Oracle Hospitality Payment Interface

OPERA Cloud OPI Installation Guide

Release 20.4
F95666-01
June 2024

ORACLE

Oracle Hospitality Payment Interface OPERA Cloud OPI Installation Guide Release 20.4

F95666-01

Contents

Preface

Purpose

This document describes how to install and configure the Oracle Payment Interface for OPERA Cloud services.

Audience

This document is intended for installers of OPI to integrate with OPERA Cloud services.

Customer Support

To contact Oracle Customer Support, access the Customer Support Portal at the following URL:

https://iccp.custhelp.com

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

Documentation

Oracle Hospitality product documentation is available on the Oracle Help Center at

http://docs.oracle.com/en/industries/hospitality/

Table 1 Revision History

Date	Description
June 2024	• Initial Publication

1 Pre-Installation Steps

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

- OPERA Cloud releases you can integrate with OPI:
  - OPERA Cloud 1.20.16 or higher
  - OPERA Cloud 19.4 or higher
- OPI 20.4 does not install a database. If doing a clean install of OPI, a database must be installed first.
- OPI upgrade functionality supports:
  - Upgrading OPI 19.1 (include patch releases) to OPI 20.4
  - Upgrading OPI 20.1 (include patch releases) to OPI 20.4
  - Upgrading OPI 20.2 (include patch releases) to OPI 20.4
  - Upgrading OPI 20.3 (include patch releases) to OPI 20.4
- OPI requires at least 6 GB of free disk space and you must install OPI as a System Administrator.
- OPI requires 64bit Operating System only.
- The Oracle Payment Interface Installer release 20.4 supports the following database connections:
  - MySQL Database 5.7 and 8.0
  - Oracle Database 11g / 12c / 19c

> **NOTE:**
>
> Stay current by upgrading your Java version as Oracle CPUs/Alerts are announced.

- The Oracle Payment Interface release 20.4 is compatible with the following operating systems:
  - Microsoft Windows 10 Professional
  - Microsoft Windows 10 Enterprise
  - Microsoft Windows 11 Professional
  - Microsoft Windows 11 Enterprise
  - Microsoft Windows Server 2012 R2
  - Microsoft Windows Server 2016

  - Microsoft Windows Server 2019
  - Microsoft Windows Server 2022

- Ensure all OPERA Cloud Workstations are setup following the correct OPERA Cloud Browser Setup guidance as outlined here:

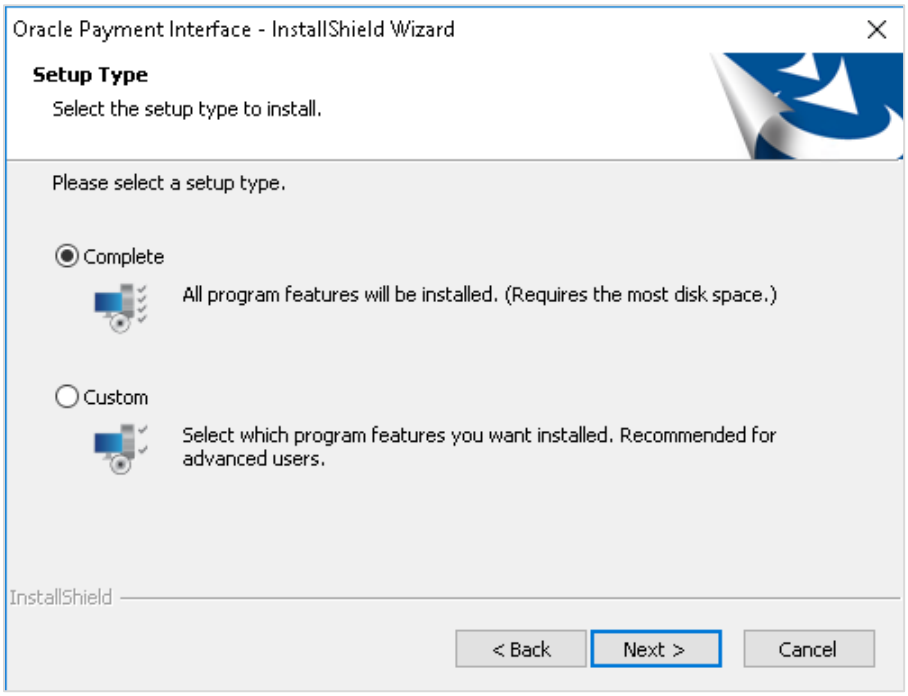
  https://docs.oracle.com/cd/F18689_01/doc.193/f38312/c_getting_started_browser_setup.htm#OCSUH-BrowserSetup-A8150A51

During the installation you must confirm the following:

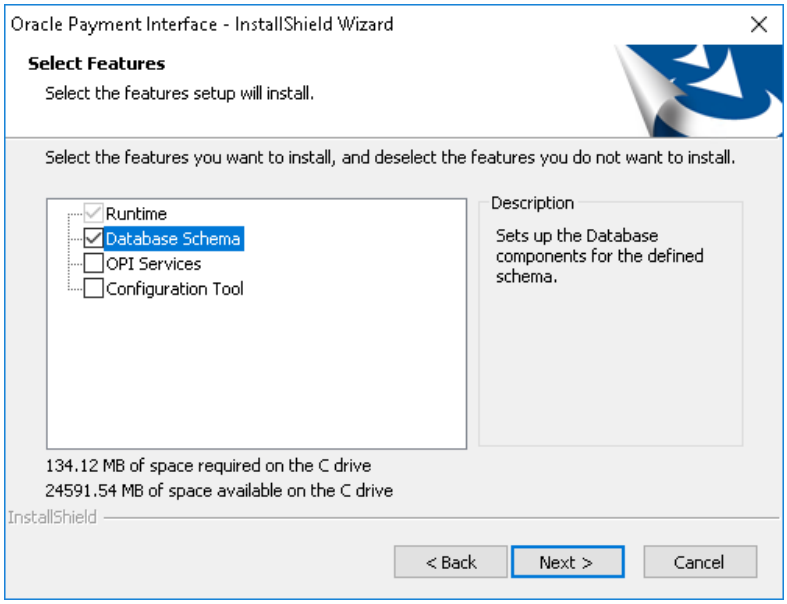
- Merchant IDs
- IP address of the OPI Server
- The machine running the OPI Service must have a static IP Address
- The machine name running the OPI Service and IFC8 must not contain any special characters
- If there is an existing MySQL database installed, then the SQL root password is required.
- If there is an existing database installed, the root password is required.
- Workstation IDs and IPs that integrate with the PIN pad.

2
Installing the OPI

1. Right-click **OraclePaymentInterfaceInstaller_20.4.0.0.exe** file and select **Run as Administrator** to perform an installation.
2. Select your Language for the installation and then click **OK**.
3. Click **Next** twice.
4. Ensure all the prerequisites for the OPI installation are met.



5. Select either the **Complete** or **Custom** installation option:
   a. **Complete**: All program features will be installed.
   b. **Custom**: Select which program features you want to install. Recommended for advanced users only.
6. Make a selection (only for Custom install), and then click **Next**. If you select Complete Install, it will go to the Step 8 directly.



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

a. Database Schema

b. OPI Services

c. Configuration Tool

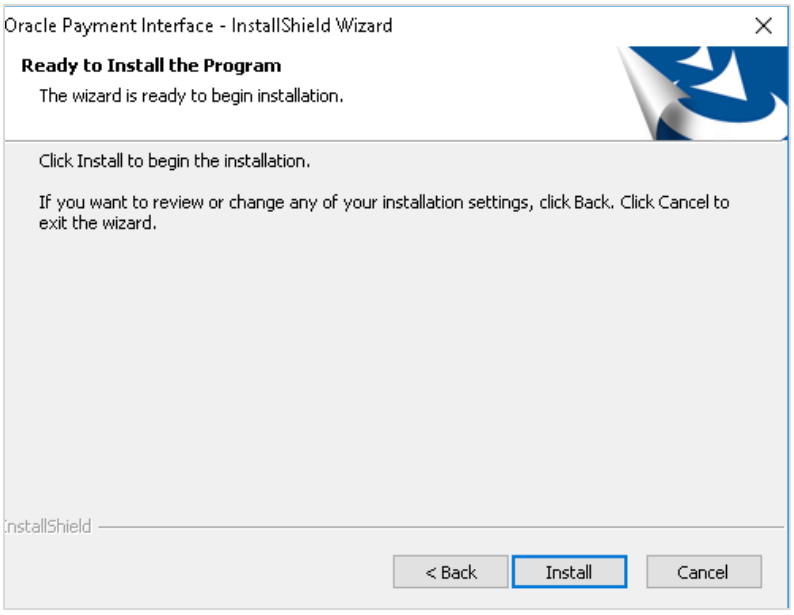
All these three features must be installed. Ensure whether they all are installed on the same computer or on separate computers.

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

8. Click **Change** to amend the installation drive or path, if required and click **Next**.

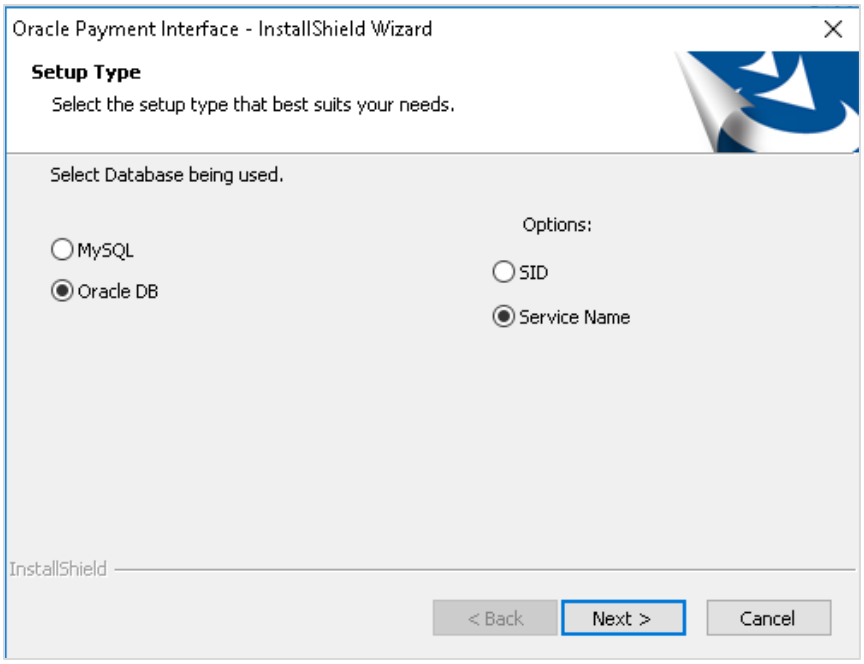
9. Click **Install** to begin the installation.

When the file transfer is finished, Setup prompts for the next set of configuration settings.



10. Select your Database type:

- My SQL
- Oracle DB



11. Enter the relevant connection details for your database type. Details are provided by the individual who installed or configured the database software.

> **NOTE:**
>
> OPI does not install any database, so the database must already be installed.

MySQL

- **Name/IP**: The Hostname or IP Address used for communication to the database. If you are using MySQL, then this can be left as localhost as the default value. If you cannot use localhost for the Name/IP field (because you have installed the database schema on another computer), then you should run some commands manually on the MySQL database before proceeding. See the **Granting Permission in MySQL** section in the OPI Installation and Reference guide for instructions. Setup will not be complete if this step is missed.
- **Port #**: The Port number used for communication to the database.

