Oracle® Payment Interface

Oracle Hospitality RES 3700 MICROS Gateway
Device Handler Installation Guide
Release 6.1
E84913-01

February 2017

ORACLE

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Preface

This document describes how to install Oracle Payment Interface (OPI) Release 6.1 with the Oracle Hospitality RES 3700 MICROS Gateway Device Handler (MGDH) and it explains how to configure RES 3700 for OPI with MGDH.

Audience

This document is intended for installers and system administrators of OPI and MGDH.

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
January 2017	Initial publication

1 Pre-Installation

Before You Start the Installation

Verify that your environment meets the following requirements:

- The application requires .NET Framework version 4.0 or higher.
- Upgrading from previous versions of MGDH to MGDH version 6.1.0.9 is not supported.
- Upgrading from previous versions of MPG/OPI to OPI version 6.1.0.9 is not supported.
- If a previous MGDH installation exists, go to Programs and Features and uninstall the previous MGDH installation. Then install the new MGDH.
- Verify with the merchant whether they use TSR (table service) or QSR (quick service), or both. (No tips allowed in QSR.)
- Verify with the merchant whether they would like "Refund" functionality activated or not. The merchant needs to control the privilege for this function.
- Verify with the merchant whether they would like "Sale&Cash" functionality activated. This allows a guest to get cash back with their purchase. This is only available for QSR.
- Make sure Microsoft Visual C++ 2010 is installed on the PC where MGDH and OPI will be installed.
- At least 6 GB of free disk space is required for OPI installation.
- You must install both MGDH and OPI as an Administrator.
- You will need to enter the user name and password of a Windows local admin during the installs.
- You will need to know a Micros database user name and password to install both MGDH and the Pay@Table portion of OPI.

Obtain the following information before installing the software:

- Confirm Merchant ID's
- Confirm receipt header details
- Tender Media numbers for each card type
- IP of OPI Server
- IP of POS Server
- SQL Root Password may be needed if there is an existing MySql already in place
- Workstation ID's and IP's that will integrate to a PINPAD

Note: If the MGDH setup software is run on a 3700 server with legacy MGDH files present in the CAL Files folders, manually remove these files before installation. Otherwise, the files deployed via the new CAL Packages will be constantly overwritten by the legacy files in the CAL Files folders and unexpected results will occur.

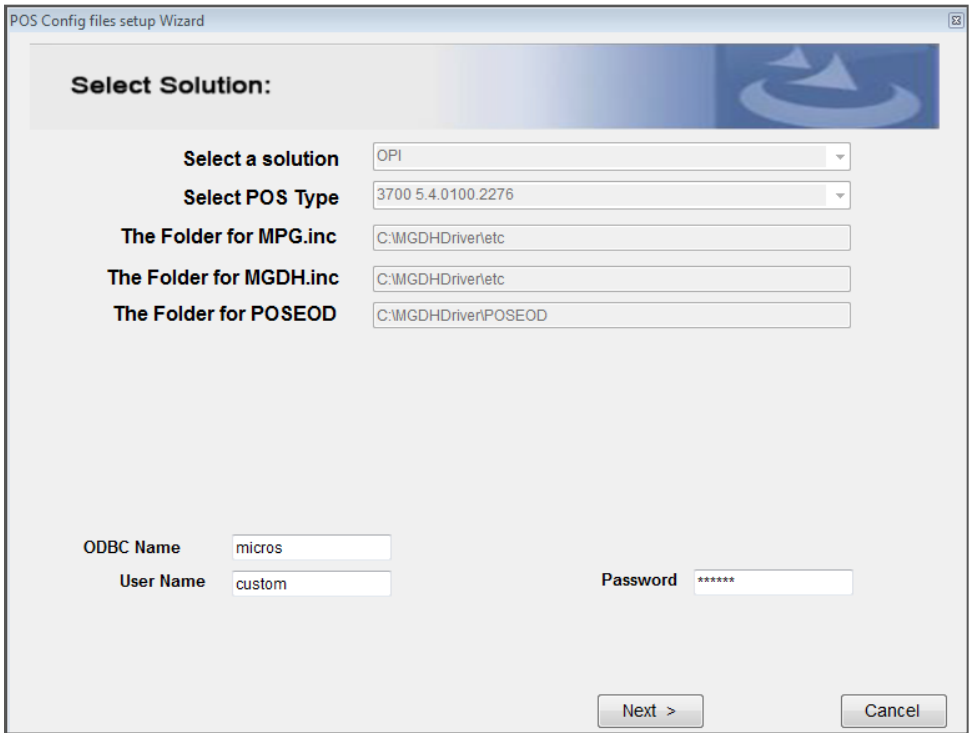
For example, check Micros\Res\CAL\WS5A\Files\CF\Micros\Etc for any legacy MGDH files. If found, delete all legacy MGDH files. In addition, check in the similar location for other workstation types. Lastly, if there is a Bin folder in Files, then check that folder as well.

2 MGDH OPI Solution

Installing MGDH

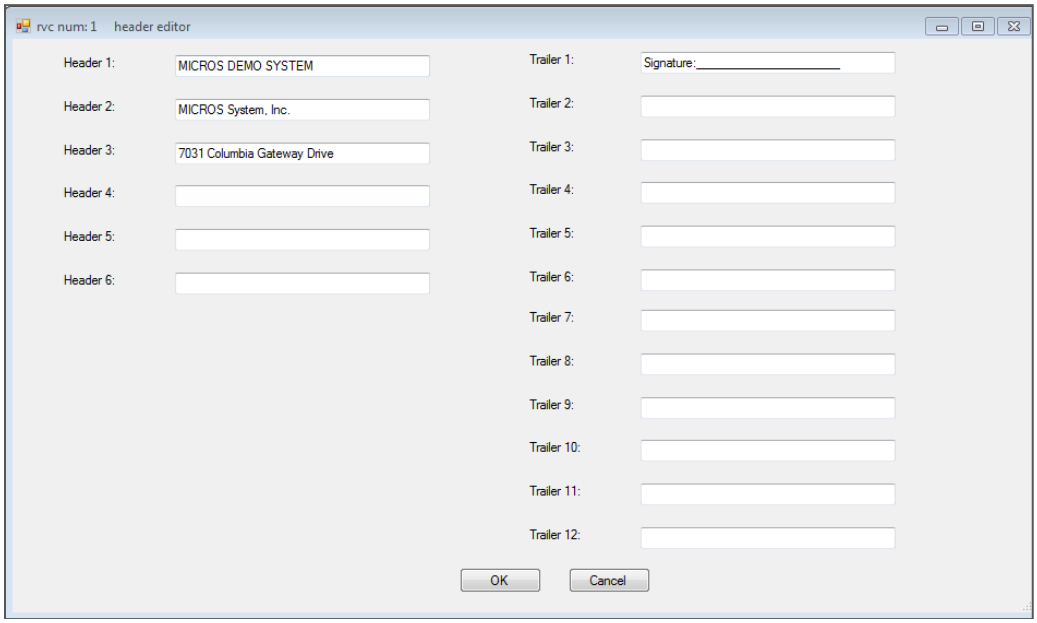
To install MGDH:

1. In Microsoft Windows, log in as an administrator, and then run the `MGDH_OPI_6.1.0.9.exe` file.
2. Click **Next**.
3. Select the install location, and then click **Next**.
4. Enter a database user name and password, and then click **Next**. It may take 10–20 seconds to connect to the database.

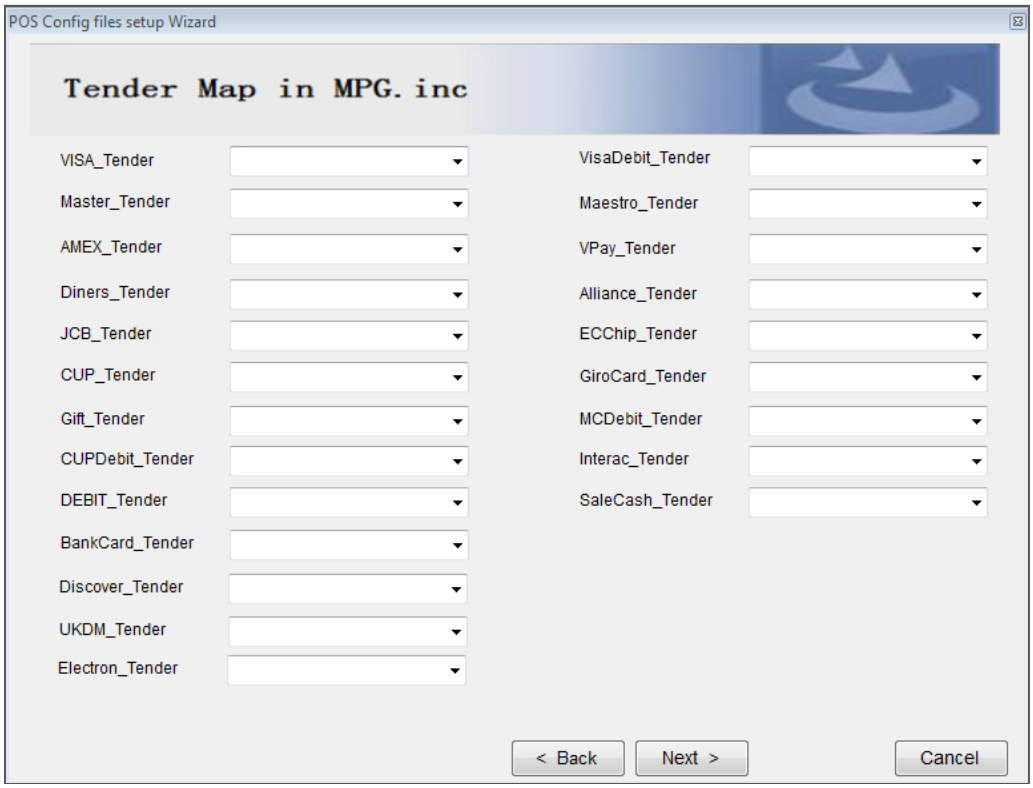


5. Select the currency, and then select the RVC Mode. QSR revenue centers do not allow tips.
6. To use one merchant ID, select **Single MerchantID**, enter the merchant ID, and then click **Next.**
7. To use multiple merchant IDs, select **Multiple Merchant ID**, and then click **Next**.
8. Enable all revenue centers that use MGDH.
9. If you selected **Multiple Merchant ID**, enter the merchant ID for each revenue center.
10. For **Mode**, select **TSR** or **QSR** for each revenue center. Tips are not allowed in QSR.

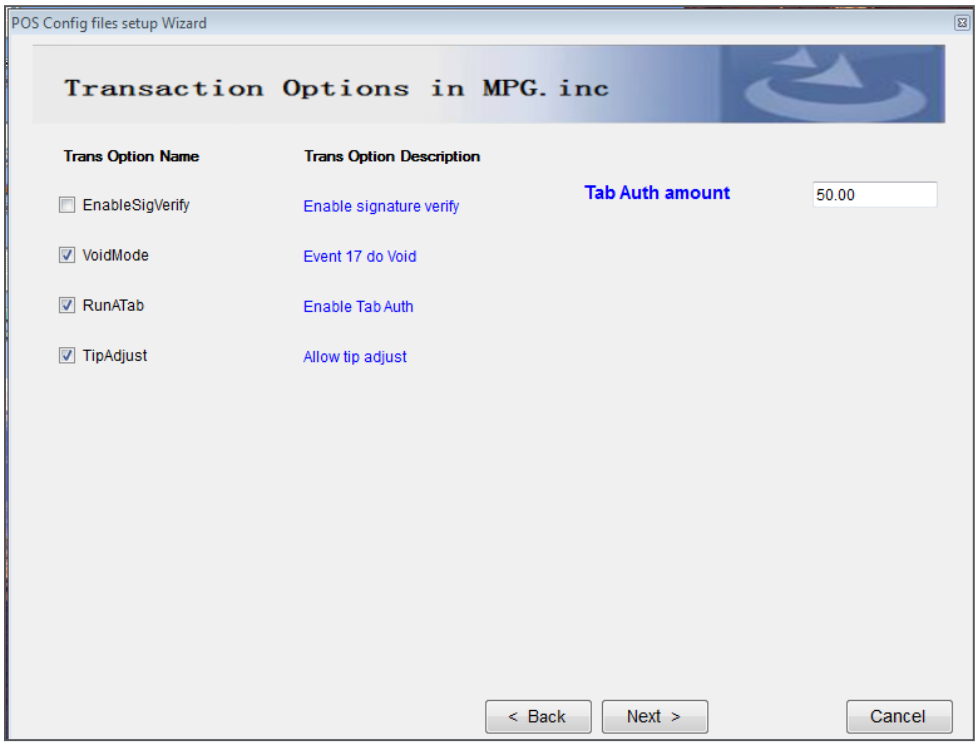
11. For each revenue center, click **Edit**, and then enter the revenue center headers and footers.



