

Oracle® Payment Interface

Oracle Hospitality e7 4.2.1 Native Driver Installation Guide
Release 6.1.1

E86868-01

April 2017

Copyright © 2016, 2017, Oracle and/or its affiliates. All rights reserved.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this software or related documentation is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

Preface	vii
Audience	vii
Customer Support.....	vii
Documentation.....	vii
Revision History.....	vii
1 Pre-Installation	1-1
Important Information	1-1
2 OPI Native Driver	2-1
Installation Prerequisites.....	2-1
Installation Wizard	2-1
Interface Configuration Tool / Wizard.....	2-2
Terminal Mode.....	2-2
OPI Config.exe (Terminal mode).....	2-3
Middleware Mode	2-4
Middleware Wizard	2-4
Middleware Config.exe.....	2-6
E7 Configuration.....	2-7
CA/EDC / Tender Configuration	2-7
Touch Screen Configuration.....	2-9
Employee Configuration.....	2-10
3 POS Workstation Procedures	3-1
TSR.....	3-1
CC Auth	3-1
CC Final.....	3-1
Void CC Tender	3-1
Adjust tip	3-1
Voice / Manual Auth	3-1
Refund	3-1
Move Auth.....	3-1
CC Reprint	3-2
Initial Auth – no final voucher	3-2
Initial Auth – yes final voucher.....	3-2
Credit card Lookup	3-2
4 Utilities	4-1
OPI Configuration Wizard	4-1

RWregistry.exe	4-1
Config.exe	4-1
card	4-1
currency.....	4-2
dll	4-2
e7	4-2
e71	4-2
ifc8.....	4-2
ifc8X	4-3
master	4-4
parameter_level.....	4-4
payment.....	4-4
pinpadAddress2.....	4-5
posApi	4-5
posRes.....	4-5
posResX	4-5
posSybase1.....	4-6
server0Q	4-6
switch.....	4-7
terminal47	4-7
vx6702.....	4-7
5 Troubleshooting and FAQs.....	5-1
Troubleshooting	5-1
Frequently Asked Questions (FAQs)	5-3
Not Supported	5-3
Not supported until e7 4.3:	5-4
6 Appendix	6-4
Currency List	6-4
Country Code	6-4
PED Mapping Format	6-5
POS Format.....	6-5
Format	6-5

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
- 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/>

Revision History

Date	Description of Change
April 2017	<ul style="list-style-type: none">• Initial publication

1 Pre-Installation

Important Information

- Only e7 4.2.1 or later supports OPI.
- Only OPI 6.1.1 or later is supported with e7.
- There is no MICROS Gateway Device Handler (MGDH) solution for e7.
- There is no Pay@Table solution for e7.

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.

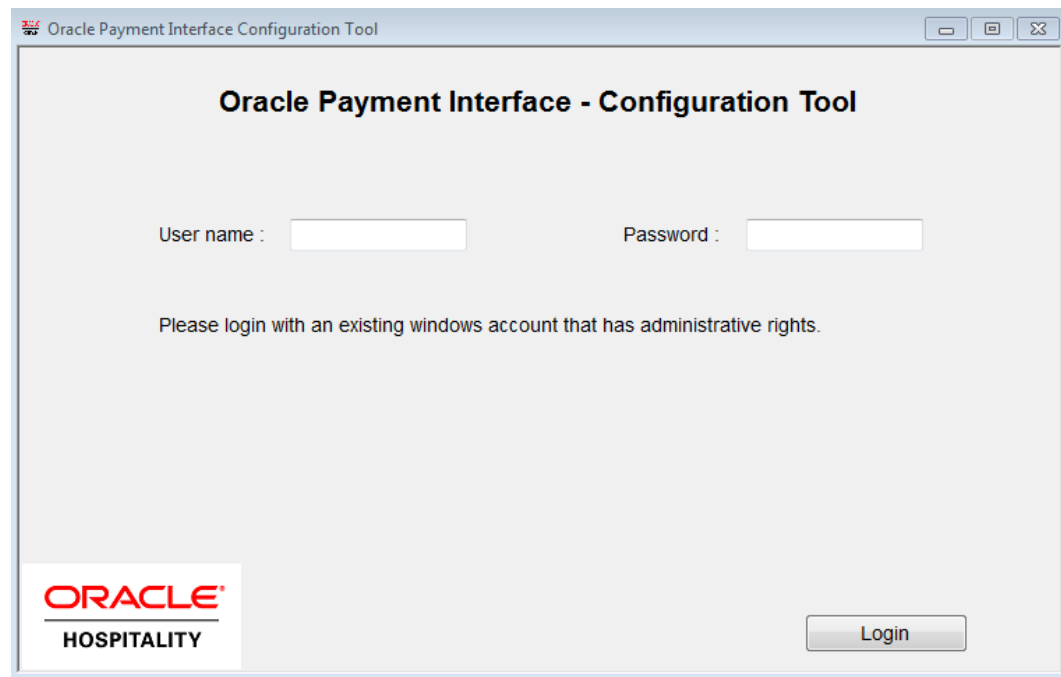
Before you start, make sure to know:

- Login credentials for an administrator account on the Microsoft Windows operating system.
- Login credentials to the e7 database to configure.
- A passphrase to create 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.

Installation Wizard

1. Exit e7 on the PC and workstations.
2. Copy `Oracle Payment Interface-6.1.1.9.exe` to the Win32 PC and double click it to launch the install.
3. On the **Choose your MySQL Root Password** page, create a password, confirm the password, and then click **Next**.
4. On the **Create DB user for OPI** page, create an OPI database user name and password, confirm the password, and then click **Next**.
5. On the **Choose communication channel** page, select **POS**, select **Native Driver**, and then click **Next**.
6. On the **Configuring POS communication** page, create the passphrase, and then click **Next**. Keep the passphrase for configuring in e7 later.
7. On the **OPI Service Restart Task Scheduler** page, enter a date and time for the OPI Service to be restarted once per week, and then click **Next**.
8. On the **Select Destination Location** page, select a location to install files, and then click **Next**.
9. On the **Select Open Source Project Source Code and License Install Folder** page, select the folders to install the source code files, and then click **Next**.
10. Follow the instructions and use the wizard to complete installation.

Interface Configuration Tool / Wizard



1. The installation wizard launches the Oracle Payment Interface Configuration Tool. If it does not automatically start, double-click `INSTALLATION_DIR\OraclePaymentInterface\bin\OPIconfigurationWizard.exe`.
2. Enter the login credentials to an administrator account on Microsoft Windows, and then click **Login**.
3. Set **POS Interface** to **Enable**.

Terminal Mode

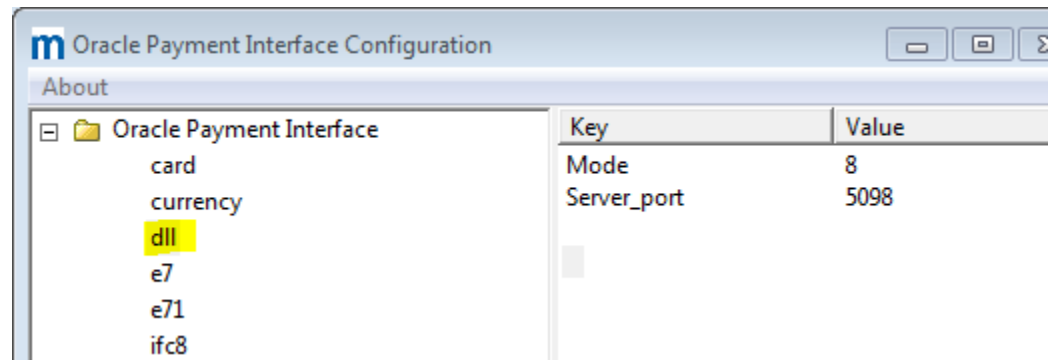
1. Select **Terminal** from the **OPI Mode** drop-down to allow OPI to communicate directly with the pinpads. If you want OPI to communicate directly with a 3rd-party that controls the pinpads, select **Middleware**, and then go to the [Middleware](#) section.
2. Enter a port value to communicate to the terminals / Pin entry devices.
If using a simulator, set the port value to communicate to the simulator.
3. Select **POS Configuration**.
4. Click **Add New Property** and fill out the form:
POS Type = e7
Merchant ID = Enter your Merchant ID.
PosCrossMerchant = Disable
PosCrossCheck = Disable
Port = OPI listens on this port
Merchant Type = restaurant

- Fill in all Merchant info.
- On the **Terminal Configuration** page, for each workstation with pinpads, click **Add Terminal**, and then fill out the form:
 Workstation ID = workstation obj_num in e7 Configurator
 IP = Pinpad IP address.
 If using a simulator instead of a PED, enter IP of the PC running the simulator.
 - To go back and edit the settings, click **Continue**.
 - To finish configuration, click **Exit**, save the changes, and then restart the computer.

