Oracle® Payment Interface

Oracle Hospitality Cruise Shipboard Property Management System Installation Guide
Release 6.2.2.2
F13012-03

December 2019

ORACLE

Contents

Preface

This document is to guide users attempting to configure Oracle Payment Interface (OPI) with Shipboard Property Management System (SPMS).

Audience

This document is intended to cover the steps required to setup OPI to handle the integration with Shipboard Property Management System.

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:

https://support.oracle.com

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received and any associated log files
- Screen shots of each step you take

Documentation

Oracle Hospitality product documentation is available on the Oracle Help Center at https://docs.oracle.com/en/industries/hospitality/cruise.html

Revision History

Date	Description of Change
January 2019	• Initial publication. • Updated additional requirements in Pre-Installation section.
December 2019	• Updated acronym in Pre-Installation section. • Updated the Automated WebServices Installer – Installation Guide hyperlink, in OHC OPI Web Service section. • Added Configuration Setup to integrate with Simphony OPI.

1 Pre-Installation

Consider the following guidelines before installing OPI with SPMS:

- SPMS Release 8.0.8 is the minimum release you can use to integrate with OPI. OPI 6.2 does not install a database. If doing a clean install of OPI, a database must be installed first.
- OPI requires jre1.8.0_191 to be installed before OPI installation.
- OPI requires at least 6 GB of free disk space, 4GB Memory and you must install OPI using a System Administrator account.
- OPI 6.2 no longer includes MySQL within the OPI Installer as it did in previous versions. The OPI now supports multiple database types.
- A database is still required to hold the OPI configuration and audit event data, but must be installed separately prior to installing OPI.
- A Root access to the database is required during the OPI installation, only to create a dedicated OPI database user, which can have a lower level of privilege than the Root user, and is used for OPI tasks once installation is complete.

Supported Database Types

The Oracle Payment Interface Installer release 6.2 supports the following database connections:

- MySQL Database 5.7
- Oracle Database 12c

Downloading the OPI 6.2 Installer and Patchset

The OPI 6.2 Installer is available for download from Oracle Software Delivery Cloud, search by:

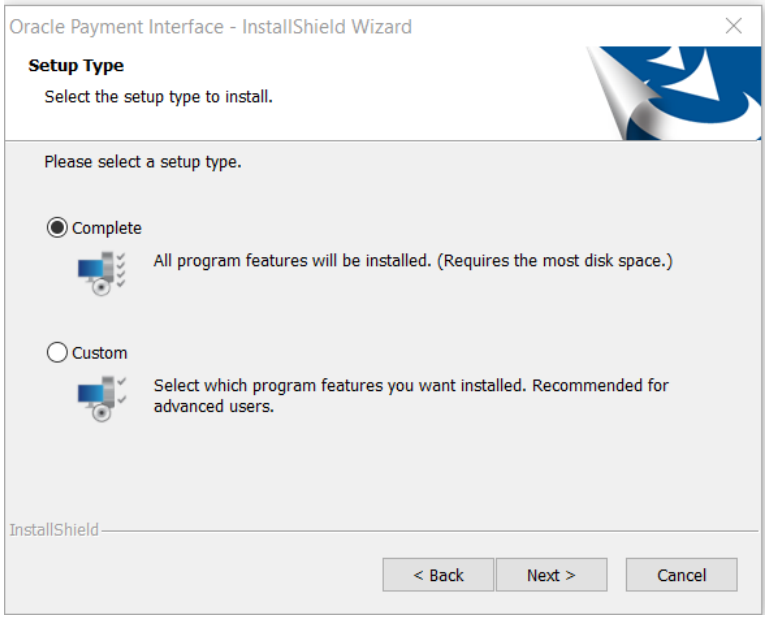
- **Release:** Oracle Payment Interface.
- **Select:** REL: Oracle Payment Interface 6.2
- Download the OPI PatchSet 6.2.2.0 and InterimPatch 6.2.2.7 from My Oracle Support.

During the installation of OPI, you must confirm the following:

- Chain Code and Property Code.
- IP address of the OPI Server.
- Ensure you have the SQL root/Oracle user password for OPI database.

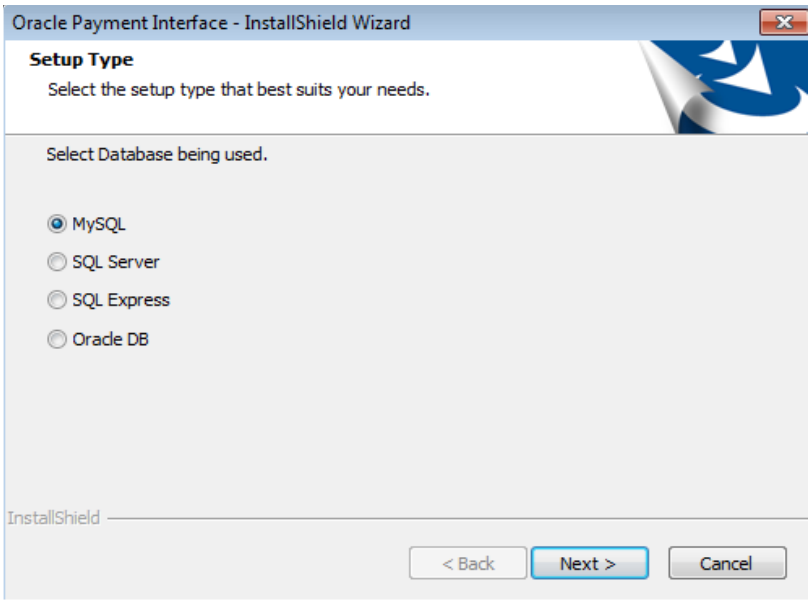
2 Installing the OPI

1. Copy `OraclePaymentInterfaceInstaller-6.2.0.0.exe`, double click it to launch the install.
2. Select your language, and then click **OK**.
3. Click **Next** on the Welcome to the InstallShield Wizard for Oracle Payment Interface window.
4. Click **Next** on the OPI Prerequisites window.

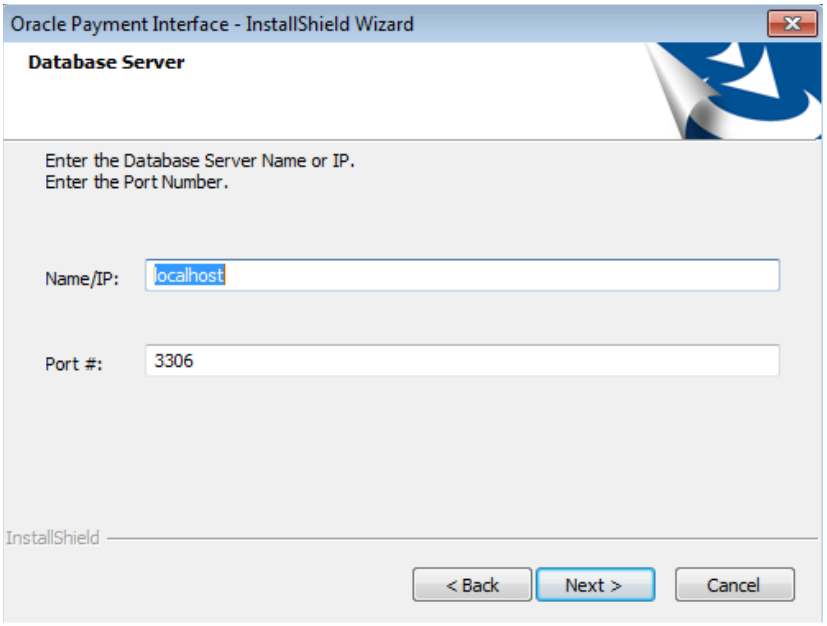


5. The Setup Type window, select the **Complete** option to install all program features, and then click **Next**.
6. At the Choose Destination Location window, accept the default installation location, and then click **Next**.
7. Click **Install** on the Ready to Install the Program window.
8. At the Setup Type window, select the database type used and click **Next**.

