDB server details.
  - a. Select **Integrations > HPE Universal CMDB > Available Connections > Enter a valid CMDB server name**.

- b. In the right pane, in the **HPE Universal CMDB server name** box, enter the DNS name of the server on which HPE Universal CMDB is installed.
- c. In the **Port** box, specify the port used by the HPE Universal CMDB server.
5. Save a draft of your configuration set. (See ["Saving a Draft Configuration Set"](#) on page 48.)
6. When you are satisfied with your configuration changes, activate the draft. (See ["Activating Configuration Changes"](#) on page 49.)

## Configuring HPE Release Control to Work with a Different Version of HPE Universal CMDB

By default, HPE Release Control 9.50 supports integration with HPE Universal CMDB 9.x and above.

1. In HPE Release Control, go to the **Module > Administrator > Configuration** tab.
2. Click the **Import Configuration set**  button and import the vanilla.zip file located in the <HPE Release Control installation directory>\examples\configuration folder.
3. Go to **Integrations > HPE Universal CMDB**, and then choose the required HPE Universal CMDB version in the HPE Universal CMDB version box.
4. In **Integrations > HPE Universal CMDB > Available Connections** pane, update the relevant URL in the **Modeling Studio link** as follows:

### For HPE Universal CMDB 9.x and above

```
${protocol}://${cmdb-server}:${port}/ucmdb-  
ui/cms/directAppletLogin.do?ApplicationMode=UCMDB_  
EDITOR&cmd=OpenModelingStudio&model_id=${model-id}&objectId=${ci-id}  
&navigation=true&interfaceVersion=8.0.0&customerId=${customer-id}
```

5. Save a draft of the configuration set, as described in ["Saving a Draft Configuration Set"](#) on page 48.
6. Activate the configuration set, as described in ["Activating Configuration Changes"](#) on page 49.
7. Log out and then log in to HPE Release Control.
8. In **Module > Administrator > Configuration** tab > **Integrations > HPE Universal CMDB > CIs**

**analysis Lookup Directive** pane, and update the tables with the relevant CI types:

CI types for HPE Universal CMDB 9.x and above
business_elements
node
IP address

- In the **CIs analysis Lookup Directive** pane, update the table with the relevant attributes for each CIT as follows.

CI types for HPE Universal CMDB 9.x	Relevant attributes
business_elements	name
node	smnp_sys_name; name; primery_dns_name
IP address	name; authoritative_dns_name

- In the **CI Display** pane, update the table with the following CI types:

CI types for HPE Universal CMDB 9.x and above
node
ip_address

- In **Integrations > HPE Universal CMDB > Latent Changes > Change Type Matching CI Type > Added Hardware** pane, update the table with the relevant CI types:

CI types for HPE Universal CMDB 9.x and above
memory
node
logicaldisk
ip_address
file_system

- In **Integrations > Fields** pane, make sure that the new analysis rules you configured in the previous steps apply to the relevant fields.
- Save a draft of the configuration set, as described in ["Saving a Draft Configuration Set"](#) on page 48.
- Activate the configuration set, as described in ["Activating Configuration Changes"](#) on page 49.

## Configuring the Service Desk Integration

The configuration of your service desk differs depending on which service desk you are using:

Service Desk	Instructions
HPE Service Manager	<a href="#">"Configuring HPE Service Manager Integration" on page 26</a>
HPE Project and Portfolio Management / IT Governance Center	<a href="#">"Configuring HPE Project and Portfolio Management / IT Governance Center Integration" on page 29</a>
BMC Remedy Action Request System	<a href="#">"Configuring BMC Remedy Action Request System Integration" on page 32</a>
Database	<a href="#">"Configuring a Database as a Service Desk" on page 34</a>
XML file	<a href="#">"Configuring an XML File as a Service Desk" on page 37</a>
HPE Server Automation	<a href="#">"Configuring HPE Server Automation as Your Service Desk" on page 39</a>
Aperture Vista DCIM	<a href="#">"Configuring Aperture Vista DCIM as a Service Desk" on page 41</a>

## Supported Service Desks

The Service Desk Integration module supports the following service desk applications:

Application	Version
HPE Service Manager	9.3x, 9.4x, 9.50
HPE Project and Portfolio Management	9.x
HPE Server Automation (SA)	Refer to the <b>Support Matrix</b> section on <a href="#">ID: 447 Jobs information collection from SA (RC - SA)</a> on the <a href="#">HPE Software Support website</a> .
BMC Remedy Action Request System	7.x
Aperture Vista Data Center Infrastructure Manager (DCIM)	6.0

## Feature Availability per Service Desk

Certain HPE Release Control features are only available when you integrate with certain service desk applications. The following table describes these features and specifies their availability per service desk. Service desks that are not listed in this table do not include these features.

Feature	HPE Service Manager	HPE Project and Portfolio Management
Update Approval status. Approval of a change request in the Analysis module Collaborate > Resolution tab, results in an updated status of the request within the service desk.	Yes	Yes
Retract approval. Retracting approval of a change request in the Analysis module Collaborate > Resolution tab, results in an updated status of the request within the service desk.	Yes	No
Update planned times. After you run a simulation in the Analysis module Change Planner, you can save the updated start and end times to the originating service desk.	Yes	No
Update actual times. In the Director and Implementor modules, you can update the actual start and end time of an activity. These times are automatically updated in the originating service desk ticket.	Yes	No
Update Post Implementation Review. The data that you update in the Post Implementation Review dialog box in the Review > Conclusions tab is updated in the origination service desk.	Yes	No
Closing Tickets from HPE Release Control. You can close service desk tickets from the Analysis module Review > Conclusions tab.	Yes	No
Update analysis information. The originating service desk ticket is updated with analysis information from HPE Release Control (for example risk level and impact analysis)	Yes (requires configuration)	No
Deny change request. Denying a change request in the Analysis module Collaborate > Resolution tab results in an updated status of the request within the service desk.	Yes	No

# Configuring HPE Service Manager Integration

This task describes how to configure HPE Service Manager as your service desk and includes the following stages:

- ["Stage 1: Prerequisites" below](#)
- ["Stage 2: Run the Configuration Utility" on the next page](#)
- ["Stage 3: Apply Configuration Changes" on page 28](#)

The server on which the HPE Release Control and HPE Service Manager servers reside must be running in the same time zone.

## Stage 1: Prerequisites

1. Verify the following information, which you need during this configuration process:

- HPE Service Manager version
- Is HP's Lightweight Single Sign On (LW-SSO) used?
- HPE Service Manager user name, password, time zone, host name, and port

**Note:** Use the Java naming conventions for time zones.

- Is HTTPS required in order to access HPE Service Manager WSDL file?

**Note:** If HPE Service Manager is configured using SSL, you need to import the SSL certificate from HPE Service Manager to the HPE Release Control server.

- URL suffix for the HPE Service Manager WSDL file (by default, `sc62server/PWS`)

**Note:** HPE Service Manager's internal load balancer encounters technical problems when deploying Web services due to the fact that Web services do not support the HTTP Redirect in HPE Service Manager. To enable HPE Release Control to work with HPE Service Manager configured with a load balancer, you need to configure a load balancer for HPE Service Manager that is other than HPE Service Manager's internal one. For example, Cisco CSS.

2. Users who access HPE Service Manager from HPE Release Control need to have SOAP API Execute Capabilities enabled. In HPE Service Manager, ensure that this option is enabled for the relevant operators.
3. (Optional) As part of the SdiConfigurer.bat utility you run in the next stage, certain HPE Service Manager fields are automatically mapped to HPE Release Control fields. If you want to map any additional fields, expose these fields now in the HPE Service Manager ChangeRC/ChangeTaskRC External Access object. You map these fields in conversion scripts in *step 3* of "[Stage 3: Apply Configuration Changes](#)" on the next page.

**Note:** To expose and map fields, ensure that you are using ChangeRC and ChangeTaskRC external access objects that are dedicated to HPE Release Control instead of using the default Change and ChangeTask external access objects.

## Stage 2: Run the Configuration Utility

On the Windows System:

From the Windows command line, run the following command:

```
<HPE Release Control installation directory>\bin\SdiConfigurer.bat
```

For each question, type your selection and press Enter. (Refer to the information you verified at the beginning of the Prerequisites section.) Where relevant, the default selection appears in square brackets at the end of the question.

**Note:** If you press Enter without typing anything, the default answer is automatically selected.

Based on your selections, the configuration utility creates new configuration files, including a .zip file. To apply the configuration settings to HPE Release Control, you use the **Import configuration set** button to upload the .zip file as described below.