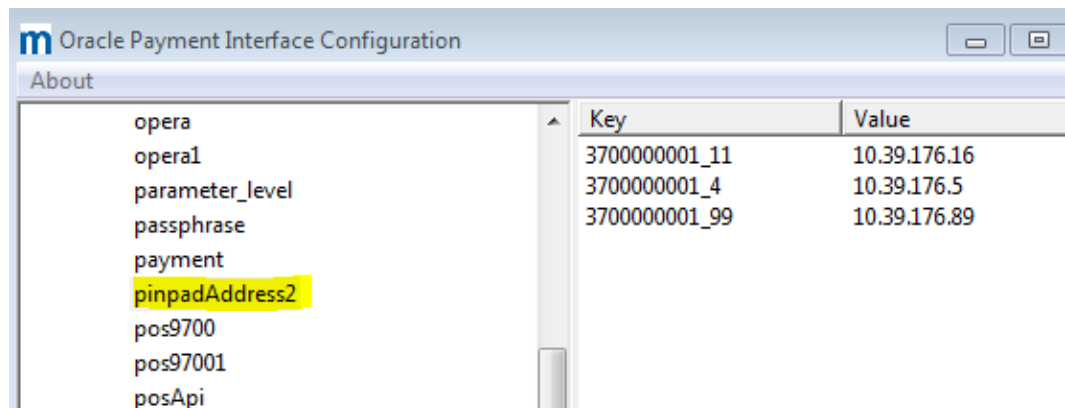
OPI Config.exe (Terminal mode)

The following settings are for installs selecting the **Terminal** OPI Mode.

- Double-click \OraclePaymentInterface\bin\config.exe to start the Oracle Payment Interface Configuration tool, and then enter the administrator credentials to the computer.

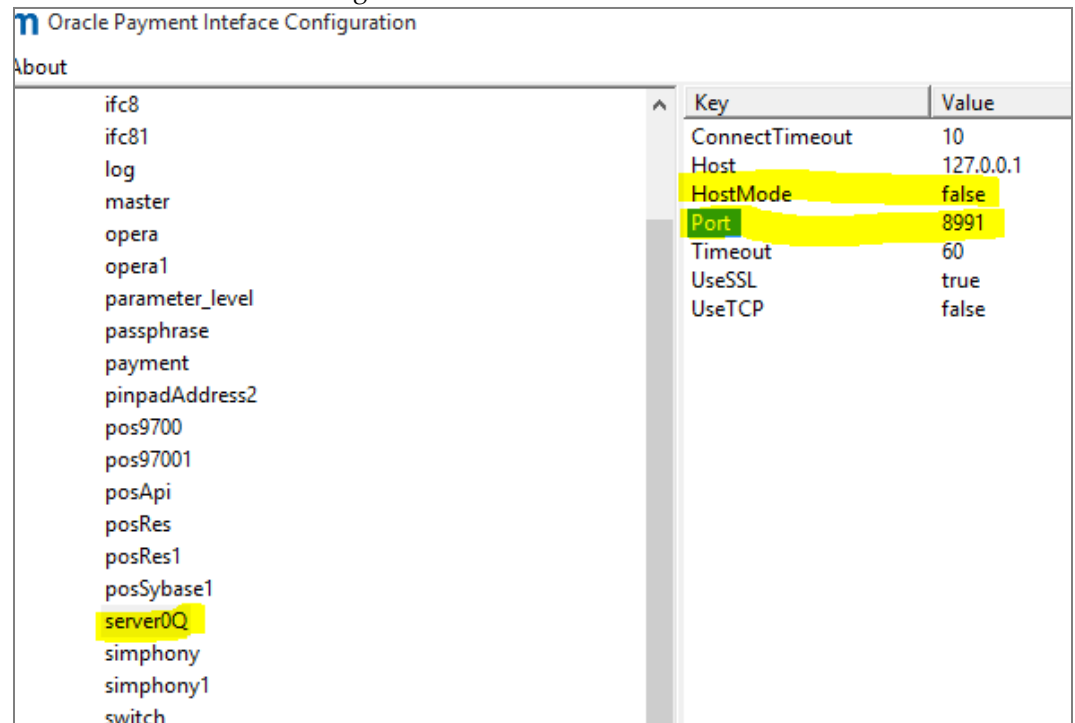


- OPI is listening on port 5098.
- The Pay@Counter terminal records are kept in pinpadAddress2. You do not need to make changes.