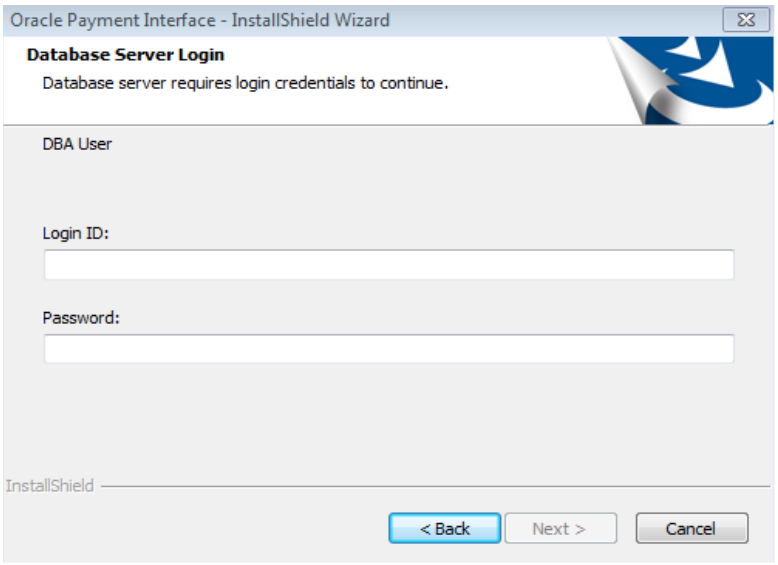
Note: OPI does not install any database, so the database must already be installed.



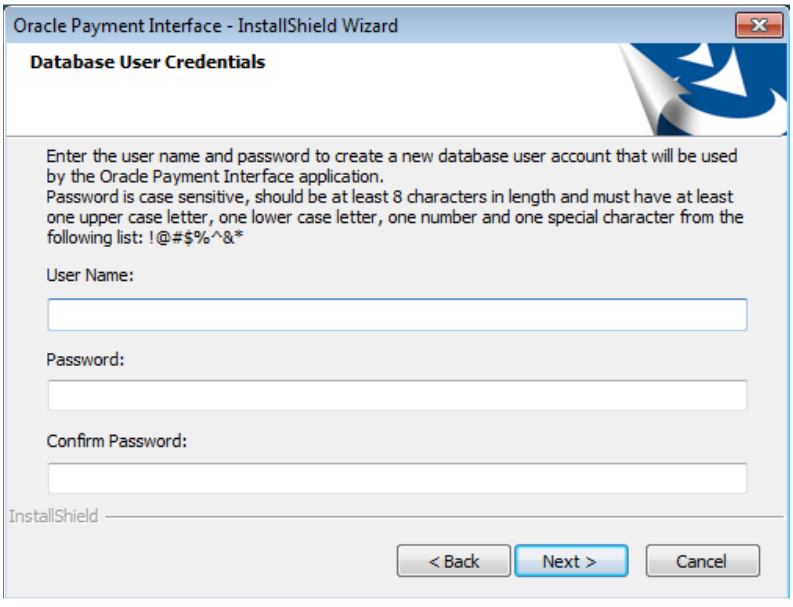
9. Accept the default **Port** # of 3306 (for MySQL), and then click **Next**.



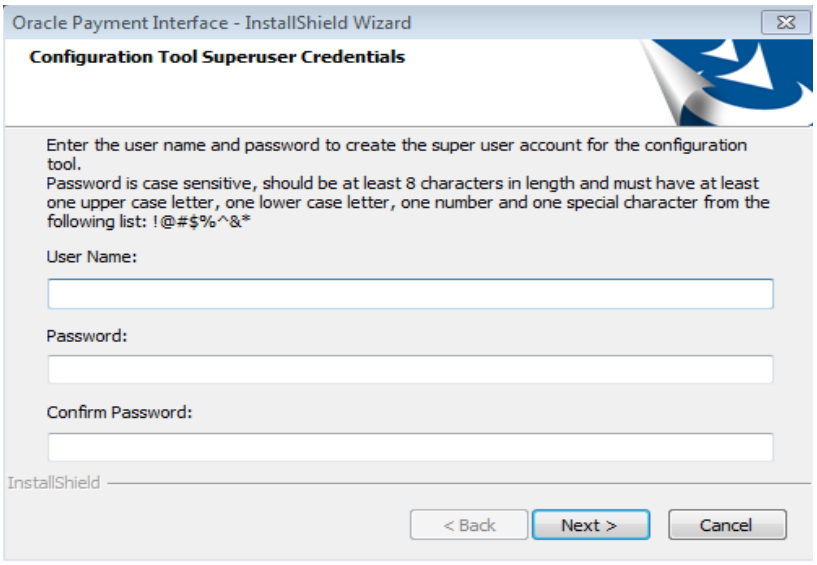
10. At the Server Login window, enter the credentials for the DBA user of the selected database type, and then click **Next**.
    - For MySQL the Login ID: = root
    - For other database types, the DBA user name/Login ID may be different.
    - Enter the correct password for the DBA user.



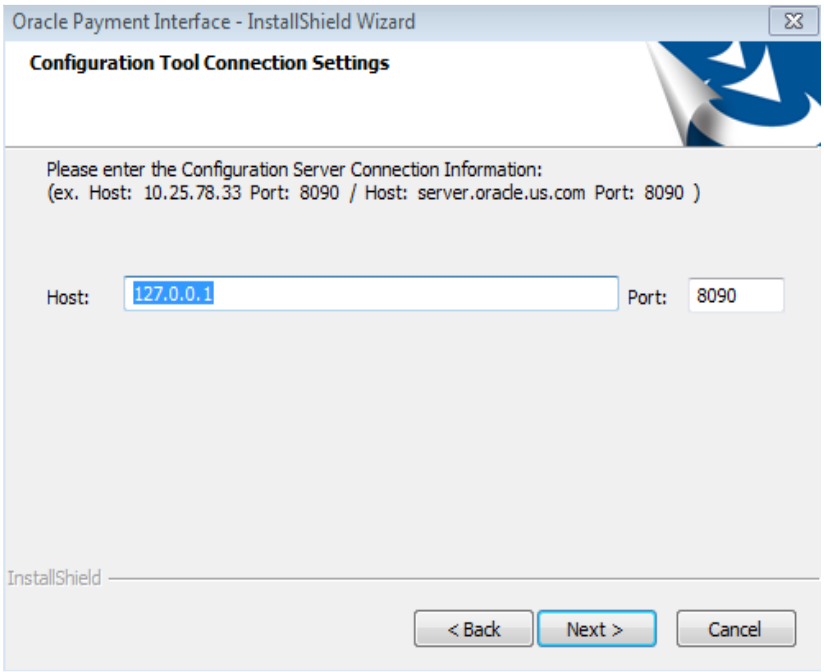
11. At the Database User Credentials window, input the following and click **Next**.
    - **User Name**: Create a new user.
    - **Password**: Create a password.
    - Confirm password