On the Linux System:

1. Log in the Linux system as root.
2. Run the following command to log in to HPE Release Control with the user name release-control:  
**su - release-control**
3. Run the **cd bin** command to enter the HPE Release Control installation directory.
4. Run the following command:

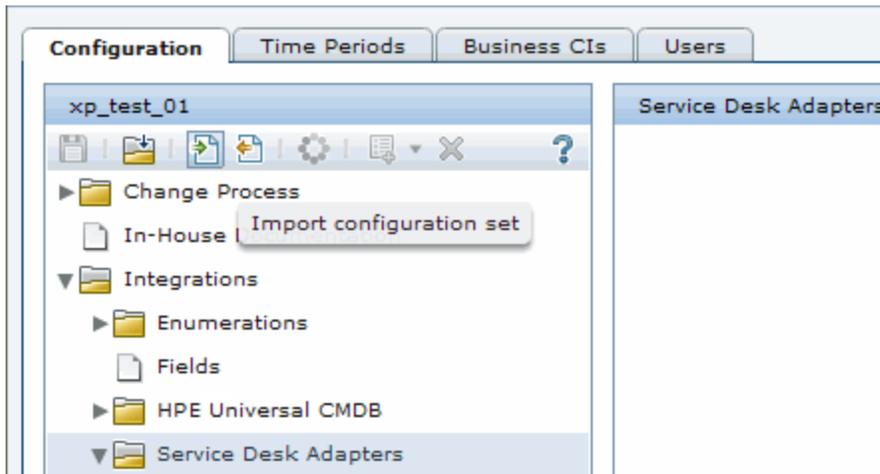
```
./SdiConfigurer.sh
```

For each question, type your selection and press Enter. (Refer to the information you verified at the beginning of the Prerequisites section.) Where relevant, the default selection appears in square brackets at the end of the question.

For each question, type your selection and press Enter. (Refer to the information you verified at the beginning of the Prerequisites section.) Where relevant, the default selection appears in square brackets at the end of the question.

## Stage 3: Apply Configuration Changes

1. In HPE Release Control, go to **Module > Administrator > Configuration tab > Integrations > Service Desk Adapters**, click the **Import configuration set** button.



2. In the Select file to upload dialog box, go to <HPE Release Control installation directory>\bin\result and open <adapter\_name>.zip.

A new node (with the name of the adapter) is added under the **Integrations > Service Desk Adapters** node. The node includes the new service desk configuration files, which are displayed independently in the left pane. Select a configuration file and its content is displayed in the right pane.

3. If you exposed additional fields in *step 4* of "[Stage 1: Prerequisites](#)" on [page 26](#), map these fields in the relevant conversion scripts (convertChange.js/convertTask.js).
  - To view the conversion scripts, select the **Integrations > Service Desk Adapters > <adapter name>** node and select the relevant tab in the right pane that displays the file.

- To make changes to the scripts, see ["Modifying Configuration Files in the Configuration Tab" on page 48.](#)
- 4. You can configure HPE Release Control to update HPE Service Manager with Analysis information. For details, see the relevant section in the HPE Release Control User Guide.
- 5. Save a draft of your configuration set. (See ["Saving a Draft Configuration Set" on page 48.](#))
- 6. When you are satisfied with your configuration changes, activate the draft. (See ["Activating Configuration Changes" on page 49.](#))

**Note:** To modify your service desk settings after the initial configuration, see the section about advanced service desk configuration in the HPE Release Control User Guide.

## Configuring HPE Project and Portfolio Management / IT Governance Center Integration

This task describes how to configure HPE Project and Portfolio Management / IT Governance Center as your service desk and includes the following stages:

- ["Stage 1: Prerequisites" below](#)
- ["Stage 2: Run the Configuration Utility" on the next page](#)
- ["Stage 3: Apply Configuration Changes" on the next page](#)

### Stage 1: Prerequisites

1. Verify the following information, which you need during this configuration process:
  - HPE Project and Portfolio Management / IT Governance Center version
  - service desk user name, password, host name, and port
  - If you want to enable approval integration with HPE Release Control whereby the approval of a change request in HPE Release Control, results in an updated status of a workflow step within the service desk, you need to provide the following information:
    - Source Workflow Step. Decide which step in HPE Project and Portfolio Management requires approval. This step is updated with the HPE Release Control approval status.
    - Oracle DB SID (System ID)

- Oracle DB host name
  - Oracle DB port
  - Oracle DB user name
  - Oracle DB password
- Write down the workflow steps from HPE Project and Portfolio Management. This information is found within the HPE Project and Portfolio Management workbench. For more information, refer to the HPE Project and Portfolio Management documentation.
2. For versions earlier than HPE Project and Portfolio Management version 7.5: If your HPE Project and Portfolio Management / IT Governance Center Web Services service desk application is synchronized with the CMDB server, add a new change request field in HPE Release Control named mam-ticket-id of the text type. Apply the mam-ticket analysis rule to this field, with the analysis rule level set to both Change and Task.

For information about creating new change request fields and applying analysis rules, see the section about creating or modifying change request fields in the HPE Release Control User Guide.

## Stage 2: Run the Configuration Utility

From the command line, run the following command:

```
<HPE Release Control installation directory>\bin\SdiConfigurer.bat
```

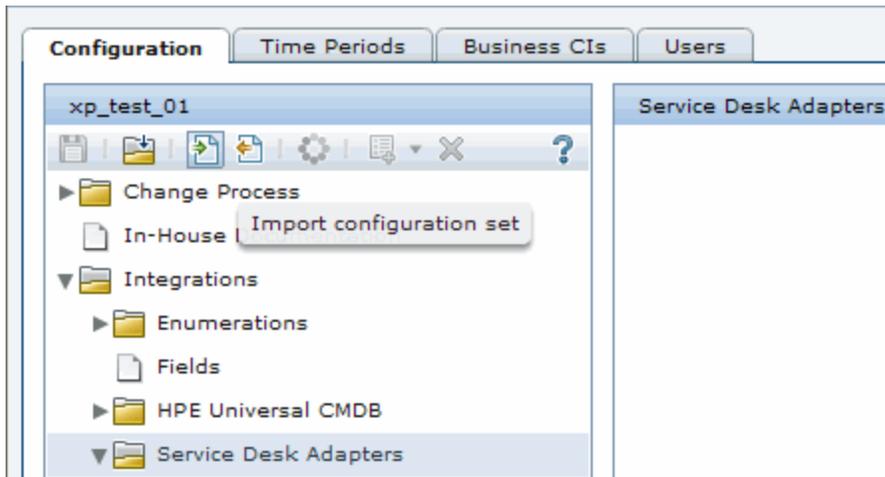
For each question, type your selection and press Enter. (Refer to the information you verified at the beginning of the Prerequisites section.) Where relevant, the default selection appears in square brackets at the end of the question.

**Note:** If you press Enter without typing anything, the default answer is automatically selected.

Based on your selections, the configuration utility creates new configuration files, including a .zip file. To apply the configuration settings to HPE Release Control, you use the **Import configuration set** button to upload the .zip file as described below.

## Stage 3: Apply Configuration Changes

1. In HPE Release Control, go to **Module > Administrator > Configuration tab > Integrations > Service Desk Adapters**, click the **Import configuration set** button.



2. In the **Select file to upload** dialog box, go to <HPE Release Control installation directory>\bin\result and open <adapter\_name>.zip.

A new node (with the name of the adapter) is added under the **Integrations > Service Desk Adapters** node. The node includes the new service desk configuration files, which are displayed independently in the left pane. Select a configuration file and its content is displayed in the right pane.

3. Map the workflow steps (that you wrote down earlier as part of the configuration prerequisites) from HPE Project and Portfolio Management to status names in HPE Release Control in the relevant conversion scripts (convertRelease.js/convertChange.js).
  - To view the conversion scripts, select the **Integrations > Service Desk Adapters > <adapter name>** node and select the relevant tab in the right pane that displays the file.
  - To make changes to the scripts, see ["Modifying Configuration Files in the Configuration Tab" on page 48.](#)
4. Save a draft of your configuration set. (See ["Saving a Draft Configuration Set" on page 48.](#))
5. When you are satisfied with your configuration changes, activate the draft. (See ["Activating Configuration Changes" on page 49.](#))

**Note:** To modify your service desk settings after the initial configuration, see the section about advanced service desk configuration in the HPE Release Control User Guide.

# Configuring BMC Remedy Action Request System Integration

This task describes how to configure BMC Remedy Action Request System as your service desk and includes the following stages:

- ["Stage 1: Prerequisites" below](#)
- ["Stage 2: Run the Configuration Utility" below](#)
- ["Stage 3: Copy BMC Remedy Files to HPE Release Control" on the next page](#)
- ["Stage 4: Apply Configuration Changes" on page 34](#)

## Stage 1: Prerequisites

Verify the following information, which you need during this configuration process:

- BMC Remedy version
- BMC Remedy user name, password, and server name

## Stage 2: Run the Configuration Utility

From the command line, run the following command:

```
<HP Release Control installation directory>\bin\SdiConfigurer.bat
```

For each question, type your selection and press Enter. (Refer to the information you verified at the beginning of the Prerequisites section.) Where relevant, the default selection appears in square brackets at the end of the question.

**Note:** If you press Enter without typing anything, the default answer is automatically selected.

Based on your selections, the configuration utility creates new configuration files, including a .zip file. To apply the configuration settings to HPE Release Control, you use the **Import configuration set** button to upload the .zip file as described below.

