Oracle® Payment Interface Oracle Hospitality Cruise Shipboard Property Management System Installation Guide





Oracle Payment InterfaceOracle Hospitality Cruise Shipboard Property Management System Installation Guide Release 19.1

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Preface

Purpose

This guide explains the setup required to configure and use 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
- Screen shots of each step you take

Documentation

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

Table 1-1 Revision History

Date	Description
April 2020	Initial Publication

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
 19.1 does not install a database. If you are 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 19.1 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 before installing OPI.
- 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 the 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 19.1 Installer and Patch set

The OPI 19.1 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 OraclePaymentInterfaceInstaller_19.1.0.0.exe and InterimPatch_19.1.0.2.exefrom My Oracle Support.

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

- Chain Code and Property Code.
- IP address of the OPI Server.

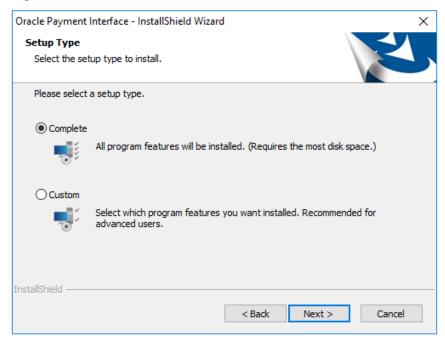
Ensure you have the SQL root/Oracle user password for OPI database.



Installing OPI 19.1

- 1. Copy the downloaded OraclePaymentInterfaceInstaller_19.1.0.0, to c:\temp folder.
- 2. Double-click to launch the InstallShield.
- 3. Select your language preference, and then click **OK**.
- Click Next on the Welcome to the InstallShield Wizard for Oracle Payment Interface window.
- 5. Click Next on the OPI Prerequisites window.

Figure 2-1 - OPI InstallShield Wizard

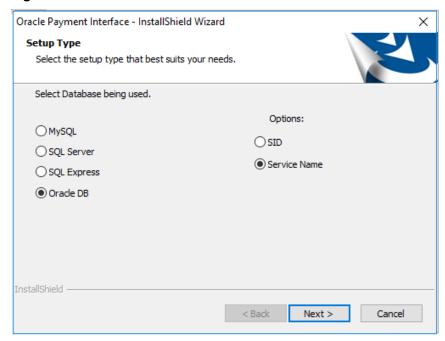


- **6.** At the Setup Type window, select the **Complete** option to install all program features, and then click **Next**.
- At the Choose a Destination Location window, accept the default installation location, and then click Next.
- 8. Click **Install** on the Ready to Install the Program window.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



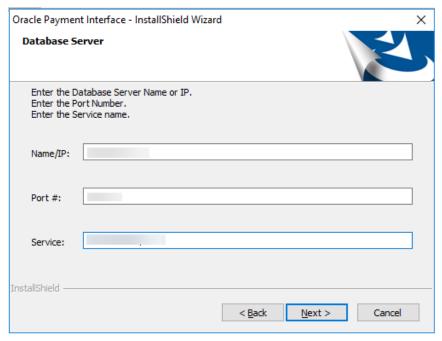
OPI does not install any database, so the database must already be installed.

Figure 2-2 - OPI InstallShield Database Selection



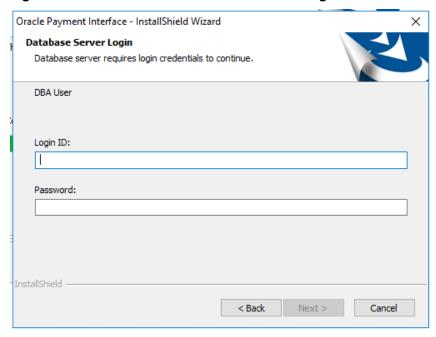
10. Select Oracle DB and Service Name option, and then click Next.

