Oracle® Payment Interface

Oracle Hospitality e7 4.3 Native Driver Installation Guide
Release 6.2
E92109-02

March 2019

ORACLE

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Preface

This document will cover the steps to install Oracle Payment Interface (OPI) using the e7 native credit card driver.

Audience

This document is intended for installers of OPI using e7 4.2.1 and higher.

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
- Screenshots 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/

Revision History

Date	Description of Change
December 2017	• Initial publication
March 2019	• Documentation updates

1 Pre-Installation

Important Information

IF UPGRADING OPI, YOU MUST READ THE UPGRADING THE OPI SECTION FIRST.

- Only e7 4.2.1 or later supports OPI.
- Only OPI 6.1.1 or later is supported with e7.
- There is no Oracle Gateway Device Handler (OGDH) solution for e7.
- There is no Pay@Table solution for e7.
- OPI 6.2 does not install a database for you.
- If upgrading from 6.1.1 the same MySQL DB will be used.
- You cannot upgrade from MGDH 6.1.1.X to Native Driver 6.2 (must upgrade then switch to Native configuration).
- You cannot run upgrade from 6.1.1.X to 6.2 as unattended/silent (due to 6.1.1.X installation program differences between 6.2).
- If a clean install, the DB for OPI must be installed prior to installing OPI.
- Be sure you also have the **OPI Installation and Reference Guide** that covers many changes in OPI 6.2, including configuration utilities that are common to all POS types.
- Batch and settle all credit transactions prior to installing or upgrading OPI.

2 OPI Native Driver

Installation Prerequisites

OPI requires:

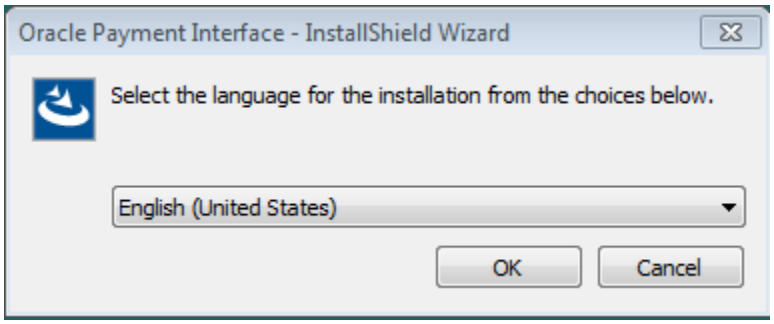
- Microsoft .NET Framework version 4.0 or later.
- Microsoft Visual C++ 2010.
- At least 6 GB of free disk space.
- OPI must be installed on a Win32 PC.

Before you start, make sure to know:

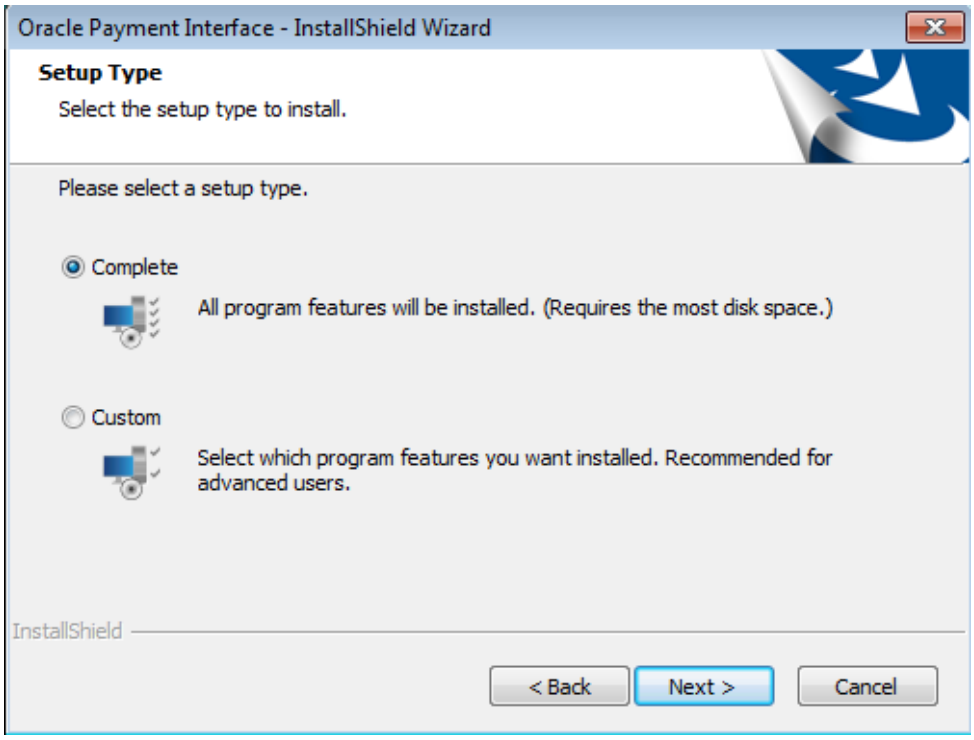
- Login credentials for an administrator account on the Microsoft Windows operating system.
- Login credentials to the e7 database to configure.
- A passphrase to use during the OPI install. You will also enter this passphrase in during e7 configuration.
- Which OPI Mode and settings the Payment Service Provider (PSP) wants used.
- Install a database for OPI to use. MySQL 5.6.35 was used in OPI 6.1.1.
- Be sure to remember the root/DBA user name and password as they will be needed in the OPI installation.

Installing the OPI

1. Exit e7 on the PC and workstations.
2. Copy `Oracle Payment Interface-6.2.exe` to the Win32 PC and double click it to launch the install.



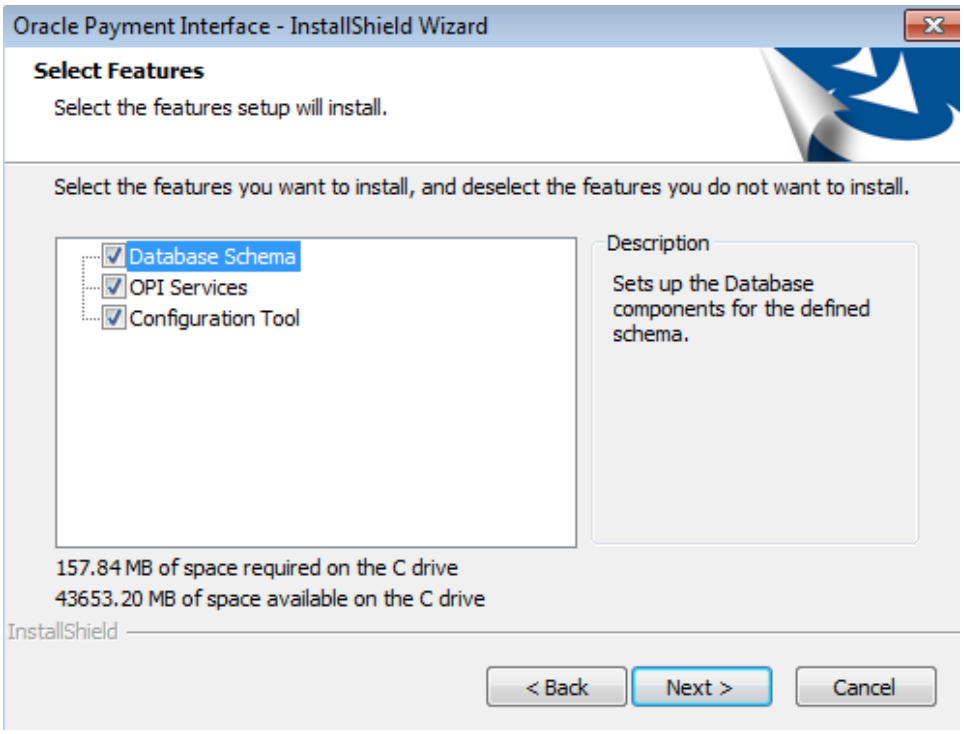
3. Select your language, and then click **OK**.
4. Click **Next** on the *Welcome to the InstallShield Wizard for Oracle Payment Interface* screen.
5. Click **Next** on the *OPI Prerequisites* screen appears.



The **Setup Type** screen appears.

- Complete: All program features will be installed.
- Custom: Select which program features you want installed. Recommended for advanced users only.

6. Make a selection, and then click **Next**.



If you selected the Custom install option, the *Select Features* screen appears with the following options:

a. Database Schema
b. OPI Services
c. Configuration Tool

All three of these features must be installed. It is just a matter of whether they are all installed on the same computer or on separate computers.