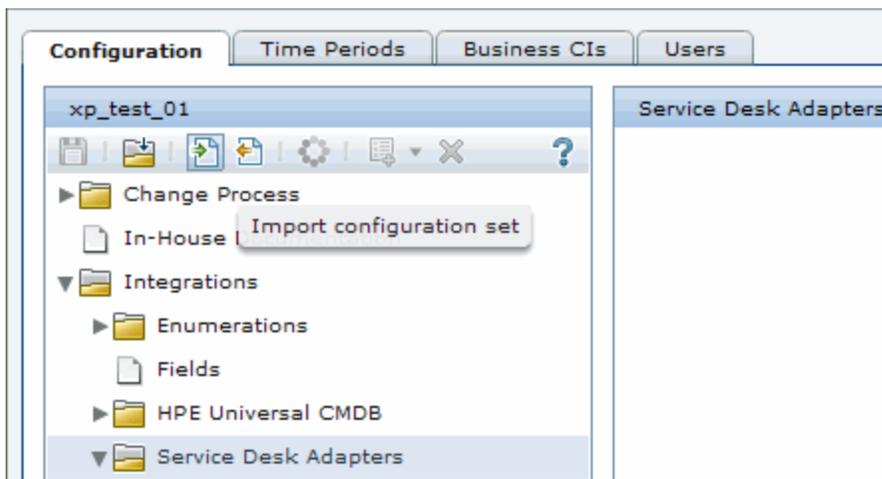
## Stage 3: Copy BMC Remedy Files to HPE Release Control

To connect to the BMC Remedy Action Request System service desk application, you must first ensure that certain BMC Remedy Action Request System files are accessible to the HPE Release Control server.

1. Stop the HPE Release Control service:
  - From the Windows menu, select **Start > Run** and type `services.msc`.
  - In Services window, select **HPE ReleaseControl 9.50 <server name>** and click **Stop Service**.
2. Copy BMC Remedy files to HPE Release Control.
  - If you are working with BMC Remedy ARS 5.0:
    - i. Copy `arapi50.jar` and `arutil50.jar` from the BMC Remedy Action Request System installation directory to the `<HPE Release Control installation directory>\tomcat\lib` directory.
    - ii. Copy `arapi50.dll`, `arjni50.dll`, `arpc50.dll`, and `arutil50.dll` from the BMC Remedy Action Request System installation directory to the `<HPE Release Control installation directory>\apps\ccm\WEB-INF\os_lib\win32` directory on the HPE Release Control server machine.
  - If you are working with BMC Remedy ARS 7.0:
    - i. Copy `arapi70.jar` and `arutil70.jar` from the BMC Remedy Action Request System installation directory to the `<HPE Release Control installation directory>\tomcat\lib` directory.
    - ii. Copy all the Windows library files (\*.dll) from the BMC Remedy Action Request System installation directory to the `<HPE Release Control installation directory>\apps\ccm\WEB-INF\os_lib\win32` directory on the HPE Release Control server machine.
3. Start the HPE Release Control service.

## Stage 4: Apply Configuration Changes

1. In HPE Release Control, go to **Module > Administrator > Configuration** tab > **Integrations > Service Desk Adapters**, click the **Import configuration set** button.



2. In the Select file to upload dialog box, go to <HPE Release Control installation directory>\bin\result and open <adapter\_name>.zip.

A new node (with the name of the adapter) is added under the **Integrations > Service Desk Adapters** node. The node includes the new service desk configuration files, which are displayed independently in the left pane. Select a configuration file and its content is displayed in the right pane.

3. Save a draft of your configuration set. (See ["Saving a Draft Configuration Set" on page 48.](#))
4. When you are satisfied with your configuration changes, activate the draft. (See ["Activating Configuration Changes" on page 49.](#))

**Note:** To modify your service desk settings after the initial configuration, see the section about advanced service desk configuration in the HPE Release Control User Guide.

## Configuring a Database as a Service Desk

This task describes how to configure a database as your service desk and includes the following stages:

- ["Stage 1: Prerequisites" below](#)
- ["Stage 2: Run the Configuration Utility" on the next page](#)
- ["Stage 3: Apply Configuration Changes" on the next page](#)

## Stage 1: Prerequisites

Depending on which database you are using, verify the following connection information and database properties that you need during this configuration process:

Required Information	Description
For Oracle databases: Oracle SID, DB host name, port, user name, and password.  For MS-SQL databases: DB name, DB host name, port, user name, and password.	Database connection properties
change id column name  <b>Note:</b> In the Settings file, this field is called IdFieldName.	The name of the column in the result set that contains the ID field value.
Id selection query	The SQL query that returns the set of change request IDs according to the requests' last-updated field value.  <b>Caution:</b> The query must not include the date of the last change request that was retrieved to avoid getting an infinite loop in which the same change requests are retrieved each time.  Example of a correct query:  The correct query does not include the date of the last change request that was retrieved. The date must be greater than the date of the last change request that was retrieved.  For example, if the last change request was retrieved on February 1, 2010, set the date the last change request was retrieved as follows:  <code>select change_id from changes where last_updated &gt; ?</code>  Example of an incorrect query:  An incorrect query includes the date of the last change request that was updated and might create an infinite loop in which the same

Required Information	Description
	change requests are retrieved each time: <pre>select change_id from changes where last_updated &gt;= ?</pre>
change select by id query	The SQL query that returns all the required details of a specific change.  Example of a correct query: <pre>select * from changes where change_id=?</pre>
change request ID	The SQL query that returns a set of change request according to the requests' ID.
last updated field result column name	The name of the column in the result set that contains the last-update field value.  <b>Note:</b> In the Settings file, this field is called <code>lastUpdatedFieldName</code> .

## Stage 2: Run the Configuration Utility

From the command line, run the following command:

```
<HPE Release Control installation directory>\bin\SdiConfigurer.bat
```

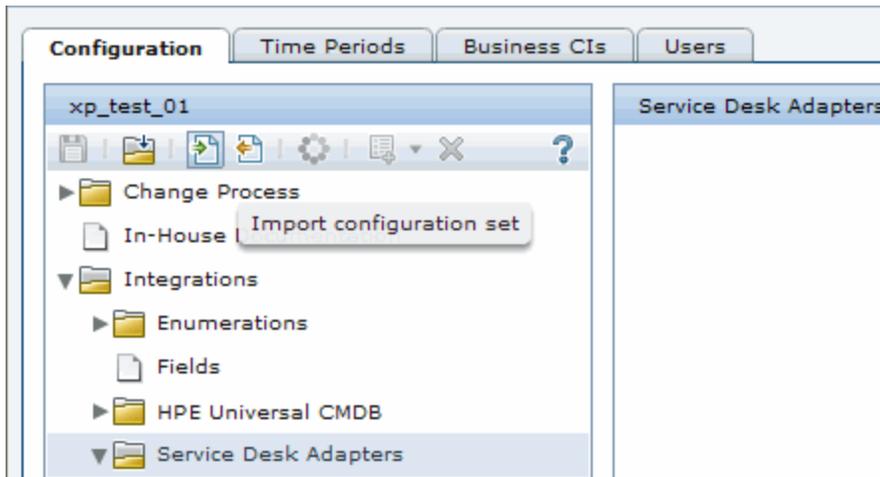
For each question, type your selection and press Enter. (Refer to the information you verified at the beginning of the Prerequisites section.) Where relevant, the default selection appears in square brackets at the end of the question.

**Note:** If you press Enter without typing anything, the default answer is automatically selected.

Based on your selections, the configuration utility creates new configuration files, including a .zip file. To apply the configuration settings to HPE Release Control, you use the **Import configuration set** button to upload the .zip file as described below.

## Stage 3: Apply Configuration Changes

1. In HPE Release Control, go to **Module > Administrator > Configuration** tab > **Integrations > Service Desk Adapters**, click the **Import configuration set** button.



2. In the Select file to upload dialog box, go to <HPE Release Control installation directory>\bin\result and open <adapter\_name>.zip.

A new node (with the name of the adapter) is added under the **Integrations > Service Desk Adapters** node. The node includes the new service desk configuration files, which are displayed independently in the left pane. Select a configuration file and its content is displayed in the right pane.

3. Save a draft of your configuration set. (See ["Saving a Draft Configuration Set" on page 48.](#))
4. When you are satisfied with your configuration changes, activate the draft. (See ["Activating Configuration Changes" on page 49.](#))

**Note:** To modify your service desk settings after the initial configuration, see the section about advanced service desk configuration in the HPE Release Control User Guide.

## Configuring an XML File as a Service Desk

This task describes how to configure and XML file as your service desk and includes the following stages:

- ["Stage 1: Prerequisites" on the next page](#)
- ["Stage 2: Run the Configuration Utility" on the next page](#)
- ["Stage 3: Apply Configuration Changes" on the next page](#)

## Stage 1: Prerequisites

1. Verify the folder in which XML files are placed and retrieved by HPE Release Control. You need this information for the configuration utility that you will run in the next stage.
2. Ensure that the HPE Release Control user has read permissions to the directory in which the service desk application requests are placed in XML file format.