Format is MerchantID_WSID
 IP of pinpad

2. HostMode is false when using Terminal mode. The Host value is unused.



3. Set the **Port** to the port the PEDs are listening on.

Middleware Mode

Follow the instructions in this section if you select **Middleware** as the **OPI Mode** during the installation, to allow OPI to communicate to a 3rd-party that controls the pinpads.

Middleware Wizard

Note: The below screens can be seen and used both during the middle of the OPI install and also AFTER the OPI install by launching OraclePaymentInterface\bin\OPIconfigurationWizard.exe.

1. The installation wizard launches the Oracle Payment Interface Configuration Tool. If it does not automatically start, double-click `INSTALLATION_DIR\OraclePaymentInterface\bin\OPIconfigurationWizard.exe`.
2. Enter the login credentials to an administrator account on Microsoft Windows, and then click **Login**.

3. Fill out the form as described:

Oracle Payment Interface Configuration Tool

Oracle Payment Interface - Configuration Tool

PMS Interface:

POS Interface:

OPI Mode:

Primary Host:

Backup Host:

Proxy Address:

Proxy Port:

ORACLE
HOSPITALITY

Next

POS Interface = Enable

OPI Mode = Middleware

Primary Host = URL of 3rd party that will control the pinpads, including port.

Backup Host = Backup URL of 3rd party

Proxy Address = Blank unless you must go through a proxy server.

Proxy Port = Blank unless you must go through a proxy server.

4. Select **POS Configuration**, and then click **Show Summary**.
5. Click **Add New Property** and then configure the form as shown in the following image.

Oracle Payment Interface Configuration Tool

Oracle Payment Interface - POS Configuration Tool

POS Type : e7 Port : 5098

Merchant ID : 3700000001 Merchant Type : restaurant

PosCrossMerchant : Disable

PosCrossCheck : Disable

Merchant Configuration :

Merchant Name : MikesMinnestrone

Merchant City : Sedona

Merchant Country : United States of America

ORACLE
HOSPITALITY

Previous Next

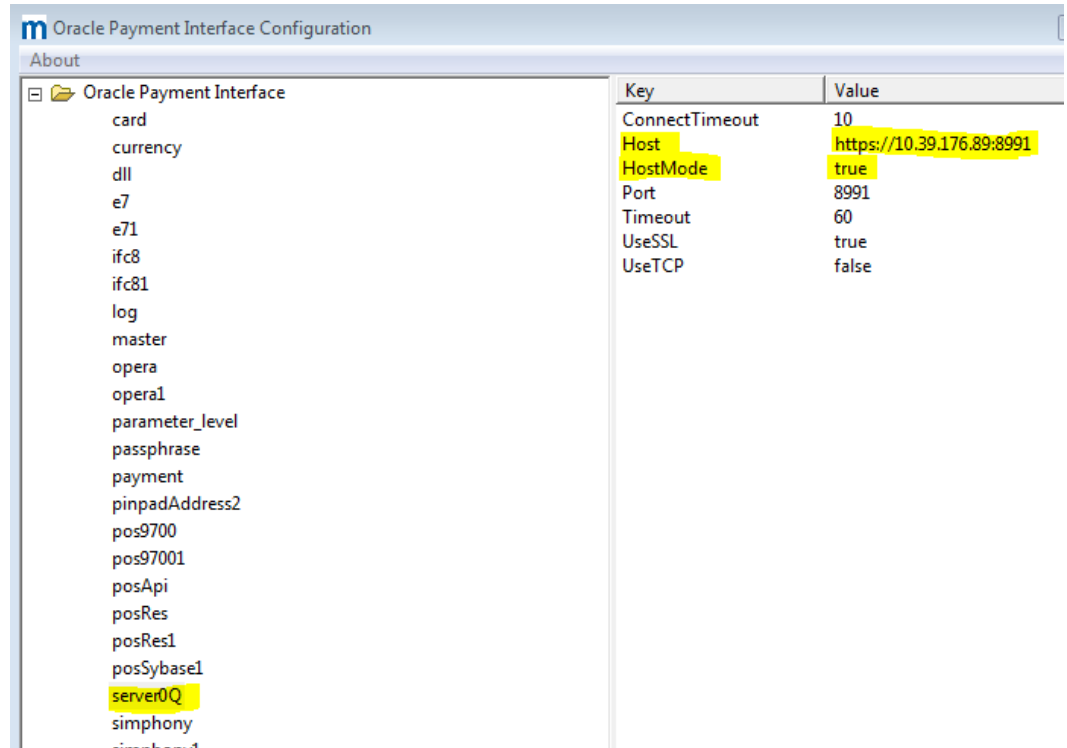
6. Click **Next**, confirm the configuration summary, click **Exit**, and then save the changes.