7. Select the features to install on this computer, and then click **Next**.

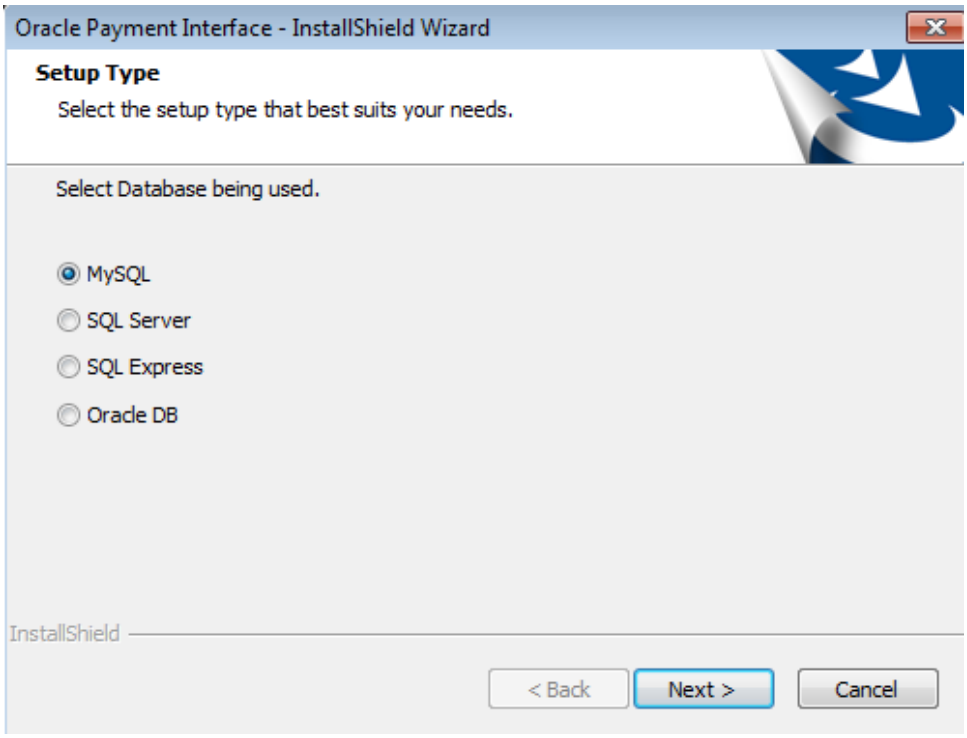
   The *Choose Destination Location* screen appears.

8. Accept the default installation location or click **Change…** to choose a different location, and then click **Next**.

9. Click **Install** on the *Ready to Install the Program* screen.

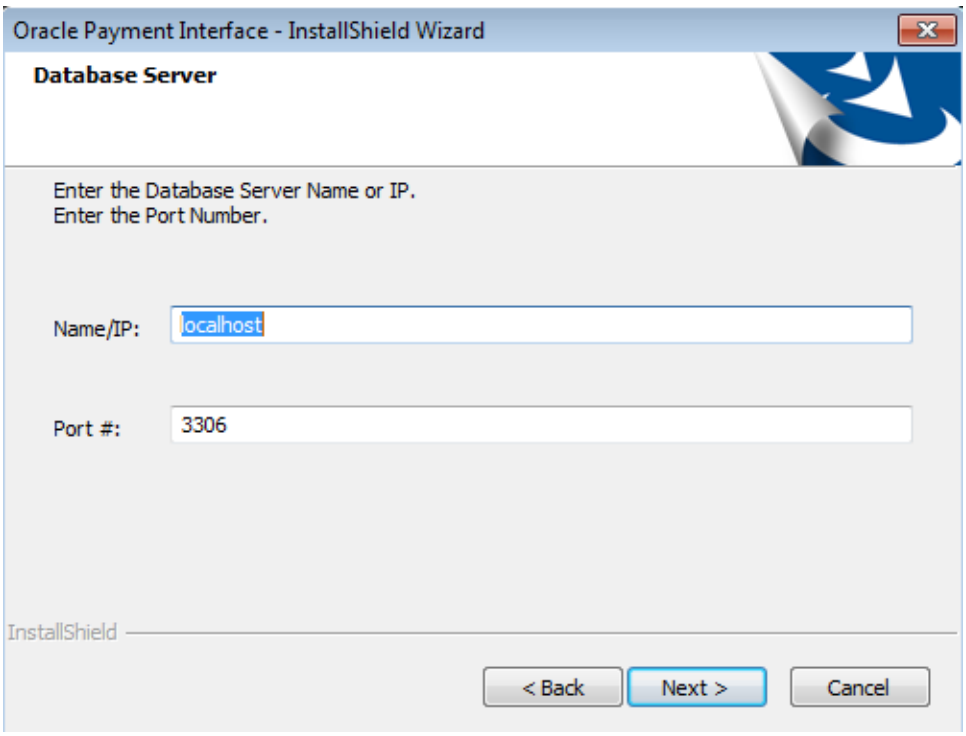
   The *Setup Status* screen displays for a few minutes.

10. The *Setup Type* screen appears.



11. Select the database type being used, and then click **Next**.

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



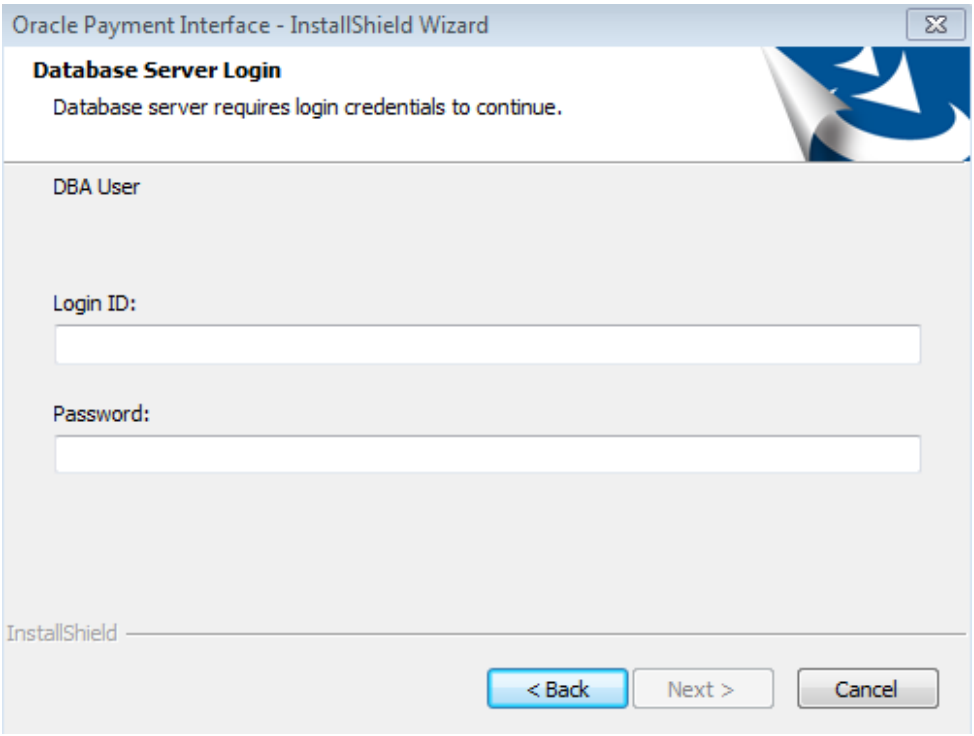
    The *Database Server* screen appears.

The **Name/IP:** field defaults to `localhost`. This should be left as localhost if the OPI database is installed on the same computer. If the database is installed on another computer, the Name or IP address of that machine should be entered here.

Note: If the database type is MySQL, and you cannot use `localhost` for the Name/IP field, then some commands must be run manually on that MySQL database before proceeding. See **MySQL command link** in the **OPI Basic Install** doc for instructions. Setup will not complete if this is not done.

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

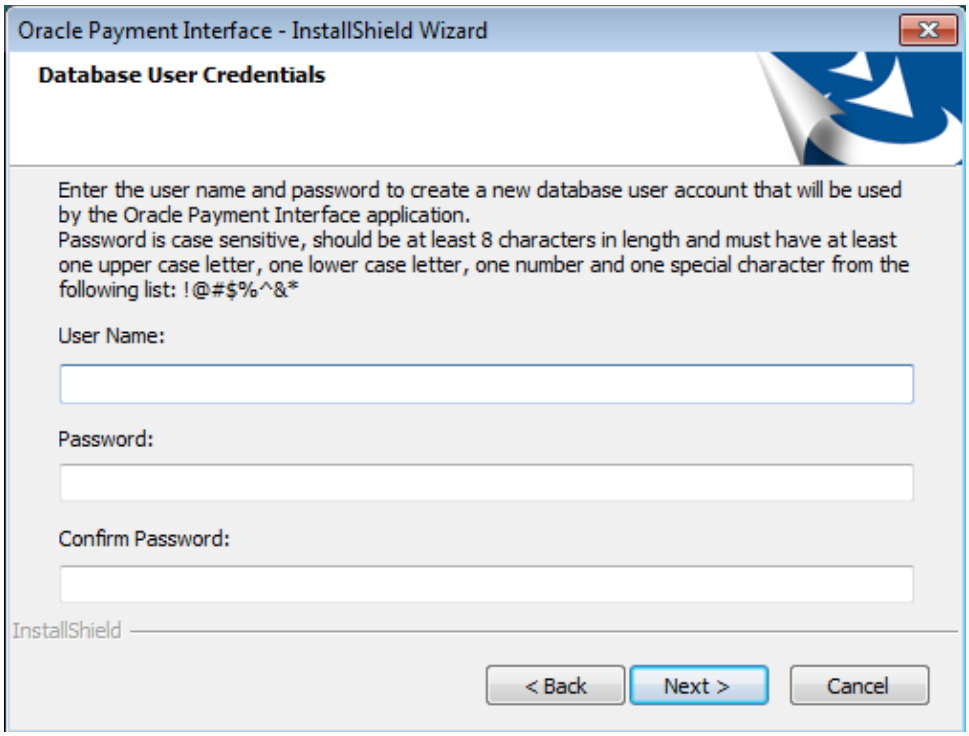
    The *Database Server Login* screen appears.