Oracle DB

SID

- **Name/IP**: The Hostname or IP Address used for communication to the database.
- **Port #**: The Port number used for communication to the database.
- **SID**: The unique name that uniquely identifies the Oracle database.

Service Name

- **Name/IP**: The Hostname or IP Address used for communication to the database.
- **Port #**: The Port number used for communication to the database.
- **Service**: The TNS alias used to connect to the Oracle database.

12. Confirm the database admin user used to connect to the database. The database admin user is used to create an OPI database user, which is used once the installation completes.
13. Enter the username and password to create a new database user account. If the username already exists in the database, you are prompted to select a different username.
    a. When creating the username for the database, the installer allows only alphanumeric characters and should start only with an alphabetic character, NOT a number.
    b. Enter a password according to the requirements specified.

    The installer attempts to connect to the database using the admin credentials provided and creates the OPI database user.
14. Enter the username and password to create a Super User System Admin level account that is used for configuring and maintaining the system.
15. Enter the **Host** and **Port**.

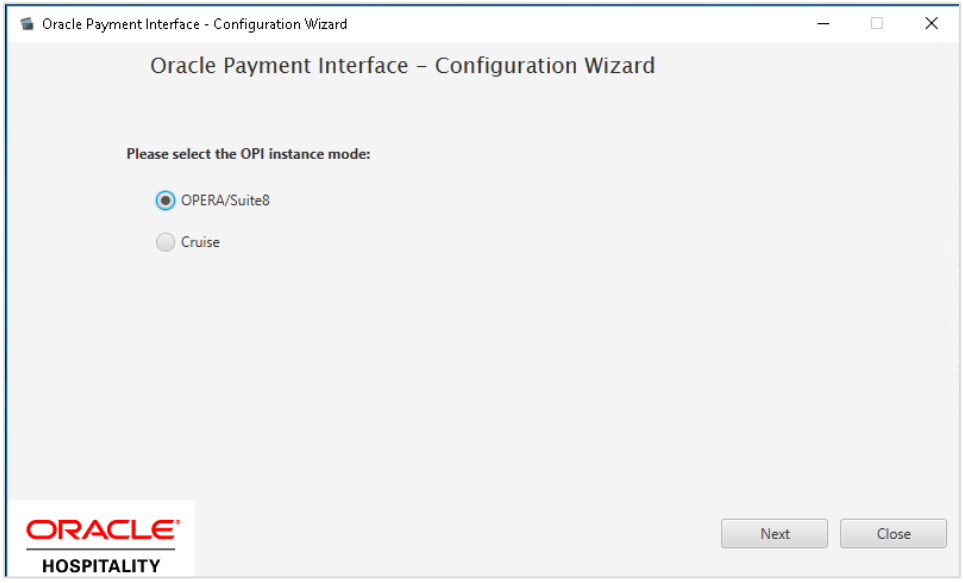
NOTE:

In the previous step you are not configuring the port the service will listen on. Instead, it is prompting for the details on how to connect.

- The IP will depend on where the OPI Config Service is installed. If you are performing a complete installation, this can be left as the localhost address.
- The default port is 8090.

16. Set and confirm the passphrase value.

    If the details entered for the connection to the **OPI Config Service** are correct, then the OPI installer launches the configuration wizard.



17. Select the OPI instance mode for Property Management System (PMS) merchants as **OPERA/Suite8**.

    On the **OPI Interface** screen appears, the configuration screens displayed are same when the configuration wizard is launched manually. (**:\OraclePaymentInterface\v20.4\Config\LaunchWizard.bat**)

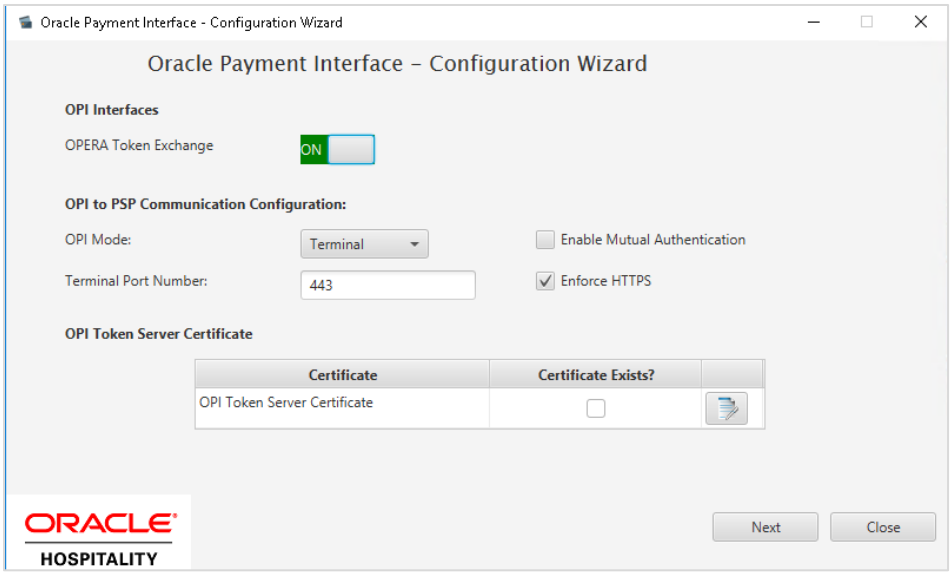
18. **OPERA Token Exchange**: This option is enabled by default for all OPERA token exchange services.

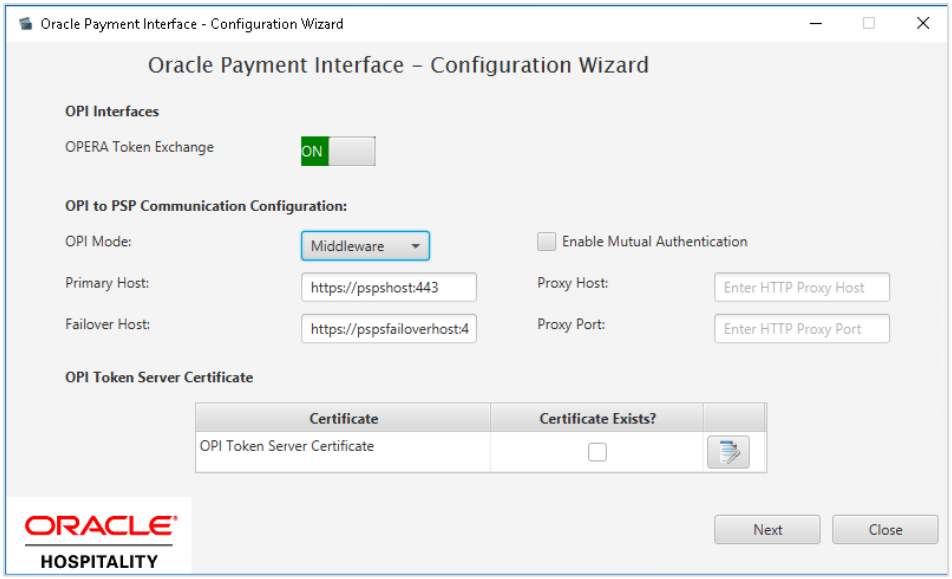
OPI to PSP Communication Configuration

- From the OPI Mode drop-down list, select the **Terminal** for the PED direct connection or select **Middleware** for middleware connection.

NOTE:

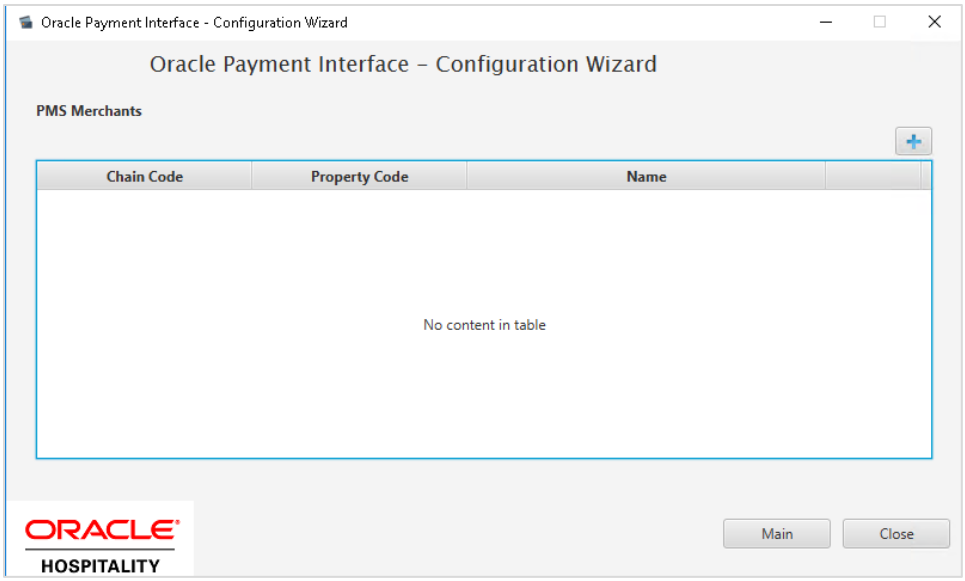
For Terminal Mode setup, special characters including "_" ,"|", and "=" cannot be used in the CHAINCODE or PROPERTYCODE. This will cause the EOD to fail in OPI.





- **Enable Mutual Authentication**: Enable this option only if the PSP requests two way authentication for financial transactions and has provided the certificates and passwords for it.
- Enter the third-party payment service provider middleware Host address if **Middleware** mode is selected. If the **Terminal** mode is selected, OPI configuration will populate another window in further steps to input Workstation ID and IP address.

19. Click the **Add** ( ) icon to add a new merchant configuration for OPERA.



20. To configure the OPERA merchant, enter the following information:

    a. The **OPERA Vault Chain Code** and **Property Code**; will form the **SiteId** value in the Token request messages.

> **NOTE:**
>
> **Chain Code** and **Property Code** values need to be in upper case.

    b. Select **Generate Key**. Use to generate an IFC8 Communication key. The generated key will have the prefix **FidCrypt0S|** that is automatically added. Use this generated key when configuring the key in IFC8 software.

    c. Enter the **IFC8 IP address** and **Port** number for the Hotel Property Interface (IFC8) server.