Middleware Config.exe

The following settings are for installs selecting the **Middleware** OPI Mode and disabling Pay@Table.

1. Double-click `\OraclePaymentInterface\bin\config.exe` to start the Oracle Payment Interface Configuration tool, and then enter the administrator credentials to the computer.

2. Configure **server0Q**



3. HostMode = true.
4. Host = The URL of PrimaryHost set using the wizard. Including the port.
5. Port = Not used in Middleware mode since the port is included in URL.
6. Exit the configuration tool and save the changes.
7. Restart OPI service.

E7 Configuration

CA/EDC / Tender Configuration

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

MICROS e7

CA/EDC

Number Name

1 DEMO

2 OPI

System Merchant - Authorization Merchant - Settlement

Number 2 Name OPI

Driver code OPI Node MY PC

Name	Setting
Response Timeout	120
Finalize Option	0
Prompt For Pickup	0
Initial Auth Amount	20
Initial Auth Voucher Option	2
Secondary Authorization Option	2
OPI URL part 1	http://10.93.25.47
OPI URL part 2	:5098/JSON
Client Type	06
Merchant ID	3700000001

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.

MICROS e7

Tender

Add New Tender

General Options Tender Presets Printing CC Tender Credit Auth. Interfaces

General

Number 8 Name DINER

Category 4 Priority 0

Image placement Left Image

Effectivity

From Jan-01-1970 12:00 AM

To Dec-31-2050 12:00 AM

Exempted Tax

Exempted Tax Rates

Loan

BANK LOAN

PAID IN

Payment

AMEX

CASH

DINER

DISCOVER

VISA/MC

Pickup

PAID OUT

TENDER PICKUP

TIPS PAID

Service Total

PRINT CHECK

SEND ORDER

SERVICE TOTAL

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

MICROS e7

CA/EDC

Add Record

Number	Name
1	DEMO
2	OPI

System Merchant - Authorization Merchant - Settlement

Name	Setting
AMEX Tender	6
DINERS CLUB Tender	8
DISCOVER Tender	7
MASTERCARD Tender	4
VISA Tender	4
OTHER Tender	555

9. On the Merchant Authorization tab, enter the **Number** values from the previous step in the **Setting** column, for each card type. Save changes.

MICROS e7

Tender

Add New Tender

General Options Tender Presets Printing CC Tender Credit Auth. Interfaces

Authorization

CA driver OPI EDC driver OPI

Base floor limit 0.00 Secondary floor limit 0.00

Initial auth amount 0.00 Secondary difference % 90

CA tip % 20

Preambles

Start preamble	End preamble	Account length (# digits)
37		15
34		15

10. Tender | Credit Auth, change both the **CA driver** and the **EDC driver** to **OPI** for each CC tender.
11. Leave pre-ambls as they are, assuming they are already correct. Save changes.

Touch Screen Configuration

12. Go to Touchscreens 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.

13. 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

14. Save.

15. 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

Begin a check, hit Initial Authorize, OK Initial authorize amount.

Vouchers for the initial amount either print or not depending on settings.

Add food so total is over amount authorized, and hit Credit Authorize.

Ops prompts to select New or Existing card.

Select existing card from list. Card will need to be inserted or swiped again.

Two vouchers print showing current total. Service total.