Figure 2-3 - OPI InstallShield Database Server



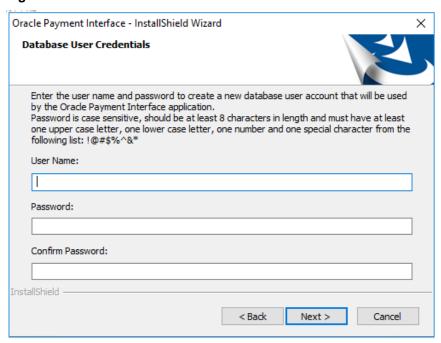
11. At the Server Login window, enter the DBA User credentials and then click Next.

Figure 2-4 - OPI InstallShield Database Server Login



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

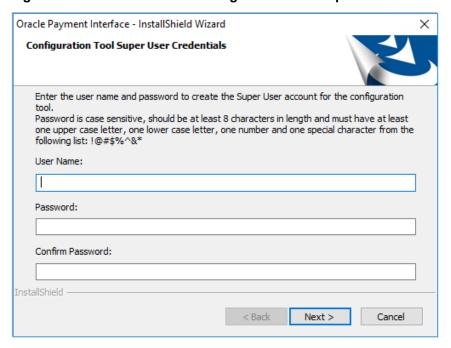
Figure 2-5 - OPI InstallShield Database User Credentials



13. Click **OK** on the Database connection successful dialog.

- 14. Click **OK** on the Database Configuration operation successful dialog.
- 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

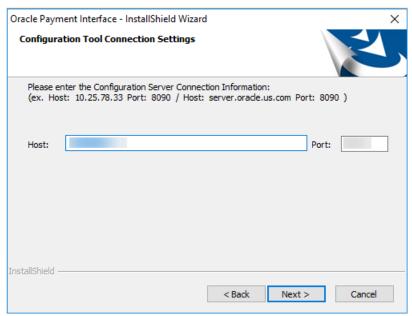
Figure 2-6 - OPI InstallShield Configuration Tool Super User Credentials



- 16. Click **OK** on the 'Create SuperUser operation successful' dialog.
- At the Configuration Tool Connection Settings window, enter the Host IP and click Next.
- Host: You 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.

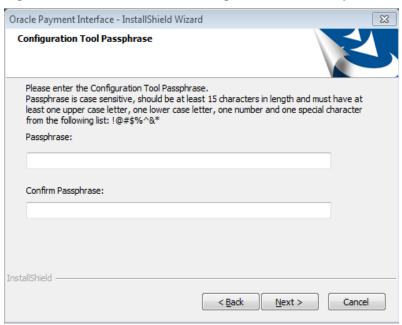


Figure 2-7 - OPI InstallShield Configuration Tool Connectin Settings



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

Figure 2-8 - OPI InstallShield Configuration Tool Passphrase



19. Restart the machine to complete the OPI installation.

Applying OPI Patchset

- 1. Right-click the OraclePaymentInterfaceInstaller_InterimPatch_19.1.0.2.
- 2. Select **Run as Administrator** to begin installing OPI 19.1 patch.
- 3. Click **Next** to continue.
- 4. Click **OK** on the Patch Update operation successful dialog box.

NOTE:

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.

Configuring OPI

This section describes the configuration requirement in OPI System which integrates with SPMS.

- 1. Double-click on C:\OraclePaymentInterface\V19.1\Config\LaunchConfiguration.bat
- 2. Login with the Super user account you created during OPI installation.

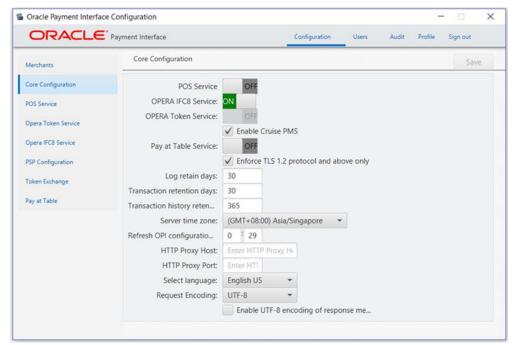


Figure 3-1 - OPI Interface Main Page



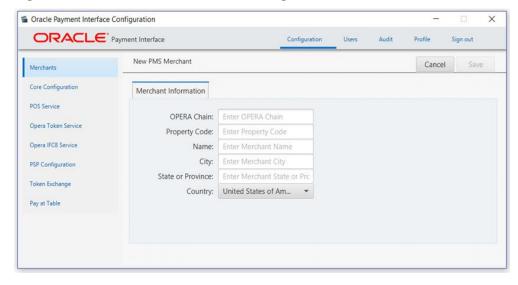
Go to Core Configuration, check option Enable Cruise PMS and then click Save.