## Stage 2: Run the Configuration Utility

From the command line, run the following command:

```
<HP Release Control installation directory>\bin\SdiConfigurer.bat
```

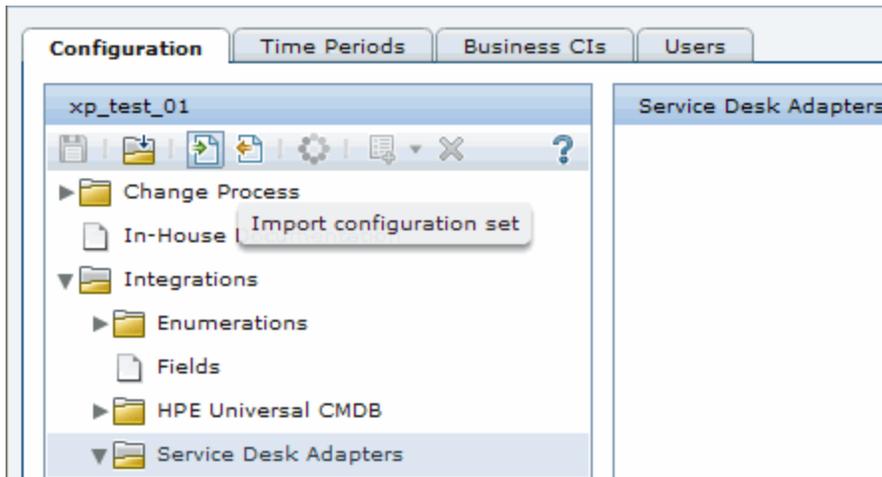
For each question, type your selection and press Enter. (Refer to the information you verified at the beginning of the Prerequisites section.) Where relevant, the default selection appears in square brackets at the end of the question.

**Note:** If you press Enter without typing anything, the default answer is automatically selected.

Based on your selections, the configuration utility creates new configuration files, including a .zip file. To apply the configuration settings to HPE Release Control, you use the **Import configuration set** button to upload the .zip file as described below.

## Stage 3: Apply Configuration Changes

1. In HPE Release Control, go to **Module > Administrator > Configuration tab > Integrations > Service Desk Adapters**, click the **Import configuration set** button.



2. In the Select file to upload dialog box, go to <HPE Release Control installation directory>\bin\result and open <adapter\_name>.zip.

A new node (with the name of the adapter) is added under the **Integrations > Service Desk Adapters** node. The node includes the new service desk configuration files, which are displayed independently in the left pane. Select a configuration file and its content is displayed in the right pane.

3. Save a draft of your configuration set. (See ["Saving a Draft Configuration Set" on page 48.](#))
4. When you are satisfied with your configuration changes, activate the draft. (See ["Activating Configuration Changes" on page 49.](#))

**Note:** To modify your service desk settings after the initial configuration, see the section about advanced service desk configuration in the HPE Release Control User Guide.

## Configuring HPE Server Automation as Your Service Desk

This task describes how to configure <service desk> as your service desk and includes the following stages:

- ["Stage 1: Prerequisites" on the next page](#)
- ["Stage 2: Run the Configuration Utility" on the next page](#)
- ["Stage 3: Apply Configuration Changes" on the next page](#)

## Stage 1: Prerequisites

Verify the following information, which you need during this configuration process:

For HP Server Automation: server name, user name, and password

## Stage 2: Run the Configuration Utility

From the command line, run the following command:

```
<HPE Release Control installation directory>\bin\SdiConfigurer.bat
```

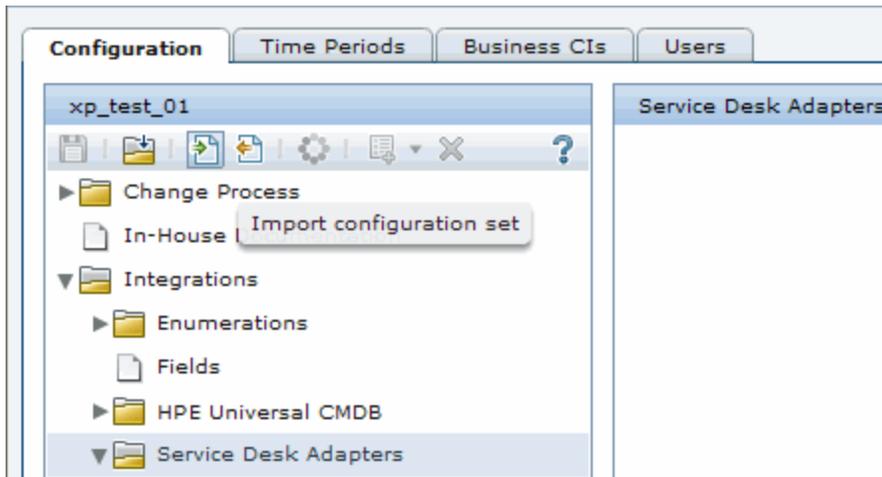
For each question, type your selection and press Enter. (Refer to the information you verified at the beginning of the Prerequisites section.) Where relevant, the default selection appears in square brackets at the end of the question.

**Note:** If you press Enter without typing anything, the default answer is automatically selected.

Based on your selections, the configuration utility creates new configuration files, including a .zip file. To apply the configuration settings to HPE Release Control, you use the **Import configuration set** button to upload the .zip file as described below.

## Stage 3: Apply Configuration Changes

1. In HPE Release Control, go to **Module > Administrator > Configuration tab > Integrations > Service Desk Adapters**, click the **Import configuration set** button.



2. In the **Select file to upload** dialog box, go to <HPE Release Control installation directory>\bin\result and open <adapter\_name>.zip.

A new node (with the name of the adapter) is added under the **Integrations > Service Desk Adapters** node. The node includes the new service desk configuration files, which are displayed independently in the left pane. Select a configuration file and its content is displayed in the right pane.

3. Save a draft of your configuration set. (See ["Saving a Draft Configuration Set" on page 48.](#))
4. When you are satisfied with your configuration changes, activate the draft. (See ["Activating Configuration Changes" on page 49.](#))

**Note:** To modify your service desk settings after the initial configuration, see the section about advanced service desk configuration in the HPE Release Control User Guide.

## Configuring Aperture Vista DCIM as a Service Desk

This task describes how to configure Aperture Vista DCIM as your service desk and includes the following stages:

- ["Stage 1: Prerequisites" on the next page](#)
- ["Stage 2: Run an SQL to create an HPE Release Control view in the Aperture Vista DCIM database" on the next page](#)

- ["Stage 3: Run the Configuration Utility" below](#)
- ["Stage 4: Apply Configuration Changes" on the next page](#)

## Stage 1: Prerequisites

Verify the following information, which you need during this configuration process:

- Aperture Vista DCIM version 6 is supported.
- Aperture Vista DCIM database name, user name, password, host name, and port (default port is 1433)

## Stage 2: Run an SQL to create an HPE Release Control view in the Aperture Vista DCIM database

1. Connect to the Aperture Vista DCIM database. (Refer to the information you verified at the beginning of the Prerequisites section for the Aperture Vista DCIM database name.)
2. Run the <HPE Release Control installation directory>\examples\service-desk-examples\ApertureVista\CreateRcView.sql file.

## Stage 3: Run the Configuration Utility

From the command line, run the following command:

**<HPE Release Control installation directory>\bin\SdiConfigurer.bat**

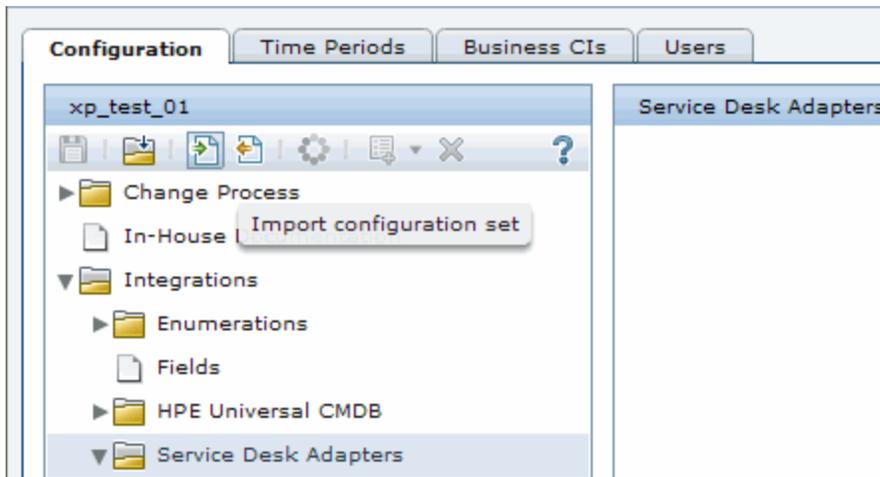
Choose option 10 and for each question, type your selection and press Enter. (Refer to the information you verified at the beginning of the Prerequisites section.) Where relevant, the default selection appears in square brackets at the end of the question.

**Note:** If you press Enter without typing anything, the default answer is automatically selected.

Based on your selections, the configuration utility creates new configuration files, including a .zip file. To apply the configuration settings to HPE Release Control, you use the **Import configuration set** button to upload the .zip file as described below.

## Stage 4: Apply Configuration Changes

1. In HPE Release Control, go to **Module > Administrator > Configuration tab > Integrations > Service Desk Adapters**, click the **Import configuration set** button.



2. In the **Select file to upload** dialog box, go to <HPE Release Control installation directory>\bin\result and open <adapter\_name>.zip.

A new node (with the name of the adapter) is added under the **Integrations > Service Desk Adapters** node. The node includes the new service desk configuration files, which are displayed independently in the left pane. Select a configuration file and its content is displayed in the right pane.

