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Contents

Preface........................................................................................................................................... viii
  Audience ......................................................................................................................................... viii
  Customer Support ....................................................................................................................... viii
  Documentation ............................................................................................................................ viii
  Revision History ......................................................................................................................... viii

1 Pre-Installation .......................................................................................................................... 1-1
  Important Information ............................................................................................................... 1-1
  Uninstalling Prior OPI/MPG Versions ...................................................................................... 1-1

2 OPI Native Driver ...................................................................................................................... 2-1
  Installation Prerequisites ........................................................................................................... 2-1
  Installation Wizard .................................................................................................................... 2-1
    Interface Configuration Tool / Wizard ...................................................................................... 2-2
    OPI Config.exe (Terminal mode) ............................................................................................ 2-3
  Middleware .................................................................................................................................... 2-5
    Middleware Wizard .................................................................................................................. 2-5
    Middleware Config.exe ........................................................................................................... 2-7
  Pay@Table ..................................................................................................................................... 2-9
    POSCFG Create Pay@Table Tender ......................................................................................... 2-9
    Pay@Table Wizard ..................................................................................................................... 2-12
    Pay@Table Config.exe ............................................................................................................. 2-14
  POS Configuration for Native Driver ....................................................................................... 2-16
    Install and Configure CaOPI driver ....................................................................................... 2-16
    Configure CaOPI Driver ........................................................................................................... 2-16
    Credit Card Batch Configuration ............................................................................................ 2-19
    Employee Class Configuration ............................................................................................... 2-20
    Tender Configuration ............................................................................................................... 2-21
    Revenue Center Configuration ............................................................................................... 2-24
  Upgrade Installation .................................................................................................................. 2-24

3 POS Workstation Procedures .................................................................................................. 3-26
  TSR ............................................................................................................................................. 3-26
  CC Auth ....................................................................................................................................... 3-26
  CC Final ...................................................................................................................................... 3-26
  Void CC Tender .......................................................................................................................... 3-26
  Adjust tip ..................................................................................................................................... 3-28
  Voice / Manual Auth ..................................................................................................................... 3-28
POS Format................................................................................................................... 6-9
OPERA Format............................................................................................................. 6-9
Pay@Table Mapping Format ....................................................................................... 6-10
Format ......................................................................................................................... 6-10
Card Type ID Reference............................................................................................ 6-10
This document will cover the steps to install Oracle Payment Interface (OPI) using the RES native credit card driver. It will also cover Middleware mode vs Terminal mode and Pay@Table.

**Audience**

This document is intended for installers of OPI using the RES native credit card driver in RES 5.5 MR1 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**

<table>
<thead>
<tr>
<th>Date</th>
<th>Description of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 2017</td>
<td>• Initial publication</td>
</tr>
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</table>
1 Pre-Installation

Important Information

- Only RES 5.5 MR1 or later support the native driver solution.
- You must install the CaOPI credit card driver.
- There is no MICROS Gateway Device Handler (MGDH) installation with the native driver solution.
- You can upgrade from OPI 6.1 (6.1.0.9) and higher to OPI 6.1 MR1.
- You cannot upgrade to OPI 6.1 MR1 from any previous MICROS Payment Gateway (MPG) version.
- You must uninstall previous versions of MPG before installing OPI 6.1.
- Batch and settle all credit transactions prior to installing or upgrading OPI.

Uninstalling Prior OPI/MPG Versions

1. Run POSEOD and verify all previous transactions have been batched and approved in transaction.log.
2. Save a backup of the entire existing OPI/MPG folder structure.
3. Start %OPI_HOME%/bin/MicrosGatewayConfig.exe.
   a. Take a screenshot or note of the ServerXX values.
   b. Take a screenshot or note of all the values set for the POS record you will be using. For example, posRes1.
4. Uninstall MPG/OPI through the Microsoft Windows Control Panel.
5. If no other applications use the database, uninstall MySQL through the Microsoft Windows Control Panel.
6. Uninstall MySQL community through the Microsoft Windows Control Panel.
7. Rename the C:\ProgramData\MySQL folder to MySQL_Old.
   If you cannot see the ProgramData folder, you may need to configure the Windows Explorer folder options to show hidden folders.
8. Restart the server.
Installation Prerequisites

OPI requires:

- Microsoft .NET Framework version 4.0 or later.
- At least 6 GB of free disk space.

CaOPI requires Microsoft .NET Framework version 4.6.1 or later.

Before you start, make sure to know:

- Verify whether the merchant is a table service restaurant (TSR), quick service restaurant (QSR), or both. You cannot use tips in a QSR.
- Verify with the merchant whether they would like Refund functionality activated. The merchant needs to control the privilege for this function.
- Login credentials for an administrator account on the Microsoft Windows operating system.
- Login credentials to the Micros database to enable Pay@Table.
- The Pay@Table certificate password when enabling Pay@Table. The certificate password comes from the OPI partner and should be part of the partner validation process.
- A passphrase to create during the OPI install. You will enter this passphrase in CreditCards.exe during configuration.
- If upgrading from OPI 6.1 or later you will need to know the MySQL root user account password.

Installation Wizard

1. Take Micros Control Panel to off.

2. Double-click Oracle Payment Interface-6.1.1.9.exe to launch the install.

3. On the Choose your MySQL Root Password page, create a password, confirm the password, and then click Next. This password will be needed for future upgrades.

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 CreditCards.exe.
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**.

4. Select **Terminal** from the **OPI Mode** drop-down to allow OPI to communicate directly with the pinpads. Fill in the **Port** value to be used in communicating 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.

