

# HP Propel

Software Version 1.11  
CentOS Operating System

## Administration Guide

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# Contents

<b>Overview .....</b>	<b>5</b>
Audience .....	5
Additional Information .....	5
<b>HP Propel Tips.....</b>	<b>6</b>
Verifying GPG Code Signing – HP Propel OVA File .....	6
Customizing the HP Marketplace Portal.....	6
Manually Changing the Keystore Password.....	7
Changing the HP Service Manager Port Number.....	7
<b>Configuring SSL for HP Propel.....</b>	<b>8</b>
Replacing Generated HP Propel SSL Certificates with CA-Signed Certificates.....	8
<b>Knowledge Management .....</b>	<b>11</b>
Installing HP Knowledge Management .....	11
HP Knowledge Management Indexing.....	11
Knowledge Management Best Practices.....	11
Load KM Documents into HP Service Manager.....	12
Pre-Requisites for Loading Documents.....	12
Document Formats.....	12
KM Documents Directory Structure.....	12
How to Load KM Documents.....	13
<b>Changing HP Propel Default User Accounts' Passwords .....</b>	<b>15</b>
HP Propel User Accounts – HP Propel Management Console .....	15
HP Propel Marketplace Portal User Accounts.....	21
Encrypt a Password – HP Propel User Accounts.....	22
Restart HP Propel.....	22
Change the HP Propel Master Password.....	23
Split the HP Propel Master Password .....	23
HP Marketplace Portal – Configure the <code>mpp.json</code> File.....	23
HP Propel Launchpad – Configure the <code>app.json</code> File.....	24
Change the JWT Signing Key .....	25

## Overview

This document provides information about administration tasks for HP Propel.

The following information is provided in this document:

**Overview.** Describes the audience for this guide and where to find additional HP Propel information.

[HP Propel Tips.](#) Provides miscellaneous information for HP Propel, including verification of the GPG code signing for the HP Propel OVA file, customizing the HP Marketplace Portal, manually changing the keystore password, and changing the HP Service Manager port number.

[Configuring SSL for HP Propel.](#) Explains how to replace the previously generated HP Propel SSL certificates with Certificate Authority-signed SSL certificates.

[Knowledge Management.](#) Provides the instructions for the optional task of loading Knowledge Management documents into HP Service Manager.

[Changing HP Propel Default User Accounts' Passwords.](#) Provides the default passwords for the HP Propel user accounts and instructions for changing them, which HP recommends for increased security.

### Audience

The person who administers HP Propel should have knowledge of or work with someone who has knowledge of the following:

- Configuring SSL certificates
- Executing Linux operating system commands with the Bash shell

### Additional Information

Refer to the following guides for more information about HP Propel:

- HP Propel requirements: *HP Propel System and Software Support Matrix*
- HP Propel latest features and known issues: *HP Propel Release Notes*
- HP Propel installation and configuration: *HP Propel Installation and Configuration Guide*
- HP Propel troubleshooting tips: *HP Propel Troubleshooting Guide*
- HP Propel security considerations: *HP Propel Security Guide*

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## HP Propel Tips

### Verifying GPG Code Signing – HP Propel OVA File

**Tip:** If your system does not have the `gpg` tool, you can download it from <https://www.gnupg.org/download>.

To verify that the HP Propel OVA file is signed with GNU Privacy Guard (GPG), you must download the `.sig` file and the HP keys from <https://softwaresupport.hp.com>. Perform the following procedure on the system that you downloaded the OVA file, the `.sig` file, and the HP keys.

1. Install HP's public keys:

```
# gpg --import hpPublicKey.pub
# gpg --import hpPublicKey2048.pub
```

2. Validate and verify the digital signature of the signed OVA file. The output from the command indicates the validity of the signature.

```
# gpg --verify <OVA_FILE>.sig <OVA_FILE>
```

If the level of trust on the key has not been set, you will see a trust level warning similar to this:

```
gpg: WARNING: This key is not certified with a trusted signature!
gpg: There is no indication that the signature belongs to the owner.
```

3. If you do not want to see the warning in Step 2, edit the key to set the trust level of the key for proper verification:

```
# gpg --edit-key "Hewlett-Packard Company"
(Type the command "trust", select "5" for trusting the key, then confirm and quit.)
```

**Note:** You can trust these public keys.

4. You must also trust the RSA key:

```
# gpg --edit-key "Hewlett-Packard Company RSA"
(Type the command "trust", select "5" for trusting the key, then confirm and quit.)
```

After performing the above procedure, you should not see the warning about an untrusted identity when verifying the signature.

Here is an example of output from a verification:

```
# gpg --verify <OVA_FILE>.sig <OVA_FILE>
gpg: Signature made Thu 03 Jan 2013 04:48:47 PM UTC using RSA key ID 5CE2D476
gpg: Good signature from "Hewlett-Packard Company RSA (HP Codesigning Service)"
```

### Customizing the HP Marketplace Portal

You can customize the display of the HP Marketplace Portal Dashboard. For details about customizing the dashboard, themes, and widgets, refer to the *HP Propel Customizing the Marketplace Portal* whitepaper.

## Manually Changing the Keystore Password

The keystore password on the HP Propel is automatically changed to “propel2014” during the initial installation. Though not required, HP recommends that you change the default keystore password for the HP Propel VM. To change the keystore password, execute the following commands:

```
# <PROPEL_PORTAL_VM_JRE_DIR>/keytool -storepasswd -storepass propel2014  
-new <NEW_KEYSTORE_PASSWORD> -keystore /opt/hp/propel/security/propel.truststore  
# ./configureKeys.sh --setkspassword <NEW_KEYSTORE_PASSWORD>
```

Where *PROPEL\_PORTAL\_VM\_JRE\_DIR* is the JRE directory on the HP Propel VM and *NEW\_KEYSTORE\_PASSWORD* is the new keystore password that you specify.