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

OPI Configuration Wizard

The OPI wizard is installed to

`INSTALLATION_DIR\OraclePaymentInterface\bin\OPIconfigurationWizard.exe` and can be used to:

- Enable or Disable PMS or POS interfaces.
- Change from Terminal mode to Middleware mode and vice versa.
- Add Pay@Counter terminals
- Add a new Merchant ID
- Edit an existing Merchant ID

RWregistry.exe

Q: How can I edit the Native Driver Passphrase in OPI?

A: Use the RWregistry tool:

1. Navigate to `C:\OraclePaymentInterface\Bin\RWregistry.exe`.
2. Right click `RWregistry.exe` and run as administrator.
3. Log in with Windows admin user and password.
4. Select POS passphrase from drop box.
5. Enter new password twice, and then click **Confirm**.
6. Restart OPI service.

Q: Where do I change the corresponding password on the e7 side?

A: Use the Set Passphrase button in operations. This should be where only a manager can reach it.

Config.exe

Double-click `\OraclePaymentInterface\bin\config.exe` to start the Oracle Payment Interface Configuration tool, and then enter the administrator credentials to the computer.

You can access and configure the following:

card

Key	Value	Description
Amex	2 3400000000 3499999999 13 0 0	AMEX card schema.
JCB	4 3528000000 3589999999 16 0 0	JCB card schema.
Mastercard	1 5100000000 5599999999 16 1 0	MasterCard card schema.
Visa	0 4000000000 4999999999 16 1 0	Visa card schema.

currency

Key	Value	Description
036	036 AUD 2 4 Australia Dollar	Currency list, refer to chapter 4.

dll

Key	Value	Description
Mode	3	Default value, OPI use HTTPS for POS request.
Port	5098	Default port for POS request.

e7

Key	Value	Description
TotalMerchantNumber	0-n	Total merchant number for e7. Should be 1.

e71

Key	Value	Description
Condition_code	42	Default value.
Currency_code	840	Merchant currency code, please refer to chapter 4.
Currency_code_decimal	2	Currency decimal.
Device_merchant_id	xxxxxxxx	CMID, assign by OPI installer.
Merchant_city	xxxxxx	Merchant city, maximum is 13 characters.
Merchant_country	xx	Merchant country, please refer to chapter 4.
Merchant_id	MGS-POS E7	Default value.
Merchant_type	5812	Merchant MCC code.
Pos_type	e7	POS version definition.
SwitchID	0Q	Default value.
Terminal_id	POSE7	Default value.

ifc8

Key	Value	Description
CpPolicy	3	
Dp_pms_connection_check	true	
Pms_check_inactive_interval	73	
Pms_inactive_gate	313	

TotalMerchantNumber	0-n	Total merchant number for OPERA, depends on merchant configuration.
---------------------	-----	---

ifc8X

Key	Value	Description
Condition_code	42	Default value.
Currency_code	840	Merchant currency code, please refer to chapter 4.
Currency_code_decimal	2	Currency decimal.
Device_merchant_id	xxxxxxx	OPERA Chain and Property ID.
ExternalMode	true	Default value.
Merchant_city	xxxxxx	Merchant city, maximum is 13 characters.
Merchant_country	xx	Merchant country, please refer chapter 4.
Merchant_id	MGS-OPERA	Default value.
Merchant_name	xxxxxxx	Merchant name, maximum is 25 characters.
Merchant_type	7011	Merchant MCC code.
PaymentCode_0	VA	Visa transaction code in OPERA.
PaymentCode_1	MC	MasterCard transaction code in OPERA.
PaymentCode_10	CU	
PaymentCode_11	DD	
PaymentCode_12	DL	
PaymentCode_15	GC	
PaymentCode_17	MD	
PaymentCode_18	ME	
PaymentCode_19	VE	
PaymentCode_2	AX	AMEX transaction code in OPERA.
PaymentCode_21	SD	
PaymentCode_24	VP	
PaymentCode_25	AL	
PaymentCode_26	EC	
PaymentCode_29	MX	
PaymentCode_3	DC	Diners transaction code in OPERA.
PaymentCode_32	PC	
PaymentCode_4	JC	JCB transaction code in OPERA.
PaymentCode_40	BC	

PaymentCode_9	CC	
Pms_server_ip	xx.xx.xx.xx	OPERA IFC8 server IP.
Pms_server_port	xxxx	OPERA IFC8 server port.
SwitchID	0Q	Default value.
Terminal_id	OPERA1	Default value.
User3	*****	OPERA IFC8 encryption key.