5. Select **POS Configuration**.

6. For each Merchant ID needed, click **Add New Property** and fill out the form:
   
   POS Type = POSRES
Merchant ID = Enter your Merchant ID.
PosCrossMerchant = Disable
PosCrossCheck = Disable
Pay@Table = Disable
If you want to enable Pay@Table, see the Pay@Table section.
Port = The CaOPI driver will communicate to OPI on this port.
Merchant Type = restaurant
Fill in all Merchant info.

7. 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 POS Configurator
   IP = Pinpad IP address.
   If using a simulator instead of a PED, enter IP of the PC running the simulator.

8. To add another Merchant ID or Property, click **Continue**.

9. 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.

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

   ![Oracle Payment Interface Configuration Tool](image)

   - OPI is listening on port 5098.

2. The Pay@Counter terminal records are kept in pinpadAddress2. You do not need to make changes.
Format is MerchantID_WSID
IP of pinpad

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

4. Set the Port to the port the PEDs are listening on.
5. Change the vx6702 port because the MICROS KDSController service uses port 5023. You must change this port even if you are not using Pay@Table. RES does not use port 8992, so it is a safe choice.

6. Exit the configuration tool and save the changes.

7. Restart OPI service.

8. Take Micros Control panel to **Front of house**. The system is ready for a test transaction.

**Middleware**

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](image)

- **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. Double-click the existing property, or if none yet click **Add New Property** and then configure the form as shown in the following image. If you are using
Pay@Table, skip to the Pay@Table section.

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.

8 is for the Native driver OPI solution. OPI is listening on port 5098.
2. Configure **server0Q**

   HostMode = true.
   Host = The URL of PrimaryHost set using the wizard. Including the port.
   Port = Not used in Middleware mode since the port is included in URL.

3. **You must change the vx6702 Port** to the port used for connecting to the 3rd party. The MICROS KDSController service uses port 5023. You must change this
port even if you are not using Pay@Table. RES does not use port 8992.

4. Exit the configuration tool and save the changes.
5. Restart OPI service.
6. Take Micros Control panel to **Front of house.** The system is ready for a test transaction in Middleware mode.

**Pay@Table**

**POSCFG Create Pay@Table Tender**

With the RES Native driver solution, there must be separate tenders for Pay@Counter transactions and Pay@Table (P@T) transactions. You can:

- Create one P@T tender for all P@T transactions.
- Create a P@T tender for each card type.

If you create a separate P@T tender for each card type, make sure to use easily-identifiable names such as **P@T Visa** and **P@T M.C.**

If the merchant wants to use the 3rd party processor’s reports, all transactions will be reported by card type and will not be separated into P@T vs P@C.

If the merchant wants to use local RES reports to show just 1 total for each card type, they can have a custom report made that combines the Pay@Counter and Pay@Table tenders for each card type.

The following example provides instructions for creating one P@T tender for all P@T transactions.

1. **Poscfg | Sales | Tender Media**, copy **Cash Tender** and paste it.
2. Rename it to **P@T**.
3. Configure P@T tender according to the following screenshots.
### General Options

- Open drawer
- Use with currency conversion
- Reference required
- Except auto service charge
- Except inclusive service charge
- Employee meal
- Assume paid in full
- Require amount entry
- Declare tips paid
- Item is shareable
- Post to gross receipts
- Post to charge receipts
- Post fiscal cash register credit
- Tax exempt coupon
- Allow with E.L.S.
- Use with Tip Check
- Check for placeholders
- Persist Auto Discounts
- Prompt for Promise Time
- Upon drawer before prompt
- Enforce beverage control

### Charged Tip Options

- HALO links to tender
- HALO links amount tendered

### External Type

- SPM Payment Type
4. **Preambles** tab = No Preambles.

5. **PMS** tab = Allow 19 reference characters.

**Pay@Table 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. Do not make changes to the interfaces and OPI mode. The P@T install does not change depending on the OPI Mode.

4. Select **POS Configuration**.

5. Double-click the existing property, and then configure the form as shown in the following image.
a. Enable **Pay@Table**. The Pay@Table certificate is provided by the partner and is part of the partner validation process.

b. Enter and confirm a **Pay@Table Cert Password**.

c. Set correct Pay@Table Port. 8993 is just an example.

6. Fill out the **RES Pay@Table Configuration** form:

   **Name**: name of the database, such as micros.

   **Host**: IP of RES Server.
If OPI is installed on the RES server, you can enter 127.0.0.1.
If OPI is installed on a different PC, you must enter the actual IP of the RES server.

**Port:** Do not change from 2638.

**Max pool:** 40

**User:** the username of a Micros.db user

**Password:** the password for the Micros.db user.

7. Fill out the **Tender Configuration** section to link each tender to the P@T tender. If you configured separate P@T tenders for each card type, make sure to enter the correct tender number.

   a. Unused tenders: Leave the entry blank.
   b. Gift Cards: Leave the entry blank (not supported).
   c. ServiceNum: Enter the **Print Check** tender number.

8. For each terminal you want to add, click **Add Pay@Table Terminal**, and then enter the terminal information:

   a. Mobile Device ID: enter and assign an ID for the P@T terminal.
   b. Select **Query by Check** or **Query by Table**. Query by Table will bring up all checks open at that table.

9. To add another Merchant ID or Property, click **Continue**.

10. To finish configuration, click **Exit**, and then save the changes. Restart the server if prompted by the installation wizard.

**Pay@Table Config.exe**

1. Verify all settings are as they should be in config.exe and make any changes if necessary.

2. Double-click `\OraclePaymentInterface\bin\config.exe` to start the Oracle Payment Interface Configuration tool, and then enter the administrator credentials to the computer.
3. Left click on `posApi`, then right click on `PCommand` and delete it. This will allow P@T transactions to post.