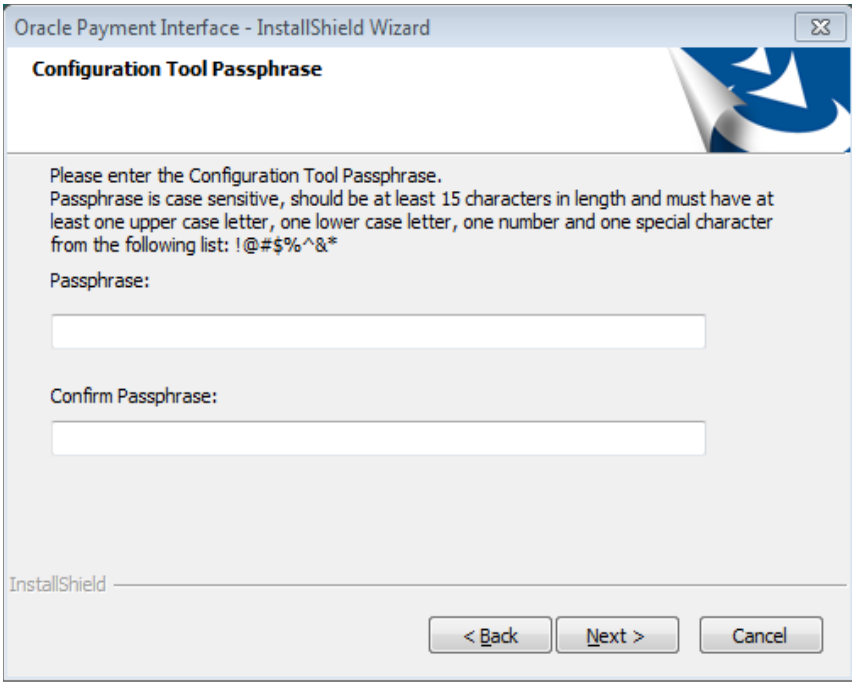
12. Click **OK** on the Database connection successful dialog.
13. Click **OK** on the Database Configuration operation successful dialog.
14. At the Configuration Tool Superuser Credentials window, enter the following and click **Next**
    - **User Name**: To Create the super user account to access OPI configuration tools
    - **Password**: Create a password.
    - Confirm the password



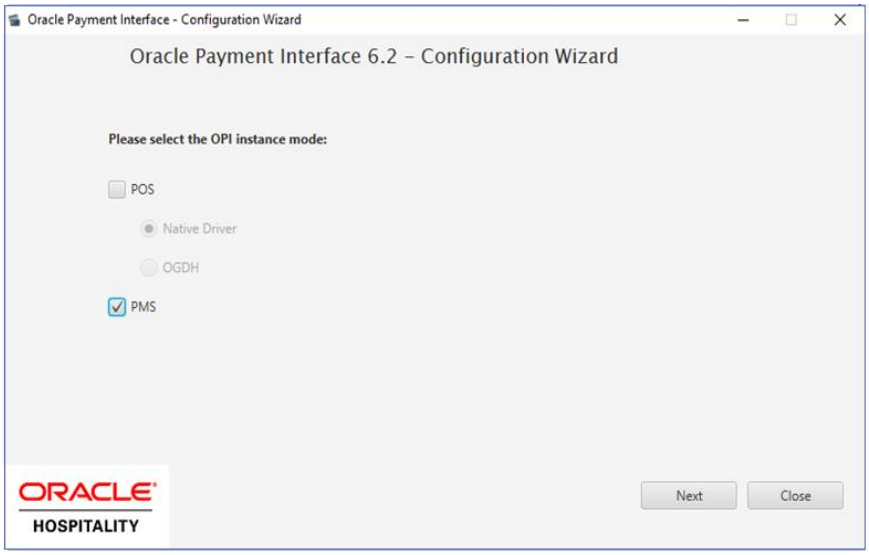
15. Click **OK** on the 'Create SuperUser operation successful' dialog.
16. At the Configuration Tool Connection Settings window, enter the Host IP and click **Next**.
    - **Host**: May leave this as 127.0.0.1 if the OPI configuration server is installed on this PC. Otherwise, specify the name or IP address of the PC where the OPI configuration server will be installed.
    - Leave the default **Port** as 8090.



17. At the Configuration Tool Passphrase window, enter the Passphrase and click **Next.**



18. At the Configuration Wizard window, select **PMS**, click **Next** then **Close** to complete the OPI installation.



3 Installing OPI Patchset

PatchSet 6.2.2.0

1. Right-click `OraclePaymentInterfaceInstaller_PatchSet_6.2.2.0.exe` and **Run as Administrator** to begin installing OPI 6.2.2.
2. Click **Next**, and then click **Yes** to continue.
3. Click **OK** on the PatchUpdate operation was successful dialog box.
4. The OPI installer saves detailed upgrade logs in the `OraclePaymentInterface_TempLogs` folder on the OPI drive. You can delete this folder if it is not needed.