3. In the **EMAC\_URL\_part1** section of the convert.js file, enter the URL of the Aperture Vista server instead of the aperture\_vista\_host field (see ["Modifying Configuration Files in the Configuration Tab" on page 48](#)).
4. Save a draft of your configuration set. (See ["Saving a Draft Configuration Set" on page 48](#).)
5. When you are satisfied with your configuration changes, activate the draft. (See ["Activating Configuration Changes" on page 49](#).)

**Note:** To modify your service desk settings after the initial configuration, see the section about advanced service desk configuration in the HPE Release Control User Guide.

## Configuring Web Server

You can deploy HPE Release Control to work with a Web server. You can install one of the following Web servers on the same computer as HPE Release Control:

- Microsoft Internet Information Services (IIS) 8.x
- Apache HTTP Server 2.2, 2.4

**Note:** HPE Release Control cannot be configured with an Apache server if a Microsoft IIS Web server is already installed and activated on the server because the default port of both web servers is 80. The Microsoft IIS Web server must be stopped first. After the installation you can configure the Apache web server to work with a different port (e.g. 90) and restart your IIS.

You may need to configure a Web server in the following cases:

- You are working with a third party identity management solution such as CA SiteMinder.
- You are deploying a software load balancer that cannot use the AJP protocol to communicate with Tomcat in a cluster deployment.

To configure the Web server, use the WebServerConfigurer utility.

**Note:** After you install the Web server, ensure that the port of the Web server is specified inside the **Server address** box in the **Module > Administrator > Configuration** tab > **Server** pane. If the server address is not configured correctly, emails and reports may not work properly.

To use the Web server configure utility:

Run the following command:

**<HPE Release Control installation directory>\bin\WebServerConfigurer.bat <options>**

Following are the command line <options>:

Option	Description
config apache <port> <apache home directory>	Configure an Apache Web server. Specify the Apache configuration options: <ul style="list-style-type: none"><li>• &lt;port&gt;. The port used by the Apache Web server.</li><li>• &lt;apache home directory&gt;. The Apache Web server installation directory.</li></ul>
config IIS, <port>	Specify the configuration options for an IIS server:

Option	Description
<version> <RC Website>	<ul style="list-style-type: none"> <li>• &lt;port&gt;. The port used by the server. The default port is 80.</li> <li>• &lt;version&gt;. Web server version.</li> <li>• &lt;RC Website&gt;. The Web site defined for HPE Release Control. In a new IIS installation, the HPE Release Control default site is called Default Web Site.</li> </ul>
--encrypted-password-file <file>	Use the encrypted password specified in <file>.
remove-config	<p>Configures HPE Release Control to work without a Web server. This command does not uninstall the Web server.</p> <p><b>Note:</b> In the &lt;HPE Release Control installation directory&gt;\conf\server.settings file, the HPE Release Control port number in the server-address property is reset to the Tomcat default port (8080). Ensure that the HPE Release Control and Tomcat port number are the same.</p>

For example:

- To configure an Apache server, run:

```
<HPE Release Control installation directory>\bin\WebServerConfigurer.bat config apache "C:\Apache Software Foundation\Apache 2.4"
```

- To configure an IIS server version 8 for the default Web site, run:

```
<HPE Release Control installation directory>\bin\WebServerConfigurer.bat config IIS 8 "Default Web Site"
```

**Caution:** After configuring an IIS Web server with the webServerConfigurer utility, the ISAPI filter that is responsible for the redirection from IIS to the HPE Release Control Tomcat server, may have a status of Unknown. After the first user logs on to HPE Release Control, the ISAPI filter status should be updated to Ready.

It is not possible to configure an IIS Web server that has an existing ISAPI filter running in it already. To do this you must first remove the previous installation of the mod\_jk ISAPI filter, then use the webServerConfigurer utility to configure IIS for HPE Release Control.

- To remove the Web server configuration, run:

```
<HPE Release Control installation directory>\bin\WebServerConfigurer.bat remove-config
```

Configure HPE Release Control to work with IIS 8:

1. Run the webServerConfigurer utility as configure IIS 8. For example:  
**webServerConfigurer.bat config iis 8 "Default Web Site"**  
  
Ignore the errors.
2. Download new tomcat connector from [http://www.apache.org/dist/tomcat/tomcat-connectors/jk/binaries/windows/tomcat-connectors-1.2.40-windows-x86\\_64-iis.zip](http://www.apache.org/dist/tomcat/tomcat-connectors/jk/binaries/windows/tomcat-connectors-1.2.40-windows-x86_64-iis.zip).  
  
Extract isapi\_redirect.dll from the zip and copy it to the \webserver\bin\jakarta folder.
3. Modify \webserver\conf\redirector.reg by changing  
`"extension_uri"="/jakarta/isapi_redirector.dll"`  
  
to  
`"extension_uri"="/jakarta/isapi_redirect.dll"`  
  
Save your changes and double-click **redirector.reg** to execute.
4. Start the IIS manager. On the server node open "ISAPI and CGI Restrictions", add isapi\_redirect.dll and allow this extension path to execute.
5. On the default web site add the new virtual directory and enter its alias (jakarta) and physical path the directory where isapi\_redirect.dll resides (\webserver\bin\jakarta).
6. On the default web site open the "ISAPI Filters" and add isapi\_redirect.dll naming the filter "jkfilter".
7. On the node of the "jakarta" virtual directory, open "Handler Mappings" and enable the "ISAPI-dll" handler (disabled by default). Edit the "ISAPI-dll" handler permissions and enable "Read", "Script", and "Execute".
8. Restart IIS.

## Accessing HPE Release Control through Server Reverse Proxy

You can enable access to HPE Release Control through Server Reverse Proxy (SRP).

To enable access to HPE Release Control through SRP:

1. Map the paths for /ccm and /rcdocs to the URLs of the remote server where HPE Release Control is installed.

For example, if the reverse proxy is Apache server, add the following lines to the https.conf file:

```
ProxyPass /ccm http://<RC_HOST_NAME>:<RC_HTTP_PORT>/ccm
```

```
ProxyPassReverse /ccm http://<RC_HOST_NAME>:<RC_HTTP_PORT>/ccm
```

```
ProxyPass /rcdocs http://<RC_HOST_NAME>:<RC_HTTP_PORT>/rcdocs
```

```
ProxyPassReverse /rcdocs http://<RC_HOST_NAME>:<RC_HTTP_PORT>/rcdocs
```

/rcdocs should be configured on the reverse proxy server as an additional application besides ccm.

2. Save the file and restart the Apache server for the configuration to take effect.

The HPE Release Control access URL should refer to the reverse proxy host. For example:

http://<proxy\_host>/ccm and http://<proxy\_host>/rcdocs respectively.

**Note:** Different types of reverse proxy may require different configuration steps. Refer to your proxy server documentation for more information.

To use HTTPS with SRP:

1. Configure HPE Release Control to work with HTTPS protocol with a self-signed or CA certificate.
2. Export the security certificate from HPE Release Control and import it to the truststore of your proxy server.

**Note:** On the Apache server, the truststore (cacerts file) file is not a part of the installation. You may need to create a new PEM encoded cacerts file. Refer to your Apache documentation for details.

3. Follow the instructions in [Step 1](#) and add the lines to the https.conf file if the Apache server is used.

## Working with HPE Release Control Configuration Settings

The Configuration tab in the Administrator module enables you to define the configuration settings needed to set up your environment. This section describes the following common tasks in the Configuration tab. These tasks are referred to during the configuration process.

- ["Modifying Configuration Files in the Configuration Tab" below](#)
- ["Saving a Draft Configuration Set" below](#)
- ["Activating Configuration Changes" on the next page](#)

## Modifying Configuration Files in the Configuration Tab

Certain configuration settings are defined in configuration files (for example, scripts and XML files) that are available in the Configuration tab. This task describes how to modify these files.

To modify configuration files:

1. In HPE Release Control, go to **Module > Administrator > Configuration** tab and select the configuration file you want to modify. Content of this file is displayed in the right pane.
2. After making the required modifications to the file, click the **Save current editable configuration set** button to open the Save as Draft dialog box and save the modified configuration set as a draft.

## Saving a Draft Configuration Set

A new configuration set is initially saved as a draft. A draft is a configuration set that has not yet been activated. Only after a draft is activated, are the new configuration properties applied to HPE Release Control. (See ["Activating Configuration Changes" on the next page.](#))

To save a draft configuration set:

1. Select **Module > Administrator > Configuration** tab and make the required configuration changes.
2. In the left pane, click the **Save current editable configuration set** button  to open the Save as Draft dialog box and save the modified configuration set as a draft.
3. In the Draft name box, enter the name of the draft and click **Save**.

## Activating Configuration Changes

This section explains how to activate a draft configuration set and apply the configuration properties to HPE Release Control.

To apply configuration changes

1. Select **Module > Administrator > Configuration** tab. In the left pane, click the **Open Configuration Set** button  to open the Open Configuration Set dialog box.
2. Select the **Drafts** button to display only the existing drafts.
3. Select the required draft and click **Open**. The name of the currently selected configuration set appears at the top of the left pane.
4. In the left pane, click the **Activate current configuration set** button  to activate the selected draft and apply the new configuration properties to HPE Release Control.

## Uninstalling HPE Release Control

You can remove HPE Release Control from Windows using the Control Panel. Or you can run a series of shell commands to remove HPE Release Control from Linux.