4. You do not need to make changes to `terminal47`. You can view or configure information for the Pay@Table terminals.

5. **You must change the vx6702 Port** to the port used for connecting to the 3rd party. The MICROS KDSController service uses port 5023. You must change this
port even if you are not using Pay@Table.

6. Exit the configuration tool and save the changes.
7. Restart OPI service.
8. System is ready to run a test transaction.

**POS Configuration for Native Driver**

Credit card drivers, including CaOPI, require complex security. Ops.exe does not start if complex security is not enabled. The troubleshooting section contains instructions for enabling complex security.

**Install and Configure CaOPI driver**

1. Batch and Settle all current transactions.
2. Take Micros Control panel to off.
3. Verify Microsoft .NET Framework 4.6.1 is installed.
4. On the RES Server, double-click CaOPI.exe and follow the installation instructions.
5. You must run the CaOPI.exe installation on RES backup servers because it must register OpiProxy.dll. You cannot only copy the file to the backup servers. Make sure the to install Microsoft .NET Framework 4.6.1 on the backup server.

**Configure CaOPI Driver**

1. Take Micros Control Panel to Back of house.
2. Open Poscfg | Devices | CA/EDC Drivers.
3. Create a new record named OPI.
4. On the Driver tab, enter OPI as the Driver Code.
5. On the **System** tab, enter the **Host URL Part 1** and **Host URL Part 2**:

Use the IP of the PC where OPI is installed.

Do not use 127.0.0.1 even if OPI is installed on the RES server.
6. On the **Merchant** tab, enter the Merchant ID Number.

   ![Merchant tab screenshot]

   If you are using multiple merchant IDs, click the lower blue plus symbol to add another Merchant record. Use the record Number that Poscfg defaults to even if it is not in sequence. Add a Name for each Merchant record and the correct Merchant ID Number.

7. Link each revenue center to the correct Merchant.

   ![Revenue center linked to Merchant screenshot]

   Every revenue center must be linked to a Merchant. Checks should not be transferred between revenue centers with different Merchant IDs.
8. In Micros Control Panel, highlight **Restaurant**, and then click **Reload DB**. No driver configuration changes are complete until the DB has been reloaded.

**Credit Card Batch Configuration**

1. **Start** | **Run** | **CreditCards.exe** | **OPI**.

2. Enter the passphrase created during the OPI installation, and then click **Save**.

3. Verify it says the Passphrase saved successfully.

   ![Credit Card Batch Configuration](image)

   If you have a backup server configured and the Passphrase cannot be written to that PC, the passphrase will not save.

   **Note:** If a new backup server workstation is added after the OPI passphrase is entered in CreditCards.exe, you must re-enter the passphrase in CreditCards.exe again, so that the passphrase can be saved to the backup server.
4. **CreditCards.exe | diagnostics**, select OPI from CA/EDC Drivers, select **Update OPI PassPhrase**, and then click **Begin Test**.

   ![Credit Card Batch](Image)

   **Credit Card Batch**

<table>
<thead>
<tr>
<th>Create</th>
<th>Reports</th>
<th>Edit</th>
<th>Settle</th>
<th>Diagnostic</th>
<th>OPI</th>
</tr>
</thead>
</table>

   **Diagnostic Functions**
   - Get version
   - Update OPI PassPhrase

   **Status Information**
   - Submitting Diag Number [2] to Driver Seq [10]
   - OPI PassPhrase update succeeded

   **CA / EDC Drivers**
   - 1 - Demo Driver
   - 2 - OPI
   - 4 - TVCredit

   **User Defined Data**

   ![Begin Test](Image)

   ![Print](Image)

5. **Result** = "OPI Passphrase update succeeded"

   If the OPI Passphrase is changed to something other than what was used during the OPI installation, you must also change the value on the OPI side. See the **Utilities | RWregistry** section for more information.

---

**Employee Class Configuration**

- **Poscfg | Employees | Employee Classes | Options:**

  Enable **Tender with initial authorization** for the manager employee class or the class that can authorize special transactions for servers.

  This option is only needed for and only applies to OPI transactions.

  For example, if a bartender begins a check and does an initial authorization and then the customer leaves without paying their bill, the bartender will not be able to do another authorization without having the credit card. If they select CC final and an employee with this option enabled authorizes it, the check can be closed to the initial auth.

  See **POS Workstation Procedures**.
Tender Configuration

1. Navigate to Sales | Tender/Media | Tender, and then create a tender for a card using OPI. The following example uses an OPI tender for Visa. To create a default tender, follow the same instructions or make a copy of an existing tender, clear the card type ID field, and then name the tender accordingly.

2. Edit the Tender tab as described in the following:

   Reference required
   Assume paid in full
   Charged Tip linked if any TSR Revenue Centers.
   Empty if only QSR Revenue Centers.

3. Make sure the Presets tab is empty.

4. Enable the following options on the CC Tender tab:
   Credit Auth required.
   Mask Credit Card Number.
   Mask expiration date.
5. Edit the **Credit Auth** tab as described in the following:

- CA Driver = OPI
- EDC Driver = OPI
- Allow partial authorization = Enable (unless 3rd party does not support it.)
- Card Type = Enter the card type ID, in this case 00 for Visa. Card Type ID Reference contains a reference of the ID for each card type.

   **Note:** Some of the card type values have changed from OPI 6.1 to 6.1 MR1. The new values must be entered in Tender/Media | Credit Auth | Authorization, “Card Type”.