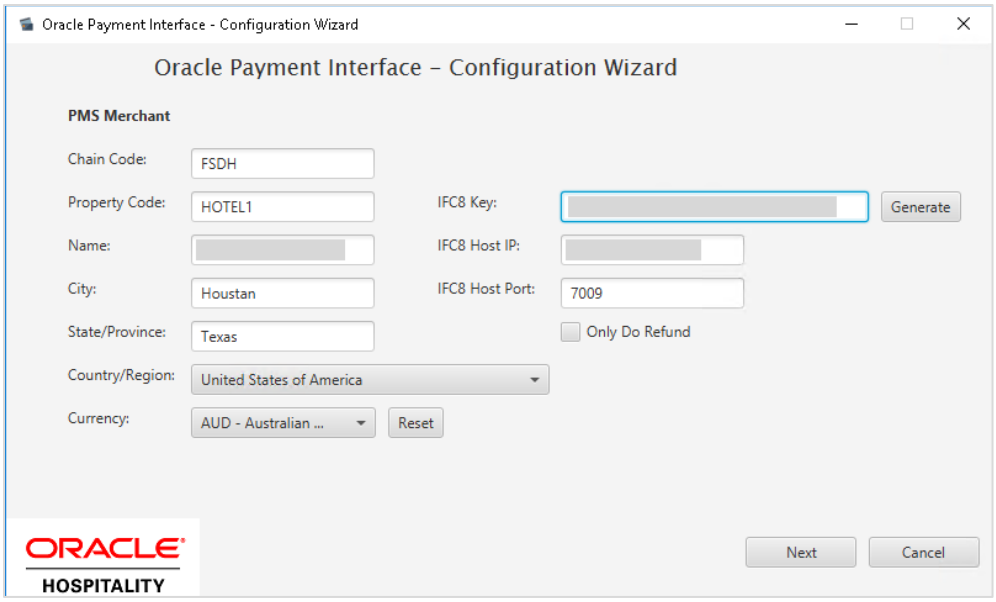
    d. Enter the Merchant **Name**, **City**, **State/Province** and **Country/Region** information.

    e. **Currency**: The currency selection by the merchant in which the transactions are to be processed. Merchants can override selected transaction currency irrespective of country/region selection. For example: If a merchant's selects country as 'United States of America', then they can select the currency from the list of all available currencies (AUD, AED, AFN and so on) and this currency is used for transaction currency. **Reset**: To reset the currency back to use country/region currency.

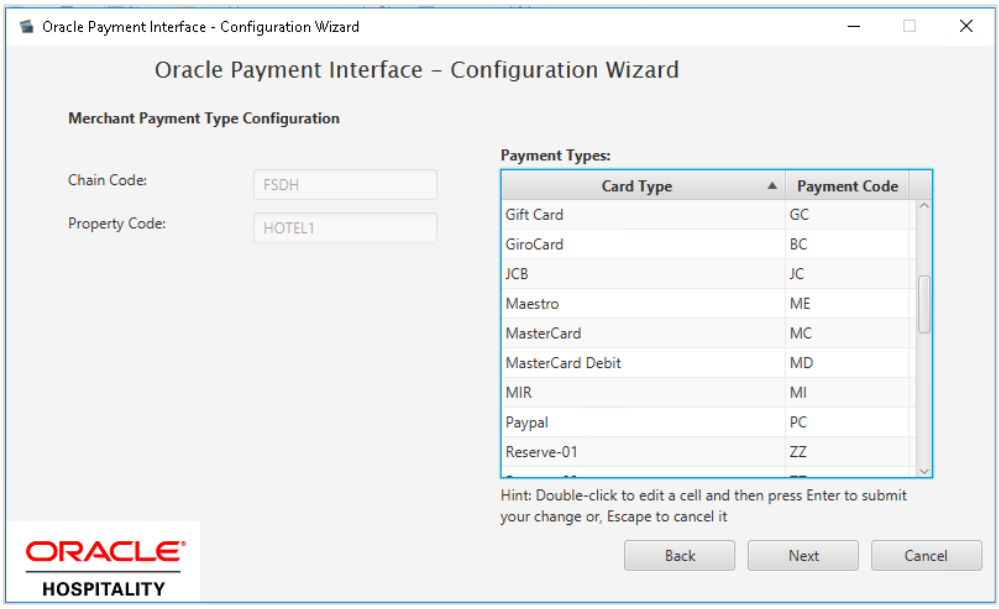
    f. Select the option **Only Do Refund** if you want to disable differentiating between void and refund from OPERA.

    g. Click **Next**.

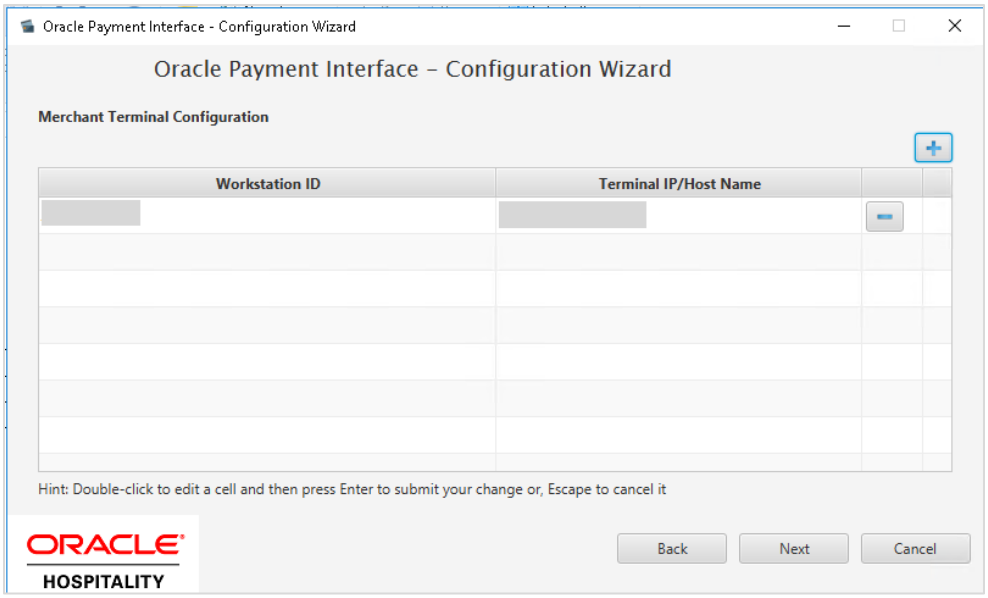
Although the other populated settings are not directly related to the Token Exchange Service configuration, Token Exchange is not possible if the IFC8 interface is not running, as OPI cannot progress past the IFC8 startup if the IFC8 connection is not possible.



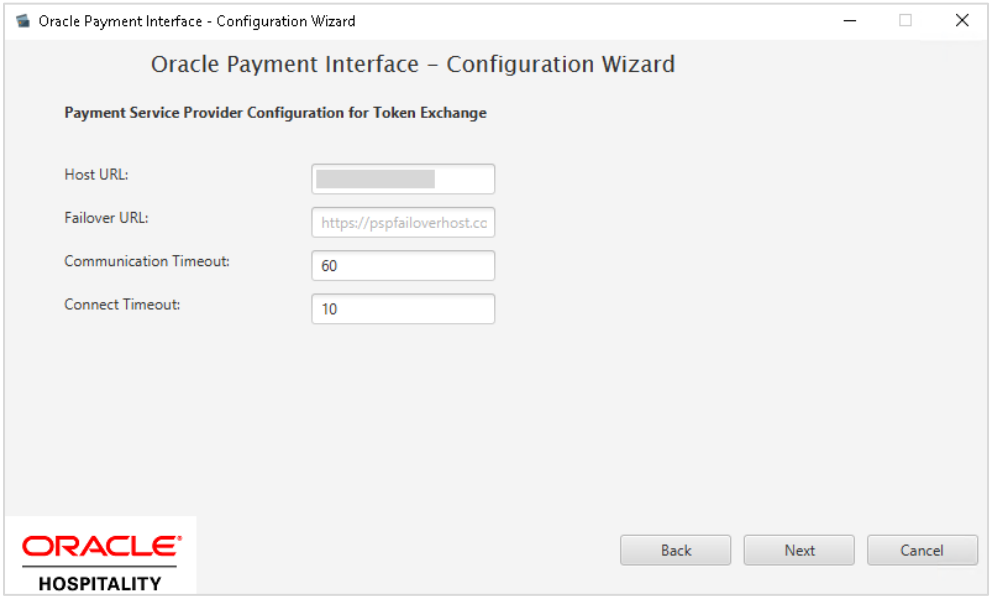
21. Enter the OPERA payment code for each card type, and then click **Next**.



Below is the terminal mapping if you select Terminal mode.



22. The next configuration relates to communication from OPI to the PSP host for Token Exchange. Enter the Oracle Cloud hosted token URL (this needs to be provided by the Cloud provisioning team), and then click **Next**.



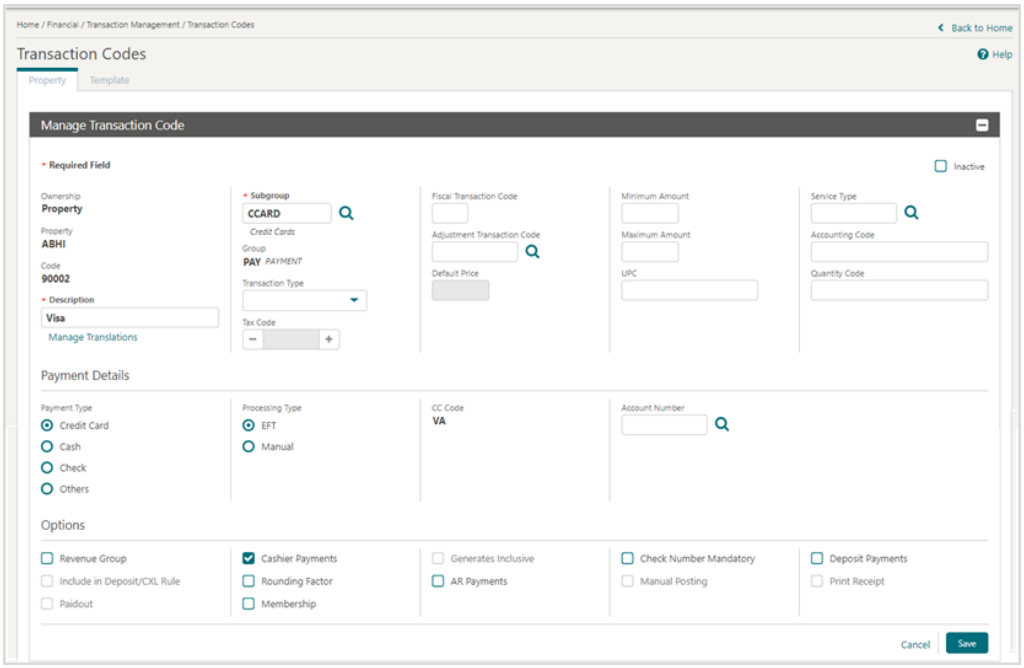
23. Click **Finish** to restart.

3

OPERA Cloud Configuration

Credit Card Payment Transaction Codes

1. Log in to OPERA.
2. From the **Administration** menu, go to **Financial | Transaction Management | Transaction Codes** to view the Credit Card Payments transaction codes setup.