## Changing the HP Service Manager Port Number

To change the default port number (13080) that is used by HP Propel to communicate with HP Service Manager, perform the following procedure:

1. Add an HP Service Manager (type) adapter, which is done via the Aggregation tile in the HP Propel Management Console, and use the Add Adapter window to edit the port number value for the `service-manager-port` property. Refer to the *HP Propel Catalog Aggregation Help* for details.
2. On the HP Propel SX VM, specify the port number you want to use by revising the “13080” value in the `/opt/hp/propel/jboss-as/standalone/deployments/sx.war/WEB-INF/classes/config/sm/instances.json` file.

## Configuring SSL for HP Propel

HP Propel requires HTTPS (HTTP over SSL) for client browsers. HTTPS must be configured between HP Propel and any end-point systems (HP Cloud Service Automation and HP Service Manager).

**Tip:** Refer to the installation instructions in the *HP Propel Installation and Configuration Guide* for different methods of configuring SSL for HP Propel.

### Replacing Generated HP Propel SSL Certificates with CA-Signed Certificates

This section explains how to replace the previously generated HP Propel SSL certificates with Certificate Authority-signed SSL certificates. (The generated HP Propel SSL certificates are created and configured by using the `propel-ssl-setup.sh auto` command when installing HP Propel.)

Although a self-signed certificate can be used in production, HP recommends that you replace this certificate by configuring a trusted certificate from a Certificate Authority (CA). Some organizations issue certificates that are signed by a corporate CA and some organizations get certificates from a trusted third-party CA, such as VeriSign.

#### Tips:

- In the following instructions, `$PROPEL_VM_HOSTNAME` represents the fully qualified hostname of the HP Propel VM. You can set this as an environment variable with the following command on the HP Propel VM:

```
# export PROPEL_VM_HOSTNAME=mypropelhost.example.com
```

- The password is “propel2014” for the HP Propel keystore and truststore.

Perform the following steps to replace the previously generated HP Propel SSL certificates with CA-signed SSL certificates:

**Important:** The following commands are run as `root` on the HP Propel VM in the `/opt/hp/propel-install` directory. (The default password is “propel2014” for the `root` user.)

1. Initialize the SSL working directory:

```
# ./propel-ssl-setup.sh init
```

By default, the SSL working directory is `/opt/hp/propel-install/ssl-tmp`.

2. Generate the SSL certificate signing request (CSR) for the CA:

```
# ./propel-ssl-setup.sh --password <PASSWORD> generateSigningRequest <SUBJECT>
```

Where `PASSWORD` is the passphrase used to encrypt the generated private key and `SUBJECT` is the signing request subject in the slash-separated form. “CN” must be the last field in the subject and contain the fully qualified hostname of the HP Propel VM. Enclose the subject in double quotes, such as:

```
“/C=US/ST=CA/L=San Jose/O=StartUpCompany/OU=Software/CN=mypropelserver.example.com”
```

A CSR is written to the `/opt/hp/propel-install/ssl-tmp/$PROPEL_VM_HOSTNAME` directory and named `propel_host.key.csr`. The private secret is stored in the same directory and named `private.key.pem`, and converted to `propel_host.key.rsa` in the `out` subdirectory.

3. Send the CSR containing the public key to your CA. This is a process specific to your company, and network administrators should know how to accomplish this.

4. Add trust for the end-point server you want HP Propel to integrate with.

The public keys of end-point systems that HP Propel integrates with (HP CSA and HP SM) must be added to the HP Propel truststore. For each of the end-point servers, run the following command:

```
# ./propel-ssl-setup.sh addTrustedServer <END_POINT_HOSTNAME>:<END_POINT_PORT>
```

Where *END\_POINT\_HOSTNAME* is the fully qualified end-point hostname and *END\_POINT\_PORT* is the end-point system's port that is used by the HP Propel VM for communication.

5. After the CA has returned the signed certificates, create the ZIP file:
  - a. Make sure you have the following files under the `/opt/hp/propel-install/ssl-tmp` directory:
    - `CA.crt` – the PEM-encoded public X.509 certificate of the CA.
    - `$(PROPEL_VM_HOSTNAME)/out/propel_host.crt` – a certificate for the HP Propel server that is issued by the CA in X.509 format.
  - b. Create the ZIP file:

```
# .propel-ssl-setup.sh finish
```

6. Unpack the `/opt/hp/propel-install/res/ssl/$(PROPEL_VM_HOSTNAME).zip` file into the `/opt/hp/propel/security` directory.
7. Stop the HP Propel services and the central HP Operations Orchestration services on the HP Propel VM:

```
# propel stop
# service central stop
```

8. Re-import the HP Propel truststore into HP Operations Orchestration with the following `keytool` commands:

```
# keytool -delete -keystore /opt/hp/oo/central/var/security/client.truststore
-alias propel_host -storepass changeit -noprompt
```

```
# keytool -importcert -keystore /opt/hp/oo/central/var/security/client.truststore
-file /opt/hp/propel/security/propel_host.crt -alias propel_host -storepass
changeit -noprompt
```

```
# keytool -delete -keystore /opt/hp/oo/central/var/security/client.truststore
-alias propeljboss_$(PROPEL_VM_HOSTNAME) -storepass changeit -noprompt
```

```
# keytool -importkeystore -noprompt -srcstoretype PKCS12 -srckeystore
/opt/hp/propel/security/propel_host.pfx -srcstorepass propel2014 -destkeystore
/opt/hp/oo/central/var/security/client.truststore -deststorepass changeit
```

```
# keytool -delete -keystore /opt/hp/oo/central/var/security/key.store -alias tomcat
-storepass changeit -noprompt
```

```
# keytool -importkeystore -noprompt -srcstoretype PKCS12 -srckeystore
"/opt/hp/propel/security/propel_host.pfx" -srcstorepass propel2014 -destkeystore
/opt/hp/oo/central/var/security/key.store -deststorepass changeit -srccalias
"propeljboss_$(PROPEL_VM_HOSTNAME)" -destalias "tomcat"
```

```
# keytool -keypasswd -new changeit -keystore
/opt/hp/oo/central/var/security/key.store -storepass changeit -alias tomcat
-keypass propel2014
```

9. Start the HP Propel services and the central HP Operations Orchestration services on the HP Propel VM:

```
# propel start  
# service central start
```

## Knowledge Management

The following provides instructions for installing HP Knowledge Management (KM), and loading KM documents into HP Service Manager (SM).