InterimPatch 6.2.2.2.7

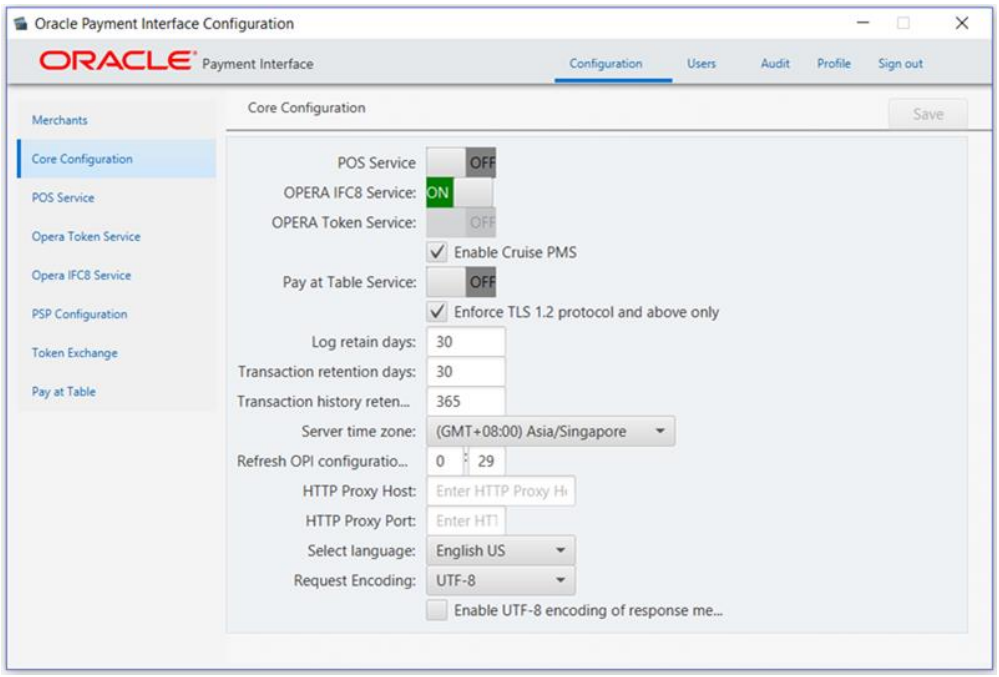
1. Right-click `OraclePaymentInterfaceInstaller_InterimPatch_6.2.2.2.exe` and **Run as Administrator** to begin installing OPI 6.2.2.
2. Click **Next**, and then click **Yes** to continue.
3. Click **OK** on the PatchUpdate operation was successful dialog box.
4. The OPI installer saves detailed upgrade logs in the `OraclePaymentInterface_TempLogs` folder on the OPI drive. You can delete this folder if it is not needed.

4 Configuring OPI

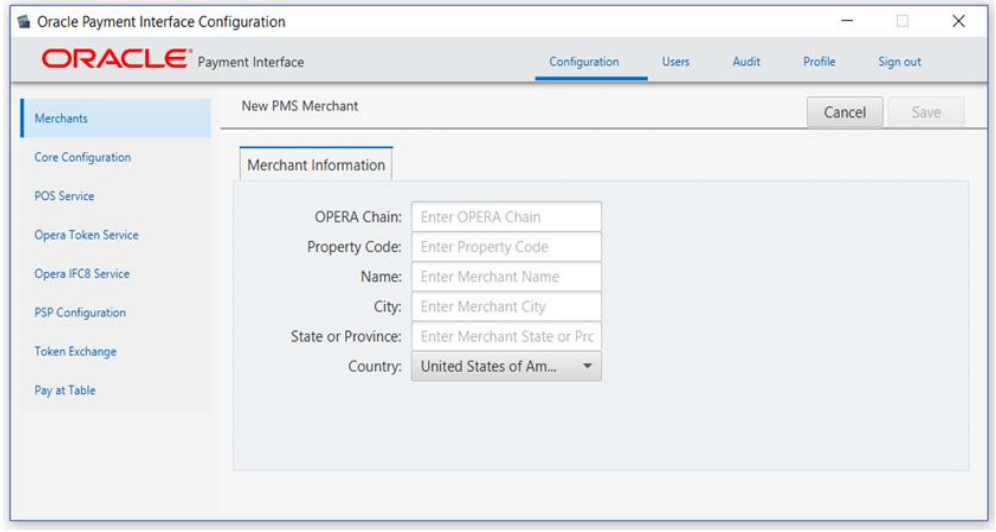
This section describes the configuration in OPI System integrated with SPMS.

1. Double-click on `C:\OraclePaymentInterface\V6.2\Config\LaunchConfiguration.bat`
2. Login with the Super user account you created during OPI installation.

3. Go to Core Configuration, check option **Enable Cruise PMS** and then click **Save**.



4. Go to **Merchant Tab** to configure the PMS Merchant details.
5. Click on ' **+** ' and select **New PMS Merchant**.
6. New PMS Merchant screen appears, set below for SPMS uses :



   a. **OPERA chain:** SPMS Chain code for the Merchant.
   b. **Property Code:** SPMS Property code for the Merchant.
   c. **Name:** Name of the Merchant.
   d. **City:** City location of the Merchant.
   e. **State or Province:** State or Province location of the Merchant.
   f. **Country:** Country location of the Merchant, this will indicate which currency it will operate when selected.
7. Click on **Save**.
8. The IFC8 Settings and Terminals tab will appear.

9. Set the below for the IFC8 settings:
    a. **IFC8 Key:** This key will be inserted into OHC OPI Daemon for validation between OPI with SPMS.
    b. **IFC8 Host:** OHC OPI Daemon machines Host name or IP Address.
    c. **IFC8 Port:** OHC OPI Daemon port number.
10. Click **Save**.
11. Go to PSP Configuration tab and set below for SPMS uses:
    - OPI to PSP Communication Configuration:
        a. Select **OPI Mode**: Middleware
        b. Set **Primary Host:** Specify the middleware server information.
        c. Set **Failover Host:** Specify the failover middleware server information.
12. Click Save.
13. Click Sign out to logout the configuration screen.

Token Exchange Handling

This section describes the settings for the token exchange handling between OPI and SPMS.

The Payment Service provider will need to provide the certificate for the PSP root certificate and the client certificate.

PSP - Client Side Certificates

The communication from OPI to the PSP for token exchange uses HTTPS with a client certificate for client authentication. That is, while a server side certificate is expected to be deployed at PSP (server side) for HTTPS communication, PSP is also expected to provide a client side certificate to be deployed at OPI side. OPI will present this client certificate during HTTPS communication with PSP so that PSP can authenticate OPI properly.

In order to achieve this, PSP is required to provide two files:

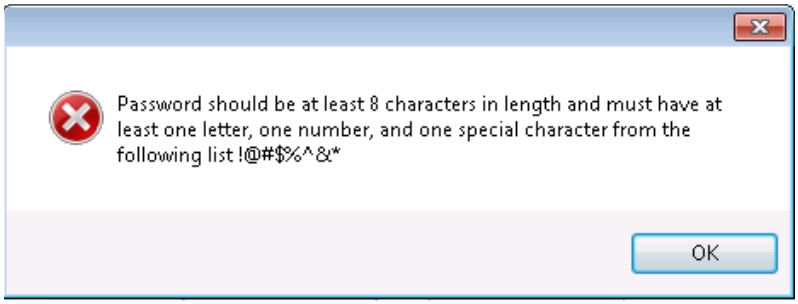
- A client side certificate file in the name of “OPI_PSP_1.pfx”, this is a PKCS#12 Certificate file that contains a public key and a private key and will be protected by a password. If the file provided by PSP has a different name, rename to “OPI_PSP_1.pfx” before deploying it to OPI.
- The root certificate file for the server side certificate that is deployed at PSP side. OPI needs to load this root certificate file into the Java Key store so that OPI can properly recognize and trust the server side certificate deployed at PSP side. We expect the root certificate file provided by PSP to be in the format of .cer or .crt. For the demo purpose in this document, we assume the file has the name “ca-cert.crt”.

Handling the Client Side Certificate

To deploy the client certificate on the OPI side, place the file in folder `\OraclePaymentInterface\v6.2\Services\OPI\key\`

The passwords set by the PSP must meet the minimum complexity requirements discussed below or it will not be possible to enter the details to the OPI configuration.