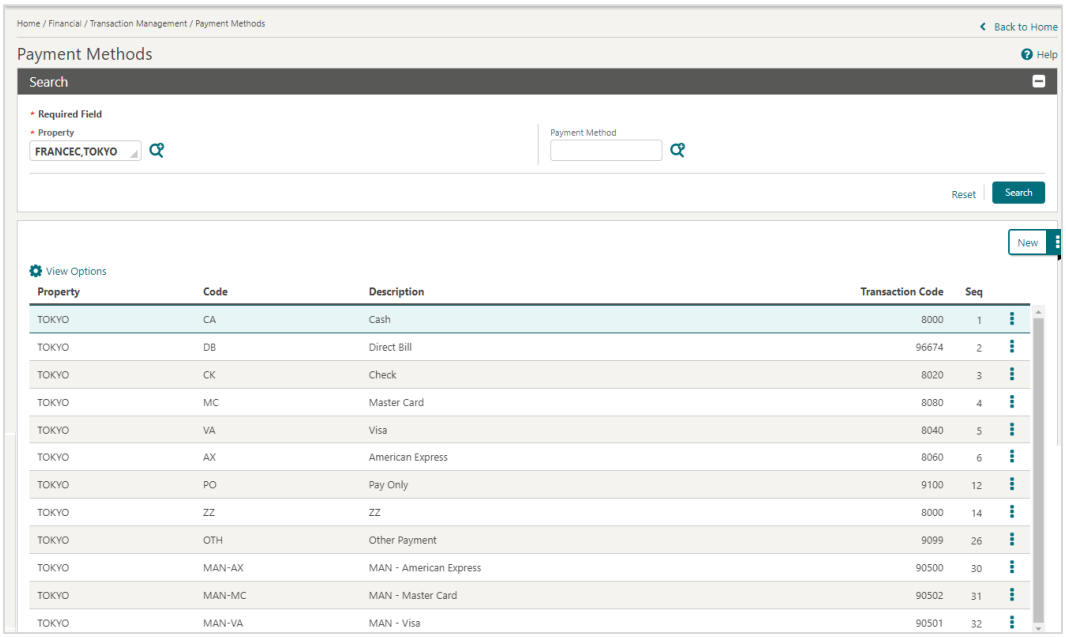


3. Information for credit card payment transaction codes:
   - **EFT** selection is necessary to send credit card transactions out to the integrated payment partner for the specific Payment type.
   - **Manual** selection will not send out any transactions to the integrated payment partner.
   - **CC Code** will auto-populate once the transaction code is associated to a Payment Type.

Configuring Payment Methods for Credit Card

1. Log in to OPERA.
2. From the **Administration** menu, go to **Financial | Transaction Management | Payment Methods** to configure payment methods for credit cards.
3. Setup the payment methods such as American Express, Master Card, and Visa with the transaction codes.

   Payment methods that are configured here will not require any validation on the credit card number or expiration date as Chip and PIN is enabled for these payment types.



To link the Card Types, the Credit Cards types mentioned below should be created and available in OPERA PMS.

Sample List of Card Types

Payment Types - Customer Present (Chip and PIN)	Description	Capture Method
VA	Visa	CP can be used. Transaction will go to the EMV (Chip and PIN) device.
MC	Mastercard	CP can be used. Transaction will go to the EMV (Chip and PIN) device.

Payment Types - Customer Present (Chip and PIN)	Description	Capture Method
AX	American Express	CP can be used. Transaction will go to the EMV (Chip and PIN) device.
DC	Diners Club	CP can be used. Transaction will go to the EMV (Chip and PIN) device.
JC	JCB	CP can be used. Transaction will go to the EMV (Chip and PIN) device.
CU	China Union Pay	CP can be used. Transaction will go to the EMV (Chip and PIN) device.
VD	Visa Debit	CP cannot be used, manual card type selection is required. If CP is used, OPERA will default to Visa. Transaction will go to the EMV (Chip and PIN) device.
MD	Mastercard Debit	CP cannot be used, manual card type selection is required. If CP is used, OPERA will default to Mastercard. Transaction will go to the EMV (Chip and PIN) device.
CD	China Union Pay Debit	CP cannot be used, manual card type selection is required. If CP is used, OPERA will default to China Union Pay. Transaction will go to the EMV (Chip and PIN) device.
MS	Maestro	CP can be used, but PayOnly recommended. Transaction will go to the EMV (Chip and PIN) device. Customer present ONLY!
VP	V-Pay	CP can be used, but PayOnly recommended. Transaction will go to the EMV (Chip and PIN) device. Customer present ONLY!
BC	GiroCard	CP can be used, but PayOnly recommended. Transaction will go to the EMV (Chip and PIN) device. Customer present ONLY!
AB	AliPay	CP can be used, but PayOnly recommended. Transaction will go to the EMV (Chip and PIN) device. Customer present ONLY!
MI	MIR (National Card for Russia)	CP can be used. Transaction will go to the EMV (Chip and PIN) device.

Payment Types – Customer NOT Present (Keyed)	Description	Capture Method
KVA	Visa Keyed	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)
KMC	Mastercard Keyed	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)
KAX	American Express Keyed	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)
KDC	Diners Club Keyed	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)
KJC	JCB Keyed	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)
KCU	China Union Pay Keyed	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)
KVD	Visa Debit Keyed	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)
KMD	Mastercard Debit	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)
KCD	China Union Pay Debit	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)

Payment Types – One Shot Cards (Keyed) OPTIONAL!!!	Description	Capture Method
VVA	Visa Virtual	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)
VMC	Mastercard Virtual	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)
VAX	American Express Virtual	Card not present transaction (CNP, MO/TO, Mail Order / Telephone Order, MOTOEC)

Individual Card Functions

Payment Types - Customer Present (Chip and PIN)	Authorization at Check-in	Pay Only (no Authorization)	Deposit Y/N	Cashier Payment Y/N	A/R Payment Y/N
VA	Y	N	N	Y	N
MC	Y	N	N	Y	N
AX	Y	N	N	Y	N
DC	Y	N	N	Y	N
JC	Y	N	N	Y	N
CU	Y	N	N	Y	N
VD	N	Y	N	Y	N
MD	N	Y	N	Y	N
CD	N	Y	N	Y	N
MS	N	Y	N	Y	N
VP	N	Y	N	Y	N
BC	N	Y	N	Y	N
AB	N	Y	N	Y	N
MI	Y	N	Y	Y	Y

Payment Types - Customer NOT Present (Keyed)	Authorization at Check-in	Pay Only (no Authorization)	Deposit Y/N	Cashier Payment Y/N	A/R Payment Y/N
KVA	Y	N	Y	Y	Y
KMC	Y	N	Y	Y	Y
KAX	Y	N	Y	Y	Y
KDC	Y	N	Y	Y	Y

Payment Types - Customer NOT Present (Keyed)	Authorization at Check-in	Pay Only (no Authorization)	Deposit Y/N	Cashier Payment Y/N	A/R Payment Y/N
KJC	Y	N	Y	Y	Y
KCU	Y	N	Y	Y	Y
KVD	N	Y	Y	Y	Y
KMD	N	Y	Y	Y	Y
KCD	N	Y	Y	Y	Y

Payment Types – One Shot Cards (Keyed) OPTIONAL!!!	Authorization at Check-in	Pay Only (no Authorization)	Deposit Y/N	Cashier Payment Y/N	A/R Payment Y/N
VVA	N	Y	N	Y	N
VMC	N	Y	N	Y	N
VAX	N	Y	N	Y	N

Important Considerations

- Transaction codes for Chip and PIN, KEYED and VIRTUAL cannot be the same.
- SOLO cards does not exist anymore, and cannot be used.
- VISA ELECTRON and VISA DELTA should not be created as separate transaction / payments codes, these cards will fall under VISA.
- DISCOVER cards now fall under DINERS CLUB.
- VIRTUAL cards can only be VISA, MASTERCARD and AMERICAN EXPRESS.
- V-Pay, GiroCard and AliPay can only be Chip and PIN.

Pay Only Transaction Codes

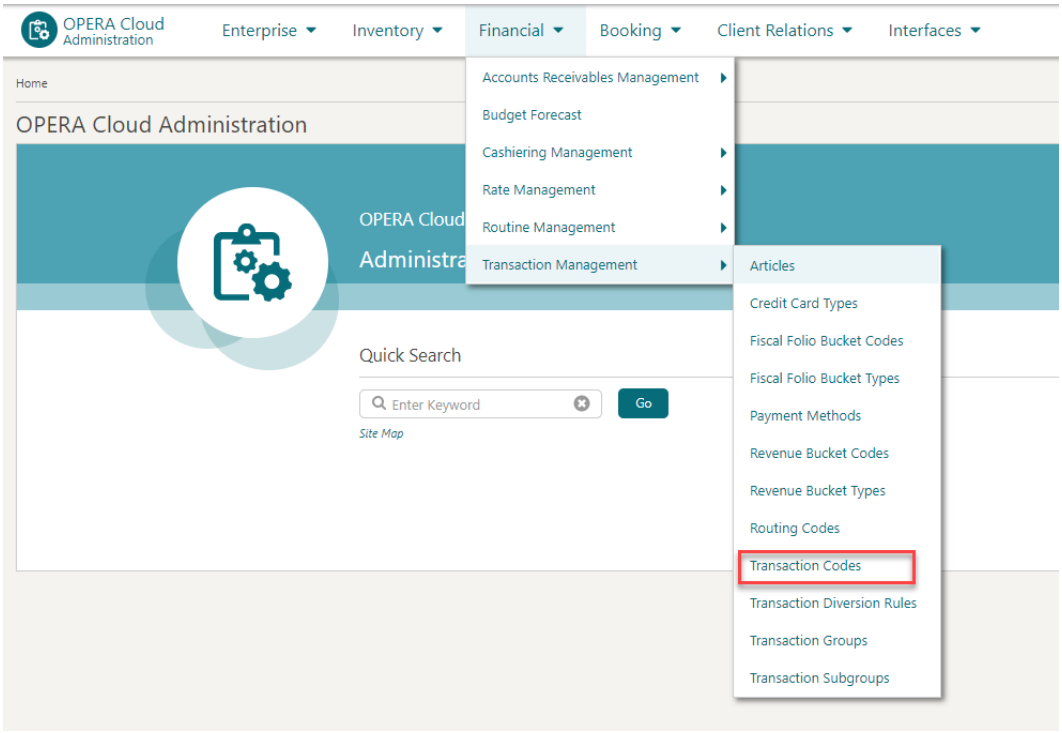
By default, OPERA will process a Pre-authorization following by a Sale Completion when processing a payment. At times, hotels will need to process transactions as a “Sale Transaction” – meaning a Sale Transaction only and no pre-authorization is processed. In OPERA we refer to this feature as “Pay Only” and this can be used to process

payments for Debit Cards, Digital Wallets, or Virtual Credit Cards that do not support Pre-Authorizations.

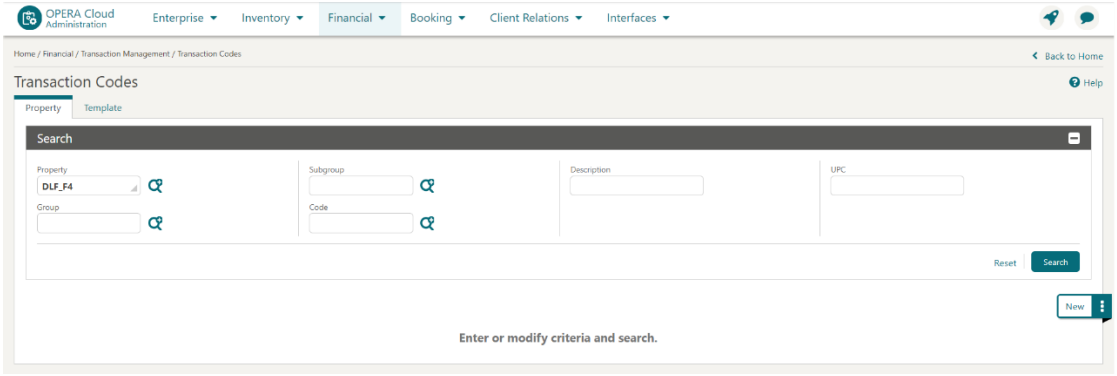
The below steps detail creating this code. In order to use the PayOnly transaction code, you will need to also set up a new Payment method and Credit Card Type (if not already setup; normally zz card Type) at a property level.