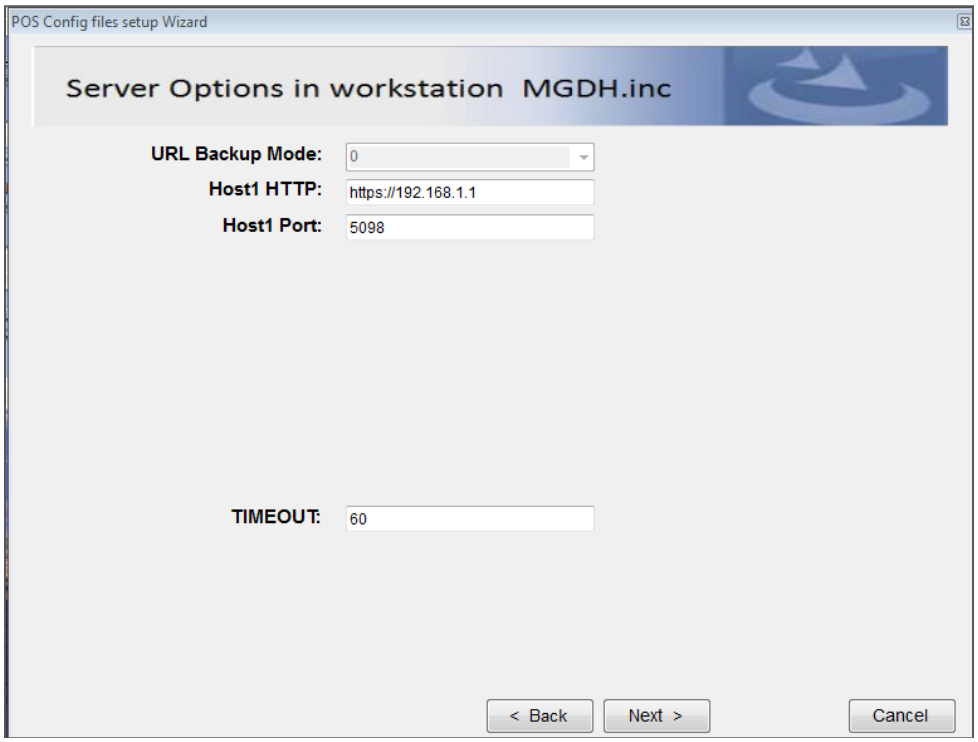
12. Select the tender from the drop-down for each card type.
If you do not have a specific tender listed, leave that entry blank.
Gift Cards are not supported in OPI 6.1, so leave that blank.



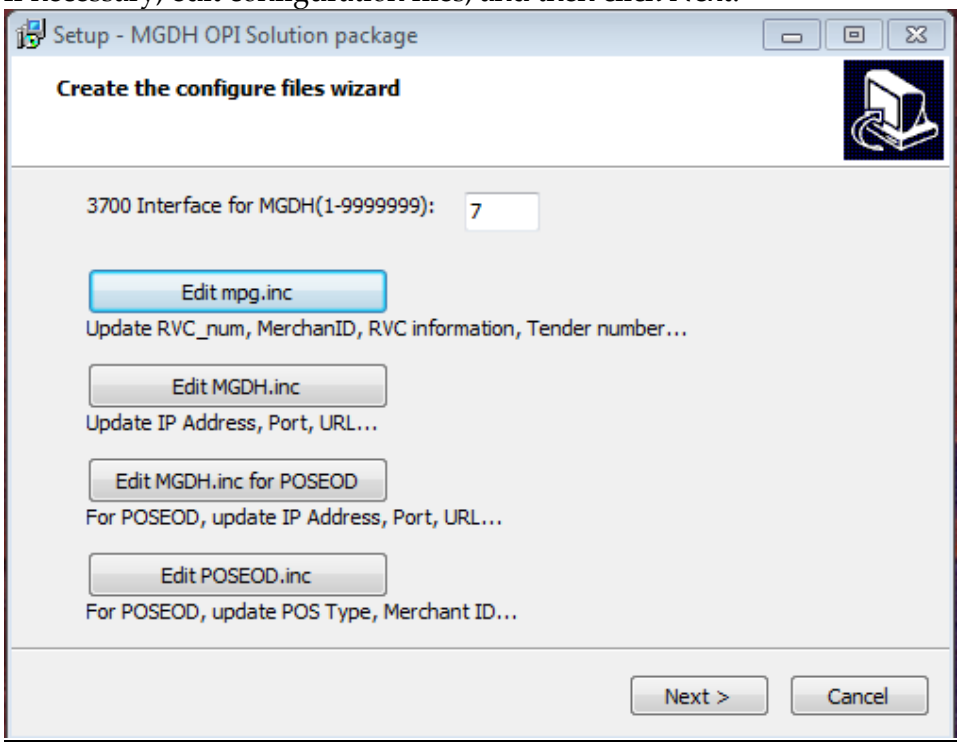
13. Select **VoidMode**, change the default selections if necessary, and then click **Next**.



14. Edit print options if necessary, and then click **Next**.
15. Enter the IP address of the computer that hosts OPI, and then click **Next**.



16. On the POSEOD Options screen, enter the IP address of the computer that hosts, enter the merchant IDs, and then click **Next**.
17. Click **OK**, and then click **Install** on the **Setup – MGDH OPI Solution package** screen.
18. If necessary, edit configuration files, and then click **Next**.



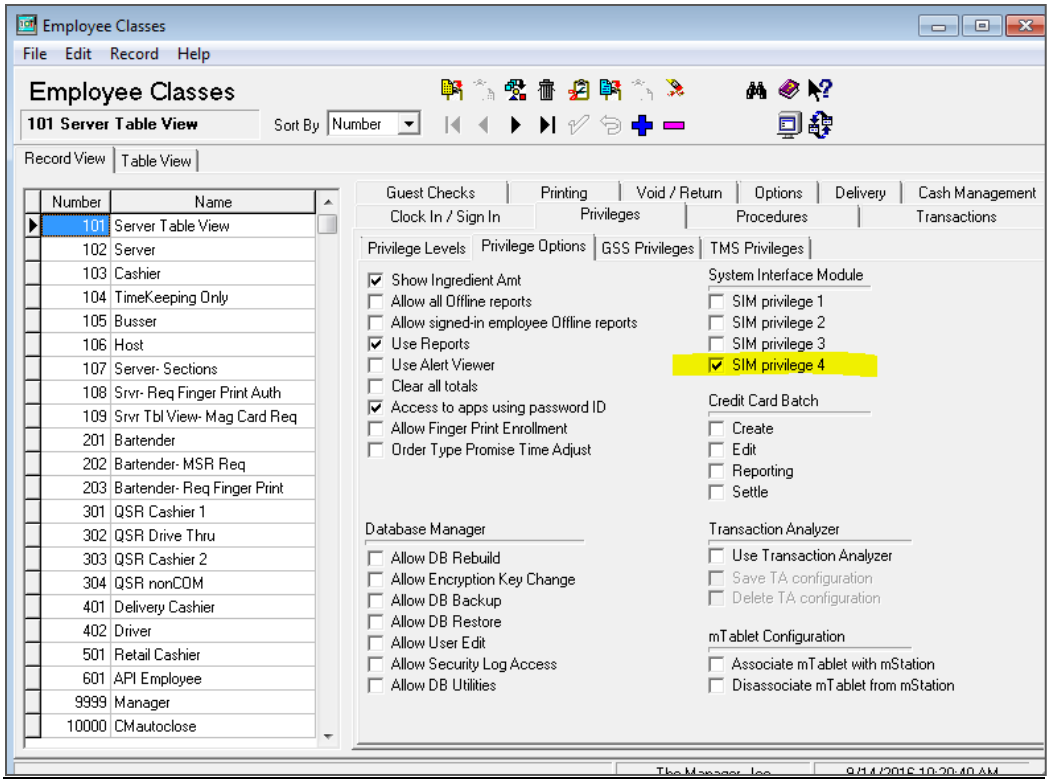
19. Click **Next**.
20. Select **No** to continue with the OPI installation.

POSCFG Configuration for MGDH

Employee Class / Refund

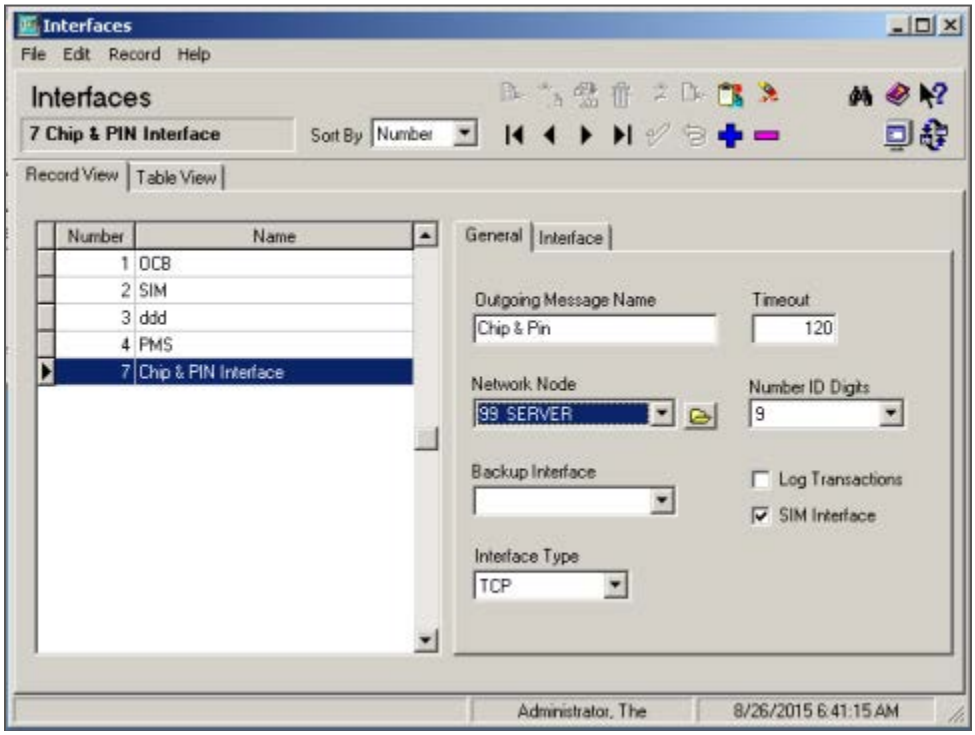
The ability to perform a refund is controlled by the **SIM privilege 4** option. To access, select **Employee Classes > Privileges > Privilege Options**.

Only enable this option with the merchant's permission and only for the employee class they specify.



Interfaces

To access interfaces, select **Poscfg > Devices > Interfaces**.