### Installing HP Knowledge Management

Install HP Knowledge Management if it was not installed during HP Service Manager installation. The HP ITSM Deployment Manager (DM) simplifies setup of SM and its related components.

1. Access HP ITSM Deployment Manager from HP Live Network at: <https://hpln.hp.com/group/itsm-deployment-manager>. Note that you will need to sign in to your HP Passport account. Download the following:
  - a. HP ITSM Deployment Manager Quick Start Guide (<https://hpln.hp.com/node/22326/attachment>)
  - b. The most recent version of DM (<https://hpln.hp.com/node/18528/contentfiles>)
2. Follow the instructions in the DM Quick Start Guide to install and configure DM.
3. In the DM **Environments** tab, click **More Wizards...**, then select **HP Service Manager – Knowledge Management**, and follow the instructions to install KM.
4. HP SM must be restarted for KM to become available for use.

For more information on the KM Search Engine, see the *HP Service Manager Release Notes* and *Service Manager Interactive Installation Guide* at <https://softwaresupport.hp.com>.

**Note:** Though optional, HP recommends that the HP SM Help Server is also installed. The SM Help Server includes the *Knowledge Management Search Engine Guide* as well as an extensive *Knowledge Management* help topic.

### HP Knowledge Management Indexing

The KMUpdate process controls indexing. Use HP SM's **Update Indexes** form to stop and restart indexing, and to view the status statistics related to indexing. To access this form, from the HP SM navigator menu, select **Knowledge Management > Configuration > Update Indexes**.

For help with KM indexing, search the SM Help Server for topic “**indexing the knowledgebases**”.

**Tip:** A quick way to verify that KMUpdate is running is to type `status` in the Command window to display all processes currently running.

### Knowledge Management Best Practices

- Rather than using the *falcon* operator as an integration account, create a copy of *falcon* using the HP SM **User Quick Add Utility** (from the HP SM navigator menu, select **System Administration > Ongoing Maintenance > User Quick Add Utility**). This simplifies analyzing the `sm.log` file. All possible integrations use *falcon* to log in, but after several integrations the operator's actions are more difficult to locate in the `sm.log` file.
- Before starting HP SM or HP SRC, start the KM Search Engine Service.
- HP Propel integration with SM's KM module will use both the KM Search Engine and an SM integration servlet to gather the documents and related attachments. Determine which port the master KM Search Engine uses as follows: from the HP SM navigator menu, select **Knowledge Management > Configuration > Configure Search Servers**, then click **Search**. By default, this will be port 8080.

- Add the following lines to the HP SM's `sm.cfg` file. This configuration avoids using web services over the HP SM LoadBalancer port, which is often port 13080.

```
# Propel: port used by Catalog Aggregation and Catalog microservices
sm -httpPort:14090 -debugnode -log:../logs/propel_km_integration.log -
ldapdisable:1 -ssl:0 -sslConnector:0 -trustedsignon:0 -querysecurity:0
```

- Configure Propel's `setup.properties` file as follows:

```
### Knowledge Management
km.url=http://sm_km_search_engine_solr_server.hp.com:8080
km.attachUrl=http://sm_server.hp.com:14090
km.user=INT-PROPEL
km.password=password_for_the_km_integration_account
```

## Load KM Documents into HP Service Manager

**Note:** The following instructions describe how to load sample KM documents into HP SM. Additional sample documents can be found in the KM installation directory. KM document packages can be purchased from companies such as KBI: <http://www.kbi.com>.

### Pre-Requisites for Loading Documents

All documents loaded into HP SM have the following settings:

- Default status: **Externally Approved (external)**.
- docType: **Question/Answer (howto)**.
- Category: **Propel**.

### Document Formats

Use the following formats for loading KM documents into HP SM:

- `<Title>propelKmImporter uses this text as the title and summary in HP SM</Title>`
- `<Introduction>propelKmImporter uses this text as the question in HP SM</Introduction>`
- `<Details>propelKmImporter uses this text as the answer in HP SM</Details>`

### Sample KM Document

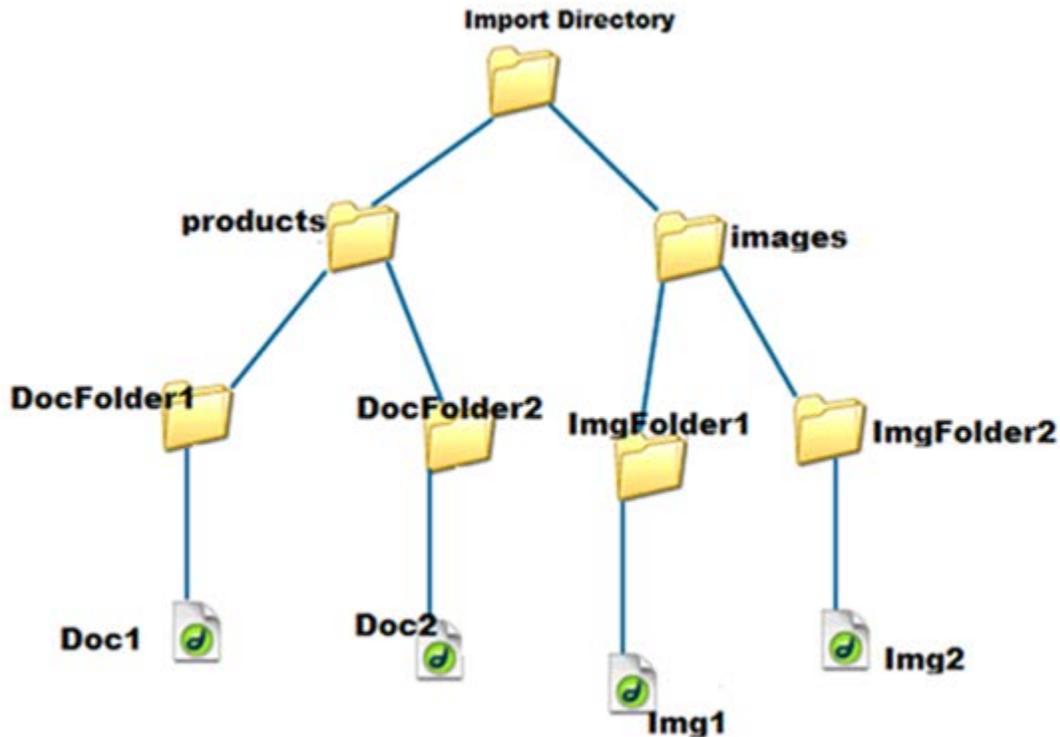
```
<? xml version="1.0" encoding="UTF-8"?>
<root><Title>Add an Email Account</Title>
<Introduction>&lt;div class="indent"&gt;&lt;span lang="es-cr"&gt;This page provides
steps for adding an email account.&lt;/span&gt;&lt;/div&gt;</Introduction>
<Details>&lt;div class="indent"&gt;&lt;ul&gt;&lt;li&gt;Follow these steps to add an
email account on your iOS device.&lt;/span lang="es-cr"&gt;:&lt;/span&gt;&lt;ol&gt;
&lt;/Details>
<TrainingInfo><trainingRequirement>T</trainingRequirement><imageItem></imageItem>
</TrainingInfo><SettingRequirement></SettingRequirement><title>This page has been
temporarily disabled</title></root>
```