13. Enter the credentials for the DBA user of the database type selected, 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.

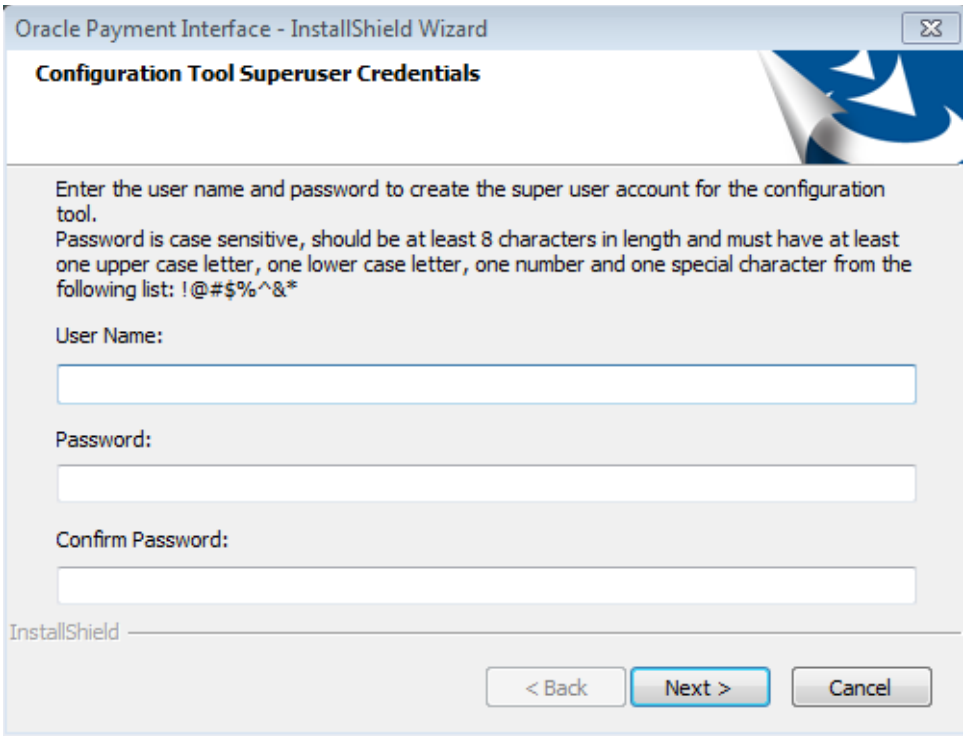
    The *Database User Credentials* screen appears.



- **User Name**: Create a new user.
- **Password**: Create a password.
  - Password is case sensitive
  - Should be at least 8 characters in length
  - Must have at least one upper case letter, one lower case letter, one number and one special character from the following list: !@#$%^&*

14. Confirm the password, and then click **Next**.
15. Click **OK** on the *Database connection successful* dialog.
16. Click **OK** on the *Database Configuration operation successful* dialog.

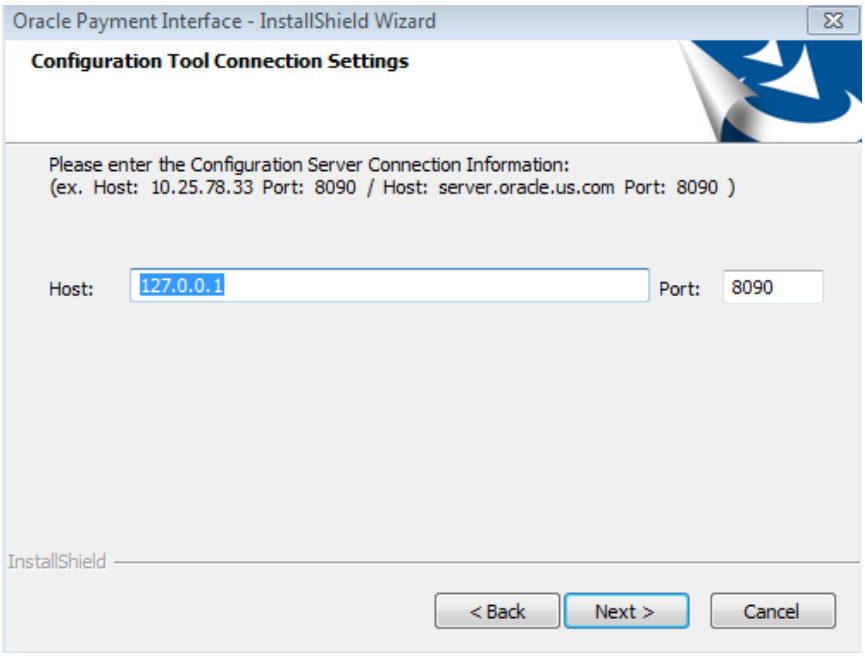
    The *Configuration Tool Superuser Credentials* screen appears.



- **User Name**: This can be any user name. It does not have to be a Windows account user.
- **Password**: Create a password.
    - Password is case sensitive
    - Should be at least 8 characters in length
    - Must have at least one upper case letter, one lower case letter, one number and one special character from the following list: !@#$%^&*

17. Confirm the password, and then click **Next**.
18. Click **OK** on the *Create SuperUser operation successful* dialog.

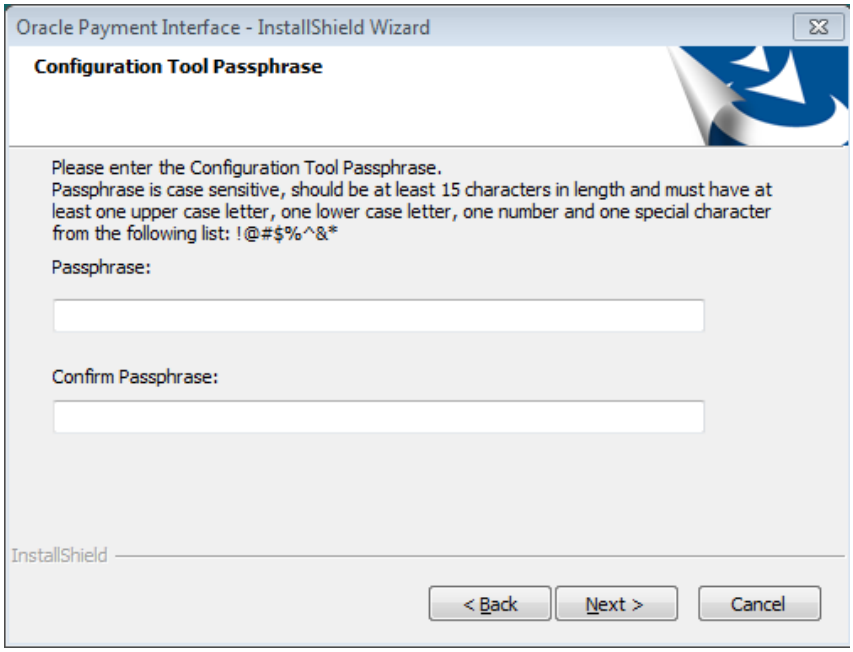
The *Configuration Tool Connection Settings* screen appears.



- **Host**: May be left at 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** of 8090**.**

19. Click **Next**.

The *Configuration Tool Passphrase* screen appears.