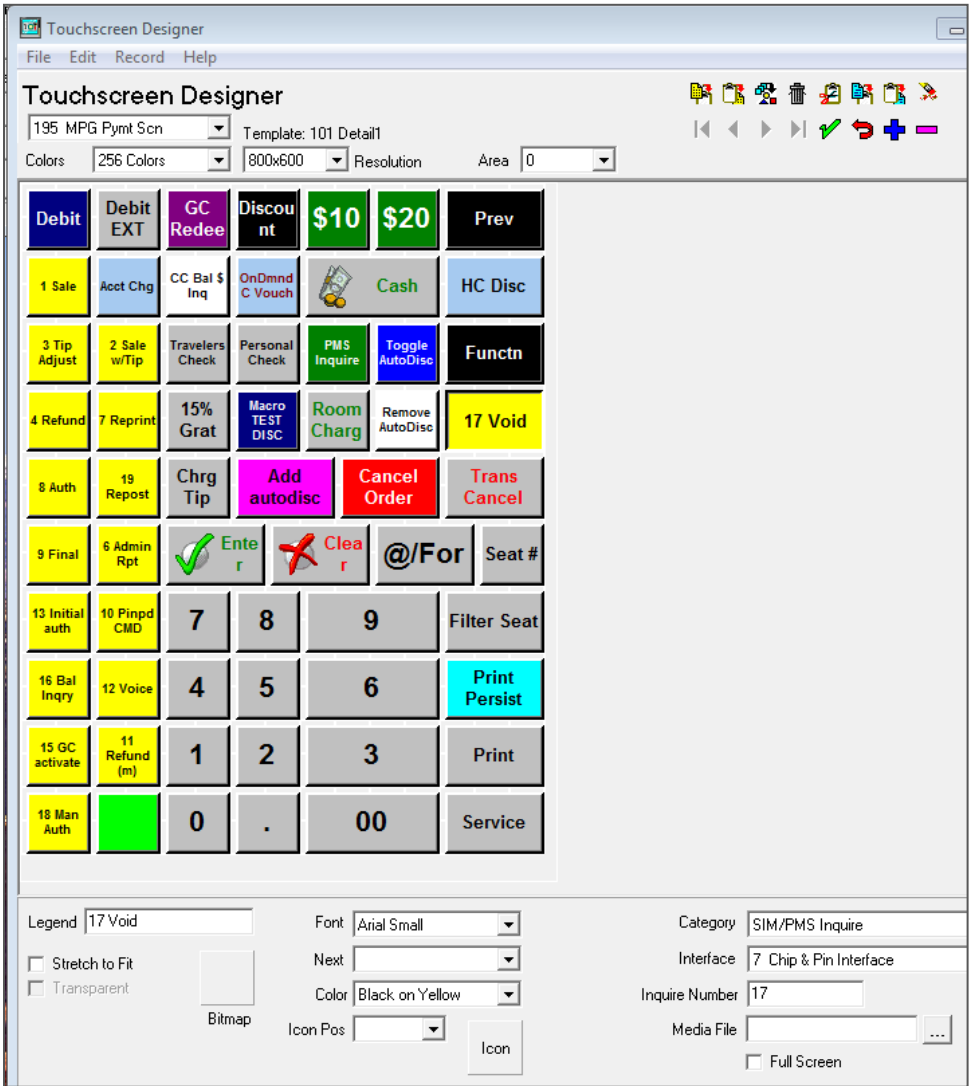


Use the following parameters:

- **Number**: 7
- **System Name**: Chip&PIN Interface
- **Outgoing Message Name**: Chip&PIN
- **Timeout**: 120
- **Network Node**: RES Server
- **Number ID Digits**: 9
- **SIM Interface**: enable
- **Type**: TCP

Touch Screens

To access touch screens, select **POSCFG > Devices > Touchscreen Designer**.



Link every Void key to SIM inquire number 17.

Link credit card tender keys to the correct SIM inquire # using the values below.

The buttons for TSR are listed as the following:

- [CC SALE]: SIM INQ #1
- [Tip Adjust]: SIM INQ #3
- [CC Refund]: SIM INQ #4 (Recommended refund method.)
- [Refund(m)]: SIM INQ #11
- [CC Auth]: SIM INQ #8

- [CC Final]: SIM INQ #9
- [CC Voice]: SIM INQ #12
- [Tab Auth]: SIM INQ #13
- [Balance Inq]: SIM INQ #16
- [Reprint]: SIM INQ #7
- [Repost]: SIM INQ #19
- [Void(e)]: SIM INQ #17
- [Manual Auth]: SIM INQ #18
- [Sale + Tip]: SIM INQ #2 (Supports tipping from the PED. If tipping from the PED is allowed, use INQ #2 instead of INQ #1.)

Note: [Void(e)] is a special button. It exists on POS 3700 only.
For other POS platforms, it is not needed.
All void buttons need to be replaced with it.

The buttons for QSR are listed as the following:

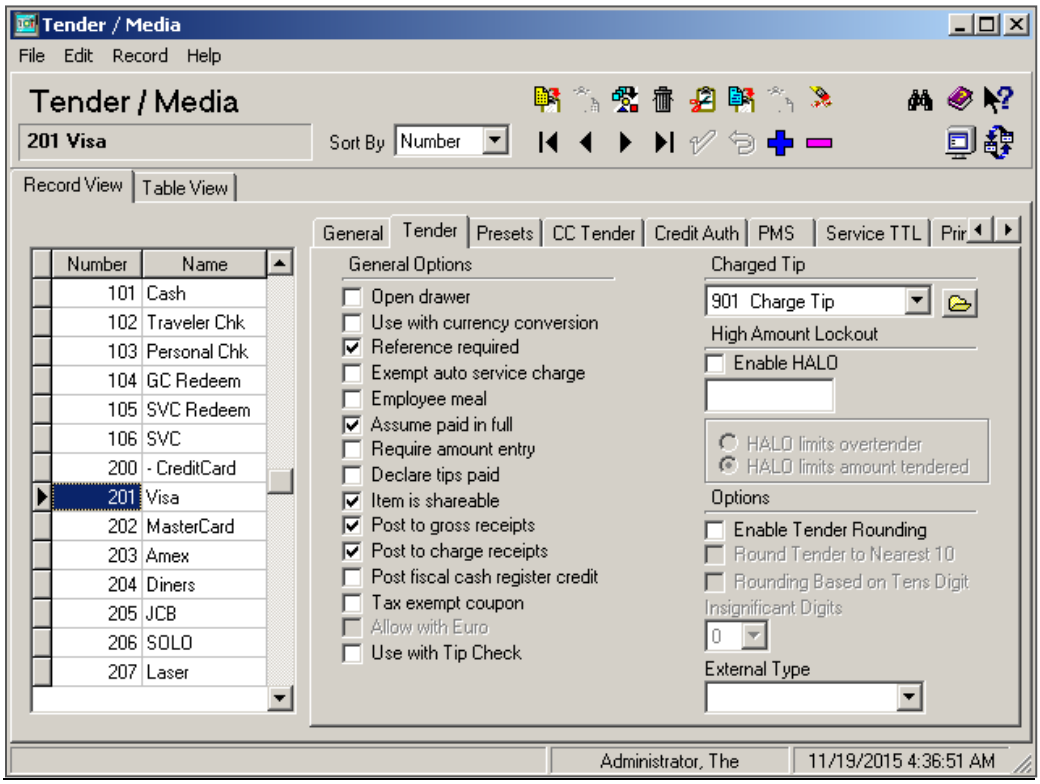
- [CC Sale]: SIM INQ #1
- [SALE&CASH]: SIM INQ #5
- [CC Refund]: SIM INQ #4 (Recommended refund method.)
- [Refund(m)]: SIM INQ #11
- [CC Voice]: SIM INQ #12
- [Balance Inq]: SIM INQ #16
- [Reprint]: SIM INQ #7
- [Repost]: SIM INQ #19
- [Void(e)]: SIM INQ #17

Note: [Void(e)] is a special button. It exists on POS 3700 only.
For other POS platforms, it is not needed.
All void buttons need to be replaced with it.

Note: No manual entry for QSR.

Tender Media

Setup the following for credit cards.



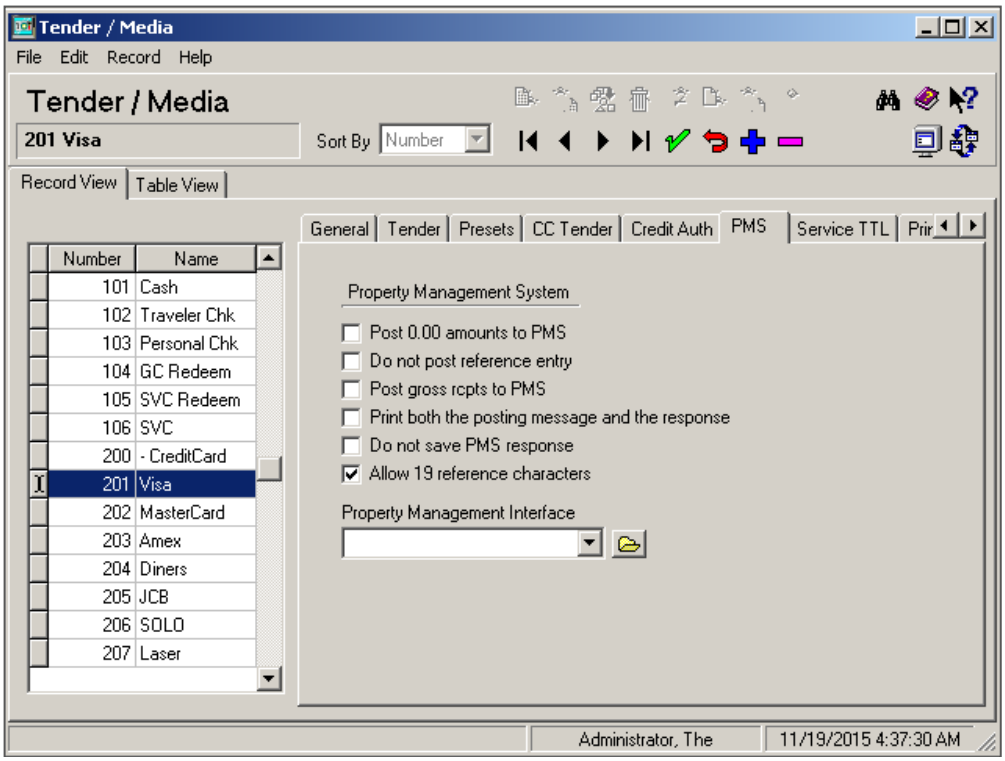
Notes:

- Assume paid in full.
- Reference required.
- Charged Tip: Set to **0 None** if all RVCs are QSR mode.
- Charged Tip: Set to **Link a Tip** service charge if some RVCs are TSR mode.