### KM Documents Directory Structure

The `Import` directory for the HP Propel Knowledge Importer must have the following structure:

- All folders that have documents to be imported must be in a folder named `products`.
- All folders that have images to be imported must be in a folder named `images`.
- The `products` and `images` folders must be located under the `Import` directory.

Figure 2 – Example Import Directory Structure



### How to Load KM Documents

Follow this procedure to load KM documents with images into HP SM.

1. Import the HP Propel web services into HP SM:
  - a. Transfer the `HPPropelKnowledge.unl` and `HPPropelKnowledgeAttachment.unl` web services files from the HP Propel VM to the HP SM system. The web services files are in the `/opt/hp/propel/km/webservices` directory on the HP Propel VM.
  - b. Start HP SM, and in the HP SM left pane, navigate to: **System Administration -> Ongoing Maintenance -> Unload Manager -> Apply Unload**. The Unload Manager window is displayed.
  - c. In the **Unload File** field, browse to the `HPPropelKnowledge.unl` web service file.
  - d. In the **Backup To** field, type a name for the file to be stored as a backup. (This can be any name you choose.)
  - e. Click **Next**, and in the dialog that appears for applying the unload file, click **Yes**. A message appears confirming that the import was successful. The message text is: "Hotfix was successfully applied."
  - f. Click **Finish**.

g. Repeat Steps **b.** through **f.** for the `HPPropelKnowlegeAttachment.unl` web services file.

**Note:** Make sure the attachments flag is enabled in these two new HP SM web services.

2. To test the import process:

a. In HP SM, navigate to **Tailoring -> Web Services -> Web Service Configuration**.

b. Search for the **Service Name** `HPPropelKMAggregation`. If the HP Propel web services are configured correctly, `HPPropelKMAggregation` contains the `HPPropelKnowledge` and `HPPropelKnowlegeAttachment` objects.

3. (Optional) If you want to upload sample KM documents, they are available in the `documents.zip` file that is in the `/opt/hp/propel/km` directory on the HP Propel VM. Unzip the file and extract the sample documents by running the following commands as `root` on the HP Propel VM:

```
# cd /opt/hp/propel/km
# unzip documents.zip
```

A `documents` subdirectory is created and used as `DOCS_IMPORT_LOCATION` in step 5.

4. Make sure the `/opt/hp/propel/km/PropelKMImporter.sh` file has execute permissions. If it does not, execute the following command as `root` on the HP Propel VM:

```
# chmod 775 /opt/hp/propel/km/PropelKMImporter.sh
```

5. Navigate to `/opt/hp/propel/km` on the HP Propel VM and execute the following command:

```
# PropelKMImporter.sh -pr <SM_PROTOCOL> -h <SM_HOSTNAME> -po <SM_PORT>
-u <NEW_SM_USER> -pa <NEW_SM_PASSWORD> -i <DOCS_IMPORT_LOCATION>
```

Where `NEW_SM_USER` and `NEW_SM_PASSWORD` are the user and the password for the new integration account you created as a copy of the `falcon` operator. (See [Knowledge Management Best Practices](#) for details.)

For example:

```
# ./PropelKMImporter.sh -pr http -h <my-sm-host.bel.hp.com> -po 14090
-u <INT-PROPEL> -pa <password> -i /home/INT-PROPEL/documents
```

**Important:** The integration user that is created as a copy of the `falcon` operator must have a password.

For help about this script:

```
# ./PropelKMImporter.sh -help
```

6. To verify that KM documents have been successfully loaded into HP SM (after receiving a success message):

In HP SM, navigate to **Knowledge Management -> Search Knowledgebase**. (Using the Window client got to menu options [the black triangle at the right side] and select **Expert Search**. Using the web client, in the menu bar, click **More** and select **Expert Search**.)

The Advanced Search form appears. Provide the following search criteria and perform the search:

**DocType:** "Question/Answer"  
**Status:** "Externally Published"  
**Category:** "Propel"

## Changing HP Propel Default User Accounts' Passwords

HP Propel has built-in user accounts. The user accounts are used to authenticate REST API calls and for initial setup and experimentation with the product. For security reasons, HP recommends that you change the default passwords associated with these accounts, however, do not change the user names.

**Important** Do not create users in your LDAP directory that match the users provided by HP Propel. The HP Propel users are: `admin`, `consumer`, `idmTransportUser`, `ooInbounduser`, and `sxCatalogTransportUser`. Creating an identical user in LDAP could allow an HP Propel user unintended access to the HP Propel Management Console or give the LDAP user unintended privileges.