Note: The PSP Client Side Certificates expiration date will vary depending on what the PSP set during creation of the certificate. Check the expiration date in the properties of the certificate files. Be aware the PSP certificates must be updated prior to the expiration date to avoid downtime to the interface.



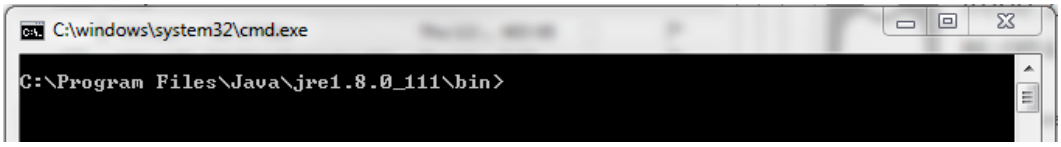
Handling the Root Certificate File

In order to load the root certificate file for the PSP server certificate into the Java key store, perform the following steps:

Creating a JKS

From a command prompt change to the JRE bin folder, in order for the ***keytool*** command to be recognized.

The exact path of your JRE bin folder will depend on the environment on which you are running the commands, and the JRE version you have installed, but may be similar to the example path shown below;



The three (3) commands below, when run in sequence;

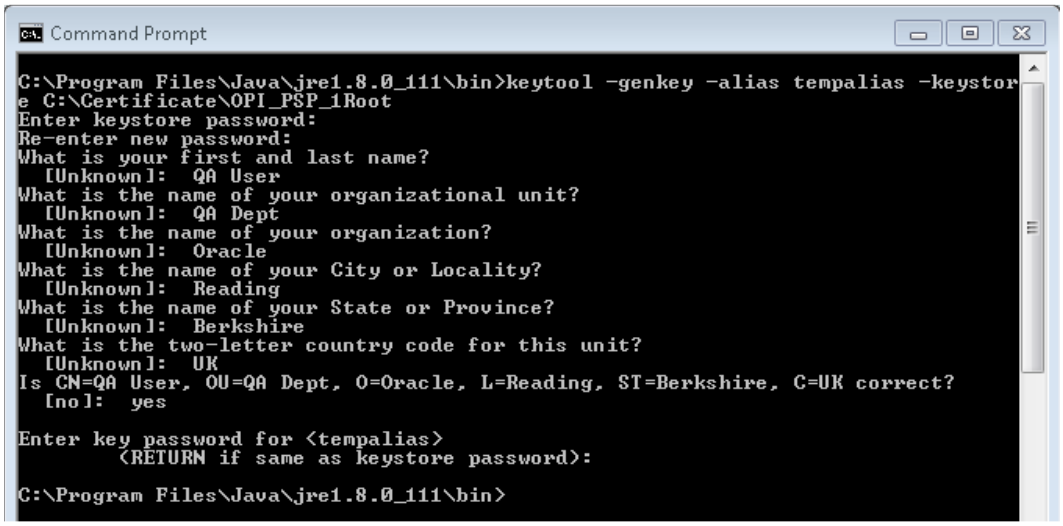
- Create a new Java keystore,
- Delete the default key created inside the Java Key Store
- Import the supplied root certificate in its place:

In the following example, the root .cer / .crt file is named ca-cert.crt, and is located in the folder `C:\Certificates`. Adjust file names and paths to be relevant to your details.

OPI expects that the Java key store file that contains the root certificate for PSP server certificate to be in the name of "OPI_PSP_1Root".

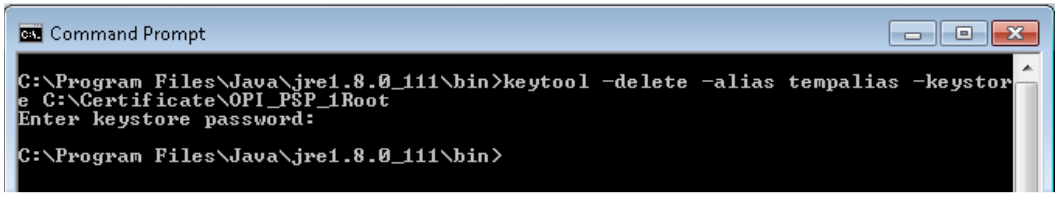
```
keytool -genkey -alias tempalias -keystore C:\Certificates\OPI_PSP_1Root
```

You must supply some basic information during the creation of the Java keystore, including a password when prompt