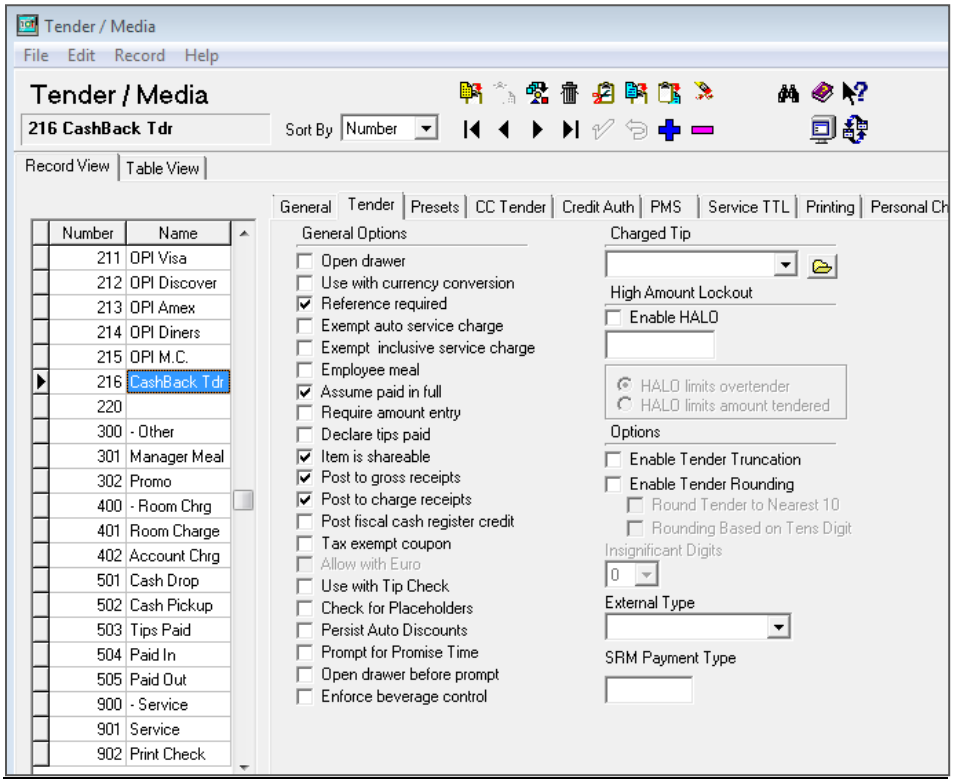
The following Tender / Media Tabs should be left blank (no options enabled):

- Presets
- CC Tender
- Credit Auth | Authorization
- Credit Auth | Preambles

On the PMS tab, enable **Allow 19 reference characters**.



Cash Back Tender

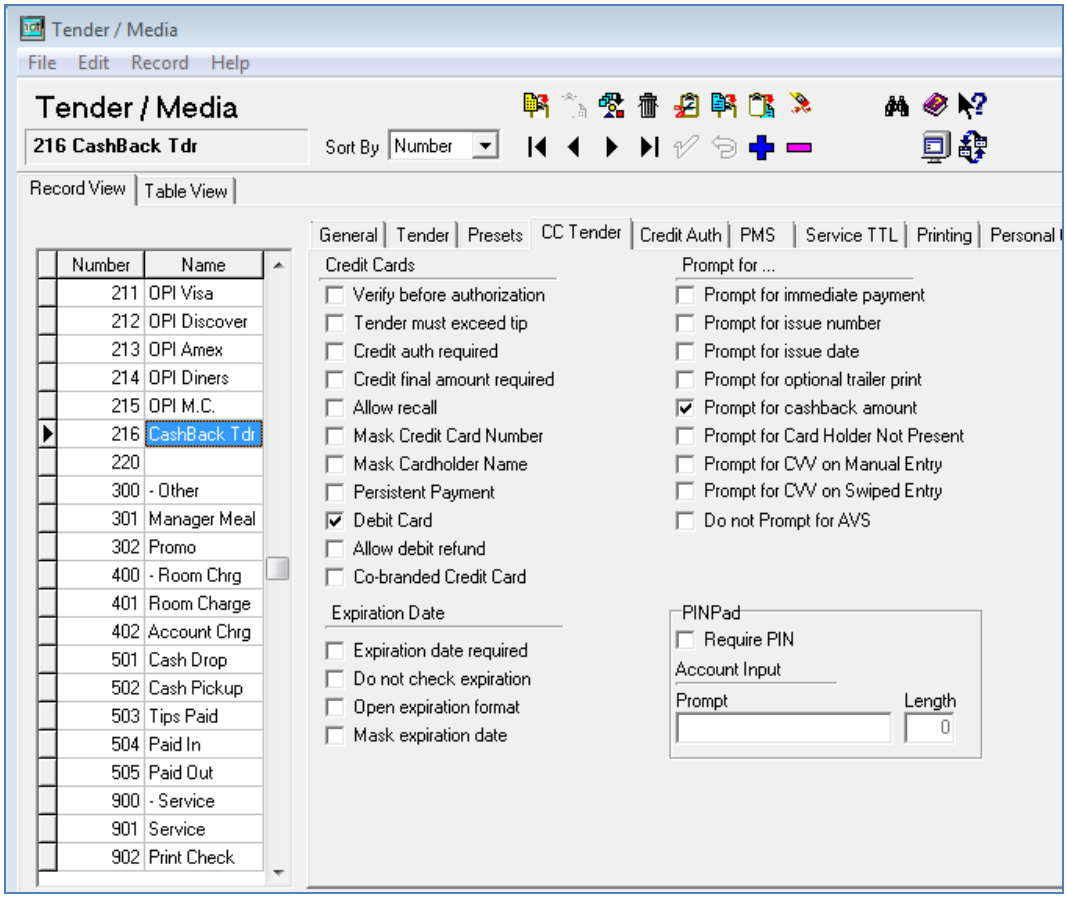


Verify the merchant wants cash back functionality before configuring this.

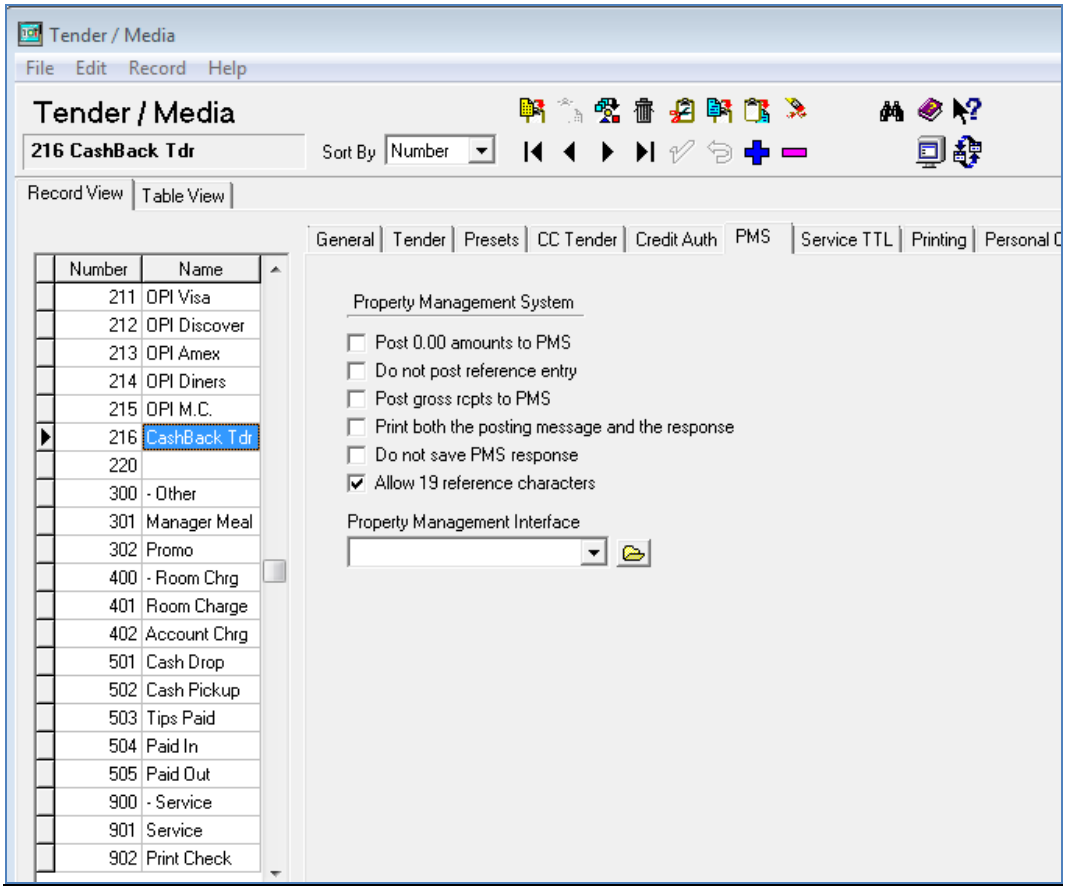
Cash back is supported for QSR revenue centers only.

Sales | Tender / Media | Tender:

- Assume paid in full.
- Reference required.
- Service Charge - 0 None.



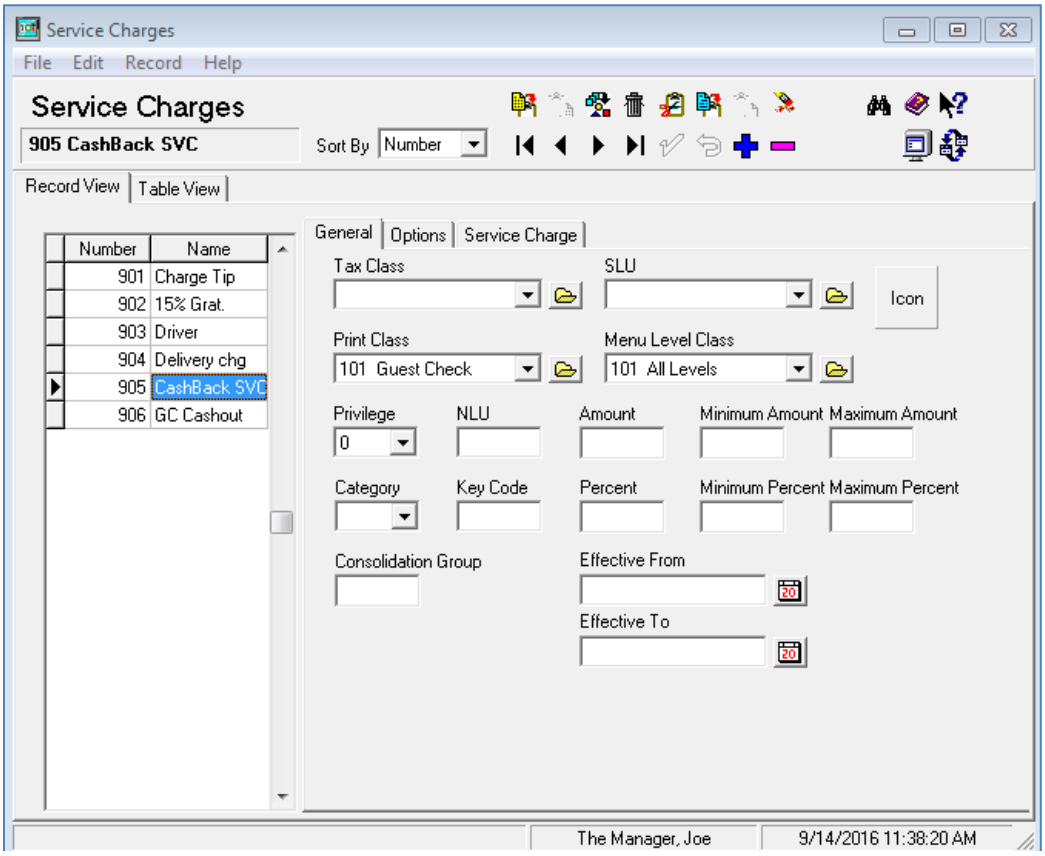
- Debit Card
- Prompt for Cashback Amount



- Allow 19 reference characters.
- MPG.inc must have this value:
  Promptcashback = True