Create Transaction Code

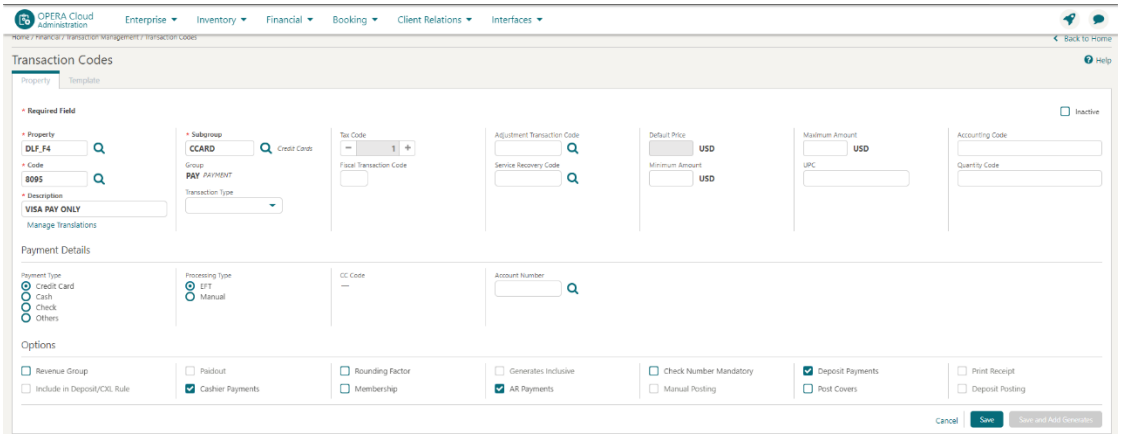
1. Go to **OPERA Cloud Administration**.
2. Go to **Financial | Transaction Management | Transaction Codes**.



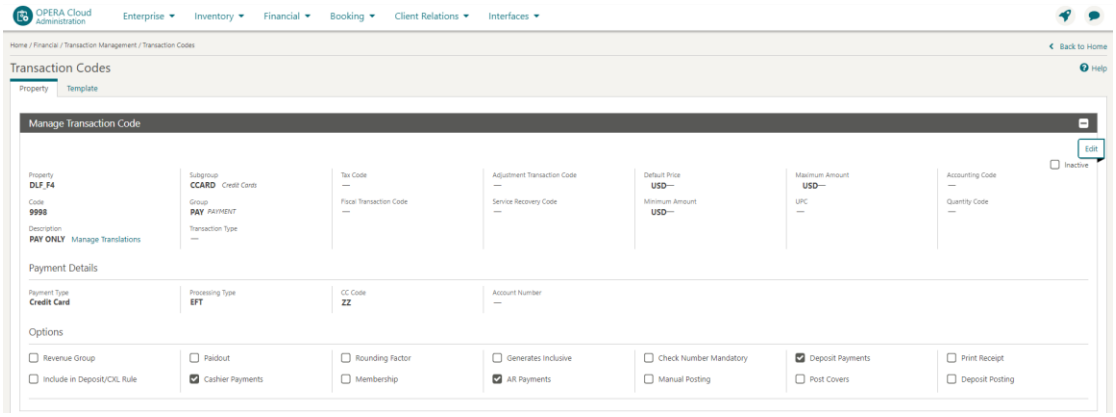
3. Click on **New**.



4. Create the new Transaction code for PAYONLY.

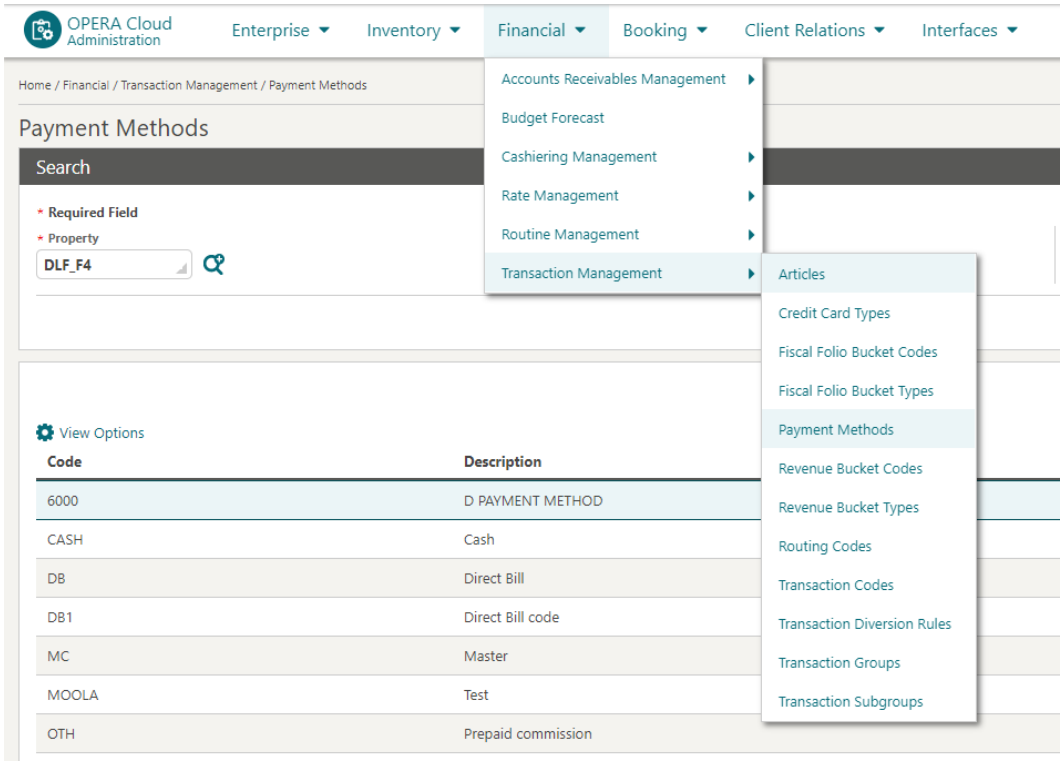


5. Click **Save**.

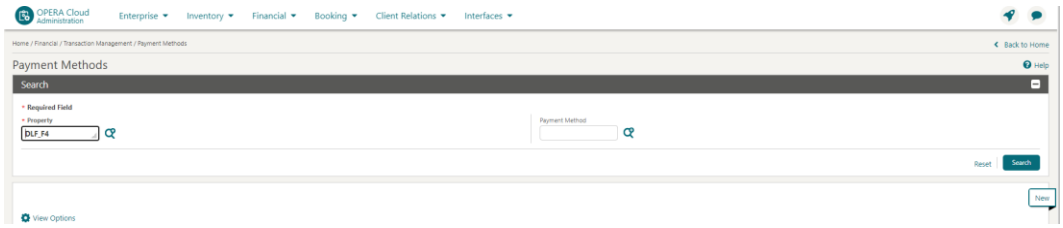


Create Payment Method

1. Go to **OPERA Cloud Administration**.
2. Go to **Financial | Transaction Management | Payment Methods**.



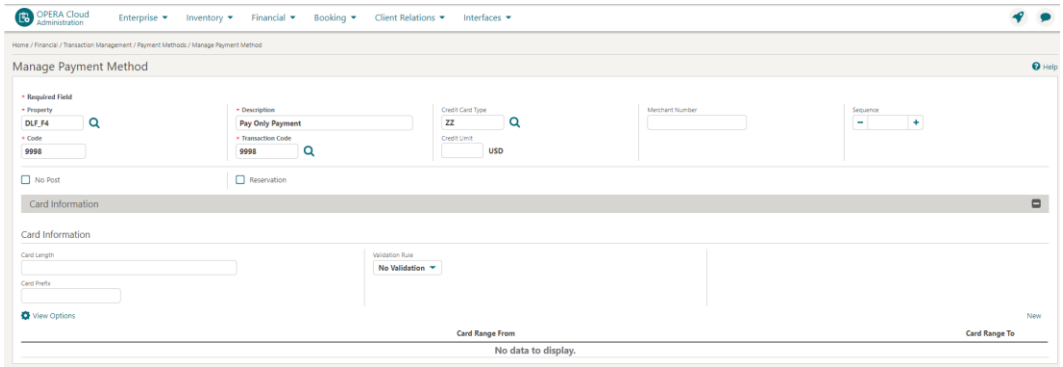
3. Click **New**.



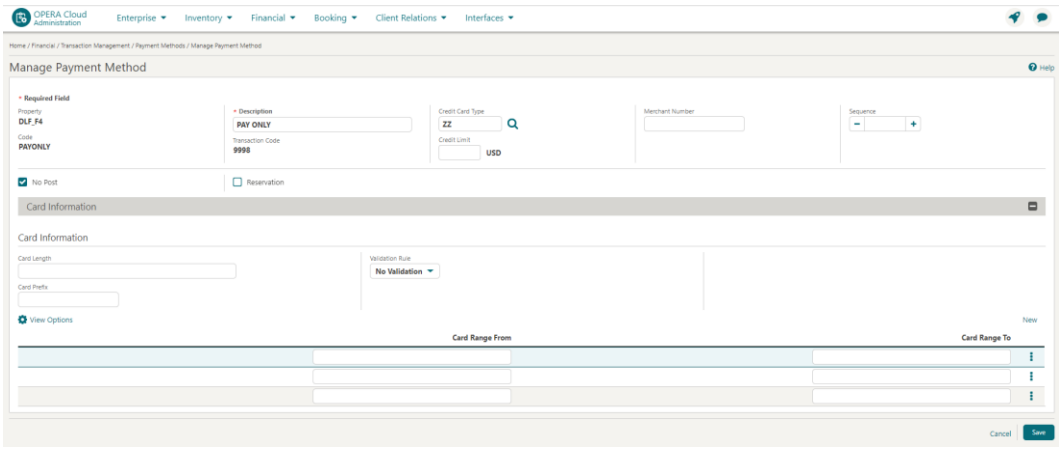
4. Assign a Code to represent the Payment Method for PayOnly.