6. Make sure the **Preambles** tab is empty.

7. On the **PMS** tab, select **Allow 19 reference characters**.
8. On the **Personal Check** tab, select **Authorization required**, and then select **OPI** from the **Check Driver** drop-down list.

9. Save the tender.
Revenue Center Configuration

Navigate to Revenue Center | RVC Credit Cards | General. For each applicable revenue center, on the General tab:

- Select Allow 20 reference characters.
- Select Enable OPI mode.
- Set the Default OPI Tender.

If OPI is not enabled for all revenue centers, you cannot transfer checks with Credit auths between the differing revenue centers.

Upgrade Installation

Before upgrading

1. Batch and settle all credit transactions.
2. Know the MySQL root user account password.

Note: Some of the card type values have changed from OPI 6.1 to 6.1 MR1. The new values must be entered in Tender/Media | Credit Auth | Authorization, “Card Type”.

OPI Native Driver 2-24
Steps to upgrade from OPI 6.1

1. Take Micros Control Panel to off.

2. Double-click Oracle Payment Interface-6.1.1.9.exe to launch the install.

3. On the Missing dependency screen read the message and follow the instructions to copy a backup of the MySQL Server 5.6.35 installation files.

4. Exit the OPI installer.

5. Double click mysql-installer-community-5.6.35.0.msi and follow prompts to upgrade the MySQL version.

6. When the MySQL upgrade is complete, double-click Oracle Payment Interface-6.1.1.9.exe to launch the installer again.

7. Follow the on screen instructions.

8. The installation wizard launches the Oracle Payment Interface Configuration Tool.

   If it does not automatically start, (you do not see the screen above), double-click INSTALLATION_DIR\OraclePaymentInterface\bin\OPIconfigurationWizard.exe.

9. Verify all settings are correct or update them if needed.

10. On Configuration Summary screen, to add another Merchant ID or Property, click Continue.

11. To finish configuration, click Exit, save the changes, and then restart the computer.
Credit card transactions with OPI and the RES native CaOPI driver function the same as existing native drivers. You can now use the following features that were not supported by MGDH:

- Beverage control
- Place holders
- Splitting checks with auths.
- Adding checks with auths.
- Not limited to 5 auths per check.
- Auths can be associated with a specific seat.
- Can void a CC tender (before batch and settle).
- Credit auths print to the CA Voucher printer.

**TSR**

**CC Auth**

Button configuration = Function Transaction: Credit Authorize.

1. Begin check, ring food, and service total.
2. Pick up check, select Auth CC, and service total.

**CC Final**

Button configuration = Function Transaction: Credit Finalize.

1. Pick up check with a CC auth and select CC Final.
2. Select No to "Chg tip amount is 0.00".
3. Enter total amount including tip and select CC Final.
4. Click OK at the tip amount prompt.

**Void CC Tender**

1. Re-open the closed check.
2. Select CC tender payment.
3. Click the **Void** button. (Normal RES void button. No SIM.)
Adjust tip

1. Starting from the steps above with the CC tender already voided, enter 15.00 and select CC Final. This applies 10.00 to the amount due and raises the tip from 3.00 to 5.00.
2. Click Yes to tip prompt.

Voice / Manual Auth

This is only supported in TSR.
   1. Begin check, ring food, and service total.
   2. Pick up check, and select Manual CC.
   3. Enter the voice auth code when Ops prompts for it.

Refund

1. Begin check, and then select Void.
2. Ring up $10.00 food, and then select CC auth.

Result = A $10.00 refund is applied to the card and the check closes without having to hitting CC final.
Customer and Merchant copies of Refund voucher print.
Move Auth

Pick up a check with food rung on seats 1 and 2 and a CC auth on seat 2.
1. Click Split Check and select the food and auth on Seat 2.
2. Click in the Check 2 window.

CC Reprint

CC Reprint cannot be used from within a check.
Button configuration = Function Transaction: On Demand CC Voucher.
Vouchers can be reprinted for open or closed checks.
1. Sign into Ops, but do not begin a check.
2. Enter a check # and select CC Reprint.
3. The vouchers will reprint showing ***Reprint*** at the top.
4. If just CC Reprint is hit, the auth from the last check that was open on that specific workstation will be reprinted. If it has multiple auths on it, a list of those auths will be shown so the user can select one. If there were no CC auths on the last check then it will show: “No CC Voucher Found to Print”.

Initial Auth

Button configuration = Function Transaction: Initial Authorize
1. Sign into Ops, begin check, enter an amount and select **Initial Auth.**
2. That amount will be authorized, but no vouchers will print.
3. To close the check later, do a **CC auth** and **CC final** with the card.
4. If the patron has left without paying (card not present), select **CC Final**.
5. Ops will prompt: “Use initial authorization to finalize the check?”
6. Click **Yes** to prompt.
7. Ops will prompt for a user with this privilege to authorize the transaction. (Employee Classes | Options, “Tender with initial authorization)

**QSR**

**CC Sale**

Button configuration = Function Transaction: Credit Card Lookup.
1. Sign into QSR revenue center and ring in order.
2. Select **CC Sale**.

**Void CC Tender**

1. Re-open the closed check and select **CC tender payment**.
2. Click the **Void** button. This is a normal RES void button and not SIM.

**CC Reprint**

Button configuration = Function Transaction: On Demand CC Voucher.

CC Reprint cannot be used from within a check.

Vouchers can be reprinted for open or closed checks.
1. Sign into Ops, but do not begin a check.
2. Enter a check # and select **CC Reprint**.
3. The vouchers will reprint showing ***Reprint*** at the top.
4. If just CC Reprint is hit, the auth from the last check that was open on that specific workstation will be reprinted. If it has multiple auths on it, a list of those auths will be shown so the user can select one. If there were no CC auths on the last check then it will show: “No CC Voucher Found to Print”.