Figure 3-2 - OPI Interface Core Configuration



- 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.

Figure 3-3 - OPI Interface Merchants Configuration



- 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. Enter below settings:
 - IFC8 Key: This key will be inserted into OHC OPI Daemon for validation between OPI with SPMS.
 - b. IFC8 Host: OHC OPI Daemon machines Hostname or IP Address.
 - c. IFC8 Port: OHC OPI Daemon port number.
- 9. Click Save.
- 10. 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.
- 11. Click Save.
- 12. Click Sign out to logout the configuration screen.

Token Exchange Handling

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

The Payment Service provider will need to provide 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.



To achieve this, the 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 the 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 the 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 "cacert.crt"

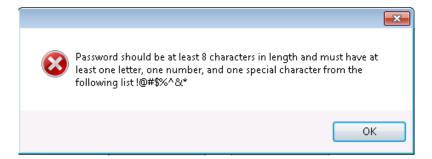
Handling the Client-Side Certificate

To deploy the client certificate on the OPI side, place the file in folder \OraclePaymentInterface\v19.1\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.



The PSP Client-Side Certificates expiration date will vary depending on what the PSP set during the 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

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 for the keytool command to be recognized.

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



Figure 3-4 - Sample JRE File path



The three (3) commands below when runs 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 the 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.

For example, (RETURN if same as keystore password - Press Enter)

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

```
C:\Program Files\Java\jre1.8.0_111\bin>keytool -delete -alias tempalias -keystore C:\Certificate\OPI_PSP_1Root
Enter keystore password:

C:\Program Files\Java\jre1.8.0_111\bin>

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

```
C:\Program Files\Java\jre1.8.0_111\bin\keytool -list -keystore c:\Certificate\OP - I_PSP_1Root
Enter keystore password:

Keystore type: JKS
Keystore provider: SUN

Your keystore contains 1 entry

myrootca, 23-Nov-2016, trustedCertEntry,
Certificate fingerprint (SHA1): E0:78:6D:D7:B6:CB:68:0D:33:6E:0A:FD:86:0E:D1:CA:
28:19:D0:D5