5. Enter description.

6. Select Transaction code for PayOnly created earlier.

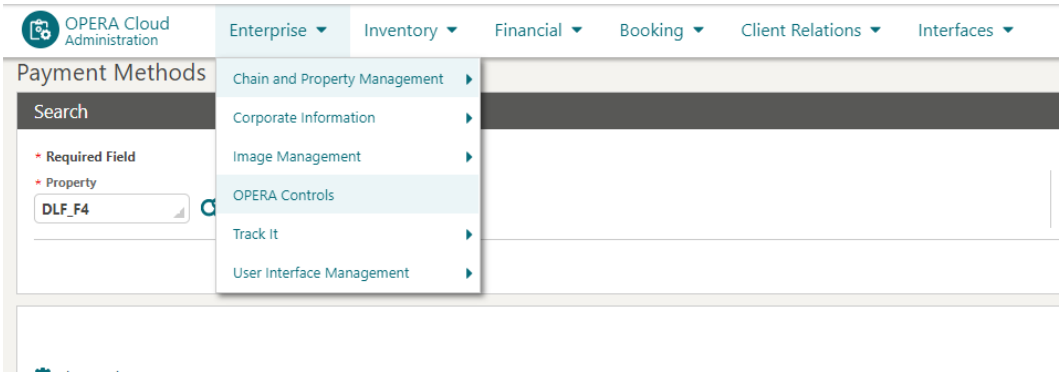


7. Click **Save**.

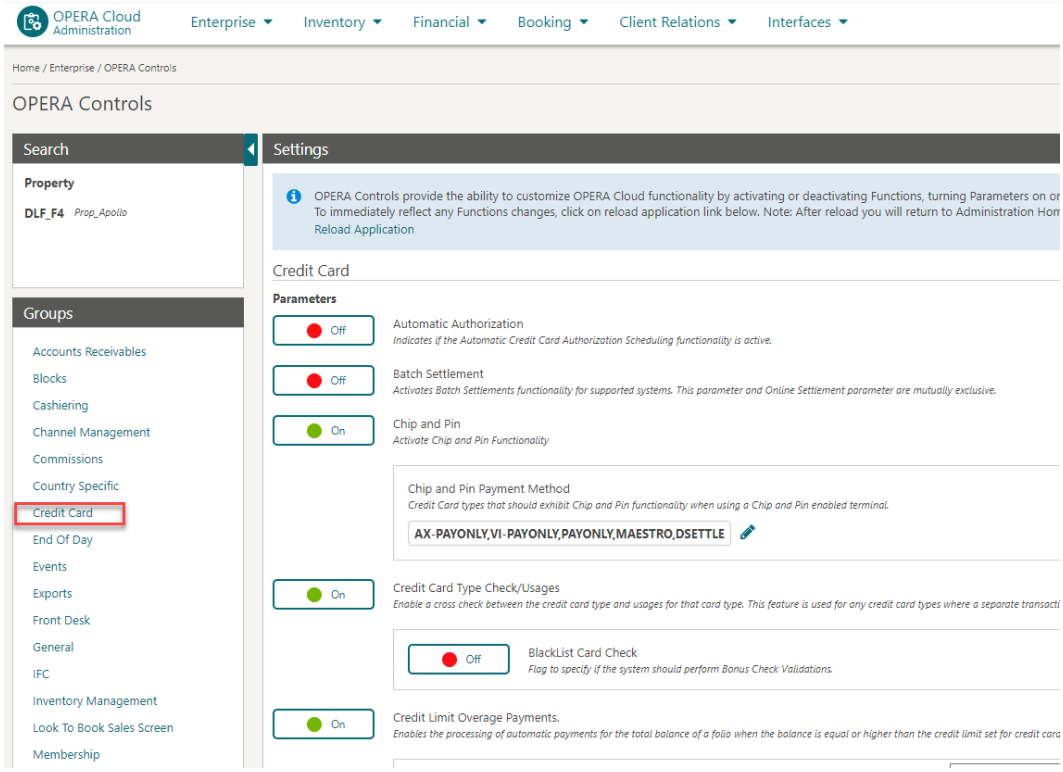


Update OPERA Controls for Settlement at Checkout and Chip and Pin.

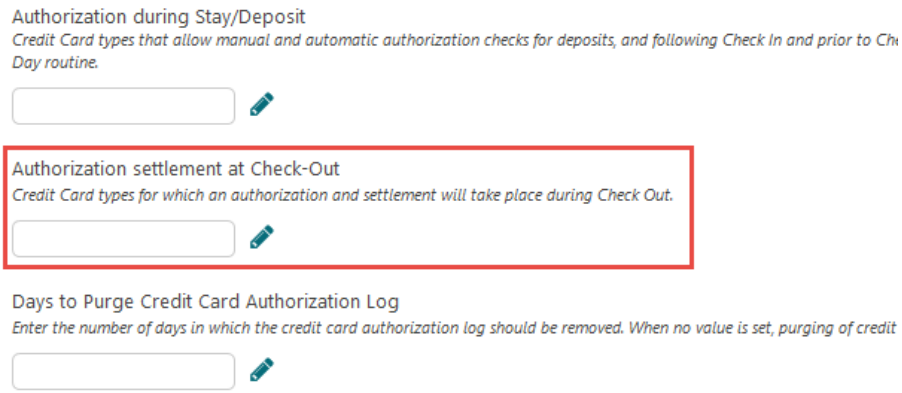
1. Go to **OPERA Cloud Administration**.
2. Go to **Enterprise** | **OPERA Controls**.



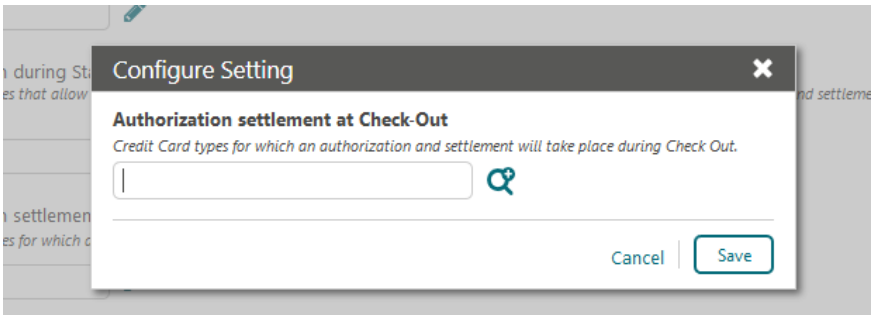
3. Select the Credit Card group.



4. Click the edit icon in the **Authorization settlement at Check-Out** setting.

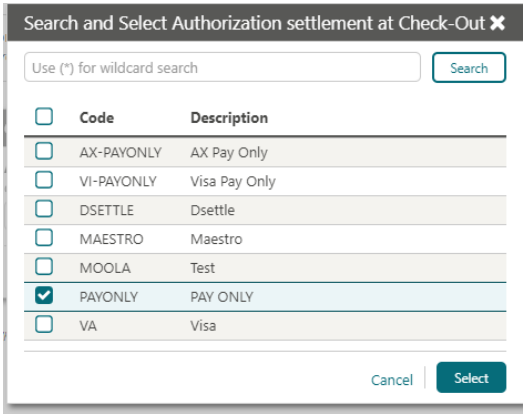


5. Click in the search icon in the **Configure Setting screen**.

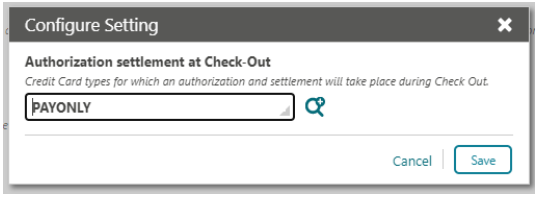


6. Search and select the authorization settlement at Check-Out.

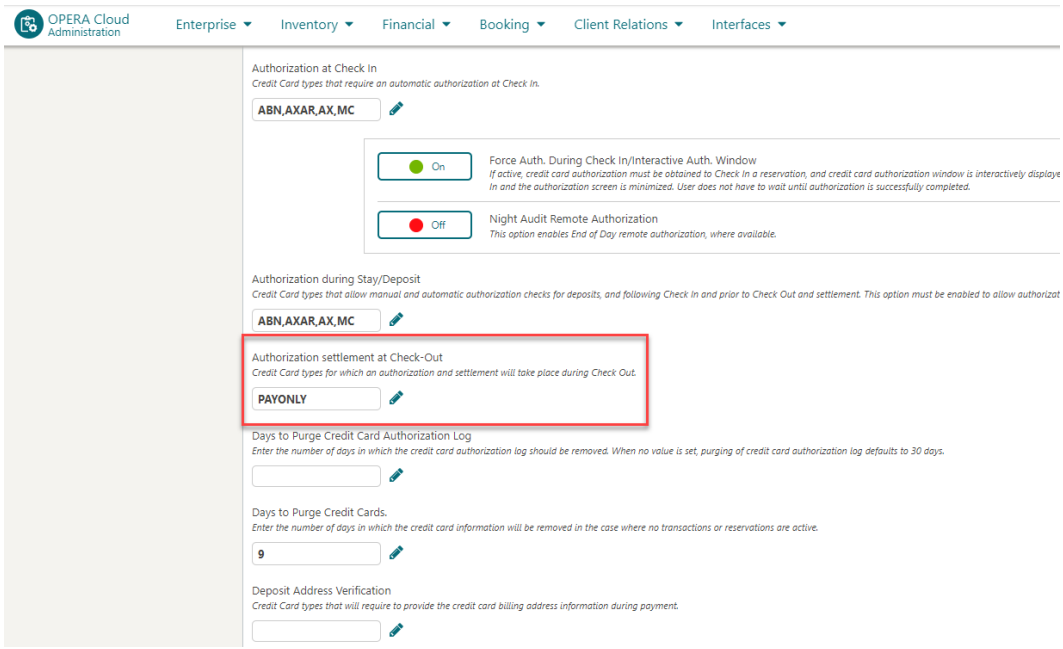
7. Click **Select**.



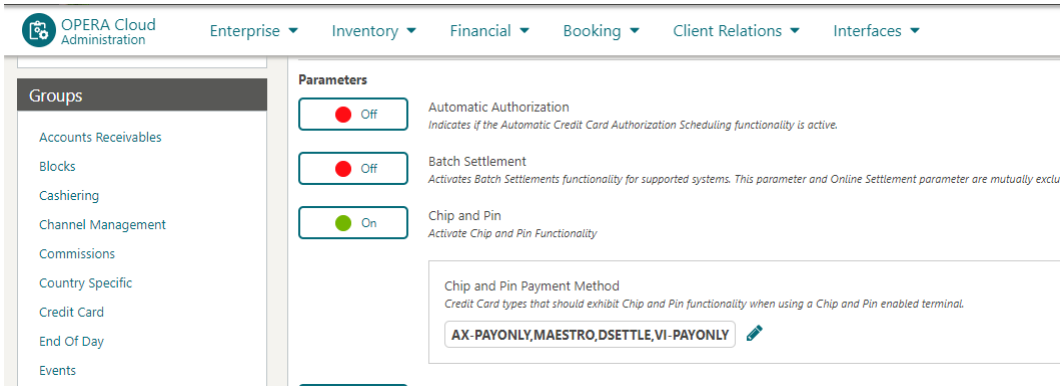
8. Click **Save** to confirm selection.



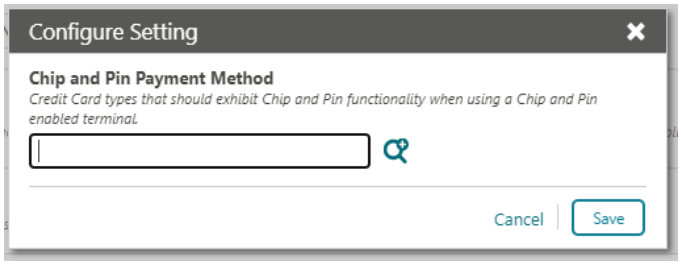
9. Pay only is now added.



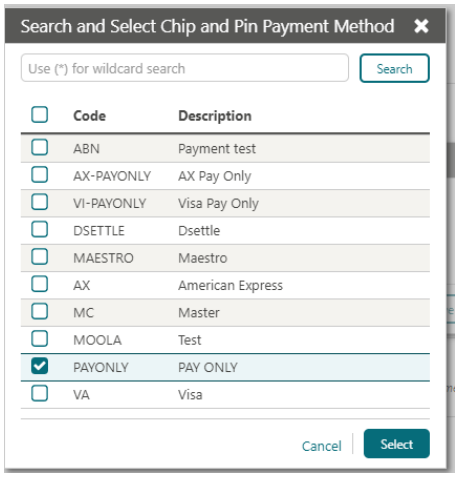
10. Click the edit icon in the **Chip and Pin Payment Method** setting.