**Refund**

1. Select **Void**, and then ring $10.00 food.
2. Select **CC sale**.

Result = A $10.00 refund is applied to the card and the check closes.

Customer and Merchant copies of Refund voucher print.
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.
- Enable Pay@Table
- Add Pay@Table terminals
- 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 Update 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 passphrase on the RES side?
A: Use the CreditCards.exe tool:
   1. Navigate to CreditCards.exe | OPI, change the password, and then click Save.
   2. Navigate to CreditCards.exe | diagnostics, select OPI, select Update OPI PassPhrase, and click Begin Test.
   3. Wait for the operation to complete and verify that you get the message: OPI Passphrase update succeeded.

Q: How do I update the OPI DB user password?
A: First change the pw in MySQL.

   1. Stop OPI service.
   2. Start | All programs | MySQL | MySQL Server 5.6 | MySQL 5.6 Command line Client.
   3. Enter the MySQL root user account pw at the prompt.
   4. Select user,password,host from mysql.user;
      Result = shows root user 3 times and OPIDBuser 2 times.
      The following commands use a DB user name of 'OPIDBuser' as an example.
5. Update mysql.user set password=PASSWORD('YourNewPWgoesHere') where user='OPIDBuser';
   Result = When successful it shows: 'Query OK, 2 rows affected"
6. Select user,password,host from mysql.user;
   Result = the hashed PW for OPIDBuser should now be different than in step 3 above.
7. Exit MySQL.

Then, change it to match on the OPI side in rwregistry.

1. Go to OraclePaymentInterface\Bin\ and right click rwregistry.exe and "Run as Administrator".
2. Login using the administrative user credentials given during install.
3. From the drop-down, select Update Database Creds.
   User: Enter the OPIDBuser name given during install (and changed in MySQL).
   Password: Enter new PW. Same as used in MySQL.
   a. Confirm pw: confirm pw.
   b. Click Commit.
   c. Result: "Committed update successfully"
5. Restart MySQL svc
6. Restart OPI svc
7. If using an OPI simulator, restart the simulator.

**Config.exe**

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. Settings can be viewed and or updated here.
3. After making changes, save and exit.
4. Restart the OPI service.

**card**

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amex</td>
<td>2 3400000000 3499999999 13 0 0</td>
<td>AMEX card schema.</td>
</tr>
<tr>
<td>JCB</td>
<td>4 3528000000 3589999999 16 0 0</td>
<td>JCB card schema.</td>
</tr>
<tr>
<td>Mastercard</td>
<td>1 5100000000 5599999999 16 1 0</td>
<td>MasterCard card schema.</td>
</tr>
<tr>
<td>Visa</td>
<td>0 4000000000 4999999999 16 1 0</td>
<td>Visa card schema.</td>
</tr>
</tbody>
</table>
### currency

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>036</td>
<td>036</td>
<td>AUD</td>
</tr>
</tbody>
</table>

### dll

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mode</td>
<td>8</td>
<td>8 = Native, 3 = MGDH</td>
</tr>
<tr>
<td>Port</td>
<td>5098</td>
<td>Default port for POS request.</td>
</tr>
</tbody>
</table>

### ifc8

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CpPolicy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Dp_pms_connection_check</td>
<td>true</td>
<td></td>
</tr>
<tr>
<td>Pms_check_inactive_interval</td>
<td>73</td>
<td></td>
</tr>
<tr>
<td>Pms_inactive_gate</td>
<td>313</td>
<td></td>
</tr>
<tr>
<td>TotalMerchantNumber</td>
<td>0-n</td>
<td>Total merchant number for OPERA, depends on merchant configuration.</td>
</tr>
</tbody>
</table>

### ifc8X

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition_code</td>
<td>42</td>
<td>Default value.</td>
</tr>
<tr>
<td>Currency_code</td>
<td>840</td>
<td>Merchant currency code, please refer to chapter 4.</td>
</tr>
<tr>
<td>Currency_code_decimal</td>
<td>2</td>
<td>Currency decimal.</td>
</tr>
<tr>
<td>Device_merchant_id</td>
<td>xxxxxxxxxx</td>
<td>OPERA Chain and Property ID.</td>
</tr>
<tr>
<td>ExternalMode</td>
<td>true</td>
<td>Default value.</td>
</tr>
<tr>
<td>Merchant_city</td>
<td>xxxxxxx</td>
<td>Merchant city, maximum is 13 characters.</td>
</tr>
<tr>
<td>Merchant_country</td>
<td>xx</td>
<td>Merchant country, please refer chapter 4.</td>
</tr>
<tr>
<td>Merchant_id</td>
<td>MGS-OPERA</td>
<td>Default value.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>---------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>Merchant_name</td>
<td>xxxxxxxxx</td>
<td>Merchant name, maximum is 25 characters.</td>
</tr>
<tr>
<td>Merchant_type</td>
<td>7011</td>
<td>Merchant MCC code.</td>
</tr>
<tr>
<td>PaymentCode_0</td>
<td>VA</td>
<td>Visa transaction code in OPERA.</td>
</tr>
<tr>
<td>PaymentCode_1</td>
<td>MC</td>
<td>MasterCard transaction code in OPERA.</td>
</tr>
<tr>
<td>PaymentCode_10</td>
<td>CU</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_11</td>
<td>DD</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_12</td>
<td>DL</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_15</td>
<td>GC</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_17</td>
<td>MD</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_18</td>
<td>ME</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_19</td>
<td>VE</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_2</td>
<td>AX</td>
<td>AMEX transaction code in OPERA.</td>
</tr>
<tr>
<td>PaymentCode_21</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_24</td>
<td>VP</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_25</td>
<td>AL</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_26</td>
<td>EC</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_29</td>
<td>MX</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_3</td>
<td>DC</td>
<td>Diners transaction code in OPERA.</td>
</tr>
<tr>
<td>PaymentCode_32</td>
<td>PC</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_4</td>
<td>JC</td>
<td>JCB transaction code in OPERA.</td>
</tr>
<tr>
<td>PaymentCode_40</td>
<td>BC</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_9</td>
<td>CC</td>
<td></td>
</tr>
<tr>
<td>Pms_server_ip</td>
<td>xx.xx.xx.xx</td>
<td>OPERA IFC8 server IP.</td>
</tr>
<tr>
<td>Pms_server_port</td>
<td>xxxx</td>
<td>OPERA IFC8 server port.</td>
</tr>
<tr>
<td>SwitchID</td>
<td>0Q</td>
<td>Default value.</td>
</tr>
<tr>
<td>Terminal_id</td>
<td>OPERA1</td>
<td>Default value.</td>
</tr>
<tr>
<td>User3</td>
<td>********</td>
<td>OPERA IFC8 encryption key.</td>
</tr>
</tbody>
</table>
**master**