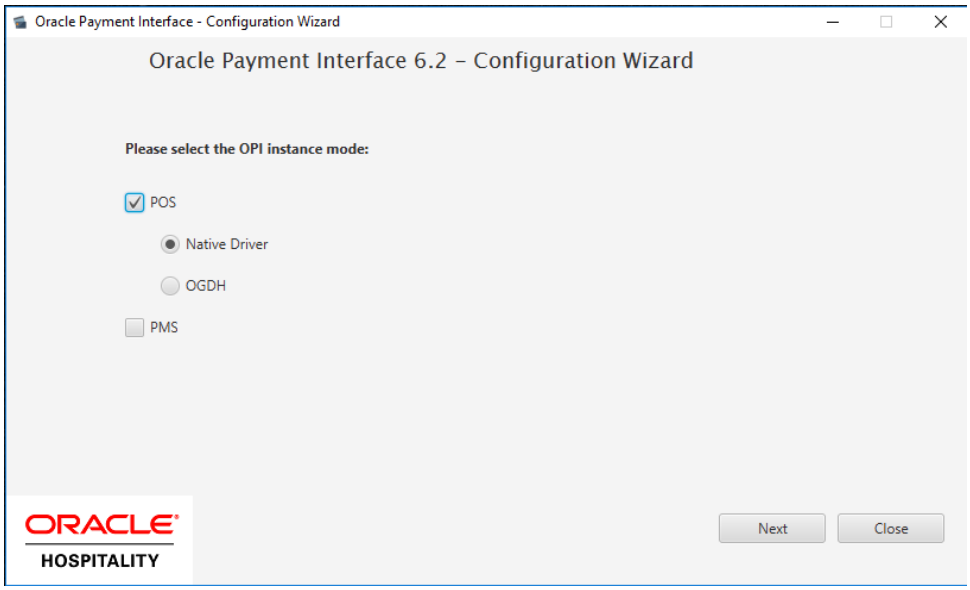


- **Passphrase**: The passphrase is case sensitive, should be at least 15 characters in length and must have at least one upper case letter, one

lower case letter, one number and one special character from the following list: !@#$%^&*

20. Enter a passphrase, confirm it, and then click **Next.**

After a brief pause, the *Configuration Wizard* launches.

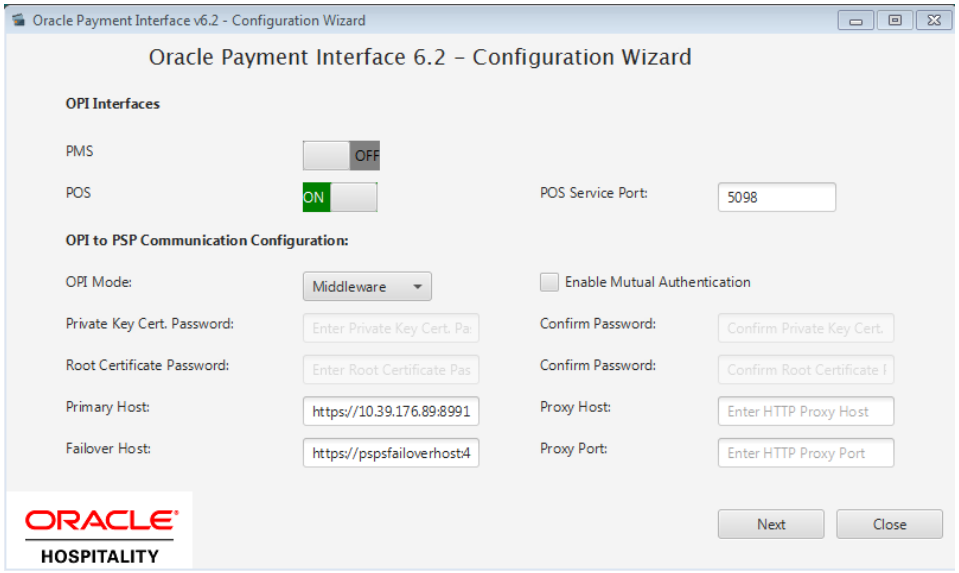


21. Select **POS**, Select **Native Driver**, and then click **Next**.

The *POS Native Driver Configuration* screen appears.

22. Enter and confirm the passphrase, and then click **Next**.

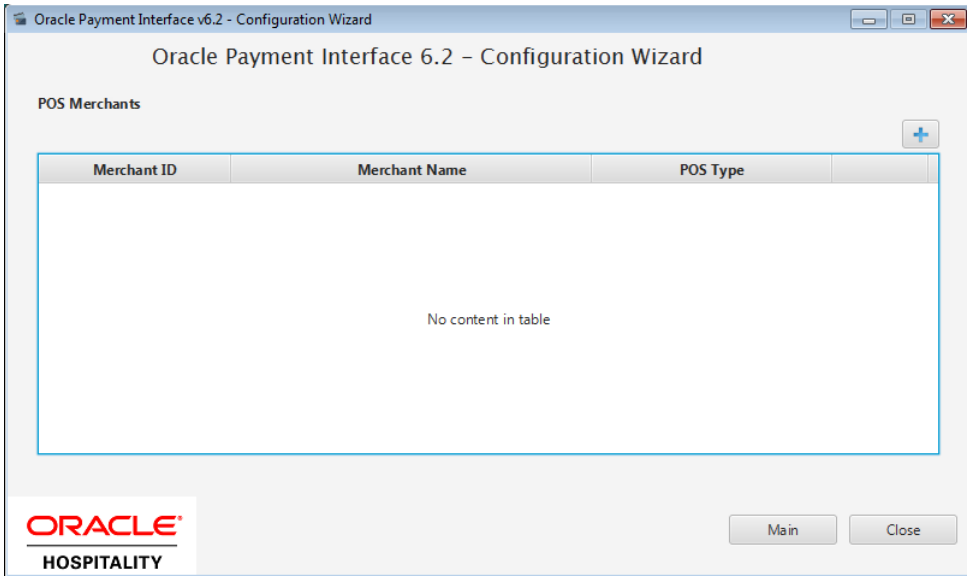
    Passphrase must be at least 15 characters in length and include at least one uppercase letter, one lower case letter, one number and one special character from the following list: !@#$%^&*



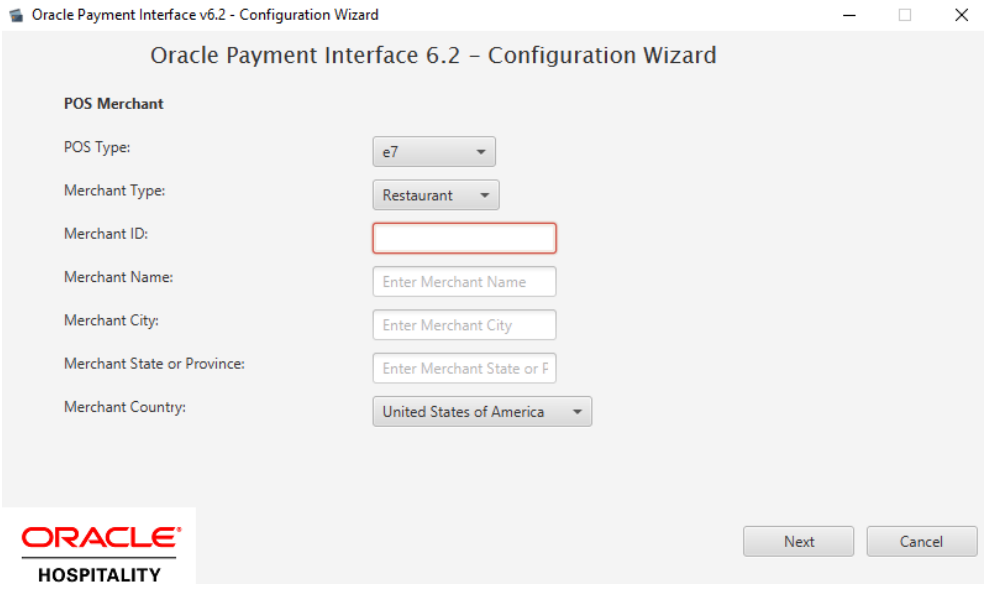
The *OPI Interfaces* screen appears.

- **OPI Mode**: Select either Middleware or Terminal.
- **Middleware**: Fill in primary host connection information and the failover Host information (if required).
- **Terminal**: Select correct Port.
- If using Mutual Authentication, see the *Mutual Authentication* section in the *OPI Basic Install* doc.