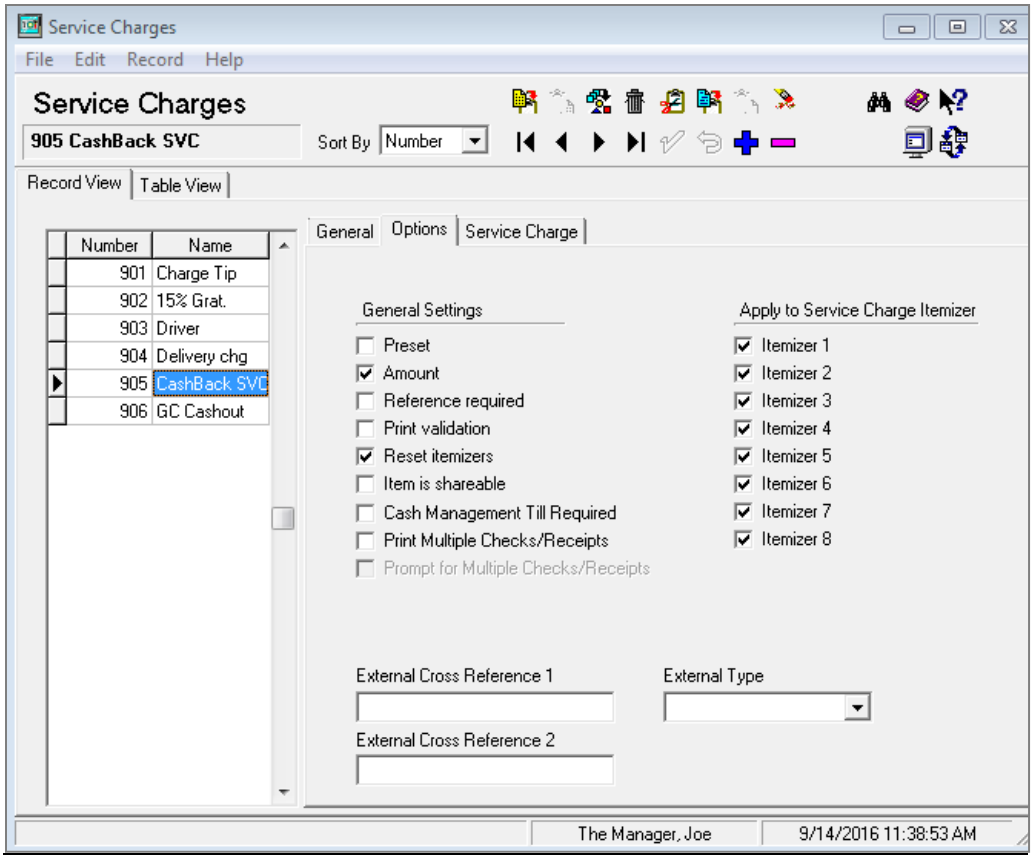
Cash Back Service Charge

The cash back tender also requires a cash back service charge, though it is not directly linked to the cash back tender.

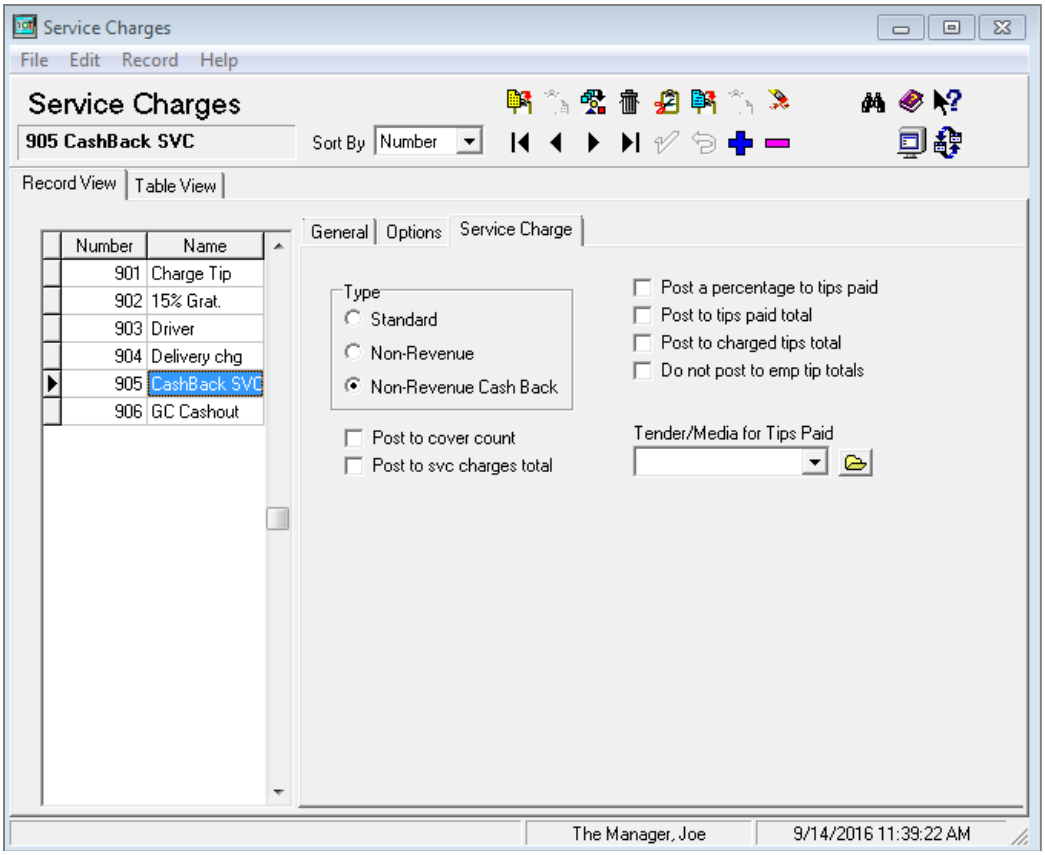


Setup the following service charge.

- Name = “CashBack SVC”
- General Tab:
  Menu Level Class = all levels
  Print Class = Guest check



- Options Tab:
  Amount
  Reset Itemizers



- Service Charge
  Non-Revenue Cash Back

POSEOD

To verify POSEOD files are properly configured, go to `Micros\Res\Pos\Scripts\poseod\` and verify the contents of the following files:

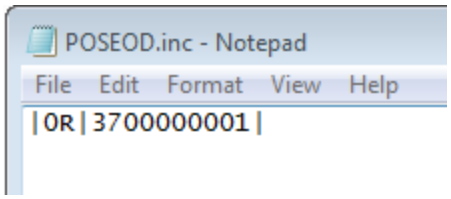
- **MGDH.inc**

  Verify the server IP address and port are correct for the computer that hosts OPI.

- **POSEOD.inc**

  Verify `0R` is the code for RES 3700. Other POS types use a different code.

  Verify the Merchant ID is correct. The following example shows a merchant ID and code. Separate multiple merchant IDs with the pipe symbol and no spaces (for example, `|0R|3700000001|370000002|`).



To run POSEOD manually, double-click the `Micros\Res\Pos\Scripts\poseod\poseod.exe` file.

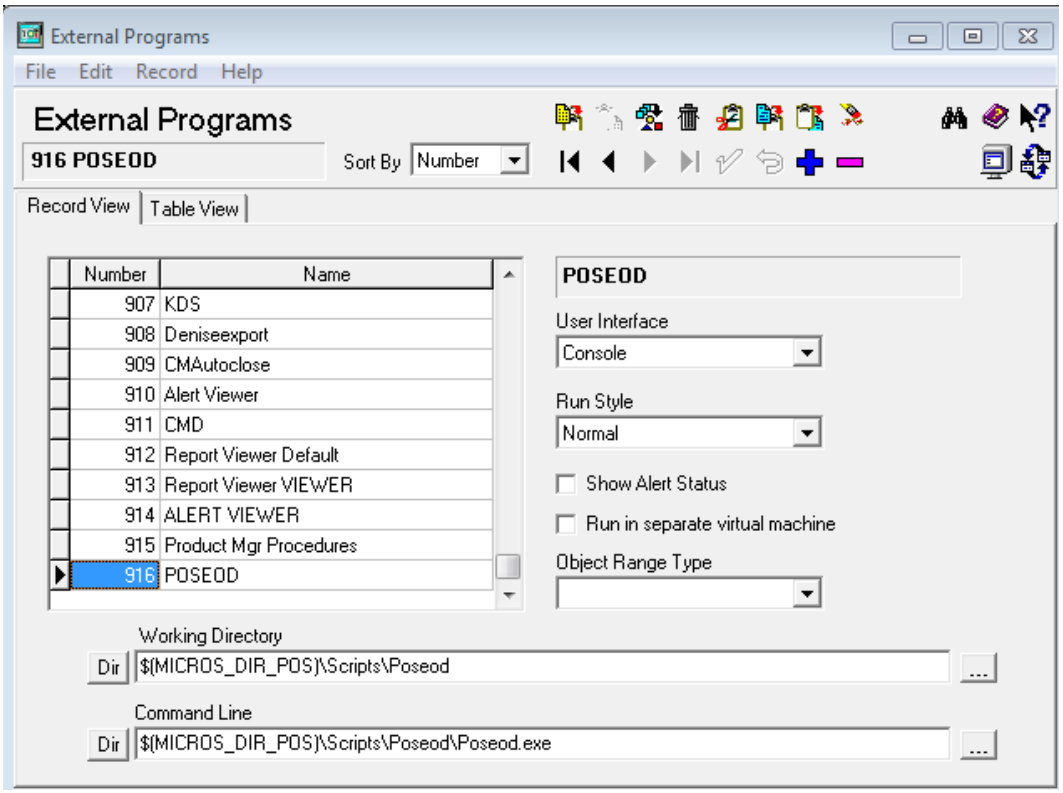
A DOS CMD window flashes briefly.

To verify POSEOD ran successfully, open the `OraclePaymentInterface\log\transaction.log` file and confirm `BATCH` and `APPROVAL` appear with the correct time stamp at the bottom of the file.

```
BATCH                00 APPROVAL
MGM RSA              00 APPROVED
MGM RSA              00 APPROVED
MGM RSA              00 APPROVED
```

Configuring POSEOD to run as part of a scheduled RES autosequence:

Autosequences



1. Poscfg | System | External Programs

- New record named: POSEOD
- User Interface: Console
- Run Style: Normal
- Working directory: $(MICROS_DIR_POS)\Scripts\Poseod
- Command line: $(MICROS_DIR_POS)\Scripts\Poseod\Poseod.exe

2. Call the above external program during the End of Night autosequence, but before printing occurs. (So that if printing fails, it will not prevent POSEOD from running.)

Note: You can schedule POSEOD using Windows Task Scheduler.

Installing OPI

You cannot upgrade from earlier versions of OPI and MPG to OPI 6.1. Remove earlier versions of the software before installing OPI 6.1. The MySQL part of the installation fails if a `ProgramData\MySQL` folder from an older release is on the computer when you install OPI 6.1.