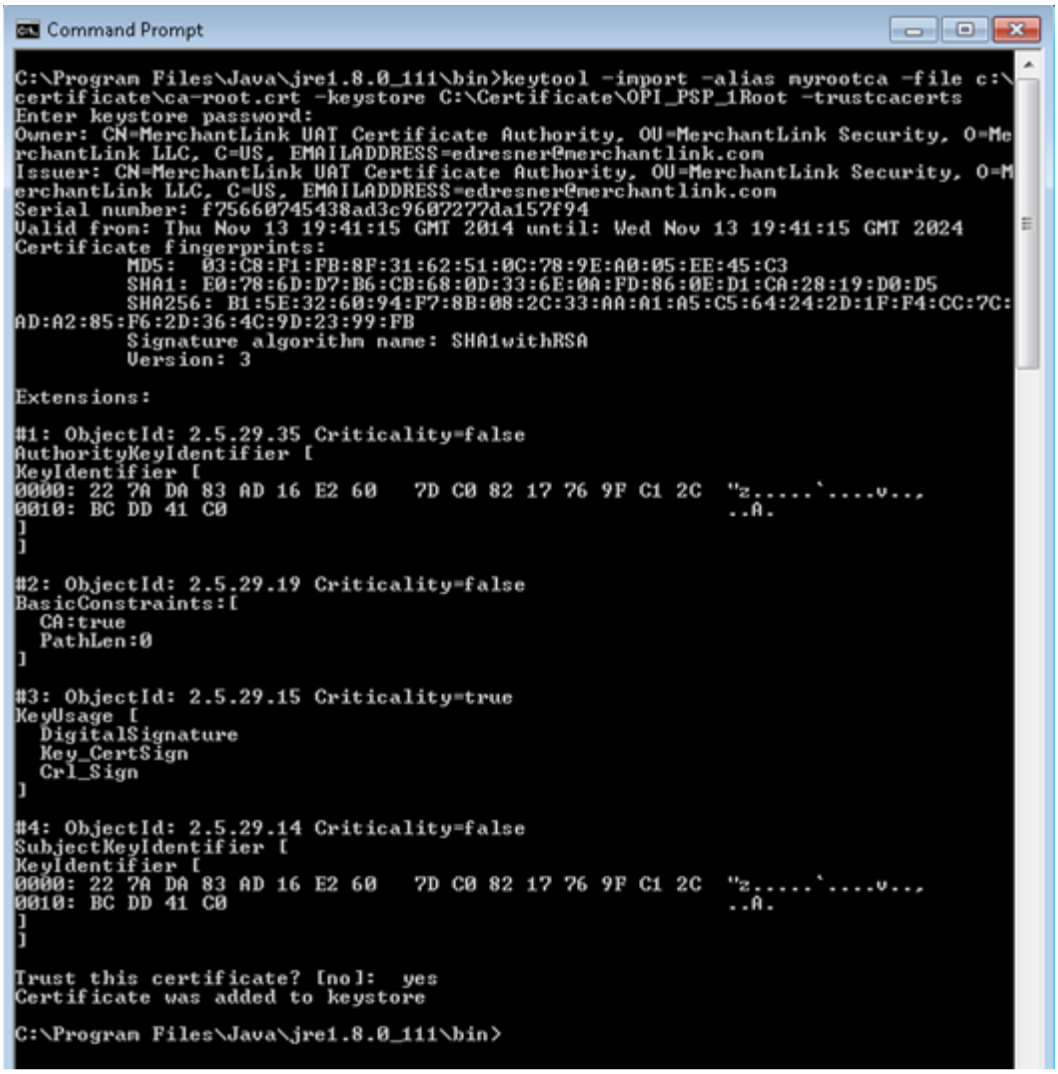


You should use the same key password as for the keystore password when prompted. (i.e. RETURN if same as keystore password – Press Enter)

```
keytool -delete -alias tempalias -keystore C:\Certificates\OPI_PSP_1Root
```

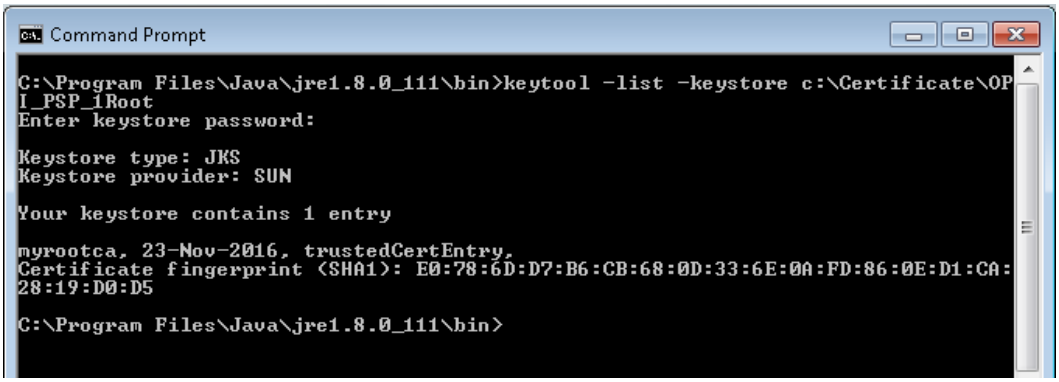



```
keytool -import -alias myrootca -file C:\Certificates\ca-cert.crt -keystore
C:\Certificates\OPI_PSP_1Root –trustcacerts
```



Verify the new Java keystore's details by running the following command if required;

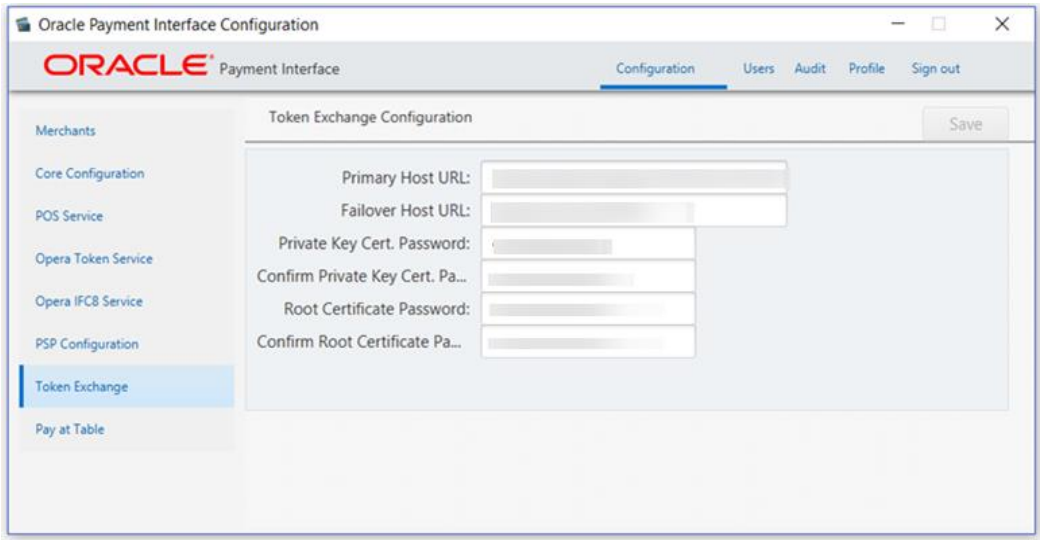
keytool –list –keystore c:\Certificates\OPI_PSP_1Root



OPI_PSP_1.pfx & OPI_PSP_1Root must be located in the following folder:
`\OraclePaymentInterface\v6.2\Services\OPI\key\`

Configuring Token Exchange

1. In OPI Configuration, go to **Token Exchange** tab and set below for SPMS uses :



   - **Host URL:** The PSP Host URL for Token Exchange
   - **Failover URL:** The PSP Failover Host URL for Token Exchange. If a failover URL is not available, leave this blank
   - **Keystore Password:** Password of the Key Store containing the PSP Root Certificate
   - **Repeat Keystore Password:** Password of the Key Store containing the PSP Root Certificate
   - **Certificate Password:** Password of the Client Side Password provided by the PSP
   - **Repeat Certificate Password:** Password of the Client Side Password provided by the PSP
2. Click **Save**.
3. Click **Sign out** to close.
4. Restart the OPI Services.

5 SPMS Configuration

In order to enable OPI handling, login to **Administration module, System Setup, Database Parameters**, and set the value to **"OPI"** under **'Not Specified' group, CC Transfer Format**.

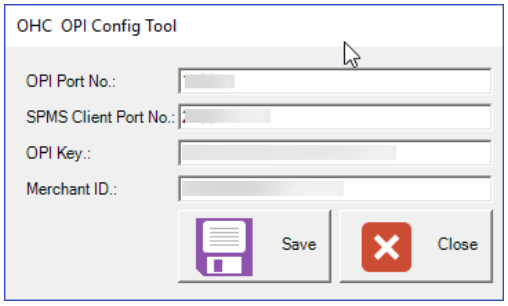
OHC OPI Web Service:

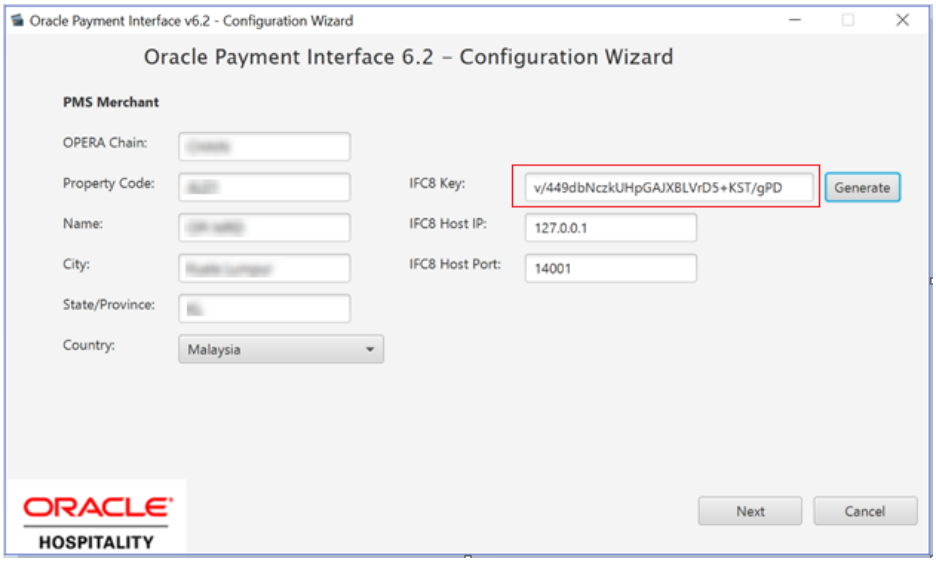
Refer to Automated WebServices Installer – Installation Guide to install OHC OPI Web Services and OHC OPI Daemon Service.

OHC OPI Daemon Service Configuration:

Run `C:\OHCOPIDaemonService\OHCOPIDaemonConfigTool.exe` and configure the fields accordingly.

Field	Description
OPI Port No	The OPI Port Number.
SPMS Client Port No	The SPMS Client Port Number.
OPI Key	The Key generated in OPI Configuration – IFC 8 Key.
Merchant ID	The Merchant ID defined in OPI Configuration.



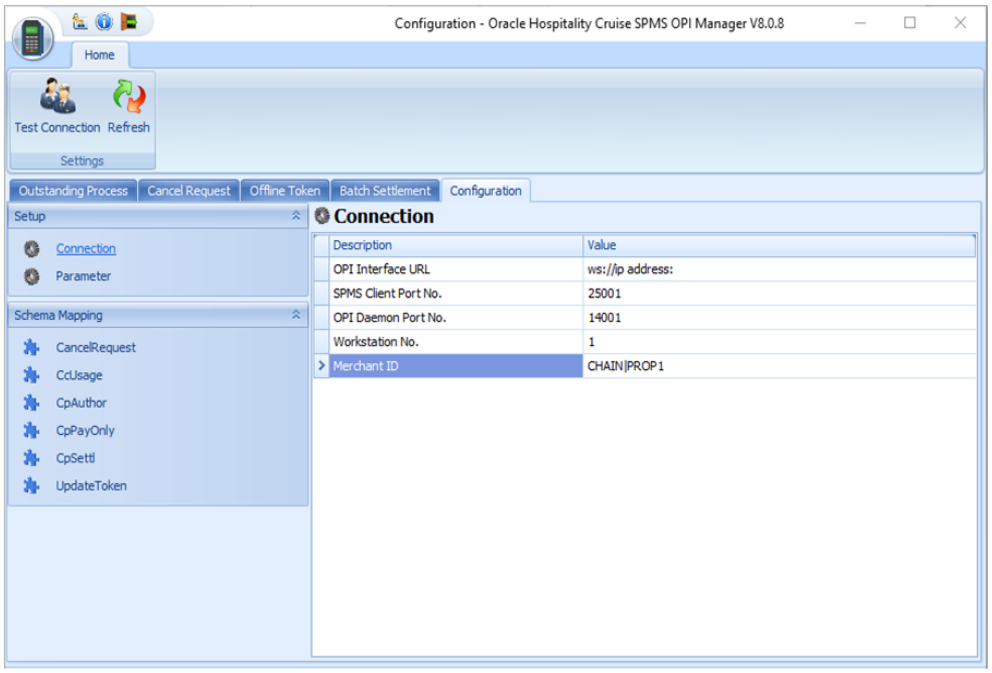


OHC OPI Manager

1. Run **OHC OPI Manager.exe** in `C:\Program Files (x86)\Oracle Hospitality Cruise`.
2. Navigate to the **Configuration** tab.
3. Click on **Connection** under Setup pane.
4. Enter the following options:

Description	Value
OPI Interface URL	This is where OHC OPI Daemon is installed (in format ws://ip address:)
SPMS Client Port No.	The same SPMS client Port Number that defined in OPI Daemon Config Tool.
OPI Daemon Port No.	The same OPI Daemon Port Number that defined in OPI Daemon Config Tool.
Workstation No.	Workstation Number of the client.
Merchant ID	Combination of OPERA Chain and Property Code values defined in OPI Configuration, for example:. CHAIN|PROP1.

5. Click the **Test Connection** to confirm the connection to OHC OPI Daemon is established.



6. Click on **Parameter** under Setup pane, select **OPI Web API Service URL** and insert the hostname or IP with port number where the OHC OPI Web Service is installed, for example: https://localhost:1569/.

6 Integration With Simphony OPI

In order to integrate SPMS with OPI using Simphony OPI Native Driver for credit card transactions, you must adhere to the settings and configurations detailed in this chapter.

Before you begin,

- Understand that this chapter is only applicable if you are integrating SPMS with Simphony OPI using OPI Native Driver
- Download the latest version Oracle Hospitality Simphony Native Driver Installation Guide from Oracle Help Centre.
- Study the requirements and setup detailed in the guide.
- Ensure all the Prerequisites mentioned in this chapter are met.

Prerequisites

Below is the minimum requirement to integrate Cruise Simphony Interface with Simphony Point-of-Sale (SimphonyPOS)

- Administrator login on SimphonyPOS
- OHCSPMSPOSInterface.DLL
- Simphony 2.9 or higher
- OPI 6.2 only
- DevExpress.*.DLL
    - DevExpress.Data.v8.2.DLL
    - DevExpress.Utils.v8.2.DLL
    - DevExpress.XtraEditors.v8.2.DLL
    - DevExpress.XtraGrid.v8.2.DLL
    - DevExpress.XtraLayout.v8.2.DLL

Compatibility

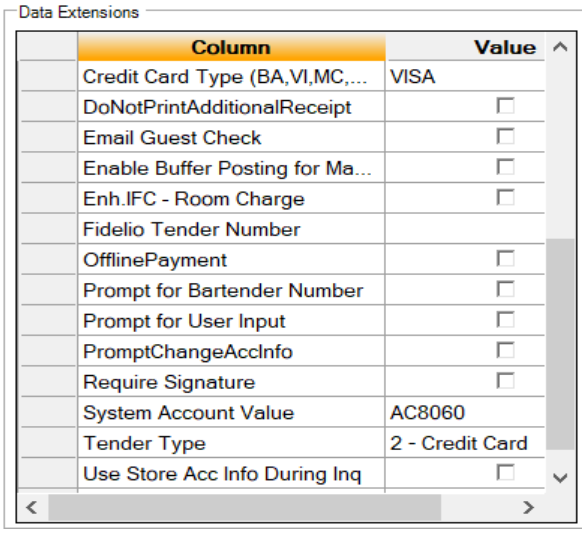
SPMS version `8.0.12` or later. For customer operating on version below `8.0.12`, database upgrade to the recommended or latest version is required.