Besides changing the passwords for the built-in HP Propel user accounts, HP recommends that you also change the default password for the `root` user on the HP Propel virtual machine (VM). For details about changing the `root` password, refer to the `passwd(1)` manpage.

**Note:** In the HP Propel 1.11 release, some default passwords have been updated, while others are the same as in prior releases. For example, the default `root` password has been updated to match the current calendar year; however, many of the default keystore passwords remain as they were in the 1.0, 1.01, and 1.10 releases. If an updated default password does not work, try the prior release password.

In the following instructions, `$PROPEL_HOME` represents the `/opt/hp/propel` directory on the HP Propel VM. You can set this as an environment variable with the following command on the HP Propel VM:

```
# export PROPEL_HOME=/opt/hp/propel
```

### HP Propel User Accounts – HP Propel Management Console

The following HP Propel user accounts are used to access the HP Propel Management Console.

#### admin User: HP Propel Management Console

<b>Username</b>	admin
<b>Default Password</b>	cloud
<b>Usage</b>	This account is used to initially log in to the HP Propel Management Console to configure the provider organization.
<b>To Disable</b>	<p>Edit the <code>\$PROPEL_HOME/jboss-as/standalone/deployments/idm-service.war/WEB-INF/classes/csa-provider-users.properties</code> file. Update the <code>admin</code> property to disable this user account. For example, set <code>admin</code> to the following value. (This value should be encrypted.):</p> <pre>cloud,ROLE_REST,disabled</pre> <p><b>Note:</b> This property not only contains the password, but also the roles that control access to HP Propel and if the account is enabled.</p> <p>By default, the unencrypted value of this property is:</p> <pre>cloud,ROLE_REST,enabled</pre> <p>See <a href="#">Encrypt a Password – HP Propel User Accounts</a> for instructions on how to encrypt this value. The encrypted value is preceded by <code>ENC</code> without any separating spaces and is enclosed in parentheses. Ensure there is no blank space at the end of the value, for example: <code>ENC(54j5ngfki3i43A0=d)</code>.</p>

<b>To Change Password</b>	<p>Edit the <code>\$PROPEL_HOME/jboss-as/standalone/deployments/idm-service.war/WEB-INF/classes/csa-provider-users.properties</code> file. Update the password value of the <code>admin</code> property and encrypt the entire value, including the roles and the account status. (See <a href="#">Encrypt a Password – HP Propel User Accounts</a> for instructions on how to encrypt this value.) The encrypted value is preceded by <code>ENC</code> without any separating spaces and is enclosed in parentheses. Ensure there is no blank space at the end of the value, for example: <code>ENC(54j5ngfki3i43A0=d)</code>.</p> <p>You must also update and use the same password for every REST API call that uses the password.</p> <p><b>Note:</b> This property not only contains the password, but also the roles that control access to HP Propel and if the account is enabled.</p> <p>By default, the unencrypted value of this property is: <code>cloud,ROLE_REST,enabled</code></p>
---------------------------	---

**idmTransportUser User: HP Propel Management Console**

<b>Username</b>	idmTransportUser
<b>Default Password</b>	idmTransportUser
<b>Usage</b>	This account is used to authenticate REST API calls.
<b>To Disable</b>	Do not disable this account.
<b>To Change Password</b>	<p>Prior to changing the password to the <code>idmTransportUser</code> account, you must first change the HP Propel master password. (The master password is used to encrypt and decrypt passwords in the <code>mpp.json</code> file.) After the master password has been changed, update identical values of the password in the <code>integrationusers.properties</code> file, the <code>org.authenticate.httpbasic.password</code> property in the <code>csa.properties</code> file, and the <code>password</code> attribute in the <code>idmProvider</code> section of the <code>mpp.json</code> file. You must also update and use the same password for every REST API call that uses the password. Additionally, the default values for the JWT signing key should also be changed. See <a href="#">Change the JWT Signing Key</a> for details.</p> <p><b>Changing the HP Propel Master Password</b></p> <p>For details of changing the HP Propel master password, see <a href="#">Change the HP Propel Master Password</a>.</p> <p><b>Updating the <code>idmTransportUser</code> Property in <code>integrationusers.properties</code></b></p> <p>Edit the <code>\$PROPEL_HOME/jboss-as/standalone/deployments/idm-service.war/WEB-INF/classes/integrationusers.properties</code> file. Update the password value of the <code>idmTransportUser</code> property. Encrypt the entire value, including the roles and the account status. (See <a href="#">Encrypt a Password – HP Propel User Accounts</a> for instructions on how to encrypt this value.) The encrypted value is preceded by <code>ENC</code> without any separating spaces and is enclosed in parentheses. Ensure there is no blank space at the end of the value, for example: <code>ENC(54j5ngfki3i43A0=d)</code>.</p> <p><b>Important:</b> The <code>idmTransportUser</code> property must always be enabled. This property not only determines if the account is enabled, it also contains the password and the roles that control access to HP Propel.</p> <p>By default, the unencrypted value of this property is:  <code>idmTransportUser,ROLE_ADMIN,PERM_IMPERSONATE,enabled</code></p> <p><b>Updating the <code>org.authenticate.httpbasic.password</code> Property in <code>csa.properties</code></b></p> <p>Edit the <code>\$PROPEL_HOME/jboss-as/standalone/deployments/consumption.war/WEB-INF/classes/csa.properties</code> file. Update the password value of the <code>org.authenticate.httpbasic.password</code> property, using the same password that you used for the <code>idmTransportUser</code> property in the <code>integrationusers.properties</code> file. (See <a href="#">Encrypt a Password – HP Propel User Accounts</a> for instructions on how to encrypt this value.) Ensure there is no blank space at the end of the value, for example:  <code>ENC(54j5ngfki3i43A0=d)</code>.</p>

### Updating the password Attribute in mpp.json

Edit the `$PROPEL_HOME/mpp/conf/mpp.json` file. Update the value of the `password` property in the `idmProvider` section, using the same password that you used for the `idmTransportUser` property in the `integrationusers.properties` file. To encrypt the password, use the `passwordUtil.js` utility that is provided by the HP Propel Marketplace Portal:

1. Log in to the HP Propel VM as `root`, and navigate to the `$PROPEL_HOME/node/bin` directory.

2. Run the following command:

```
./node /$PROPEL_HOME/mpp/bin/passwordUtil.js
```

When prompted, enter the identical password that you used for the `idmTransportUser` property in the `integrationusers.properties` file.