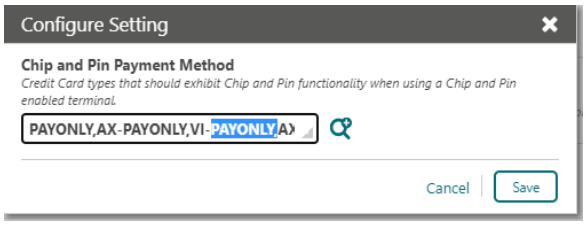
11. Click the Search icon in the Configure Setting screen.



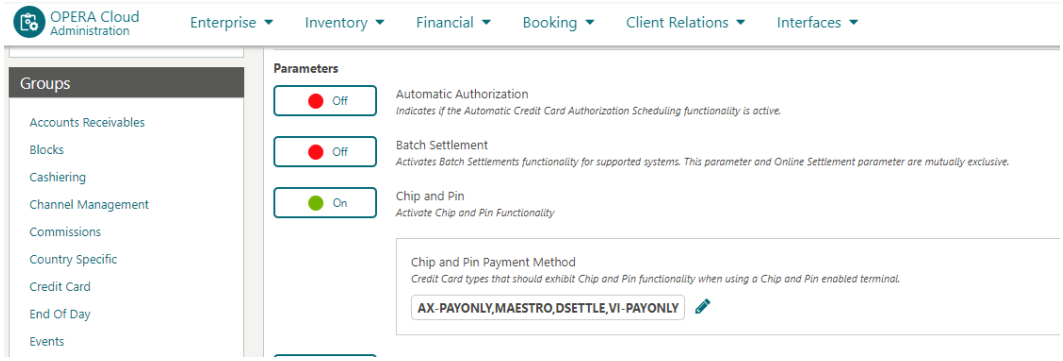
12. Click **Select**.



13. Click **Save** to confirm selection.



14. Pay only is now added.

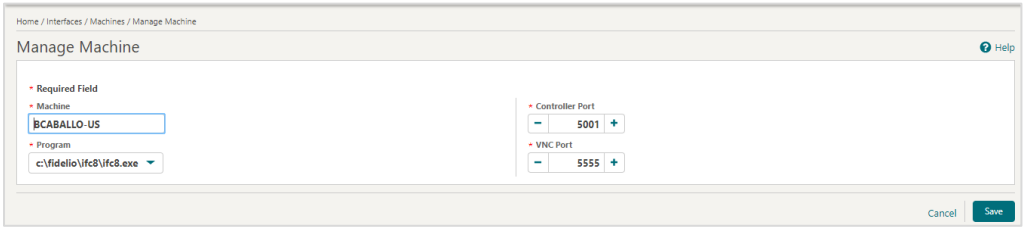


Configuring Machines

1. Log in to OPERA.
2. From the **Administration** menu, go to **Interfaces | Machines**. Select **New** to add the configuration for a new Machine.
3. Enter the following options, and then click **Save**:
    a. **Machine**: Enter the machine name where the OPERA IFC Controller Service is running.
    b. **Controller Port**: Define the controller port.

c. **Program**: Select the program from the list.

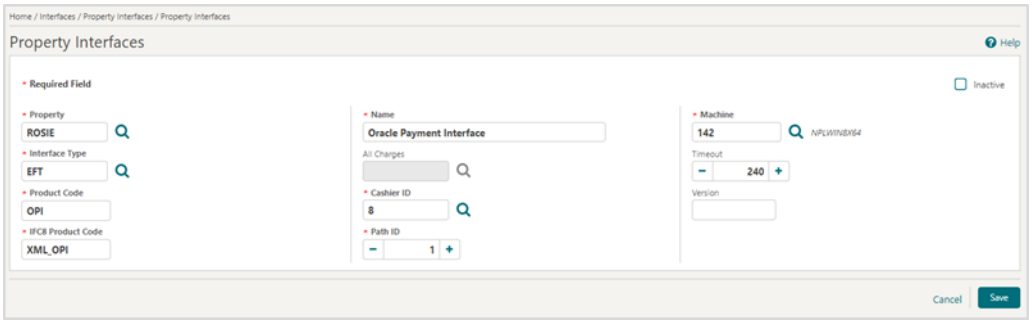
d. **VNC Port**: Define the VNC port.



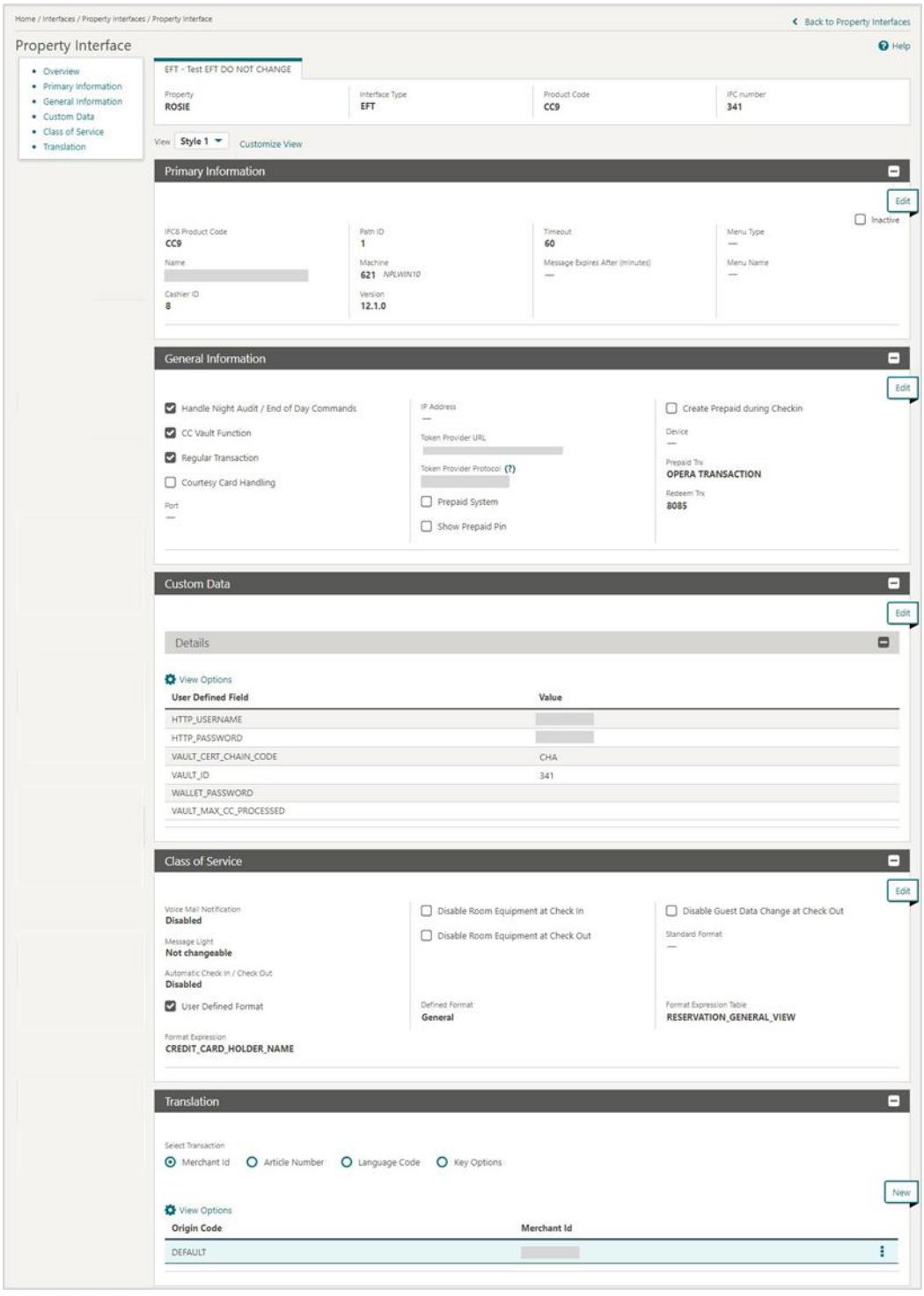
Creating an EFT Interface

1. Log in to OPERA.
2. From the **Administration** menu, go to **Interfaces | Property Interfaces**. If there is no active EFT or CCW IFC Type, select **New** to add the configuration for a new EFT interface.
3. Enter the following options:

- **Property**: Select the property name.
- **IFC Type**: EFT
- **Name**: Oracle Payment Interface
- **Product Code**: OPI
- **Machine**: Select the machine where the OPERA IFC Controller Service is running.
- **License Code**: License code for interface
- **IFC8 Prod Cd**: XML_OPI
- **Timeout**: Define the timeout value as 240.
- **Cashier ID**: Select the cashier id.
- **Path ID**: Define the path id.
- **Version**: This is auto populated once IFC8 establishes a link.



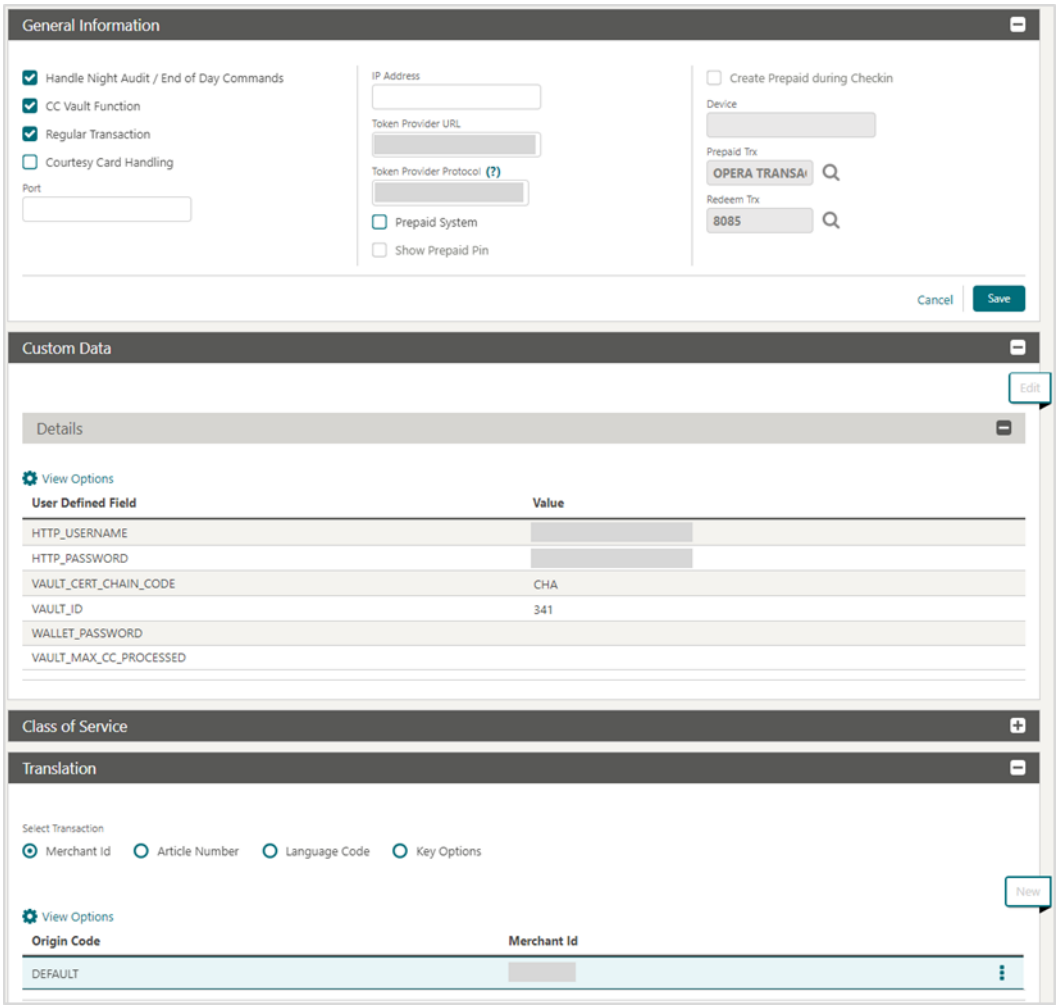
4. Click **Save** to add the configuration for a new EFT interface.