Uninstalling the Old Version of OPI and MPG

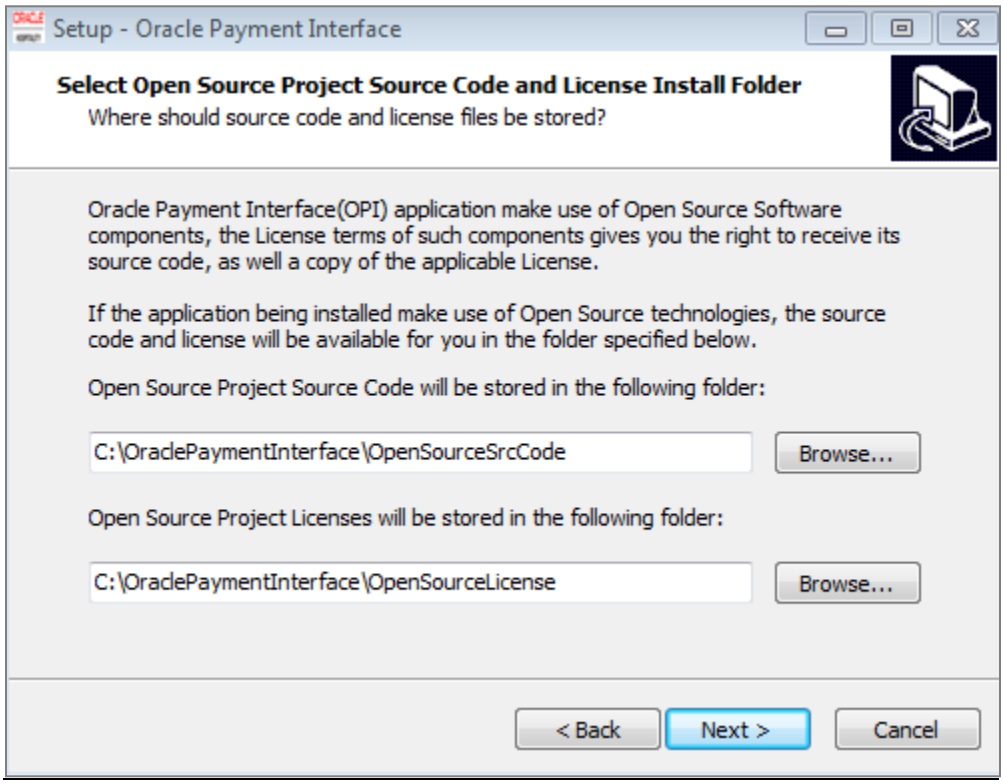
1. Run POSEOD with the old version to verify all previous transactions have been batched. Verify the batch was approved in the transaction.log.
2. Save a backup of the current OPI and MPG folder structure.
3. Open the *`%OPI_HOME%/bin/`*`MicrosGatewayConfig.exe` file and save a screen capture of the ServerXX values.
4. Save a screen shot of the POS record you are using and its values (for example, posRes1).
5. Uninstall these components through Microsoft Programs and Features:
   - MPG
   - MySQL if no other products are using it
   - MySQL community
6. Rename the `C:\ProgramData\MySQL` folder to MySQL_Old.
   If you do not see the `C:\ProgramData` folder, enable Windows Explorer > Tools > Folder Options > View > Show hidden files, folders, and drives, and then close and re-open Windows Explorer.
7. Restart the computer.
8. Install OPI.

Installing OPI for the MGDH Solution

1. Double-click the `Oracle Payment Interface-6.1.0.9.exe` file, and then advance through the installation wizard.

2. On the **Choose communication channel** screen, select **POS** and **MGDH**.

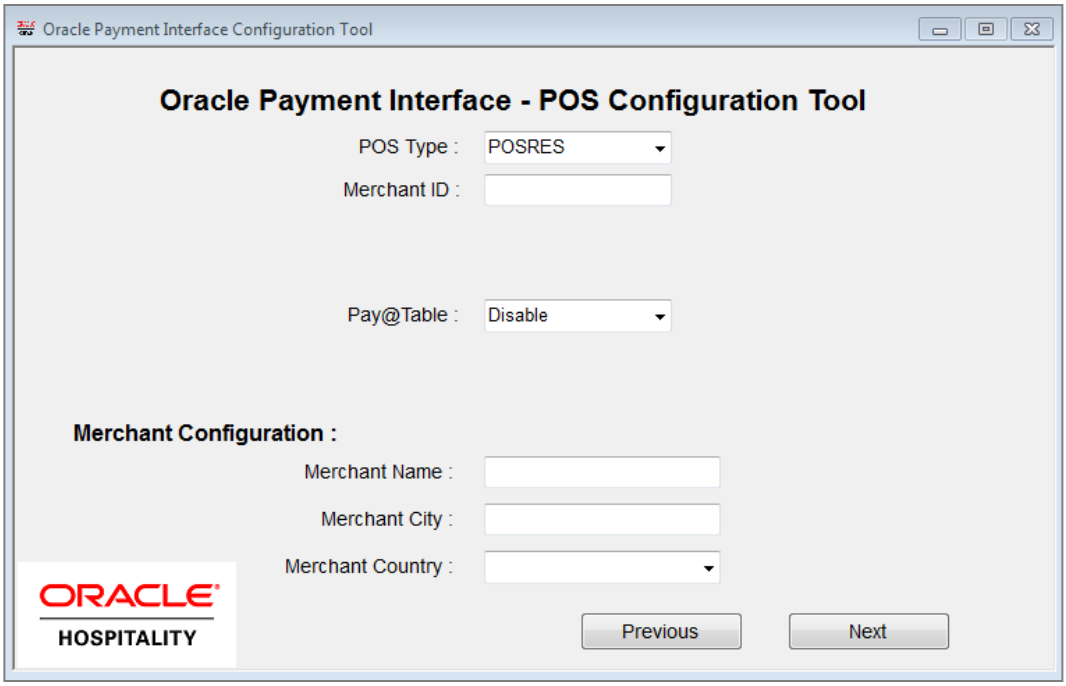
3. Enter a certificate password.
4. Enter a date and time for the OPI service to restart on a weekly basis.
5. Select the install location.
6. Select the location for the source code files and license, and then click **Next**.



7. Click **Install**.
8. Enter a Microsoft Windows administrator user name and password, and then click **Login**.
9. Specify interface and mode settings:
   - Select **Enable** from the **POS Interface** drop-down.
   - Select the **OPI Mode**:

     To configure communicate directly to the pinpads, select **Terminal**.

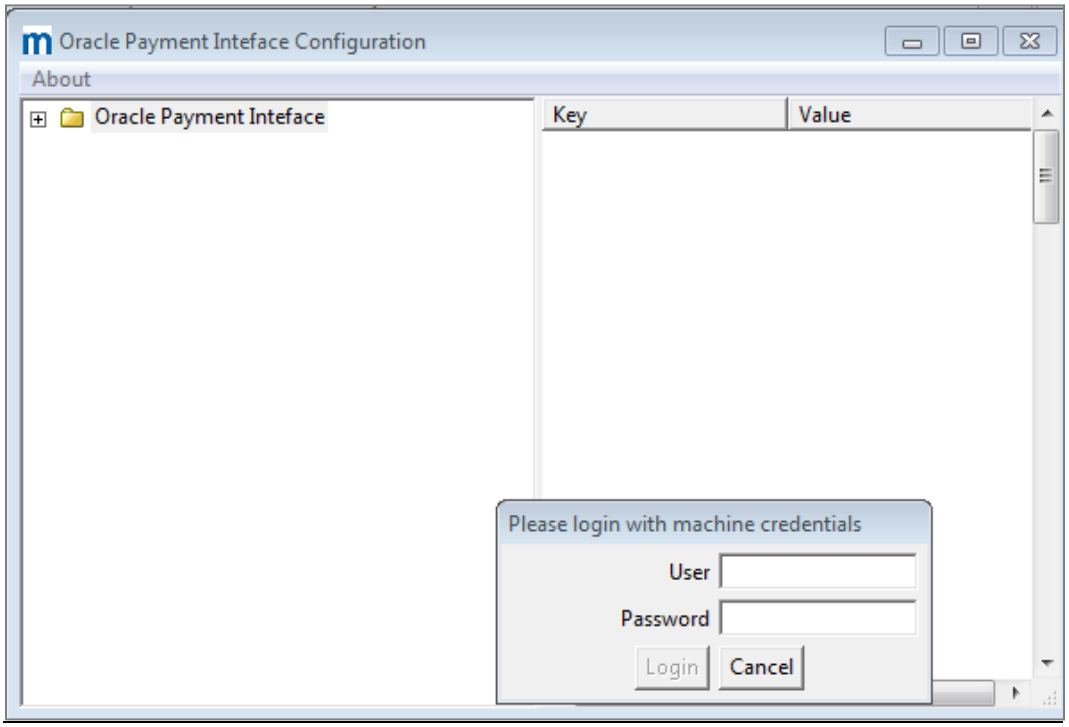
     To communicate to the pinpads through a third party, select **Middleware**, and then go to the Middleware.
10. Select **POS Configuration**.
11. Click **Add New Property** to create a Merchant ID.



12. Specify merchant settings as follows:
    - Select **POSRES** from the **POS Type** drop-down.
    - Type the **Merchant ID** value. The value must match the Merchant ID value used for the MGDH installation.
    - If using Pay@Table, go to Pay@Table.
    - Enter merchant information, and then click **Next**.
13. Click **Add Terminal**.
14. Enter terminal information:
    - **Workstation ID**: Workstation obj_num in POS Configurator.
    - **IP**: Pinpad IP address. If using a simulator instead of a PED, enter the IP address of the computer where the simulator is running.
15. Repeat steps 13 and 14 to add more terminals, and then click **Next**.
16. Click Exit.
17. On the **MICROS Gateway Service Configuration** dialog box, click **Yes** to save your changes.
18. Select **Yes** to restart the computer.

Running the OPI Config.exe File for Terminal Mode and Pay@Counter

1. Go to `<drive>:\OraclePaymentInterface\bin\config.exe`, and then log in as a local administrator.



2. In the **About** pane, expand **Oracle Payment Interface**.

   The **dll** entry shows the MGDH installation as mode 3 and the OPI listening port as 5098.

   The **pinpadAddress2** value is formatted as follows:

   - Merchant ID = 3700000001
   - WS ID = 99
   - Pinpad IP = 10.39.176.89

3. Select **server0Q**, and then change the **Port** value to the port the pinpad is listening on.
4. For **vx6702**, the MICROS KDSController service uses port 5023. Change this port value to an unused port value even if not using Pay@Table (for example 8992.**)**
5. Exit config.exe, and then save your changes.
6. Restart the OPI service.

   If changes are made in Config.exe, the "OPI Service" needs to be restarted. But the "OPI Service Utility" service does not need to be restarted. The system is now ready for a test transaction.

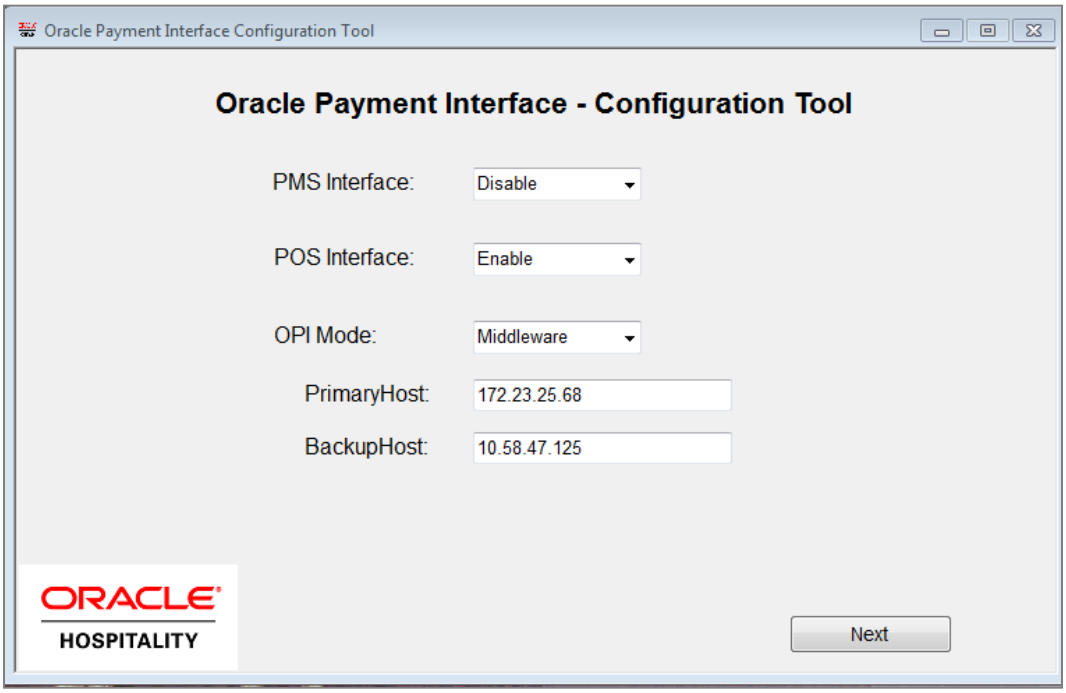
Middleware

During the OPI installation, there is a step to select the **OPI Mode**:

- **Terminal**: OPI communicates directly to the pinpads.
- **Middleware**: OPI controls the pinpads by communicating through a third party.