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>systemType</td>
<td>1</td>
<td>Default value.</td>
</tr>
</tbody>
</table>

**parameter_level**

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>US</td>
<td></td>
</tr>
<tr>
<td>Instance</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Region</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>Solution</td>
<td>OPI</td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>OnSite</td>
<td></td>
</tr>
</tbody>
</table>

**payment**

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country</td>
<td>US</td>
<td></td>
</tr>
<tr>
<td>Dll</td>
<td>0/1</td>
<td>Enable or disable port for POS. 0 is disable port, 1 is enable port.</td>
</tr>
<tr>
<td>Opera</td>
<td>0</td>
<td>Default value.</td>
</tr>
<tr>
<td>Opera2</td>
<td>0</td>
<td>Default value.</td>
</tr>
<tr>
<td>OptionByte2</td>
<td>true</td>
<td>Default value.</td>
</tr>
<tr>
<td>OptionByte4</td>
<td>true</td>
<td>Default value.</td>
</tr>
<tr>
<td>Pos</td>
<td>0</td>
<td>Default value.</td>
</tr>
<tr>
<td>Pos9700</td>
<td>0</td>
<td>Default value.</td>
</tr>
<tr>
<td>RefreshTime</td>
<td>0 29 0 **?</td>
<td>OPI refresh time to reload merchant configuration and purge history transaction data.</td>
</tr>
<tr>
<td>RemoveDevice4</td>
<td>0/1</td>
<td>Enable or disable port for Pay@Table device. 0 is disable port, 1 is enable port.</td>
</tr>
<tr>
<td>Running_mode</td>
<td>0</td>
<td>Default value.</td>
</tr>
<tr>
<td>Server</td>
<td>0Q</td>
<td>Default value.</td>
</tr>
</tbody>
</table>
### TimeZone
- **TimeZone**: America/New_York
- **Description**: Merchant time zone, follow Java time zone format.

### Ifc8
- **Value**: 0/1
- **Description**: Enable or disable function for OPERA IFC8 interface. 0 is disable function, 1 is enable function.

### pinpadAddress2

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xxxxxxxx_xx</td>
<td>TID IP</td>
<td>PED mapping list, please refer to chapter 4.</td>
</tr>
</tbody>
</table>

### posApi

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Century</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>CommandSleep</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>CommandSleep2</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Currency</td>
<td>840</td>
<td>Merchant currency code, please refer to chapter 4.</td>
</tr>
<tr>
<td>Mode</td>
<td>2</td>
<td>RES IIS mode, default value.</td>
</tr>
<tr>
<td>NeedAdjustReceipt</td>
<td>false</td>
<td>Default value, doesn’t allow Pay@Table modify exist check.</td>
</tr>
<tr>
<td>PCommand</td>
<td>CREDIT_AUTHORIZE_AND_PAY</td>
<td>This PCommand value must be deleted for Pay@Table to be able to post with RES Native in OPI 6.1.1.9. It should remain for MGDH solution. PCommand is re-created every time the Wizard is run and any change is saved.</td>
</tr>
<tr>
<td>PaymentCode_0</td>
<td>xxx</td>
<td>Visa tender number in POS configuration.</td>
</tr>
<tr>
<td>PaymentCode_1</td>
<td>xxx</td>
<td>MasterCard tender number in POS configuration.</td>
</tr>
<tr>
<td>PaymentCode_10</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_11</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>PaymentCode_12</td>
<td>xxx</td>
<td></td>
</tr>
<tr>
<td>Key</td>
<td>Value</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>TotalMerchantNumber</td>
<td>0-n</td>
<td>Total merchant number for RES, depend by merchant configuration.</td>
</tr>
</tbody>
</table>

**posRes**

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TotalMerchantNumber</td>
<td>0-n</td>
<td>Total merchant number for RES, depend by merchant configuration.</td>
</tr>
</tbody>
</table>
### posResX