3. An encrypted password is displayed. Copy the encrypted password to the `password` attribute value in the `idmProvider` section of the `mpp.json` file. An encrypted password is preceded by `ENC` without any separating spaces and is enclosed in parentheses. Ensure there is no blank space at the end of the value, for example: `ENC(54j5ngfki3i43A0=d)`.

**ooInboundUser User: HP Propel Management Console**

<b>Username</b>	ooInboundUser
<b>Default Password</b>	cloud
<b>Usage</b>	This account is used by HP Operations Orchestration to authenticate REST API calls with HP Propel.
<b>To Disable</b>	Do not disable this account
<b>To Change Password</b>	<p>If you change the password to the ooInboundUser account, you must update identical values of the password in the <code>csa-provider-users.properties</code> file and the <code>securityOoInboundUserPassword</code> property in the <code>csa.properties</code> file. You must also update and use the same password for every REST API call that uses the password.</p> <p><b>Important:</b> You must also update and use the same password for the <code>CSA_REST_CREDENTIALS</code> system account in HP Operations Orchestration (located in the Configuration folder of the Public Repository).</p> <p><b>Updating the ooInboundUser Property in csa-provider-users.properties</b></p> <p>Edit the <code>\$PROPEL_HOME/jboss-as/standalone/deployments/idm-service.war/WEB-INF/classes/csa-provider-users.properties</code> file. Update the password value of the ooInboundUser property and encrypt the entire value, including the roles and the account status. (See <a href="#">Encrypt a Password – HP Propel User Accounts</a> for instructions on how to encrypt this value.) The encrypted value is preceded by <code>ENC</code> without any separating spaces and is enclosed in parentheses. Ensure there is no blank space at the end of the value, for example: <code>ENC(54j5ngfki3i43A0=d)</code>.</p> <p><b>Note:</b> This property not only contains the password, but also the roles that control access to HP Propel and if the account is enabled.</p> <p>By default, the unencrypted value of this property is:  <code>cloud,ROLE_REST,enabled</code></p> <p><b>Updating the securityOoInboundUserPassword Property in csa.properties</b></p> <p>Edit the <code>\$PROPEL_HOME/jboss-as/standalone/deployments/consumption.war/WEB-INF/classes/csa.properties</code> file. Update the password value of the <code>securityOoInboundUserPassword</code> property and encrypt the value. (See <a href="#">Encrypt a Password – HP Propel User Accounts</a> for instructions on how to encrypt this value.) Use the same encrypted password that you entered for the ooInboundUser property in the <code>csa-provider-users.properties</code> file.</p> <p>After modifying the <code>csa.properties</code> file, you must restart HP Propel. See <a href="#">Restart HP Propel</a> for detailed information about how to restart HP Propel.</p>

**sxCatalogTransportUser User: HP Propel Management Console**

<b>Username</b>	sxCatalogTransportUser
<b>Default Password</b>	cloud
<b>Usage</b>	This account is used to authenticate REST API calls.
<b>To Disable</b>	Do not disable this account
<b>To Change Password</b>	<p>If you change the password to the <code>sxCatalogTransportUser</code> account, you must update identical values of the password in the <code>csa-provider-users.properties</code> file and the <code>sx.authenticate.idm.user.password</code> property in the <code>sx.properties</code> file on the HP Propel VM. Additionally, you must also update and use the same password for the <code>catalog.notificationUserPassword</code> property in the <code>sx.properties</code> file on the HP Propel Service Exchange VM. You must also update and use the same password for every REST API call that uses the password.</p> <p><b>Updating the <code>sxCatalogTransportUser</code> Property in <code>csa-provider-users.properties</code></b></p> <p>Edit the <code>\$PROPEL_HOME/jboss-as/standalone/deployments/idm-service.war/WEB-INF/classes/csa-provider-users.properties</code> file. Update the password value of the <code>sxCatalogTransportUser</code> property and encrypt the entire value, including the roles and the account status. (See <a href="#">Encrypt a Password – HP Propel User Accounts</a> for instructions on how to encrypt this value.) The encrypted value is preceded by <code>ENC</code> without any separating spaces and is enclosed in parentheses. Ensure there is no blank space at the end of the value, for example: <code>ENC(54j5ngfki3i43A0=d)</code>.</p> <p><b>Note:</b> This property not only contains the password, but also the roles that control access to HP Propel and if the account is enabled.</p> <p>By default, the unencrypted value of this property is: <code>cloud,ROLE_REST,enabled</code></p> <p><b>Updating the <code>sx.authenticate.idm.user.password</code> Property in <code>sx.properties</code></b></p> <p>Edit the <code>\$PROPEL_HOME/jboss-as/standalone/deployments/consumption.war/WEB-INF/classes/sx.properties</code> file. Update the password value of the <code>sx.authenticate.idm.user.password</code> property and encrypt the value. (See <a href="#">Encrypt a Password – HP Propel User Accounts</a> for instructions on how to encrypt this value.) Use the same encrypted password that you entered for the <code>sxCatalogTransportUser</code> property in the <code>csa-provider-users.properties</code> file.</p> <p><b>Updating the <code>catalog.notificationUserPassword</code> Property in <code>sx.properties</code> on the HP Propel Service Exchange Virtual Machine</b></p> <p>On the HP Propel Service Exchange VM, edit the <code>\$PROPEL_HOME/jboss-as/standalone/deployments/sx.war/WEB-INF/sx.properties</code> file. Update the password value of the <code>catalog.notificationUserPassword</code> property and encrypt the value. (See <a href="#">Encrypt a Password – HP Propel User Accounts</a> for instructions on how to encrypt this value.) The encrypted value is preceded by <code>ENC</code> without any separating spaces and is enclosed in parentheses. Ensure there is no blank space at the end of the value, for example: <code>ENC(54j5ngfki3i43A0=d)</code>.</p>

## HP Propel Marketplace Portal User Accounts

The following HP Propel user accounts are used to access the HP Propel Marketplace Portal.