23. Click **Next**.



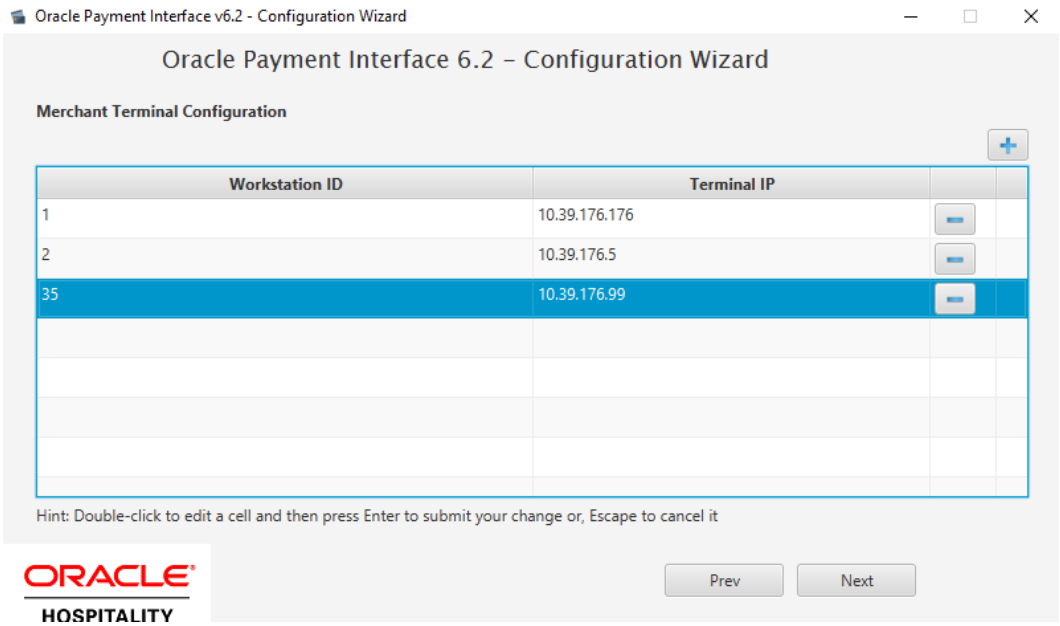
24. Click the blue + icon in top right corner to create new merchant record.



25. Select **e7** from the **POS Type** list box.

26. Complete the fields with the correct settings for your installation, and then click **Next**.

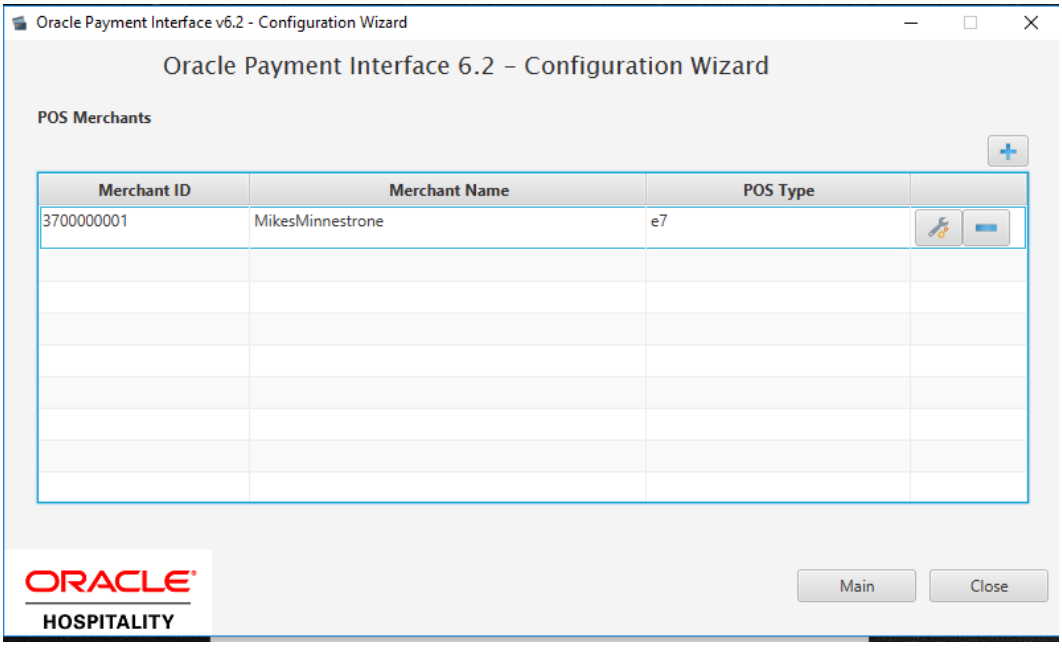
    If using Terminal mode, the *Merchant Terminal Configuration* screen appears. If using Middleware mode, this screen does not appear.



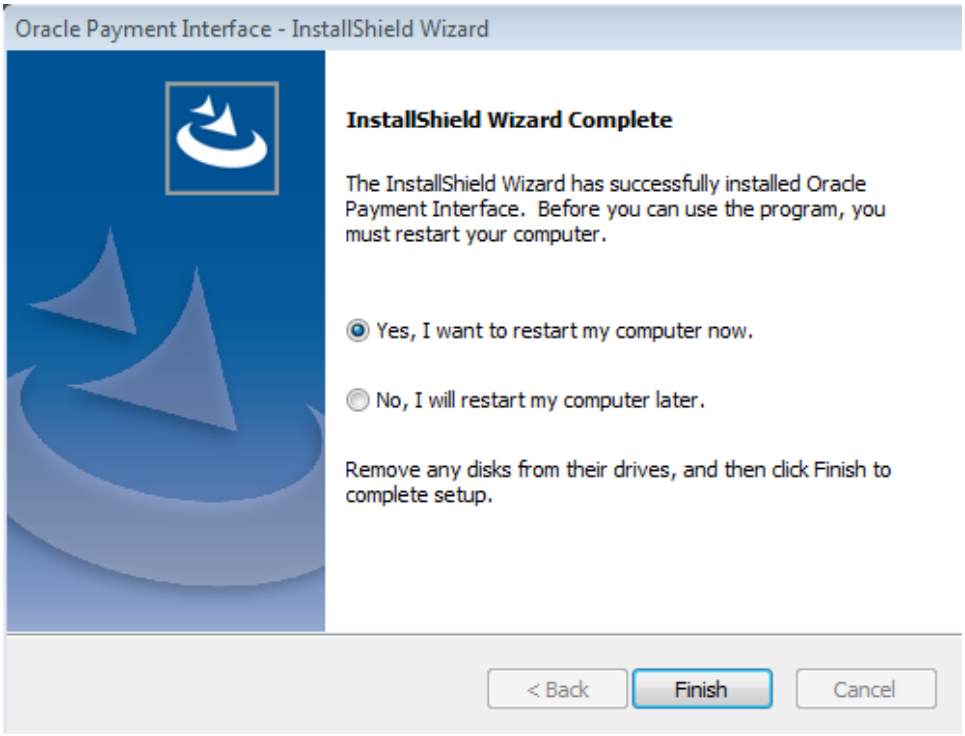
- **Workstation ID**: Enter the workstation number from the POS system.
- **Terminal IP**: Enter the IP address of the pinpad device.

27. Click **Next**.

The **POS Merchants** screen appears.



28. Click the wrench icon to edit an existing merchant record.
29. Click **Main** to go back and review settings.
30. Click **Close** to advance to final screen.



31. Click **Finish** to reboot.

    If a reboot cannot be done at the moment, you must stop and then start the OPI Service for current settings to take effect.

Upgrading the OPI

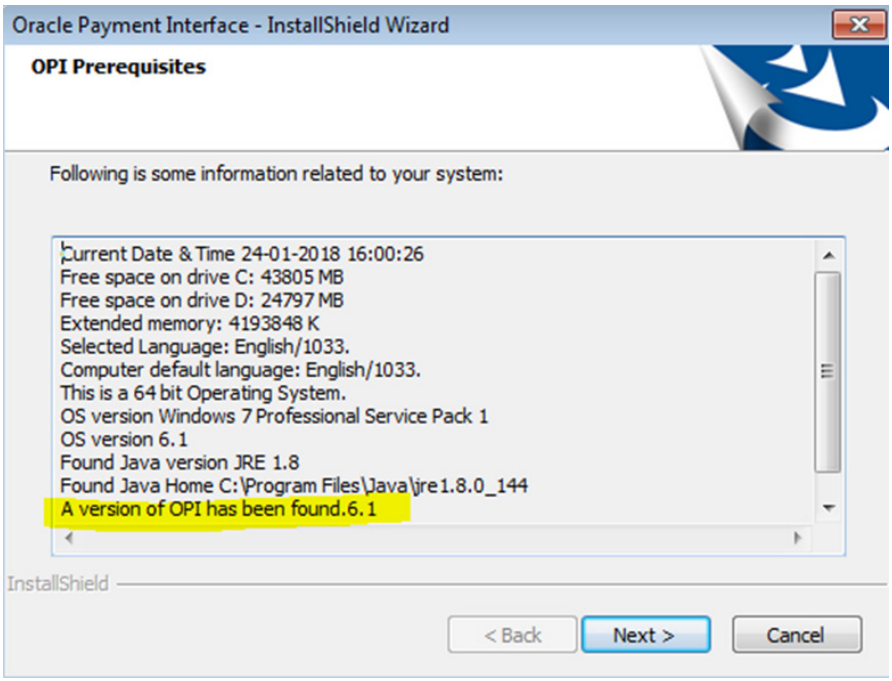
VERY IMPORTANT: Read and follow the upgrade directions.