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition_code</td>
<td>42</td>
<td>Default value.</td>
</tr>
<tr>
<td>Currency_code</td>
<td>840</td>
<td>Merchant currency code, please refer to chapter 4.</td>
</tr>
<tr>
<td>Currency_code_decimal</td>
<td>2</td>
<td>Currency decimal.</td>
</tr>
<tr>
<td>Device_merchant_id</td>
<td>xxxxxxxx</td>
<td>CMID, assig by OPI installer.</td>
</tr>
<tr>
<td>Merchant_city</td>
<td>xxxxxx</td>
<td>Merchant city, maximum is 13 characters.</td>
</tr>
<tr>
<td>Merchant_country</td>
<td>xx</td>
<td>Merchant country, please refer to chapter 4.</td>
</tr>
<tr>
<td>Merchant_id</td>
<td>MGS-POS 3700</td>
<td>Default value.</td>
</tr>
<tr>
<td>Merchant_type</td>
<td>5812</td>
<td>Merchant MCC code.</td>
</tr>
<tr>
<td>Pos_type</td>
<td>posRES</td>
<td>POS version definition.</td>
</tr>
<tr>
<td>SwitchID</td>
<td>0Q</td>
<td>Default value.</td>
</tr>
<tr>
<td>Terminal_id</td>
<td>POS3700</td>
<td>Default value.</td>
</tr>
</tbody>
</table>

### posSybase1

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>InitIdle</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>MaxPool</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>MaxWait</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>MinIdle</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>ResDB</td>
<td>Micros</td>
<td>RES DB name, default value.</td>
</tr>
<tr>
<td>ResHost</td>
<td>xx.xx.xx.xx</td>
<td>RES Server IP.</td>
</tr>
<tr>
<td>ResPassword</td>
<td>*******</td>
<td>RES DB user password.</td>
</tr>
<tr>
<td>ResPort</td>
<td>2638</td>
<td>RES Server Sybase database port, default value.</td>
</tr>
<tr>
<td>ResUser</td>
<td>*******</td>
<td>RES DB user name.</td>
</tr>
</tbody>
</table>
### server0Q

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ConnectTimeout</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Host</td>
<td><a href="https://xx.xx.xx:port">https://xx.xx.xx:port</a></td>
<td>3rd PSP middleware URL.</td>
</tr>
<tr>
<td>HostMode</td>
<td>true/false</td>
<td>Terminal mode (PED direct connection) = false. Middleware mode = true.</td>
</tr>
<tr>
<td>Port</td>
<td>8080</td>
<td>Port for 3rd PSP PED or middleware.</td>
</tr>
<tr>
<td>Timeout</td>
<td>60</td>
<td>Timeout value for OPI send request to 3rd PSP PED or middleware.</td>
</tr>
<tr>
<td>UseSSL</td>
<td>true</td>
<td>Default value, OPI send request to 3rd PSP PED or middleware by HTTPS.</td>
</tr>
<tr>
<td>UseTCP</td>
<td>false</td>
<td>Default value.</td>
</tr>
<tr>
<td>UseInquiryMode</td>
<td>true</td>
<td>This parameter must be added manually and it only affects Middleware mode.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>true = do transaction Inquiry. false = do reversal.</td>
</tr>
</tbody>
</table>

### switch

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0Q</td>
<td>-1</td>
</tr>
<tr>
<td>1</td>
<td>0Q</td>
<td>-1</td>
</tr>
<tr>
<td>11</td>
<td>0Q</td>
<td>-1</td>
</tr>
<tr>
<td>2</td>
<td>0Q</td>
<td>-1</td>
</tr>
<tr>
<td>3</td>
<td>0Q</td>
<td>-1</td>
</tr>
<tr>
<td>4</td>
<td>0Q</td>
<td>-1</td>
</tr>
<tr>
<td>8</td>
<td>0Q</td>
<td>-1</td>
</tr>
</tbody>
</table>
### terminal47

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>xxxxxxxx</td>
<td>xx_xxxxxxx_x</td>
<td>Please refer to chapter 4 for Pay@Table device mapping.</td>
</tr>
</tbody>
</table>

### vx6702

<table>
<thead>
<tr>
<th>Key</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CertPass</td>
<td>****</td>
<td>Pay@Table certificate password.</td>
</tr>
<tr>
<td>PayAtTableServer</td>
<td>0Q</td>
<td>Default value.</td>
</tr>
<tr>
<td>Port</td>
<td>5023</td>
<td>Default port for Pay@Table device request. The RES KDScontroller uses port 5023 so this value should always be changed.</td>
</tr>
<tr>
<td>UseDeviceRRN</td>
<td>true</td>
<td>Default value.</td>
</tr>
<tr>
<td>UseSSL</td>
<td>true/false</td>
<td>Pay@Table connection mode, default is “true” to use HTTPS for Pay@Table request.</td>
</tr>
</tbody>
</table>
5 Troubleshooting and FAQs

Troubleshooting

**Situation 1:** Unable to launch config.exe on Server 2008 R2.

**Solution:** Right click and config.exe and select “Run as Administrator”.

**Situation 2:** 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:
2. Restart the OPI Service.
3. Temporarily bypass the firewall.
4. Verify OPI is listening on port 5098.
5. Open CMD prompt: C:\>netstat > c:\temp\ports.txt
6. Search ports.txt for “5098”.

**Situation 3:** When starting Ops you see:

![PCI Security Settings are NOT in Place](image)

One or more of the following violations have been detected:
- Default DBA/MICROS database password(s) in use
- Default Sensitive Data/Database encryption passphrase(s) in use
- Tender/Media masking options not properly configured
- Complex Security not properly configured

Refer to the MICROS Security Event Log and/or the 3700d.log for more details

**Solution:**
- Enable Complex security.
- Look in event viewer to see what the specific issue or issues are.
- Correct the issues listed.

If Ops does not start, go to **Event Viewer | Applications and Services Logs | Micros Security** and see what the issue is.

Example below.
Setup a complex password for power user.

- Give your manager or power user a User Password with both letters and numbers and at least 7 characters.
- You will not be able to open any back office application without this complex User Password.