### consumer User: HP Propel Marketplace Portal

<b>Username</b>	consumer
<b>Default Password</b>	cloud
<b>Usage</b>	This account is used to initially log in to and experiment with the HP Propel Marketplace Portal. (LDAP does not have to be configured.) This user belongs to the “HP Propel consumer internal group” and is a member of the HP Propel Consumer organization. (Both the group and the user are provided as samples.)
<b>To Disable</b>	<p>Edit the <code>\$PROPEL_HOME/jboss-as/standalone/deployments/idm-service.war/WEB-INF/classes/csa-consumer-users.properties</code> file. Update the <code>consumer</code> property to disable this user account. For example, set <code>consumer</code> to the following value. (This value should be encrypted.):</p> <pre>cloud,SERVICE_CONSUMER,ROLE_REST,disabled</pre> <p><b>Note:</b> This property not only contains the password, but also the roles that control access to HP Propel and if the account is enabled.</p> <p>By default, the unencrypted value of this property is:</p> <pre>cloud,SERVICE_CONSUMER,ROLE_REST,enabled</pre> <p>See <a href="#">Encrypt a Password – HP Propel User Accounts</a> for instructions on how to encrypt this value. The encrypted value is preceded by <code>ENC</code> without any separating spaces and is enclosed in parentheses. Ensure there is no blank space at the end of the value, for example: <code>ENC(54j5ngfki3i43A0=d)</code>.</p>
<b>To Change Password</b>	<p>Edit the <code>\$PROPEL_HOME/jboss-as/standalone/deployments/idm-service.war/WEB-INF/classes/csa-consumer-users.properties</code> file. Update the password value of the <code>consumer</code> property and encrypt the entire value, including the roles and the account status. (See <a href="#">Encrypt a Password – HP Propel User Accounts</a> for instructions on how to encrypt this value.) The encrypted value is preceded by <code>ENC</code> without any separating spaces and is enclosed in parentheses. Ensure there is no blank space at the end of the value, for example: <code>ENC(54j5ngfki3i43A0=d)</code>.</p> <p><b>Note:</b> This property not only contains the password, but also the roles that control access to HP Propel and if the account is enabled.</p> <p>By default, the unencrypted value of this property is:</p> <pre>cloud,SERVICE_CONSUMER,ROLE_REST,enabled</pre>

## Encrypt a Password – HP Propel User Accounts

To encrypt a password for HP Propel user accounts:

1. Log in to the HP Propel VM as `root` and navigate to the `$PROPEL_HOME/cryptoUtil` directory.
2. Determine a new password for the user account: `New_Password`
3. Encrypt the password by running the following command:

```
# $JAVA_HOME/bin/java -jar cryptoUtil-cli-1.0.4.jar encrypt <New_Password>
```

**Note:** Some user accounts, such as `idmTransportUser`, require that values are also specified for the account roles and the account status. For example, the default password, roles, and status values for `idmTransportUser` are:

```
idmTransportUser,PERM_IMPERSONATE,ROLE_ADMIN,enabled
```

4. The `java` command in step 3 returns encrypted text for the specified password. Use the encrypted text returned in step 3 to replace the user account's password information to the right of the equal sign (“=”) in the corresponding file.

The encrypted value is preceded by `ENC` without any separating spaces and is enclosed in parentheses. Ensure there is no blank space at the end of the value. For example, to use the encrypted text as a replacement for the password value for the `idmTransportUser` in the `integrationusers.properties` file:

```
idmTransportUser=ENC(<Encrypted_Text>)
```

Where `<Encrypted_Text>` is the encrypted text returned from the `java` command in step 3.

## Restart HP Propel

To restart services on the HP Propel VM, do the following:

1. Log in to the HP Propel VM as `root`, and navigate to the `$PROPEL_HOME/bin` directory.
2. Run the following commands:

```
# propel stop
```

```
# propel start
```

## Change the HP Propel Master Password

HP Propel uses a master password (or Key Encryption Key – KEK) to encrypt passwords for user accounts that are in the `$PROPEL_HOME/mpp/conf/mpp.json` file, such as the `idmTransportUser` user account. HP recommends that you change the default master password for improved security.

The HP Propel master password is implemented using Shamir's Secret Sharing Scheme (SSSS) to split the master password into multiple cryptographically-secure KEK shares and store them in distributed file locations.

After you split a new master password into three encrypted values, you insert the values into three separate files and distribute the three files in distinct locations as KEK stores. For the HP Marketplace Portal the file locations are configured in the `$PROPEL_HOME/mpp/conf/mpp.json` file and for the HP Propel Launchpad the file locations are configured in the `$PROPEL_HOME/launchpad/app.json` file.

**Important:** Whenever the master password is changed, the following three things must be done:

- If a `keyfile*` file exists, delete it. The location of the `keyfile*` file is specified in the `keyfile` attribute in the `$PROPEL_HOME/mpp/conf/mpp.json` file and the `$PROPEL_HOME/launchpad/app.json` file.
- All encrypted passwords in the `$PROPEL_HOME/mpp/conf/mpp.json` file must be regenerated using the `passwordUtil.js` utility. For an example of updating a password in the `mpp.json` file, see [Updating the password Attribute in mpp.json](#).

When you change the Master Password for an HP Propel instance, it is also good practice to change the JWT signing key. For more information on changing the signing key, see [Change the JWT Signing Key](#).