Installing and Configuring OPI Native Driver

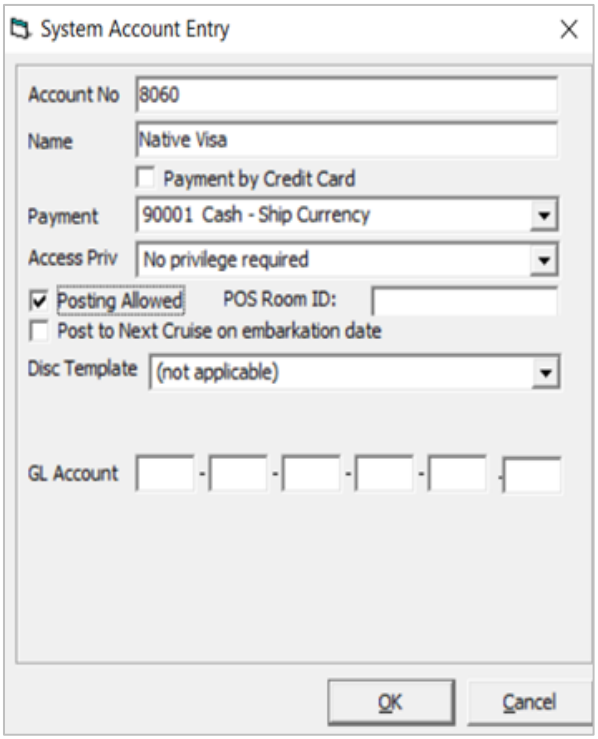
A comprehensive document on how to install and configure the OPI Native Driver is available at Oracle Help Centre. Download the latest version Oracle Hospitality Simphony Native Driver Installation Guide and follow the steps outlined in the document.

Configuring SimphonyPOS Tender Media

In order for SPMS to accept the Credit Card Tender from SimphonyPOS, you must specify the System Account value in the **Tender Media, Data Extension, System Account Value** parameter.



At the **OHC Management** module, input the same account number in the **System Accoun**t to matches the above.

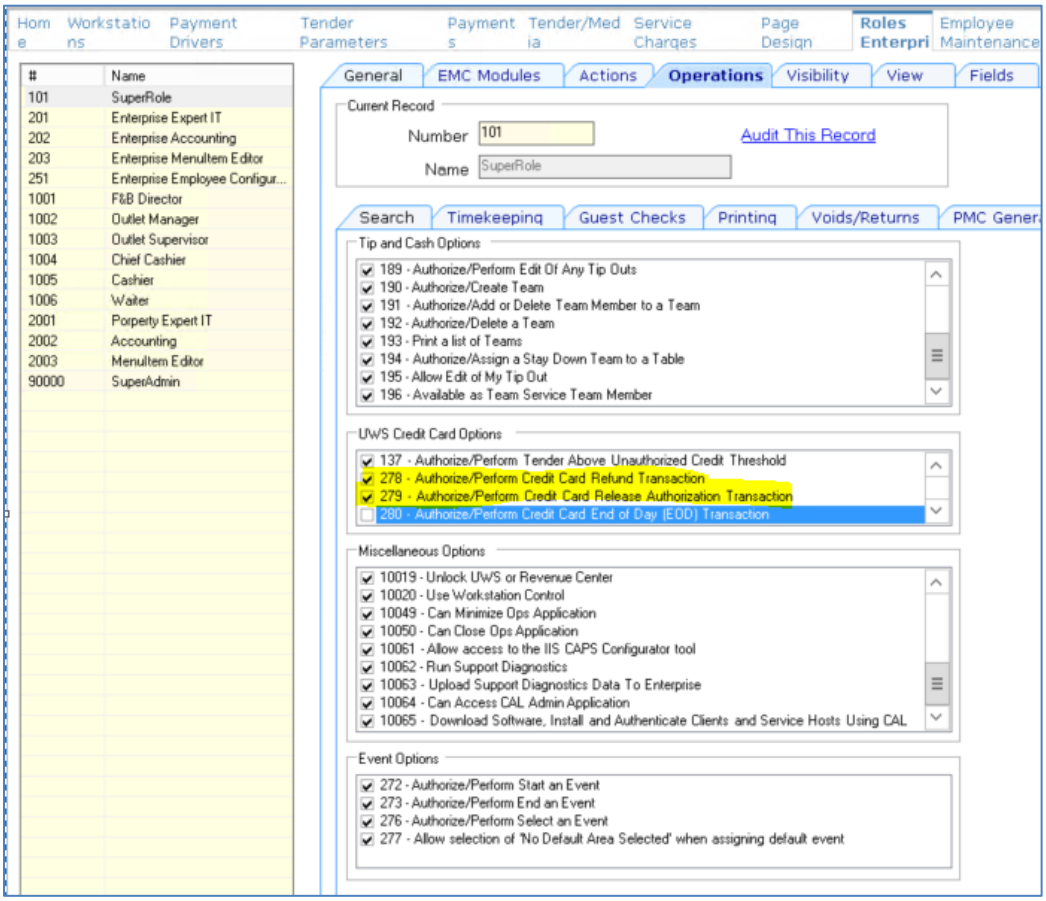


Function supported

Below is the function used to post the Credit Card transaction at the Simphony POS workstation into SPMS You must configure these two functions at the **Page Design** for user to perform a Sale and Settlement transaction.

1. **CreditAuthAndPay** - This function obtains an authorization and finalize the transaction at the same time, which is also known as a Sale transaction. This function is intended for counter service agent's use, where the guest is present at the workstation and completes the payment using the PIN Entry Device (PED).
2. **CCard Finalize Function** - This key finalizes the credit card transaction through the SimphonyPOS. This function key posts the previously authorized credit card to the check as a payment typically closing the check, unless an amount is less than the check total was entered first.

You may need to set some of the options in order for the operator to have the access right to perform void of the transaction. Refer below screen shot on the roles to enable to perform void transaction.



Configuring Operation Client

In order to run the OHCPOSInterface.dll in POS Operation client, these are the configuration steps.

1. Navigate to the following path at the WS client.
   `:\Micros\Simphony\WebServer\ServiceHost.exe.config`
2. Open the file in notepad
3. Add the below configuration into the runtime configuration
   <NetFx40_LegacySecurityPolicy enabled="true"/>

```
<runtime>
        <assemblyBinding xmlns="urn:schemas-microsoft-com:asm.v1">
            <probing privatePath="wwwroot\EGateway\Handlers"/>
        </assemblyBinding>
        <legacyCorruptedStateExceptionsPolicy enabled="true" />
        <NetFx40_LegacySecurityPolicy enabled="true"/>
      <AppContextSwitchOverrides
value="Switch.System.IO.UseLegacyPathHandling=true" />  <!--Added for .Net
Framework 4.6.2-->
    </runtime>
```

4. Uncomment the following settings in configuration file.

```
<!-- 45Migration (uncomment for 4.5 runtime) -->
<startup useLegacyV2RuntimeActivationPolicy="true">
    <supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.6.2"/>
    <supportedRuntime version="v2.0.50727"/>
</startup>
```