To remove HPE Release Control from Windows:

1. Click **Start > Control Panel > Add or Remove Programs**.
2. Select HPE Release Control in the program list and click **Remove**.

To remove HPE Release Control from Linux:

1. Log in the Linux system as `root`.
2. Run the `/opt/HP/rc/stop.sh` command to stop the Release Control daemon.
3. Execute the following command to remove HPE Release Control:

```
rpm -e release-control
```

# Upgrading HPE Release Control

This chapter provides information on how to upgrade from HPE Release Control 9.2x to version 9.50 on Windows and Linux.

To upgrade to version 9.50 from versions earlier than 9.2x:

- Upgrade to version 9.2x according to the instructions in the *HPE Release Control 9.2x Deployment Guide*.
- Upgrade from version 9.2x to version 9.50 by following the instructions in this chapter.

This chapter includes:

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## Upgrading HPE Release Control on the Windows System

The upgrade process includes the following stages:

- ["Stage 1: Prerequisites" on the next page](#)
- ["Stage 2: Install and Upgrade HPE Release Control" on page 52](#)
- ["Stage 3: Upgrade Service Desk Adapter to 9.50" on page 53](#)
- ["Stage 4: Post Upgrade Recommendations" on page 54](#)
- ["Stage 5: Regenerate the encrypted password" on page 55](#)

## Stage 1: Prerequisites

1. If you are using HPE Release Control with HPE Universal CMDB earlier than 9.x, do one of the following:

- Set HPE Universal CMDB to standalone mode.

Go to **Module > Administrator > Configuration** tab > **Integrations > HPE Universal CMDB**, and in the **HPE Universal CMDB version** box select **No HPE Universal CMDB (standalone)**.

or

- Upgrade HPE Universal CMDB to a later version.

2. Make sure that the change request queue is empty as follows:

- a. Go to **Module > Administrator > Configuration** tab > **Integrations > Service Desk Adapters** and select the relevant service desk adapter node. The configuration file is displayed in the right pane. For information about how to edit the configuration file, see ["Working with HPE Release Control Configuration Settings" on page 47](#).

- b. In the adapter configuration file, switch the adapter into init-mode as follows:

- Locate the following line:

```
<!--initial-load-state><last polling time></initial-load-state-->
```

- Uncomment the line and modify the date/time as follows:

```
<initial-load-state>[last polling time]</initial-load-state>
```

Where [last polling time] is any time before the last time HPE Release Control polled the service desk. Polling occurs every thirty seconds by default.

It is recommended to set the last polling time to a few hours earlier than the current time.

For example, if today's date is 20 January 2016, set the last polling time as follows:

```
<initial-load-state>1/20/2016 00:00:00 PST</initial-load-state>
```

- c. Restart HPE Release Control and allow it to process all the change requests still in the queue.
- d. Make sure the queue is empty using the Queue Manager utility located in <old HPE Release Control installation directory>\bin.

For more information about using the Queue Manager utility, see the HPE Release Control User Guide.

3. Download and save the adapter's settings and script (\*.js) files.
4. Stop the HPE Release Control service.
5. If you were using a Web server (Apache or IIS) with HPE Release Control, remove the Web server configuration using the Web server configurer utility. To remove it, run the following command:

```
<old HPE Release Control installation directory>\bin\WebServerConfigurer.bat remove-config
```

**Note:** After you install the new version of HPE Release Control, if you still want to work with a Web server, configure it using the Web server configurer utility in the new installation. For more information, refer to the utilities section in the HPE Release Control User Guide.

6. Back up the database to protect your data in case of an error during the upgrade procedure.
7. Back up the configuration sets. You can back up any existing configuration sets by using the ExportCs.bat utility to export those configuration sets, or by clicking **Administrator > Configuration > Export configuration set to a zip file** in Release Control.

## Stage 2: Install and Upgrade HPE Release Control

1. Install HPE Release Control version 9.50 (see ["Installing HPE Release Control" on page 13](#)).  
Before you run the installation, review the pre-installation information (see ["Before You Install" on page 10](#)).
2. If you were using encrypted passwords in your HPE Release Control configuration (for example, the database password), copy (and overwrite) the contents of <old HPE Release Control installation directory>\security to <HPE Release Control 9.50 installation directory>\security.
3. Configure the database that you want to use with the upgraded version of HPE Release Control. Update the database.properties file as described in ["Configuring the Database or User Schema" on page 14](#).
4. From the <HPE Release Control 9.50 installation directory>\bin directory, run Upgrade.bat to perform the upgrade. When prompted, enter the full path of the old HPE Release Control installation (for example, C:\HP\RC921).

5. If you made any changes to the log levels in the `ccmlog4j.properties` file of your old installation, manually make the same changes again in the new `ccmlog4j.properties` file and the `cmdblog4j.properties` file.
6. Start the HPE Release Control server.

## Stage 3: Upgrade Service Desk Adapter to 9.50

**Note:** You need to perform the steps in this stage for each service desk adapter that you were using with your old version of HPE Release Control.

1. From the `<HPE Release Control 9.50 installation directory>\bin` directory, run `SdiConfigurer.bat`. When answering the questions, you must use the same values that existed in the adapter's settings file of the old HPE Release Control version.
2. Add the adapter to the configuration set. For details, see ["Stage 3: Apply Configuration Changes" on page 28](#).
3. Save your configuration set, but do not activate it. For details, see ["Saving a Draft Configuration Set" on page 48](#).
4. If you had previously made changes to the `.js` files, upload the setting and script (`*.js`) files of the adapter that was used in the old HPE Release Control version.
5. In the adapter configuration file, configure the adapter to fetch old tickets, thus covering the time in which the upgrade procedure took place:

- For HPE Service Manager and database adapters: locate the following property:

```
startFrom=
```

- For all other adapters: uncomment the following line and modify the date/time as follows:

```
<initial-load-state>[last polling time]</initial-load-state>
```

Where `[last polling time]` is earlier than the time the upgrade procedure started. Polling occurs every thirty seconds by default.

For example, if today's date is 20 January 2016, and you started the upgrade process at 2:00 AM, then set the last polling time to midnight:

```
<initial-load-state>1/20/2016 00:00:00 PST</initial-load-state>
```

6. If you are using Remedy as your service desk and you manually added .jar files to the <old HPE Release Control Installation directory>\tomcat\webapps\ccm\WEB-INF\lib directory, copy the added files to <HPE Release Control 9.50 Installation directory>\apps\ccm\WEB-INF\os\_lib.
7. In the left pane, click the **Activate current configuration set**  button to activate the selected draft and apply the new configuration properties to HPE Release Control.

## Stage 4: Post Upgrade Recommendations

1. If you did not make any changes to the change-flow.js script of your old installation, it is recommended to update the new change-flow.js script as follows:
  - a. In HPE Release Control, select the **Module > Administrator > Configuration** tab > **Change Process > change flow script** node. Content of this file is displayed in the right pane. Remove all content manually.
  - b. Browse to the <HPE Release Control 9.50 installation directory>\examples\scripts directory and open the change-flow.js file with text editing tools.
  - c. Copy the content of change-flow.js and paste it to the right pane of the change flow script node.
  - d. Save and activate the configuration changes (see "[Working with HPE Release Control Configuration Settings](#)" on page 47).
2. After you install the new version of HPE Release Control, and you still want to work with a Web server, you need to configure it using the Web server configurer utility in the new installation. For information on how to configure the Web server, refer to the utilities section in the HPE Release Control User Guide.
3. If you were working in identity management mode before the upgrade, and want to continue to do so after the upgrade, you must reconfigure HPE Release Control to work in identity management mode. For details, see "Use Identity Management Mode" in the HPE Release Control User Guide.
4. If, previous to the upgrade, you defined time periods, go to **Module > Administrator > Time Periods** tab and click the **Save Settings**  button.

## Stage 5: Regenerate the encrypted password

If you have encrypted passwords, the old encrypted passwords are still valid after upgrade to version 9.50. HPE highly recommends you to re-encrypt the passwords by launching the GenerateKey and the EncryptPassword utilities again for higher security.

To replace the old Database password:

Go to <HPE Release Control installation directory>\conf directory, open the database.properties file and then replace the old password with the re-encrypted one.

To replace the old Sdi password:

Go to **Module > Administrator > Configuration tab > Integrations > Service Desk Adapters > <sm adapter> > settings file**, and then replace the old password with the re-encrypted one.

To replace the old UCMDB password:

Go to **Module > Administrator > Configuration tab > Integrations > HPE Universal CMDB > Available Connections > <ucmdb server>**, and then replace the old password with the re-encrypted one.

To replace the old LDAP password:

Go to **Module > Administrator > Security > Authentication > LDAP mode > LDAP server properties**, and then replace the old password with the re-encrypted one.

For more information about the GenerateKey and the EncryptPassword utilities, see *Password Encryption* in the *HPE Release Control User Guide*.

## Upgrading HPE Release Control on the Linux System

1. Copy the new HPE Release Control rpm.bin package to the target computer.
2. Log in the Linux system as root.
3. Run the following command to enter the directory where the new rpm.bin package is stored:

```
cd <directory where the new rpm.bin package is stored>
```

4. Run the following command to extract rpm package from the rpm.bin package:

```
./release-control-9.50-0001.x86_64.rpm.bin -x
```

The End User License Agreement is displayed and you are prompted to agree to its terms.