**Poscfg | Employees | Employees | Security**

- Give your manager or power user a User Password with both letters and numbers and at least 7 characters.
- You will not be able to open any back office application without this complex User Password.
Poscfg | System | Restaurant | Security:
- Disable Use Micros Classic Security.
- Days Until Password Expires = not greater than 90
- Maximum Idle Time in Minutes = 15 or less
- Require AlphaNumeric Passwords = On
- Minimum Password Length = at least 7
- Maximum Failed Logins = not greater than 6
- Password Repeat Interval = at least 4
- Before exiting Poscfg, test your new complex password by logging into another application like CreditCards.exe.

Poscfg | Sales | Tender / Media | CC Tender, and then enable:
- Verify before authorization
- Credit auth required
- Mask Credit Card Number
- Mask Expiration Date

The “Micros” and “DBA” user passwords must not be the defaults. These passwords can be changed in Database Manager | Users | Passwords.

The “Database Key” and “Data Key” values must not be the defaults. These values can be changed in Database Manager | Encryption Keys.

After making all of the above changes, Ops should start. If not, go back to event viewer and see what it says.

Situation 4:
If you have more than one card settlement driver, and you decide to clear sales totals, you will need to manually delete the batch history of those drivers to avoid future batch settlement issues. This is a very rare configuration and situation, but here are the details. When sales totals are cleared, and a new batch is created it will be batch 1. The existing batch 1 is found in batch history and all batches for that settlement driver are automatically deleted. This is by design as it prevents duplicate batch numbers. But if a 2nd settlement driver exists that does not have a batch 1, that driver’s batch history will not be automatically cleared.

Solution:
After clearing sales totals open the registry to HKLM\Software\Wow6432Node\MICROS\Common\CCS\DrvrCfg and open each “Drvr#” record. Example: Drvr5
If the Drvr# folder contains a “History” folder, delete the entire History folder. If there is no History folder, nothing needs to be done for that driver. Repeat this for every Drvr# record.

Situation 5:
Attempting to get an auth results in error “Failed to send OPI request [-214].”
Solution:
Install Microsoft .NET Framework 4.6.1 on both server and backup server.

Situation 6:
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 MR1, but leaving info, 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 RES.
The solution is to change the POS passphrase at both RES and OPI to be the same value. The steps to do this are in the Utilities | RWregistry section.

Solution 4:
If nothing is writing to the debug.log at all when you get the “Unknown decline reason [99]” error, then you likely have the wrong dll mode setting.
1. Open OraclePaymentInterface\Bin\config.exe | dll
2. Change mode to 8. (8 is for Native Driver solution. 3 is for MGDH.)
3. Save changes, and then restart OPI service.

Situation 7: “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 MR1.

**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 7:** Wrong IP address in Config | pinpadAddress2 for that terminal.

Situation 8: “Bad Terminal ID”

**Cause 1:** In Config | pinpadAddress2, wrong Merchant ID or wrong workstation number.

**Cause 2:** Config | posRes1 | Device_merchant_id is not set correctly.

**Cause 3:** Forgot to restart OPI service after making changes in config.exe or the wizard.
Q1: How can I change the port that OPI listens on from 5098 to 8089 (as an example)?

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.
7. Open `Poscfg | Devices | CA / EDC Drivers | System`, select the OPI driver, and then change the Host URL to use the new port. Save changes.
8. In Micros Control Panel, select **Restaurant** and click **Reload DB**.

Q2: If a transaction can't finish for some reason. (for example, your network is shutdown), how does OPI handle it?

A: If HostMode is false, (Terminal mode) OPI automatically sends a reversal transaction to void the previous one.

If HostMode is true, (Middleware mode) OPI automatically sends an inquiry transaction every 3 minutes until bank give a response (decline or approve).
This can be changed by adding the UseInquiryMode parameter:
1. Run `config.exe`. 

---

**Troubleshooting and FAQs**

5-7
Appendix

6. Select server0Q from left list, right click, select add, add UseInquiryMode.

UseInquiryMode = true, means do a transaction inquiry.
UseInquiryMode = false, means do a reversal.

3. This parameter has no affect unless HostMode = true

Not Supported

Not supported in the RES Native driver solution:
- Gift Cards
- TopUp Auth
- Balance Inquiry
- Void a refund (RES limitation)
- Debit (RES Native OPI)
- SaleCashBack (RES Native OPI)
- CC Voice/Manual CC for QSR (offline sale)
- Backup OPI Server

6 Appendix

Currency List

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<th>Value</th>
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PED Mapping Format

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<tbody>
<tr>
<td>CMID_WS</td>
<td>TID_IP</td>
</tr>
</tbody>
</table>

POS Format
CMID: need match “Device_merchant_id” in merchant configuration.
WS: POS workstation number.
TID: Terminal ID.
IP: PED IP.

OPERA Format
CMID: need match “Device_merchant_id” in merchant configuration.
WS: OPERA client name, can’t contain “_” and space.
TID: Terminal ID.
IP: PED IP.
## Pay@Table Mapping Format

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<th>Key</th>
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<td>or</td>
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<tr>
<td></td>
<td>Product_CMID_RVC_Option</td>
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</table>

### Format

PTID: Pay@Table device ID.

Product: POS definition, 2 characters.

- 0R: RES
- 0F: 9700
- 1Z: Simphony 1 & 2
- 1N: IFC8

CMID: need match “Device_merchant_id” in merchant configuration.

RVC: RVC number in POS will activate Pay@Table function.

Option: by default Pay@Table pickup check by table number, if option “C” attached will allow pickup check by check number.

### Card Type ID Reference

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<th>ID for OPI 6.1.1 and later</th>
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