Note: OPI 6.1 and higher can be upgraded to OPI 6.2.

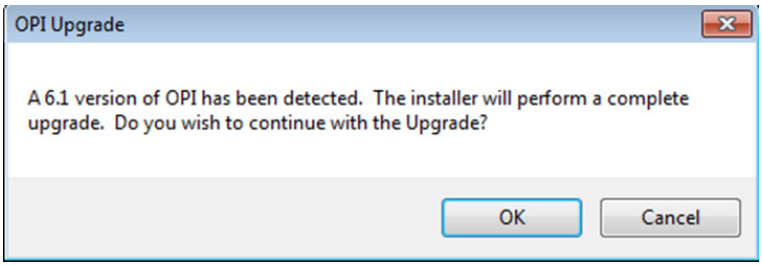
OPI Upgrade Steps

1. Right-click and Run as Administrator the OraclePaymentInterfaceInstaller_6.2.0.0.exe file to perform an upgrade.
2. Select a language from the drop-down list, and then click **OK**.
3. Click **Next** on the *Welcome* screen to proceed with the installation.

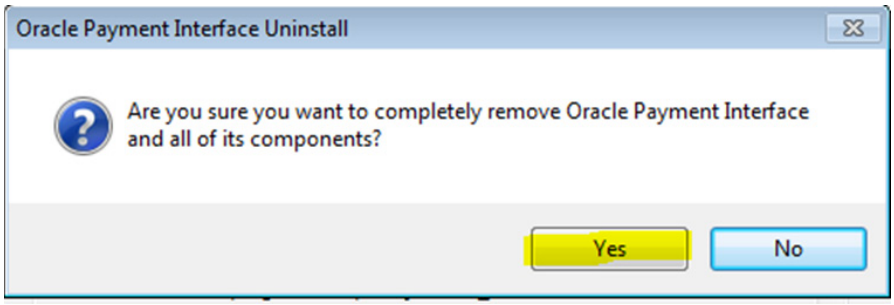
   Prerequisites for the installation will be checked, including the required free drive space, details of the host environment, and the Java version that is present.



4. Click **Next** on the *OPI Prerequisites* screen.



5. Click **OK** on the *OPI Upgrade* screen.



6. **WARNING!** You must click **Yes**.

   IF YOU CLICK NO, YOU WILL HAVE BOTH OPI 6.1 AND OPI 6.2 INSTALLED AND NEITHER WILL WORK.

   Explanation: OPI will migrate the existing MySQL configuration information, but all previous OPI applications will be removed before the new files are installed.

7. Choose a Destination Location. Accept the default installation location or click **Change…** to choose a different location.
8. Click **Next**.

   The R*eady to Install the Program* screen displays.
9. Click **Install**.

   The *Setup Status* screen displays for a few minutes.

   Setup Type

   For database type, select **MySQL**. No other database type is supported for upgrades.

   Database Server

   Name/IP – The Hostname or IP Address used for communication to the MySQL database. This must be left at the default of localhost.

   Port # – The Port number used for communication to the database

   Database Server Login

   DBA user
   Login ID: root
   Password: root user password for MySQL database.

   Database User Credentials

   User Name: This must be a new user name. It cannot be the same user from the 6.1 install.
   Password: Password for the new database user.

   Configuration Tool Superuser Credentials

   User Name: This can be any user name. It does not have to be a Windows account user.
   Password: Create a password, and then confirm it.

   Configuration Tool Connection Settings

   Host: May be left at 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.
   Port: Leave at 8090.

   Configuration Tool Passphrase

   Enter and confirm a passphrase.
   Click **Next**.
   The *Configuration Wizard* launches.
   Continue to follow on-screen directions, verifying settings as you go.

   POS Merchants

   On the *Merchants* screen, click the wrench icon to the right of the existing merchant.

Verify the merchant settings are correct.

Merchant Pay At Table Configuration

If using Pay@Table, review the tender settings carefully as there are new fields that will not be pre-populated from the previous OPI install.

Continue to follow the on-screen directions.

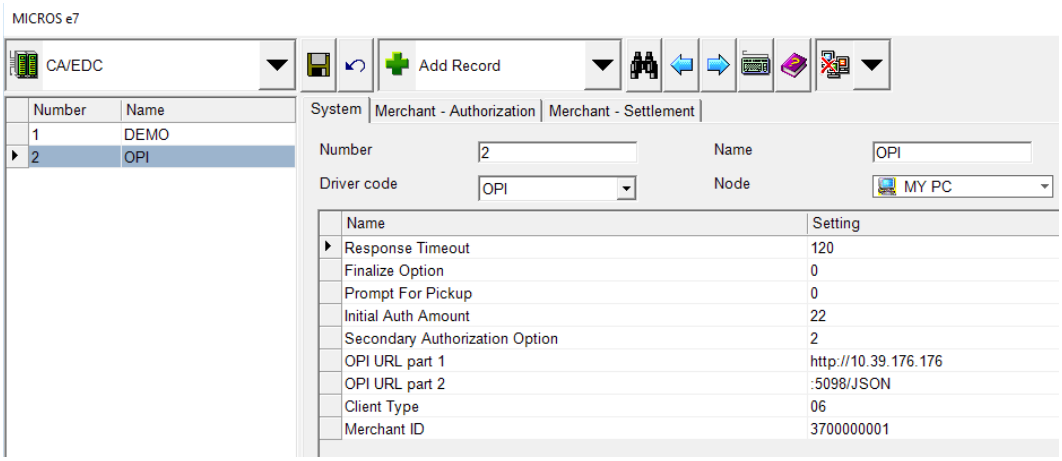
InstallShield Wizard Complete

Click **Finish** to allow a reboot.
If you cannot immediately reboot, you must stop and then start the OPI Service for the current settings to take effect.