master

Key	Value	Description
systemType	1	Default value.

parameter_level

Key	Value	Description
Country	US	
Instance	1	
Region	NA	
Solution	OPI	
Type	OnSite	

payment

Key	Value	Description
Country	US	
Dll	0/1	Enable or disable port for POS. 0 is disable port, 1 is enable port.
Opera	0	Default value.
Opera2	0	Default value.
OptionByte2	true	Default value.
OptionByte4	true	Default value.
Pos	0	Default value.
Pos9700	0	Default value.
RefreshTime	0 29 0 * * ?	OPI refresh time to reload merchant configuration and purge history transaction data.
RemoveDevice4	0/1	Enable or disable port for Pay@Table device. 0 is disable port, 1 is enable port.
Running_mode	0	Default value.
Server	0Q	Default value.

TimeZone	America/New_York	Merchant time zone, follow Java time zone format.
Ifc8	0/1	Enable or disable function for OPERA IFC8 interface. 0 is disable function, 1 is enable function.

pinpadAddress2

Key	Value	Description
Xxxxxxxxx_xx	TID IP	PED mapping list, please refer to chapter 4.

posApi

Key	Value	Description
Century	20	
CommandSleep	200	
CommandSleep2	100	
Currency	840	Merchant currency code, please refer to chapter 4.
Mode	2	RES IIS mode, default value.
NeedAdjustReceipt	false	Default value, doesn't allow Pay@Table modify exist check.
RoomPosting	xxx	Room posting tender number in POS configuration.
Timeout	30	Timeout value for OPI connect to POS transaction service.
Url	http://xxxx	RES transaction service URL.

posRes

Key	Value	Description
TotalMerchantNumber	0-n	Total merchant number for RES, depend by merchant configuration.

posResX

Key	Value	Description
Condition_code	42	Default value.
Currency_code	840	Merchant currency code, please refer to chapter 4.
Currency_code_decimal	2	Currency decimal.
Device_merchant_id	xxxxxxxx	CMID, assign by OPI installer.
Merchant_city	xxxxxx	Merchant city, maximum is 13 characters.

Merchant_country	xx	Merchant country, please refer to chapter 4.
Merchant_id	MGS-POS 3700	Default value.
Merchant_type	5812	Merchant MCC code.
Pos_type	posRES	POS version definition.
SwitchID	0Q	Default value.
Terminal_id	POS3700	Default value.

posSybase1

Key	Value	Description
InitIdle	20	
MaxPool	40	
MaxWait	20	
MinIdle	10	
ResDB	Micros	RES DB name, default value.
ResHost	xx.xx.xx.xx	RES Server IP.
ResPassword	*****	RES DB user password.
ResPort	2638	RES Server Sybase database port, default value.
ResUser	*****	RES DB user name.

server0Q

Key	Value	Description
ConnectTimeout	10	
Host	https://xx.xx.xx.xx:port	3 rd PSP middleware URL.
HostMode	true/false	Terminal mode (PED direct connection) = false. Middleware mode = true.
Host	xx.xx.xx.xx	3 rd PSP middleware IP.
HostMode	true/false	OPI work for PED directly connection mode or middleware connection mode. For PED connection set to "true", for middleware connection set to "false".
Port	8080	Port for 3 rd PSP PED or middleware.
Timeout	60	Timeout value for OPI send request to 3 rd PSP PED or middleware.
UseSSL	true	Default value, OPI send request to 3 rd PSP PED or middleware by HTTPS.
UseTCP	false	Default value.

switch

Key	Value	Description
0	0Q -1 -1	Default value.
1	0Q -1 -1	
11	0Q -1 -1	
2	0Q -1 -1	
3	0Q -1 -1	
4	0Q -1 -1	
8	0Q -1 -1	

terminal47

Key	Value	Description
xxxxxxx	xx_xxxxxxxx_x	Please refer to chapter 4 for Pay@Table device mapping.

vx6702

Key	Value	Description
CertPass	*****	Pay@Table certificate password.
PayAtTableServer	0Q	Default value.
Port	5023	Default port for Pay@Table device request.
UseDeviceRRN	true	Default value.
UseSSL	true/false	Pay@Table connection mode, default is “true” to use HTTPS for Pay@Table request.