Access the screens shown in the following steps by launching `OraclePaymentInterface\bin\OPIconfigurationWizard.exe`.

If using Middleware, follow these directions to finish the OPI with the MGDH installation.



1. Specify interface settings as follows:
    - Select **Enable** from the **POS Interface** drop-down.
    - Select **Middleware** from the **OPI Mode** drop-down.
    - In the **PrimaryHost** field, type the IP address of the third party that controls the pinpads.
    - In the **BackupHost** field, type the IP address of the third party backup.
2. Select **POS Configuration**.
3. Click **Add New Property**.
4. Specify property settings as follows:

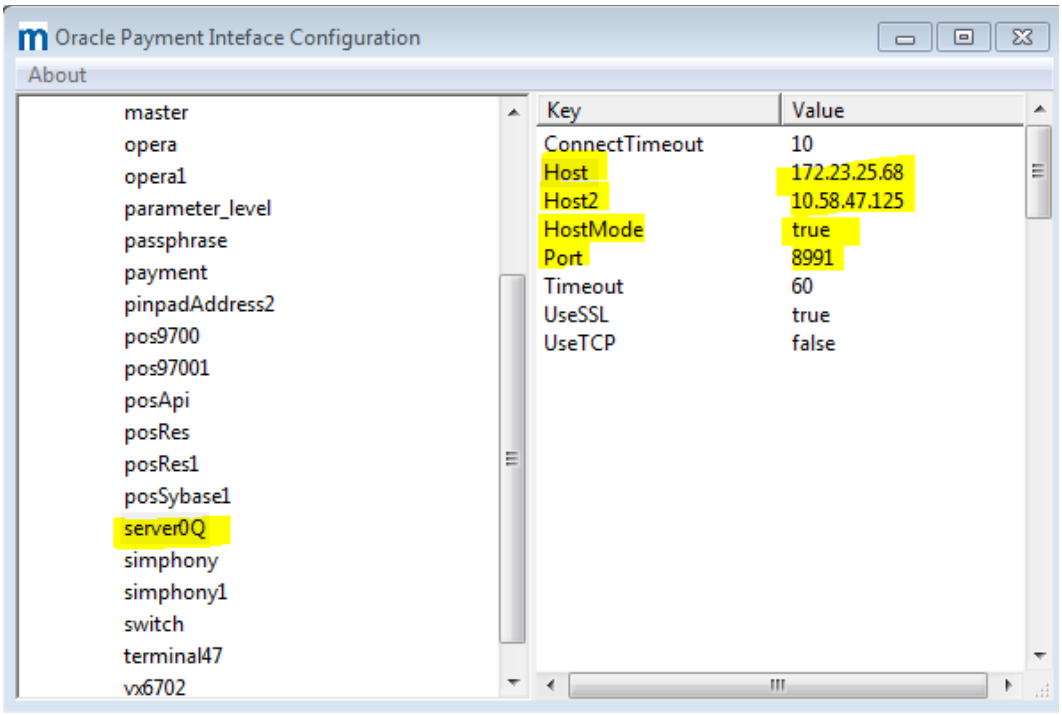
- Select **POSRES** from the **POS Type** drop-down.
- In the **Merchant ID** field, type the Merchant ID. This value must match the Merchant ID value used during the MGDH installation.
- If not using Pay@Table, leave it set to **Disable**.
- If using Pay@Table, go to Pay@Table.

5. Enter merchant information, and then click **Next**.
6. Click **Exit**.
7. On the **MICROS Gateway Service Configuration** dialog box, click **Yes**.
8. Click **Yes** to restart the computer.

Middleware Config.exe

No additional changes to Poscfg are needed, as they were completed in Configuration for MGDH.

1. Double-click `OraclePaymentInterface\bin\config.exe`, and then log in with the administrator credentials used during setup.
2. In the **About** pane, expand **Oracle Payment Interface**.
3. Select **server0Q**, and then change the **Port** value from 8080 to the port the pinpad is listening on. Update these values as highlighted in the following screen capture:
    - HostMode = true
    - Host = PrimaryHost IP given during setup
    - Host2 = BackupHost IP given during setup



4. For **vx6702**, the MICROS KDSController service uses port 5023. Change this port value even if not using Pay@Table to an unused port value (for example, 8992.)
5. Exit config.exe, and then save your changes.
6. Restart the OPI Service.

   If you made changes in Config.exe, restart the OPI Service. The OPI Service Utility service does not need to be restarted. The system is ready to use.

Pay@Table

This section discusses enabling and configuring Pay@Table for the MGDH and OPI solution.

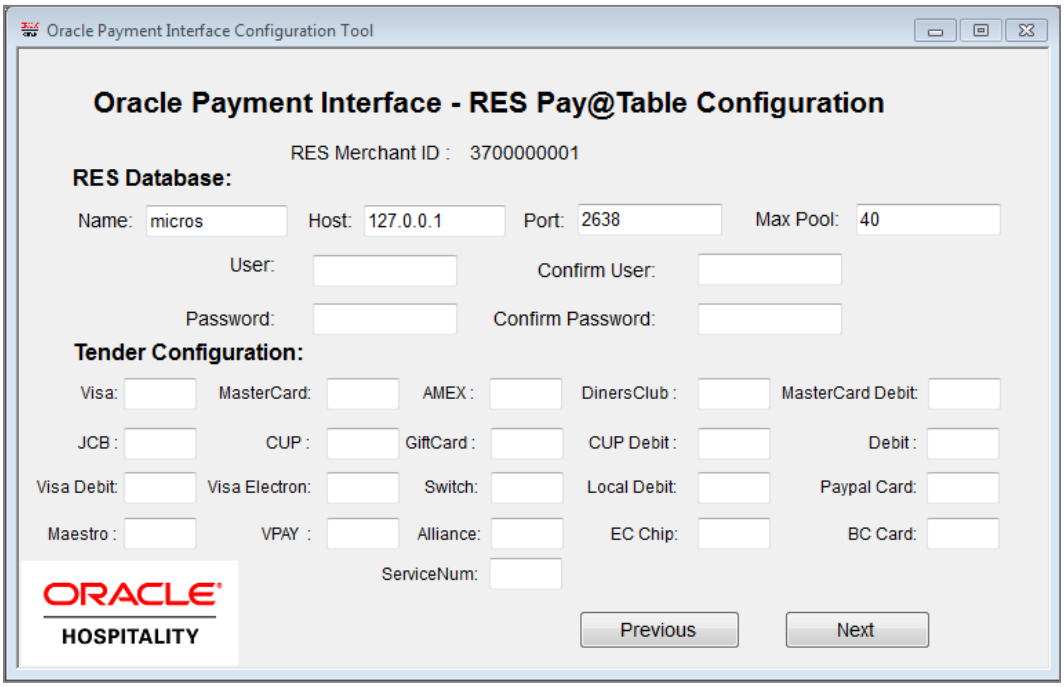
A normal workstation that most merchants have is referred to in the OPI configuration as Pay@Counter.

Pay@Table terminals use Transaction Services. You can have Pay@Counter or Pay@Table terminals or both.

Access the screens in this procedure by opening `OraclePaymentInterface\bin\OPIconfigurationWizard.exe`. The screens can be seen and used both during the middle of the OPI installation and after the OPI installation.

If you are enabling Pay@Table, follow these directions to complete the installation steps that were begun in the previous OPI Installation section.

1. Enable Pay@Table. The Pay@Table certificate is provided by the partner and is part of the partner validation process.
2. Enter and confirm a Pay@Table Cert Password.
3. Configure the following settings:
    - **Name**: Name of the DB, micros.
    - **Host**: IP address of the RES server. If OPI is installed on the RES server, then 127.0.0.1 is OK. If OPI is installed on another computer, enter the actual IP address of the RES server.
    - **Port**: 2638.
    - **Max pool**: 40
    - **User**: Micros DB user account
    - **Password** = Password for the DB user account.



4. Configure Tender Configuration settings as follows:
    - Use the object numbers of the Credit card tenders you configured for OPI in Poscfg | Sales | Tender Media. These values can also be referenced in Micros\RES\POS\Etc\MPG.inc.
    - For tender types you do not have, leave them blank.
    - Gift cards are not supported in OPI 6.1.0.9, so leave GiftCard blank.
    - **ServiceNum** is the object number of the Print Check tender having Type = Service total.

5. Click **Next**.
6. Select **Pay@Table Device** from the **Device Type** drop-down, and then click **Add Pay@tableTerminal**.
7. Enter a **Mobile Device ID**. The mobile device ID is an arbitrary ID assigned to a P@T terminal.
8. Select **Query by Check or Table**. Query by Table brings up all checks open at the table.
9. Click **OK**.
10. Repeat steps 6 through 9 to add more terminals.
11. Click **Next**.
12. Click **Exit**.
13. On the **MICROS Gateway Service Configuration** dialog box, click **Yes** to save your changes.
14. Open the `OraclePaymentInterface\bin\Confige.exe` file.

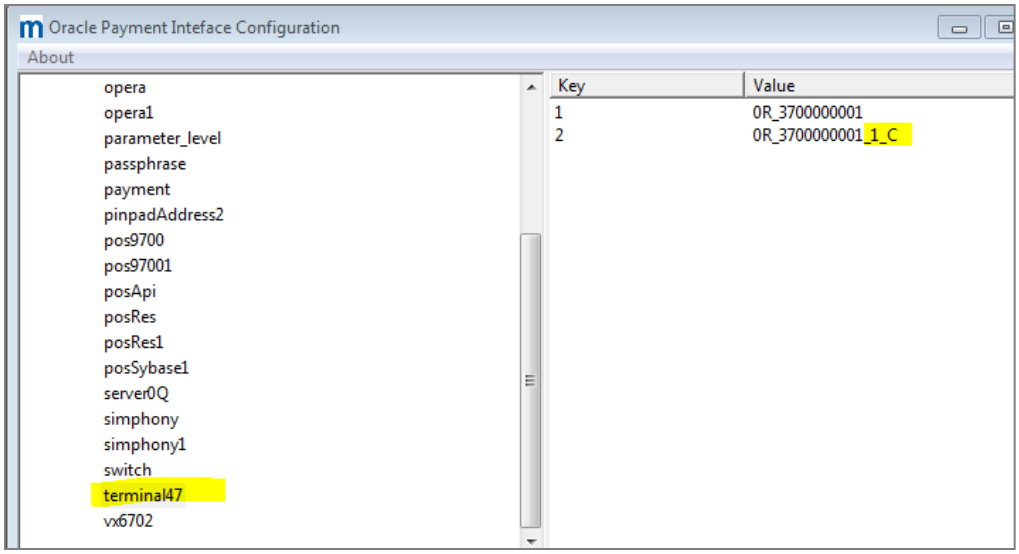
Pay@Table Config.exe

No additional changes to Poscfg are needed because you completed them in Configuration for MGDH.

Config.exe

1. Double-click the `OraclePaymentInterface\bin\config.exe` file, and then log in with the administrator credentials used during the installation.
2. In the **About** pane, expand **Oracle Payment Interface**.
3. For **terminal47**, note the following:
    - Key = Mobile Device ID
    - OR = 3700
    - 3700000001 = Merchant ID
    - _1_C = The _1 is a Revenue Center value and is unused in RES, but defaults to 1.

      The _C means this is a Query by Check terminal. The Query by Table Terminals do not show the "_1_C".



4. Select **vx6702**, and then change the port value to the port that connects to the pinpad for Terminal Mode or the port that connects through the third party in Middleware Mode.

   The MICROS KDSController service uses port 5023. Change this port to an unused port if you are not using Pay@Table to some unused port value (for example, 8992).

5. Exit Config.exe, and then save your changes.
6. Restart the OPI Service.
7. Restart the MICROS KDS Controller Service.

   The system is ready for a test transaction.