E7 Configuration

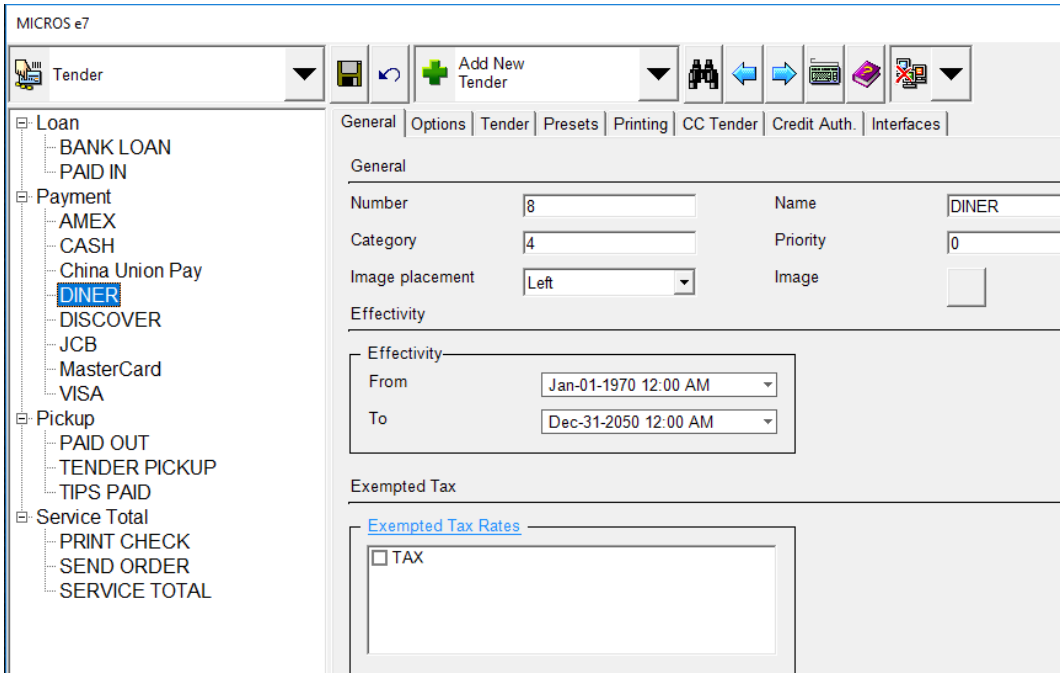
CA/EDC / Tender Configuration

1. Sign into Configurator.
2. Go to CA/EDC | Add Record, name it OPI on right.

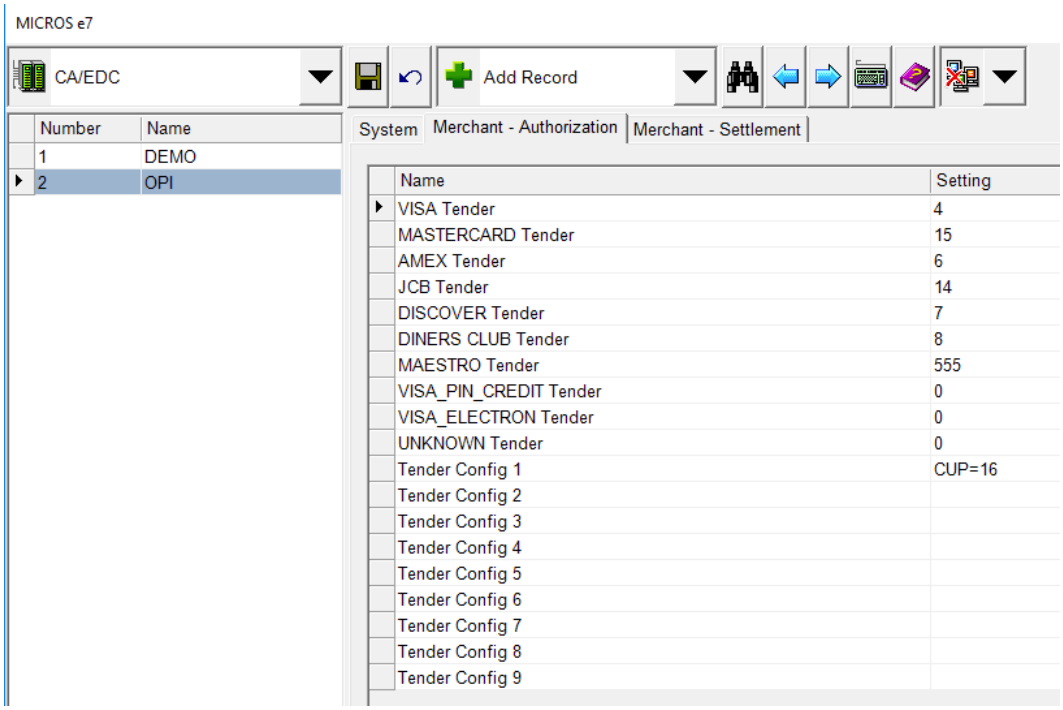


3. Set Driver code = OPI
4. Set Node = My PC
5. On the **System** tab, enter the **Host URL Part 1** and **Host URL Part 2**:
   OPI URL part 1 = http://IP of OPI server
   Do not use 127.0.0.1 even if OPI is installed on the e7 PC.

   OPI URL part 2 = :Port used to communicate to OPI followed by /JSON
6. Client type = 06 (Zero 6)
7. Enter the Merchant ID value and save changes.



8. Go to Tender | Payment | General, and write down the **Number** value for each credit tender.

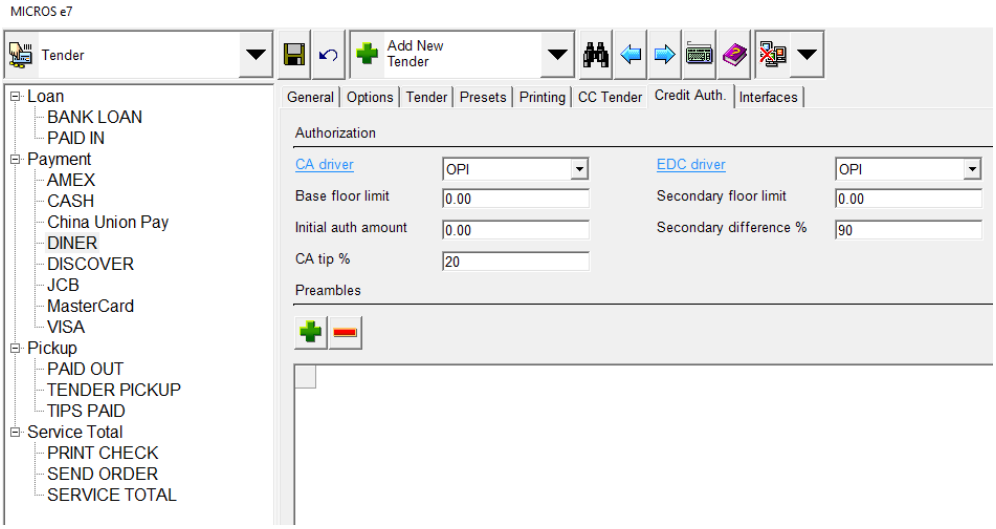


9. Go back to CA/EDC | Merchant Authorization tab, and enter the **Number** values from the previous step in the **Setting** column, for each card type.
   Save changes.

Tip: Changes made to e7 4.3 require Re-configuring OPI tenders if upgrading to e7 version 4.3. If the tenders do need to be re-linked the OPI touch screen buttons may also need to be re-linked.

10. Select OPI | Click "?" icon for Help. Follow those configuration instructions.

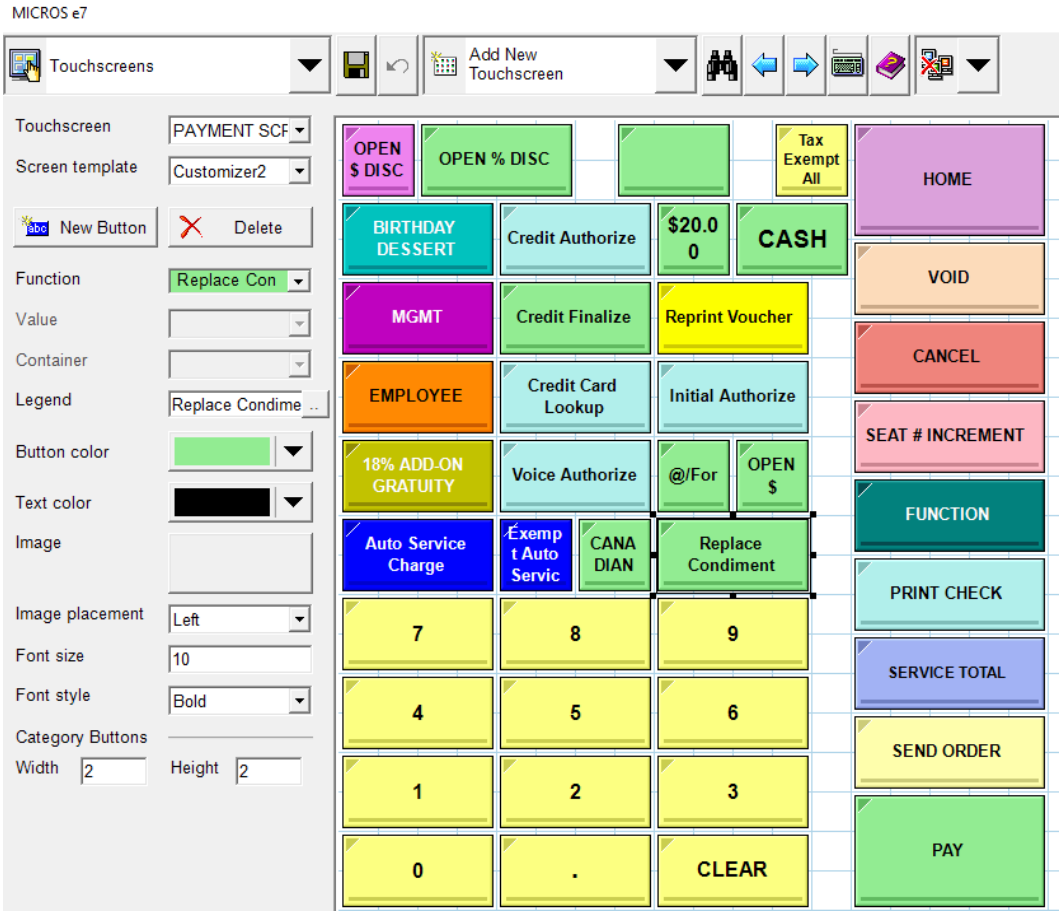
    These very detailed instructions, are new in e7 4.3.



11. Tender | Credit Auth, change both the **CA driver** and the **EDC driver** to **OPI** for each CC tender.

12. Leave pre-ambles as they are, assuming they are already correct. Save changes.

Touch Screen Configuration



13. Go to Touchscreens | Payment Screen, and delete all of these existing buttons:

    - Credit Authorize
    - Credit Card Lookup
    - Initial CC Auth (Customer Name)
    - Initial CC Authorize
    - Manual CC Authorize

    Keep the existing **Credit Finalize** button.

Note: Credit Finalize is the only credit related button from the Green "Transaction" list that can be used with OPI.