5 Troubleshooting and FAQs

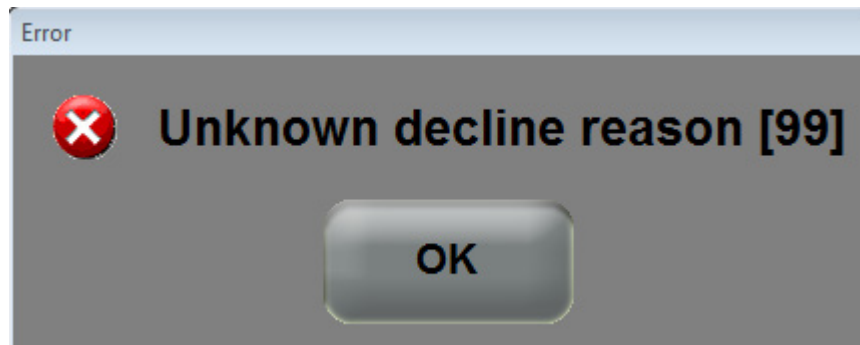
Troubleshooting

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 should not be an issue in OPI 6.1.1, 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. The steps to do this are in the **Utilities | RWregistry** section.

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 6.1.1.

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.

Frequently Asked Questions (FAQs)

Q1: How can I change the port that OPI listens on from 5098 to 8089 (as an example)?

To change on OPI side:

1. Open OraclePaymentInterface\bin\OPIConfigurationWizard.exe.
2. Login as a local admin user.
3. Go to Pos Configuration and double click on your Merchant.
4. Change the **Port:** value to 8089
5. Click Next to final screen and Exit Config.exe, saving changes.
6. Restart OPI Service.

To change on e7 side:

1. Open e7 Configurator | CA/EDC | OPI | system and change the PORT value.
2. Exit e7.
3. Double click **Micros e7** on desktop.

Not Supported

Not supported in the e7 Native OPI driver solution:

- Gift Cards
- TopUp Auth
- 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)

Not supported until e7 4.3:

- Voucher does not print check number or table number (if a quick check)
- Voucher does not include server name
- Partial Auth
- Tip at the pinpad.
- Bar tab. (Re-auth without needing card)

6 Appendix

Currency List

Key	Value
036	036 AUD 2 4 Australia Dollar
124	124 CAD 2 4 Canadian Dollar
156	156 CNY 2 4 Chinese RMB
344	344 HKD 2 4 Hong Kong Dollar
356	356 INR 2 4 India Rupee
360	360 IDR 2 4 Indonesia Rupiah
392	392 JPY 0 4 Japanese Yen
410	410 KRW 0 4 South Korean Won
446	446 MOP 2 4 Macau Pataca
458	458 MYR 2 4 Malaysian Ringgit
462	462 MVR 2 4 Rufiyaa
554	554 NZD 2 4 New Zealand Dollar
608	608 PHP 2 4 Philippine Pesos
634	634 QAR 2 4 Qatari Rial
702	702 SGD 2 4 Singapore Dollar
756	756 CHF 2 4 Swiss Francs
764	764 THB 2 4 Thai Baht
826	826 GBP 2 4 British Sterling Pound
840	840 USD 2 4 US Dollar
901	901 TWD 2 4 New Taiwan Dollar
978	978 EUR 2 4 Euro

Country Code

Country	Code
Australia	AU
Austria	AT
Canada	CA
Denmark	DK
Germany	DE
France	FR

Hong Kong	HK
Ireland	IE
Italy	IT
Japan	JP
Korea, Republic of	KR
Macau	MO
Malaysia	MY
Maldives	MV
Mexico	MX
New Zealand	NZ
Philippines	PE
Qatar	QA
Switzerland	CH
Thailand	TH
United Kingdom	GB
United States	US

PED Mapping Format

Key	Value
CMID_WS	TID_IP

POS Format

CMID: need match "Device_merchant_id" in merchant configuration.

WS: POS workstation number.

TID: Terminal ID.

IP: PED IP.

Format

PTID: Pay@Table device ID.

Product: POS definition, 2 characters.

06: e7; 0R: RES; 0F: 9700; 1Z: Symphony 1 & 2; 1N: IFC8

CMID: need match "Device_merchant_id" in merchant configuration.