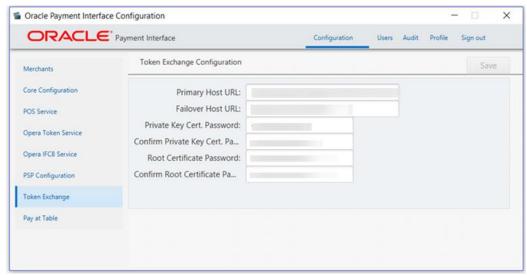
C:\Program Files\Java\jre1.8.0_111\bin>
```

OPI_PSP_1.pfx & OPI_PSP_1Root must be located in the following folder: \OraclePaymentInterface\v19.1\Services\OPI\key\

Configuring Token Exchange

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

Figure 3-5 - OPI Configuration Token Exchange



- 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.



4

SPMS Configuration

To enable OPI Handling, login to **Administration module**, **System Setup**, **Database Parameters**, and set the Parameter 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

To configure the Daemon Services, run

C:\OHCOPIDaemonService\OHCOPIDaemonConfigTool.exe and insert the fields accordingly.

Table 4-1 - OPI Daemon Service Configuration Field

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.

Figure 4-1 - OPI Daemon Log In Window

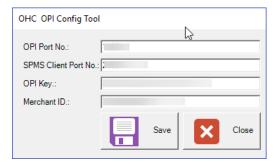
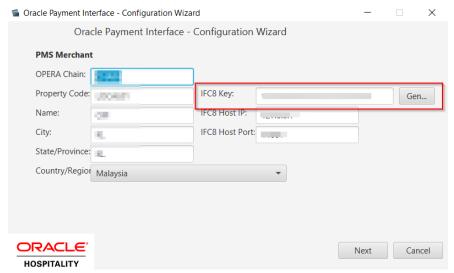


Figure 4-2 - OPI Daemon Service Configuration



OHC OPI Manager

- Run OHC OPI Manager.exe from 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:

Table 4-2 - OPI Manager Connection Settings

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.

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

Configuration - Oracle Hospitality Cruise SPMS OPI Manager V8.0.8 \times ~ **(}**) Settings Outstanding Process | Cancel Request | Offline Token | Batch Settlement | Configuration Connection Connection Description Value OPI Interface URL ws://ip address: Parameter SPMS Client Port No. 25001 Schema Mapping OPI Daemon Port No. 14001 Workstation No. * CancelRequest CHAIN|PROP1 🏇 CcUsage * CpAuthor * CpPayOnly * CpSettl # UpdateToken

Figure 4-3 - OPI Daemon Connection Settings

 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/. 5

Integration with Simphony OPI

In order to integrate SPMS with OPI using the 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 Center.
- 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 the Cruise Simphony Interface with Simphony Point-of-Sale (SimphonyPOS)

- Administrator login of SimphonyPOS
- OHCSPMSPOSInterface.DLL
- Simphony 2.9 or higher
- OPI 6.2 or 19.1
- 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 customers operating on a version below 8.0.12, upgrading to the recommended or latest version is required.

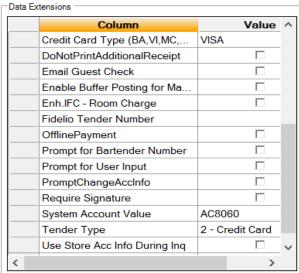
Installing and Configuring OPI Native Driver

A comprehensive document on how to install and configure the OPI Native Driver is available at the Oracle Help Center. Download the latest version of the 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**, **and System Account Value** parameter.

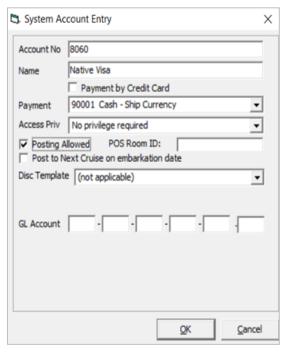
Figure 5-1 - Data Extension Parameter



In the **OHC Management** module, input the same account number in the **System Account** to matches the above number.



Figure 5-2 -SPMS System Account Entry



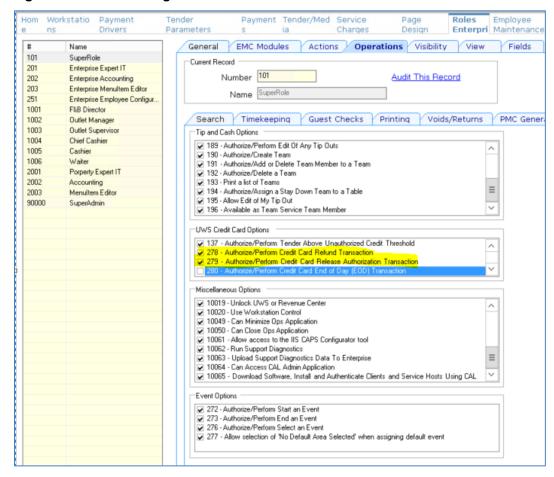
Functions Supported By Simphony

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

- CreditAuthAndPay
- CCard Finalize Function

It is important to set the options so that the operator has the right to void a transaction. Refer below screenshot on the roles to enable them.





Configuring Operation Client

To run the OHCPOSInterface.dll in the POS Operation client, configure, according to the below steps.

- 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

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>
```