3 POS Workstation Procedures

TSR Transactions

CC Sale

Ring food, and then select **CC sale**.

Tip Adjust

1. Verify `Micros\Res\Pos\Etc\MPG.inc` has this line:
   `TipAdjust = TRUE`
2. Re-open a closed check that was paid using credit auth and credit final.
3. Type a new tip amount (for example, 5.00), select the tender payment in Ops detail, and then select **Tip Adjust**.

   The tender amount must be selected when **Tip Adjust** is selected. **Tip Adjust** does not work if Signature verify is enabled.

CC Refund

Begin the check, select **Void**, ring a menu item, select a reason code (if prompted), and then select **CC Refund**.

Refund (m)

1. Begin a check, add food, CC auth and CC final.

   You need the RRN number from this CC voucher in step 3.
2. Begin check, select **Void**, ring a menu item, select a reason code (if prompted), and then select **Refund (m)**.
3. Enter the RRN number (when prompted) from the original Credit Card voucher from step 1.

CC Auth

1. Ring food and the service total.
2. Pick up that check and select **CC auth**. Service total.

CC Final

Pick up the CC Auth check from above and select **CC final**, and then answer the tip prompt.

CC Voice

1. Begin check, ring food, and then select **CC voice**.

2. Enter then approval code.

Tab Auth

1. Begin check, select **Tab Auth**, Service total.
2. Pick up that check, ring $10.00 of food. Enter 13.00, and then select **CC final**.
3. Ops prompts `Tip Amount is USD 3.00?` Press the Enter key.

Balance Inquire

Begin the check, select **Bal Inq**, and swipe the card when prompted.

Reprint

Pick up an open check that already has a CC auth and select **Reprint**.

Repost

Use Repost if the final tender is interrupted. The following is an example of when to use it:

(Employee Class = Server table view)

1. Employee Classes | Guest checks | Other employee's checks, Enable "Pick up others chk"
2. Employee Classes | Guest checks | Other employee's checks, Disable "Tender Media to others chk"
3. 1, sign in, ring $10.00 food, Auth CC, service total.
4. Sign in as a DIFFERENT employee of same Emp class (Svr table view) 104 = John
5. John picks up Sally's check, select **CC Final**.
6. OK Error mssg that kept paid check from closing.
7. Select **CC repost**. OK prompts.

Void (e)

1. Begin check, ring $10.00 food, and select **CC Sale**.
2. Re-open that closed check, select the CC tender in Ops detail window and select Void (Inq #17).

Manual Auth

Begin check, ring $10.00 food, select **Manual auth**, Enter approval code when prompted.

Partial Auth

1. Begin check, ring $10.00 food, enter 5.00 and select CC auth.
2. Enter 5.00 and select **CC Final**.

   Selecting **CC final** pays the entire amount due even if only part of the check amount has been authorized. So an amount must be entered prior to selecting **CC final** if only a partial payment is desired.

POSEOD

1. Verify Res\pos\scripts\poseod\MGDH.inc is pointing to OPI server IP address and correct port.
2. Verify Res\pos\scripts\poseod\POSEOD.inc has the correct POS type (RES = "0R" zero R) and Merchant ID value.
3. Double-click `poseod.exe`.
4. Check the `Transaction.log` file for "Batch" "Approval".

   For more complete information on POSEOD configuration, scheduling and verification click here.

QSR Transactions

CC Sale

Ring food, and then select **CC sale**.

SALE&CASH

1. Ring food, and then select **Sale&Cash**.
2. Answer prompt for how much cash back.

CC Refund

Begin check, select **Void**, ring a menu item, select a reason code (if prompted), and then select **CC Refund**.

Refund (m)

1. Begin a check, add food, CC auth and CC final.

   You need the RRN number from this CC voucher in step 3.
2. Begin check, select **Void**, ring a menu item, select a reason code (if prompted), select **Refund (m)**.
3. Enter the RRN number (when prompted) from the original Credit Card voucher (step 1).

Balance Inquire

Begin check, select **Bal Inq**, and then swipe the card when prompted.

Reprint

Pick up an open check that already has a CC auth and select **Reprint**.

Repost

Repost is meant to be used if the final tender gets interrupted. The following is an example of when it might be used.

(Employee Class = Server table view)

1. Employee Classes | Guest checks | Other employee's checks, Enable "Pick up others chk"
2. Employee Classes | Guest checks | Other employee's checks, Disable "Tender Media to others chk"
3. 1, sign in, ring $10.00 food, Auth CC, service total.
4. Sign in as a DIFFERENT employee of same Emp class (Svr table view) 104 = John
5. John picks up Sally's check, select **CC Final**.
6. OK Error mssg that kept paid check from closing.
7. Select **CC repost**. OK prompts.

Void (e)

1. Begin check, ring $10.00 food, and then select **CC Sale**.
2. Re-open the closed check, select the CC tender in Ops detail window and select Void (Inq #17).

4 Utilities

OPI Configuration Wizard

Use the OPI wizard can be 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

1. Open `OraclePaymentInterface\bin\OPIconfigurationWizard.exe`.
2. Log in as an administrator.
3. If necessary, update interface and mode settings as described in Middleware.
4. Restart the OPI service.

Config.exe

Open `OraclePaymentInterface\bin\config.exe`, and then log in as a local administrator.

The following tables describe the settings accessible from config.exe:

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.

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	xxxxxxxx	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	xxxxxxxx	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	
PaymetnCode_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
Xxxxxxxx_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.
PCommand	NO_E_PAYMENT	
PaymentCode_0	xxx	Visa tender number in POS configuration.
PaymentCode_1	xxx	MasterCard tender number in POS configuration.
PaymentCode_10	xxx	
PaymentCode_11	xxx	
PaymentCode_12	xxx	
PaymentCode_15	xxx	
PaymentCode_18	xxx	
PaymentCode_19	xxx	
PaymentCode_2	xxx	AMEX tender number in POS configuration.
PaymentCode_21	xxx	
PaymentCode_24	xxx	
PaymentCode_25	xxx	
PaymentCode_26	xxx	
PaymentCode_29	xxx	

PaymentCode_3	xxx	Diners tender number in POS configuration.
PaymentCode_32	xxx	
PaymentCode_4	xxx	JCB tender number in POS configuration.
PaymentCode_40	xxx	
PaymentCode_9	xxx	
RoomPosting	xxx	Room posting tender number in POS configuration.
ServiceNum	xxx	"Save check" tender number in POS configuration.
SimphonyVersion	2.5	Simphony version definition.
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, assig 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	xx.xx.xx.xx	3rd 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 3rd PSP PED or middleware.
Timeout	60	Timeout value for OPI send request to 3rd PSP PED or middleware.

UseSSL	true	Default value, OPI send request to 3rd 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
xxxxxxxx	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

Troubleshooting Issues

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

Solution: Right-click on `config.exe` and select **Run as Administrator**.

Situation 2: Cannot communicate to OPI after installation.

Test: Verify you can telnet to the OPI PC on port 5098 from another computer.

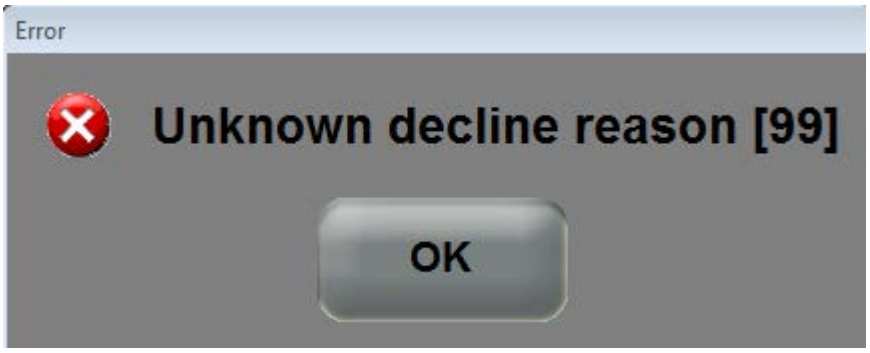
Example: From CMD prompt: telnet 172.23.25.16 5098

Where 172.23.25.16 is the IP address of the OPI server.

If you cannot telnet to the OPI port, try the following:

- Restart the OPI Service.
- Temporarily by pass the firewall.
- Verify OPI is listening on port 5098.
- Open CMD prompt: `C:\>netstat > c:\temp\ports.txt` and then search for 5098.

Situation 3:



This generic error message can be caused by several things.

Solution 1:

Restart the OPI Service and try again.

Cause 2:

If the system.log shows the following message, the cause is likely a Java security update:

[GATEWAY RESPONSE] GenericJSONProcessor : Can not decrypt

java.security.InvalidKeyException: Illegal key size

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

Solution 2:

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

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

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

  - Local_policy.jar
  - US_export_policy.jar

  Example: `C:\Program files\Java\jre(your current version)\lib\security\`
- Start the OPI service.

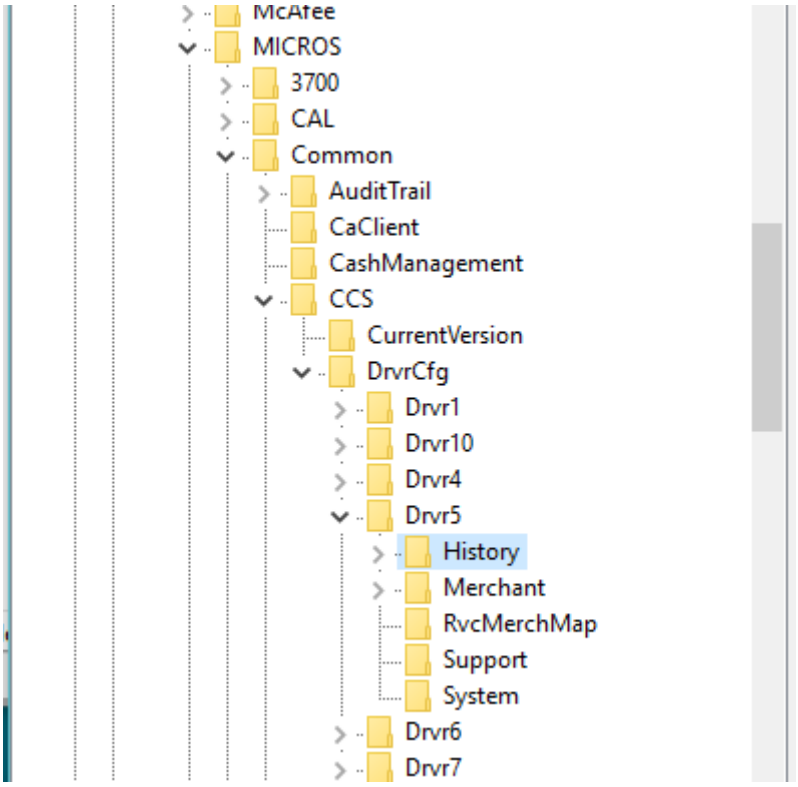
Situation 4:

If you have more than one card settlement driver, and you decide to clear sales totals, manually delete the batch history of those drivers to avoid future batch settlement issues. This is a very rare configuration and situation.

When sales totals are cleared, and a new batch is created it is 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 second settlement driver exists that does not have a batch 1, that driver's batch history is not 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.

Not Supported

Gift cards

Top Up Auth

Void a Refund (RES limitation)

CC voice / Manual entry in QSR revenue center

Backup OPI Server

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.

OPERA Format

- CMID: Need match **Device_merchant_id** in merchant configuration.
- WS: OPERA client name, cannot contain "_" and space.
- TID: Terminal ID.
- IP: PED IP.

Pay@Table Mapping Format

Key	Value
PTID	Product_CMID_RVC or Product_CMID_RVC_Option

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 activates Pay@Table function.
- Option: By default, Pay@Table picks up check by table number. If option C is attached, allows check pickup by check number.