The release-control-9.50-0001.x86\_64.rpm package is extracted to the same directory.

5. Execute the following command to ensure that the execute permission is set:

```
chmod u+x release-control-9.50.0001.x86_64.rpm
```

6. Run the following command:

```
rpm -Uvh release-control-9.50-0001.x86_64.rpm
```

7. Restart the HPE Release Control daemon by running the following commands successively:

```
/opt/HP/rc/stop.sh
```

```
/opt/HP/rc/start.sh
```

# FAQ

This chapter provides FAQ information about HPE Release Control installation and configuration issues and provide solutions.

This chapter includes:

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## How to Use Two Change Adapters to Pull Change Tickets and How to Use Different Ways to Calculate the Risk Value

### Issue

How to use two change adapters for pulling change tickets, one for the changes in Service Manager and another for the mainframe changes (for example, DB adapter)?

For these two kinds of changes, how to use different ways (uCMDB risk/specified Risk calculation) to calculate the risk value?

### Solution

Though HPE Release Control has no UI component for the aforementioned configuration currently, you can update the change script to accomplish these tasks.

Refer to the following steps as an example:

1. Import two Service Desk adapters: sd1 and sd2.
2. In HPE Release Control, browse to **Administrator** > **Configuration** > **Integrations** > **Field** and add a customized field named `service-desk`.

3. Browse to **Administrator > Configuration > Integrations > sd1 > convertChange.js**, and add a code line to function `convert`:

```
function convert(sm_rfc, generic_rfc) {
    .....
    generic_rfc.setField("service-desk", "sd1")
    .....
}
```

4. Apply the same configuration to **sd2 > convertChange.js** as described in the previous step.
5. Browse to **Administrator > Configuration > Change Process > change flow script** and add the following code lines to function `overrideRisk`:

```
function overrideRisk(prevChange, newChange, analysis, result) {
//-----Example: maximize risk when change tickets from isd1 adapter
if (newChange.getField("service-desk")== "sd1"){
result.risk= 100;
}
}
```

6. Restart the HPE Release Control service. Now changes from **sd1** will get risk calculation.

For more functions which can be invoked by a change flow script, refer to the `RiskAnalysis`, `RawRiskFactorCalculationResult`, and `OverrideRulesResult` classes in *HPE Release Control API Reference*.

## How to Set up Release Control and Service Manager Integration When SSL Is Used

### Issue

How to set up HPE Release Control and Service Manager integration when SSL is used?

### Solution

Refer to the following steps as an example of the SSL configuration with Tomcat:

1. Generate the KeyStore file. (If you have the certificate file, you can skip this step.)
  - a. Open the Windows command prompt. Change directories to the Java platform's bin folder by typing the following command:

```
cd %JAVA_HOME%/bin
```

- b. Type the following command to create a private key and KeyStore for HPE Release Control:

```
keytool -genkey -alias <rctracer> -keypass <rcadmin> -keystore <rctracer.bin> -storepass <rcadmin> -keyalg RSA
```

Replace the parameters in angle brackets according to your requirements. Note that both the **keypass** and **storepass** passwords should be the same. The **.bin** file is actually your KeyStore file.

- c. When keytool prompts you for your first and last name, type your personal information as required.
- d. When keytool prompts you for the organization unit, organization, city or locality, state or province, and two-letter country code, type the identification information for your company.
- e. Verify the information you provided and type `yes` if it is correct.
- f. Change directories to the Java platform's bin folder and verify the `rctracer.bin` file is created.
2. Configure Tomcat to use the KeyStore file.
- a. Copy `rctracer.bin` to the `webapps` folder of Tomcat.
- b. Browse to the `servers/server-0/conf` directory and open `server.xml`.
- c. Find the `Connector port="8443"` element and uncomment it. And add two code lines under `clientAuth`:

```
<Connector port="8443" protocol="org.apache.coyote.http11.Http11NioProtocol"
maxThreads="150" SSLEnabled="true" scheme="https" secure="true"
clientAuth="false" sslProtocol="TLS"
keystoreFile="replace your keystore file path"
keystorePass="replace your keystore password" />
```

**Note:** Alternatively, you can add the following codes for security configuration:

```
<Connector port="8443"
protocol="org.apache.coyote.http11.Http11NioProtocol"
maxThreads="150" SSLEnabled="true" scheme="https" secure="true"
clientAuth="false" sslProtocol="TLS"
keystoreFile="replace your keystore file path"
keystorePass="replace your keystore password"
ciphers="TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA,TLS_ECDHE_RSA_WITH_AES_256_
CBC_SHA,
TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA,TLS_ECDH_ECDSA_WITH_AES_256_CBC_
SHA,
TLS_ECDH_RSA_WITH_AES_256_CBC_SHA,TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA,
TLS_ECDH_ECDSA_WITH_AES_128_CBC_SHA,TLS_ECDH_RSA_WITH_AES_128_CBC_SHA,
```

```
TLS_ECDH_ECDSA_WITH_RC4_128_SHA,TLS_ECDH_RSA_WITH_RC4_128_SHA,  
TLS_RSA_WITH_AES_256_CBC_SHA,TLS_RSA_WITH_AES_128_CBC_SHA" />
```

- d. Save and close the file.

**Note:** If there are multiple nodes, you need to modify the server.xml file for every node.

3. Configure the web server application to work with SSL.

- a. Browse to the apps/ccm/WEB-INF directory of your web server application and open web.xml. Add the following XML fragments before </web-app>:

```
<security-constraint>  
<web-resource-collection>  
<web-resource-name>securedapp</web-resource-name>  
<url-pattern>/*</url-pattern>  
</web-resource-collection>  
<user-data-constraint>  
<transport-guarantee>CONFIDENTIAL</transport-guarantee>  
</user-data-constraint>  
</security-constraint>
```

- b. Save and close the file.

## How to Set up Users in Release Control Without LDAP Group Mapping

### Issue

How can users be set up in HPE Release Control without LDAP group mapping?

### Solution

If an organization does not use LDAP groups for applications, or not being able to authenticate via LDAP is unacceptable, an HPE Release Control administrator can still set up users.

Refer to the following steps as an example:

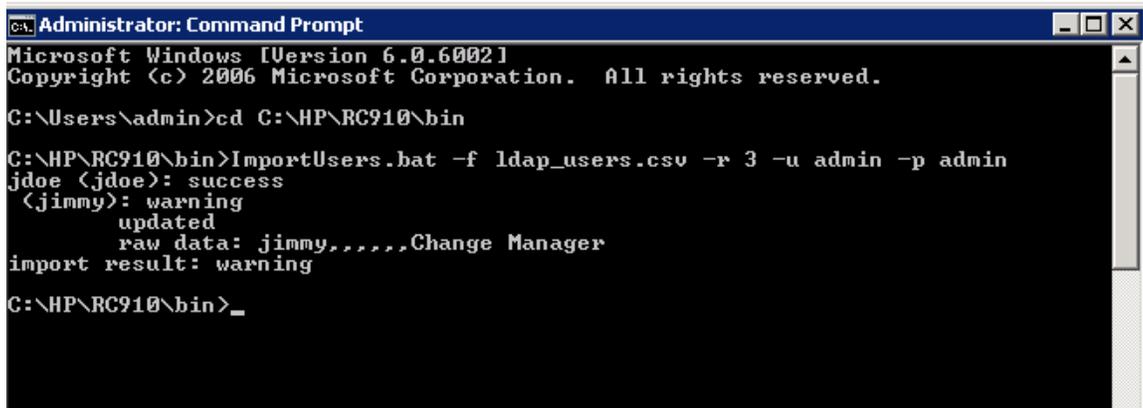
1. Import Administrator users into HPE Release Control database.
  - a. Prepare a text file with the following format and save it as ldap\_users.csv in the <HPE Release Control installation directory>\bin\ directory.

```

USERNAME,PASSWORD,FIRST_NAME,LAST_NAME,EMAIL,BUSINESS_ID,ROLE
jdoe,,John,Doe,jon.doe@hpe.com,jdoe,System Administrator
jimmy,,,,,,Change Manager