14. Create these new buttons.

    Function drop down, scroll down and click OPI:

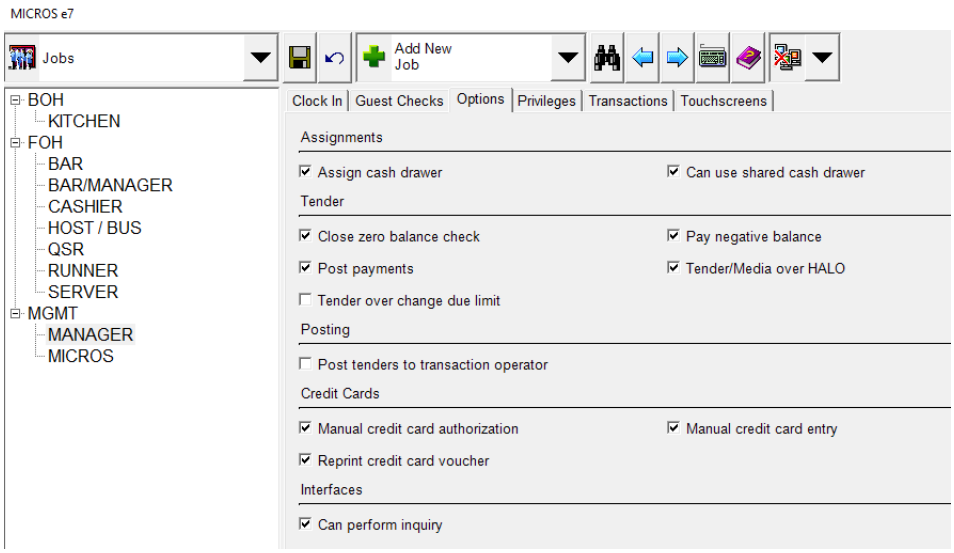
    - Value = Credit Authorize
    - Value = Credit Card lookup
    - Value = Initial Authorize

- Value = Voice Authorize

15. Save.
16. Go to SUPERUSER or MANAGER screen and create a new button.

    Function drop down, select **OPI**, Value = Set Passphrase.

Employee Configuration



1. Select **Jobs**, **MGMT**, **Manager**, **Options** and enable **Can perform inquiry**.

   This allows this user to set the passphrase and use CC payment keys.

   Set this same option for all jobs that might pay to CC = Servers, Cashier etc.
2. Save changes.
3. Exit e7.
4. Double click **Micros e7** to restart.
5. Sign in as manager and click **Set Passphrase**.

   Enter the same 15 character or longer passphrase that was entered during the OPI installation for POS Passphrase. Confirm it.

   Result = Passphrase successfully set.
6. Ready to try a test transaction.

3 POS Workstation Procedures

TSR

CC Auth

1. Begin check, ring food, and service total.
2. Pick up check, select **Credit Authorize**, swipe/insert card and service total.

CC Final

1. Pick up check with a **CC auth** and select **Credit Finalize**.
2. Ops prompts to Enter Amount.
3. Enter total amount including tip.
4. Select **Yes** to tip amount prompt.

Void CC Tender

1. Re-open the closed check, go to Pay screen and select **CC tender payment**.
2. Click the **Void** button. A payment is now due on this check.

Adjust tip

1. Starting from the steps above with the CC tender already voided, enter an amount larger than the amount due and select **Credit Finalize**.
2. Select **OK** at the tip amount prompt. This pays the check and applies a new tip amount.

Voice / Manual Auth

1. Begin check, add food and select **Voice Authorize**.
2. Enter 6 digit voice auth code when Ops prompts for it.
3. The approved voucher prints. Select **Credit Finalize**, enter card amount, and then select **OK** at tip prompt.

Refund

1. Sign in, begin check, function screen, hit Return.

   The check now has a negative total due.
2. Select **Credit Authorize**, and then swipe/insert card.

   Customer and Merchant copies print showing "REFUND" and the negative amount applied to the card.

Move Auth

1. Begin check, ring 2 menu items, select **Credit Authorize**, swipe/insert card.
2. Select **PU check**, **Function**, and then **split check**.

3. Move 1 MI and auth to new check. The new check now has the auth.
4. Pick up the new check and select **Credit Finalize**.
5. Enter amount, and then select **OK** at tip prompt.

CC Reprint

1. Ring food, and then service total.
2. Pick up check, **Credit Authorize**, swipe/insert card, and then service total.
3. Pick up check, select **Reprint Voucher**.
4. Two copies of voucher print showing *** Reprint ****.

Initial Auth – no final voucher

1. Begin a check, select **Initial Authorize**, and then select **OK** to initial authorize amount.
2. Vouchers for the initial amount either print or not depending on settings.
3. Add food, and then service total.
4. Pickup check, and then select **Credit Finalize**.
5. Ops prompts for amount. Enter amount including tip.
6. Select **OK** at tip amount prompt. Check is closed with tip applied.

Initial Auth – yes final voucher

1. Begin a check, hit Initial Authorize, OK Initial authorize amount.
2. Vouchers for the initial amount either print or not depending on settings.
3. Add food so total is over amount authorized, and hit Credit Authorize.
4. Ops prompts to select New or Existing card.
5. Select existing card from list.
6. Two vouchers print showing current total. Service total.
7. Pickup check, hit Credit Finalize. Ops prompts for amount. Enter amount including tip. OK tip amount prompt. Check is closed with tip applied.

Credit Card Lookup

1. Begin check, and then add food.
2. Select Credit card lookup.
3. Two vouchers print and the check is closed.

4 Utilities

All OPI utilities information can be found in the **OPI Installation and Reference Guide**.

5 Troubleshooting and FAQs

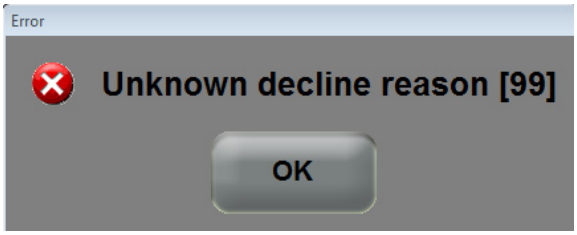
Troubleshooting

Situation 1: Cannot communicate to OPI after installation.

Test:

1. Verify you can telnet to the OPI PC on port 5098 from another PC.
   Ex: From CMD prompt: telnet 172.23.25.16 5098
   (Where 172.23.25.16 is the IP address of the OPI server.)
   If you cannot telnet to the OPI port, try the following:
1. Restart the OPI Service.
2. Temporarily bypass the firewall.
3. Verify OPI is listening on port 5098.
4. Open CMD prompt: `C:\>netstat > c:\temp\ports.txt`
5. Search ports.txt for "5098".

Situation 2:



This generic error message can be caused by several things.

Solution 1:

Restart the OPI Service and try again.

Solution 2:

If the system.log shows the message below then the cause is likely a Java security update. (This is no longer an issue in OPI 6.2, but leaving info, just in case.)

```
[GATEWAY RESPONSE] GenericJSONProcessor : Can not decrypt
java.security.InvalidKeyException: Illegal key size
```

Not all Java updates will cause this error, but security updates will. For example: Java 8 update 111 causes this issue.

1. Stop the OPI service.
2. Go to the link below and download jce_policy-8.zip.

   http://www.oracle.com/technetwork/java/javase/downloads/jce8-download-2133166.html

3. Unzip the file and copy the two files to your Java security folder.

   - Local_policy.jar
   - US_export_policy.jar

Ex: `C:\Program files\Java\jre(your current version)\lib\security\`

Some systems may have Java installed in Program Files (x86). If so, update the files there also.

4. Start the OPI service.

Solution 3

If the debug.log shows: "`ht is null`" and the problem was not caused by the Java security update mentioned in solution 2 above, then the cause may be that the wrong POS passphrase is in either OPI or e7. The solution is to change the POS passphrase at both e7 and OPI to be the same value. To change the passphrase in OPI, open **LaunchConfiguration.bat**, select the **POS Service** tab, change the passphrase, and then restart the OPI service.

Situation 3: "Issuer or switch inoperative"

- **Cause 1:** Simulator is not running.
- **Cause 2:** OPI service not restarted after making config change.
- **Cause 3:** Java security update broke OPI by replacing files. This should not be an issue in OPI 6.2.
- **Cause 4:** Incorrect Proxy settings.
- **Cause 5:** Incorrect settings in Config | Server0Q, for Host and or Port.

Solution for Middleware mode:

1) Need to use https instead of http.
2) Need to append port to end of host value.

Ex: Host = https://10.39.176.175:8991

- **Cause 6:** Wrong IP address in Config | pinpadAddress2 for that terminal.

Situation 4: "Bad Terminal ID"

- **Cause 1:** In Config | pinpadAddress2, wrong Merchant ID or wrong workstation number.
- **Cause 2:** Config | e71 | Device_merchant_id is not set correctly.
- **Cause 3:** Forgot to restart OPI service after making changes in config.exe or the wizard.

Not Supported

Not supported in the e7 Native OPI driver solution:

- Gift Cards
- Balance Inquiry
- Void a refund (e7)
- Debit (e7)
- SaleCashBack (e7)
- Multiple Revenue Centers (e7)
- Memo Tender (e7)
- CC Voice/Manual CC for QSR (offline sale)
- Backup OPI Server
- Backup server mode (e7)
- Pay@Table
- Transaction Void (e7)