The tasks to change the HP Propel master password are:

- [Split the HP Propel Master Password](#)
- If configuring the HP Marketplace Portal – [Configure the mpp.json File](#)
- If configuring the HP Propel Launchpad – [Configure the app.json File](#)

### Split the HP Propel Master Password

Perform the following procedure to split the new master password:

1. Log in as `root` and navigate to the `/usr/bin` directory.
2. Run the `passwordUtil.js` command to split the new master password into three separate values:

```
# ./node /opt/hp/propel/launchpad/bin/passwordUtil.js --split
Please enter the password to split <hidden_password>
Please enter the File prefix or blank to skip file creation
Shares are (801d3c957e144c6a9d2725315,802b88f01df3c91dfb974a689,8036a46333e1457066b76f5fd)
```

3. Using the three encrypted values (KEK shares) from the output of step 2, create three new files in different locations that are relative to the `$PROPEL_HOME/mpp/conf` directory. For example, insert the corresponding encrypted values into newly created KEK share files: the first encrypted value into a `../masterpass1` file, the second encrypted value into a `../../security/masterpass2` file, and the third encrypted value into a `../../etc/masterpass3` file.

### HP Marketplace Portal – Configure the `mpp.json` File

For the HP Marketplace Portal, after you have split the new master password into three unique KEK share files, you must configure the files in the `mpp.json` file, which is located in the `$PROPEL_HOME/mpp/conf` directory. The `kekshare1`, `kekshare2`, and `kekshare3` attributes in the `mpp.json` file are used to reference the paths to the KEK share files.

If the `kekshare*` attributes are not specified in the `mpp.json` file, the default files for the KEK shares are `kekshare1`, `kekshare2`, and `kekshare3` and they are located in the `$PROPEL_HOME/mpp/conf` directory.

The following (partial) example of the `mpp.json` file shows how you can specify the paths to the KEK share files:

```
{
  "uid": "ccue_mpp",
  "port": 8089,
  "defaultOrganizationName": "CONSUMER",
  "defaultHelpLocate": "en_US",
  "defaultHelpPage": "MarketplacePortal_HELP_CSA.htm",
  "keyfile": "../conf/keyfile",
  "kekshare1": "../masterpass1",
  "kekshare2": "../../security/masterpass2",
  "kekshare3": "../../etc/masterpass3",
  "session": {
    "cookieSecret": "enc(dqmtAEFpkRd4DYpx4pDMzQ==)",
    "timeoutDuration": 1800,
    "cleanupInterval": 3600
  },
}
```

**Important:** When splitting a new HP Propel master password, you must configure one of the following in the `mpp.json` file:

- At least two KEK shares (`kekshare*` attributes)
- No KEK shares, so that the default `kekshare*` files in the `$PROPEL_HOME/mpp/conf` directory will be used

### HP Propel Launchpad – Configure the `app.json` File

For the HP Propel Launchpad, after you have split the new master password into three unique KEK share files, you must configure the files in the `app.json` file, which is located in the `$PROPEL_HOME/launchpad` directory. The `kekshare1`, `kekshare2`, and `kekshare3` attributes in the `app.json` file are used to reference the paths to the KEK share files.

The default files for the KEK shares are `kekshare1`, `kekshare2`, and `kekshare3` and they are located in the `$PROPEL_HOME/launchpad/bin` directory.

The following (partial) example of the `app.json` file shows how you can specify the paths to the KEK share files:

```
"daemon": {
  "name": "launchpad",
  "port": 9000,
  "keyfile": "bin/keyfile",
  "kekshare1": "bin/kekshare1",
  "kekshare2": "bin/kekshare2",
  "kekshare3": "bin/kekshare3",
  "cluster_enabled": false,
  "num_cluster_instances": "max",
  "https_enabled": true,
  "configure_pfx": true,
  "pfx": "/opt/hp/propel/security/propel_host.pfx",
  "configure_passphrase": true,
  "passphrase": "enc()kdjfdKJKDJkdjgjdDKSHS==)",
  "rejectUnauthorized": false
},
```

**Important:** When splitting a new HP Propel master password, you must configure one of the following in the `app.json` file:

- At least two KEK shares (`kekshare*` attributes)
- No KEK shares, so that the default `kekshare*` files in the `$PROPEL_HOME/launchpad` directory will be used

## Change the JWT Signing Key

**Important:** After changing the password for the `idmTransportUser`, you should also change the JWT signing key. To accomplish this, you must update all of the following four properties with identical encrypted values:

### JWT Signing Key - update locations

- 1) The `AUTHENTICATION.secretKey` JSON property in the `/opt/hp/propel/jboss-as/standalone/deployments/sx.war/WEB-INF/classes/config/infrastructure.json` file.
- 2) The `security.encryptedSigningKey` property in the `/opt/hp/propel/jboss-as/standalone/deployments/sx.war/WEB-INF/sx.properties` file.
- 3) The `idm.encryptedSigningKey` property in the `/opt/hp/propel/jboss-as/standalone/deployments/idm-service.war/WEB-INF/spring/applicationContext.properties` file.
- 4) The `securityEncryptedSigningKey` property in the `/opt/hp/propel/jboss-as/standalone/deployments/consumption.war/WEB-INF/classes/csa.properties` file.

The first two JWT signing-key locations (items 1 and 2) are under the `sx.war` directory, and will get encrypted automatically if both of their properties have an unencrypted value. For the final two locations (items 3 and 4), you must encrypt the value manually. (See [Encrypt a Password – HP Propel User Accounts](#) for instructions on how to encrypt this value.)

**Note:** It is highly recommended that the signing key assigned by the HP Propel Administrator is strong and long enough to survive brute force attacks. Any user with an IDM token (even an expired token) and knowledge about the authentication method may use this knowledge to perform a brute force attack without any rate limits in search of the secret signing key. Example: a strong and long key should be composed of 25 characters (including letters, digits, and some symbols), but not containing any dictionary words.

After making these password changes, you must restart HP Propel for the changes to take effect. See [Restart HP Propel](#) for detailed information about how to restart HP Propel.