```

- List the users to whom you want to grant a non-default role in this file. You must grant the System Administrator role to a user. Note that the administrator user you granted here refers to the HPE Release Control administrator.
  - Make sure that the users listed in the file also have access to the LDAP server. Otherwise, authorization issues will occur when LDAP is enabled.
  - You can keep some fields empty except for the "USERNAME", which refers to the LDAP attribute to be specified for the usersUniqueIDAttribute property in ldap.properties in Step 2-c.
- b. Open the Windows command prompt. Change directories to <HPE Release Control installation directory>\bin\ and run the **ImportUsers.bat** command by using the default user admin:



```

Administrator: Command Prompt
Microsoft Windows [Version 6.0.6002]
Copyright (c) 2006 Microsoft Corporation. All rights reserved.

C:\Users\admin>cd C:\HP\RC910\bin

C:\HP\RC910\bin>ImportUsers.bat -f ldap_users.csv -r 3 -u admin -p admin
jdoe (jdoe): success
(jimmy): warning
        updated
        raw data: jimmy,,,,,,Change Manager
import result: warning

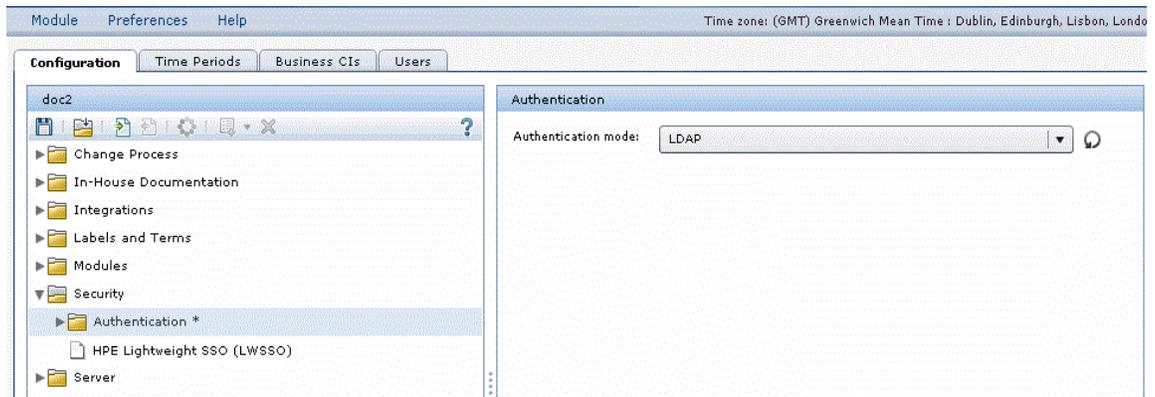
C:\HP\RC910\bin>_

```

In the screenshot, a Warning is shown because the user jimmy already exists in the HPE Release Control database. This user profile will be updated.

2. In HPE Release Control, configure LDAP to be used without group mapping.

- a. Log in to HPE Release Control as the administrator and set the Authentication mode to LDAP:



- b. Configure LDAP mode details and pay attention to the following items:

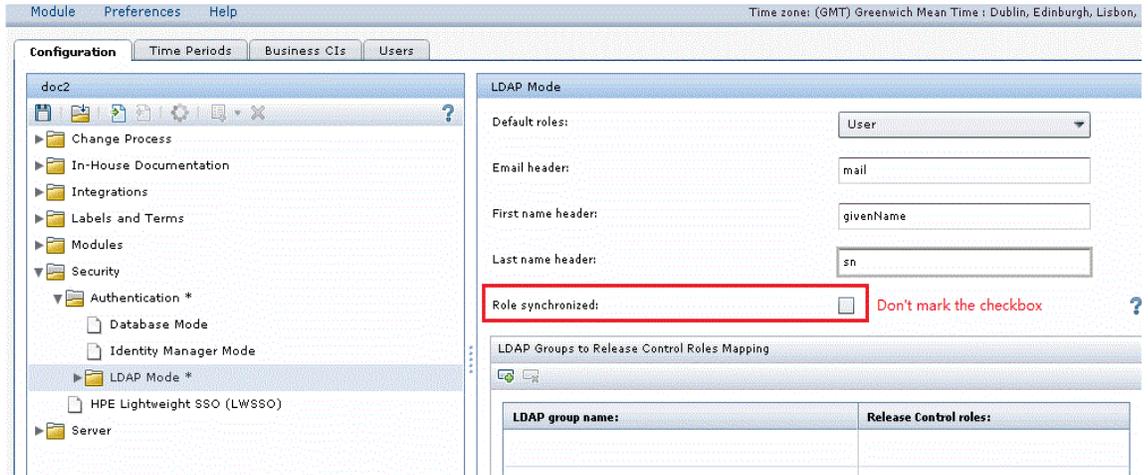
- Select a role (for example, User) as the Default role. Refer to the following steps for how to update a user's role and grant access to the Administration module under LDAP mode.
- The roles are pre-defined in HPE Release Control out-of-box system. To meet the actual requirement, run the ManageRoles.bat command to create your own roles. For example:

```
<HPE Release Control installation directory>\bin\ManageRoles.bat -c -r
NewRole -a <permission name1> <permission name 2> .....
```

Refer to the *HPE Release Control User Guide > Appendices > Utilities > Role Manager* section for more details.

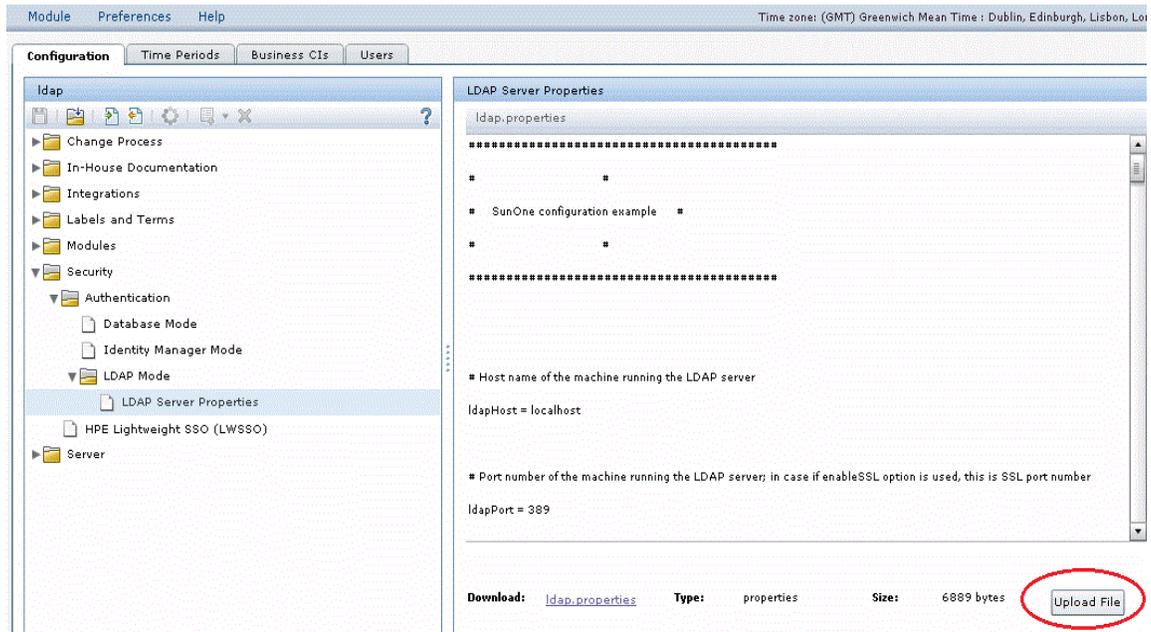
- [Email header], [First name header] and [Last name header] refer to the corresponding LDAP attributes' names.
- Do NOT select the Role synchronized checkbox. After a user logs in for the first time, HPE Release Control will get the user's role from the database instead of taking the

Default role.



3. Configure LDAP Server Properties.

- a. Browse to the <HPE Release Control installation directory>/examples/ldap-examples directory and select one properties template file according to your LDAP server type. For example, select **ldap.properties.SO** for the openDS LDAP server.
- b. Open the selected template file and update the properties besides the group-related ones.
- c. After the update is complete, save and rename this file to ldap.properties. Upload it to RC:



- d. Save the configuration set with a new name. The following warning message might appear:

Problems	
Code	Description
RC-00802	No group mapped to a role containing the editConfiguration permission. This will make the LDAP configuration irreversible

This warning appears because no LDAP group is mapped to a role with administrator permission. Ignore this warning.

- e. Activate the configuration set.
  - f. Log out of HPE Release Control.
4. Log in to HPE Release Control as a LDAP user.
    - a. Log in to HPE Release Control as a LDAP user. HPE Release Control will connect to the LDAP server for password authorization, and then it will check that if this user already exists in the database. If yes, HPE Release Control will grant the role from database to this user. Otherwise, HPE Release Control will grant the default role (User) and a new user will be created in RC database.
    - b. After the new LDAP user login with the default role, you can still update his role by running the **ImportUsers.bat** command (use `jdoe`, the new HPE Release Control administrator in LDAP mode now).

## How to Translate the Label for a Custom Field

### Issue

When delivering HPE Release Control in more than one language, how to translate the label (or other properties, such as `toolTip`, `colHeader`) for a custom field?

### Solution

Refer to the following steps as an example:

1. Go to **Module > Administrator > Configuration > Integration > Fields** and select the custom field you added in the **Available Fields** list.
2. In the **Field Definition** tab, set the value of **Label** field to `properties-file`. This value will automatically change to `fields.<custom field name>.label` if this key does not exist in the `fields-labels.properties` file, or change to the value mapped to the key if it exists in the `fields-labels.properties` file.

3. In the **List Layout** tab, set the value of **Header** field and **Header tooltip** field to properties-file.
4. In the the **Details Layout** tab, set the value of **Label** field and **Tooltip** field to properties-file.
5. In the **Filter Layout** tab, set the value of **Label** field and **Tooltip** field to properties-file.
6. Add the required keys and value to the fields-labels.properties file.

For example, if you add a new field "my-field" with the default lable "My field" and hope to translate this lable to French, add `Fields.my-field.lable=Mon libelle` to the language file fields-labels.properties (or fields-labels\_fr\_FR.properties).

7. Save and active the configuration set.
8. Restart the HPE Release Control service.

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