Home / Interfaces / Property Interfaces / Property Interface
Back to Property Interfaces
Property Interface
Help
Overview
Primary Information
General Information
Custom Data
Class of Service
Translation
EFT - Test EFT DO NOT CHANGE
Property
ROSIE
Interface Type
EFT
Product Code
CC9
IFC number
341
View
Style 1
Customize View
Primary Information
Edit
Inactive
IFC8 Product Code
CC9
Path ID
1
Timeout
60
Menu Type
Name
Machine
621 NPLWIN10
Message Expires After (minutes)
Menu Name
Cashier ID
8
Version
12.1.0
General Information
Edit
Handle Night Audit / End of Day Commands
CC Vault Function
Regular Transaction
Courtesy Card Handling
Port
IP Address
Token Provider URL
Token Provider Protocol (?)
Prepaid System
Show Prepaid Pin
Create Prepaid during Checkin
Device
Prepaid Trx
OPERA TRANSACTION
Redeem Trx
8085
Custom Data
Edit
Details
View Options
User Defined Field
Value
HTTP_USERNAME
HTTP_PASSWORD
VAULT_CERT_CHAIN_CODE
CHA
VAULT_ID
341
WALLET_PASSWORD
VAULT_MAX_CC_PROCESSED
Class of Service
Edit
Voice Mail Notification
Disabled
Message Light
Not changeable
Automatic Check In / Check Out
Disabled
User Defined Format
Format Expression
CREDIT_CARD_HOLDER_NAME
Disable Room Equipment at Check In
Disable Room Equipment at Check Out
Defined Format
General
Disable Guest Data Change at Check Out
Standard Format
Format Expression Table
RESERVATION_GENERAL_VIEW
Translation
Select Transaction
Merchant Id
Article Number
Language Code
Key Options
New
View Options
Origin Code
Merchant Id
DEFAULT

Configuring the CC Vault

1. From the Administration menu, go to **Interfaces | Property Interfaces | edit EFT IFC | General Information.**
2. Select the check box to enable the **Handle Night Audit / End of Day Commands**.
3. Select the check box to enable the **CC Vault Function**.
4. Select the check box to enable the **Regular Transaction**.
5. The **Token Provider URL** should be in the format:

   https://OPIHostIP.example.com
6. The **Token Provider Protocol** should be set to **One Way Handshake** which means for OPI only server side certificate is required.
7. Go to **Interfaces | Property Interfaces | edit EFT IFC | Custom Data.**
8. The **HTTP_USERNAME** and **HTTP_PASSWORD** should be set at the Token proxy service side that allows communication with the token proxy service URL.
9. OPERA uses the **VAULT_CERT_CHAIN_CODE** for the certificate lookup and should be populated with what was entered during the OPI configuration for OPERA.
10. The **VAULT_ID** is auto populated based on the IFC number.
11. The **WALLET_PASSWORD** is not used for One Way Handshake.
12. The **VAULT_MAX CC PROCESSED** is set to what the Payment Partner can support for the number of rows sent in one Token (GetID/GetCC) request. This is used during the bulk tokenization process and when multiple folio windows exist on OPERA Reservations. 50 is the default used when nothing is set here.



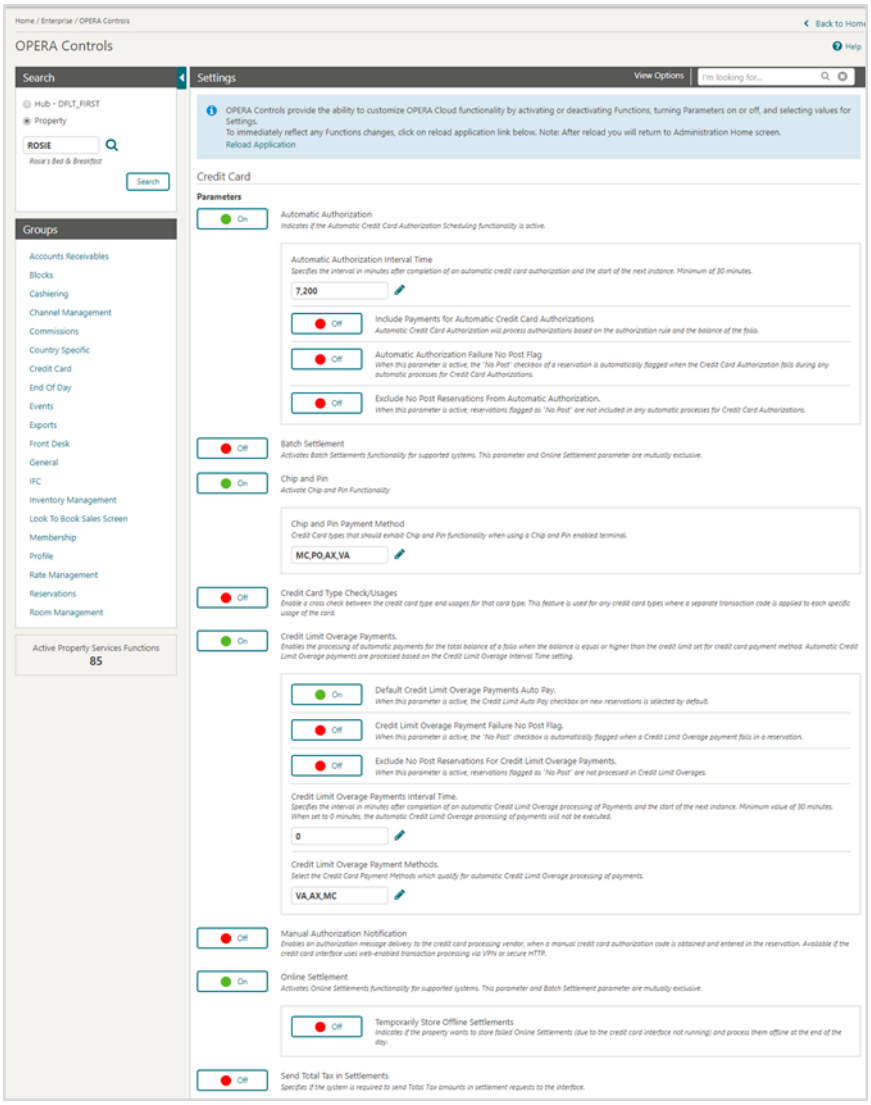
13. On the **Translation** panel, select **Merchant ID** as the DEFAULT code to run an EFT IFC8.

Configuring CHIP AND PIN (EMV)

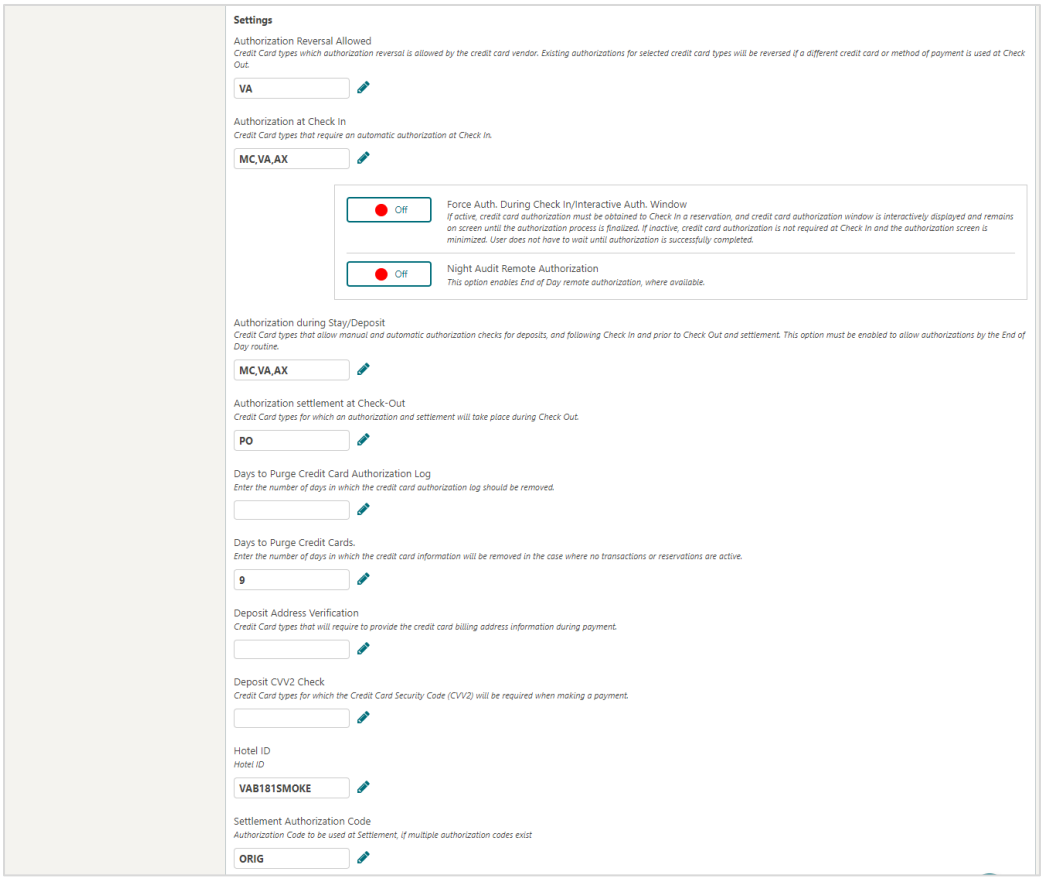
To configure the Functionality Setup:

1. Log in to OPERA.
2. From the **Administration** menu, go to **Enterprise | OPERA Controls | Groups | Credit Card | Parameters**.
3. **Online Settlement**: Select this check box to allow online settlement. OPI is an online settlement and this must be checked to activate the Chip and PIN Application Setting.
4. Select this check box to enable **CHIP AND PIN** payment types.
   - **Chip and PIN Enabled Payment Types**: When the IFC | Chip and PIN application parameter is set to Y, this option is visible and selected by default. You may not deselect the check box. Select the LOV to choose the credit card payment types that will trigger a Chip and PIN message with or without credit

card data to the EMV Device. Payment types that are configured here will not require a credit card number or expiration date to be entered when selected as a payment method on the Reservation screen or on the Payment screen. This data can be provided in the response message from the Payment Partner.



5. In the **Settings** panel configure the following:

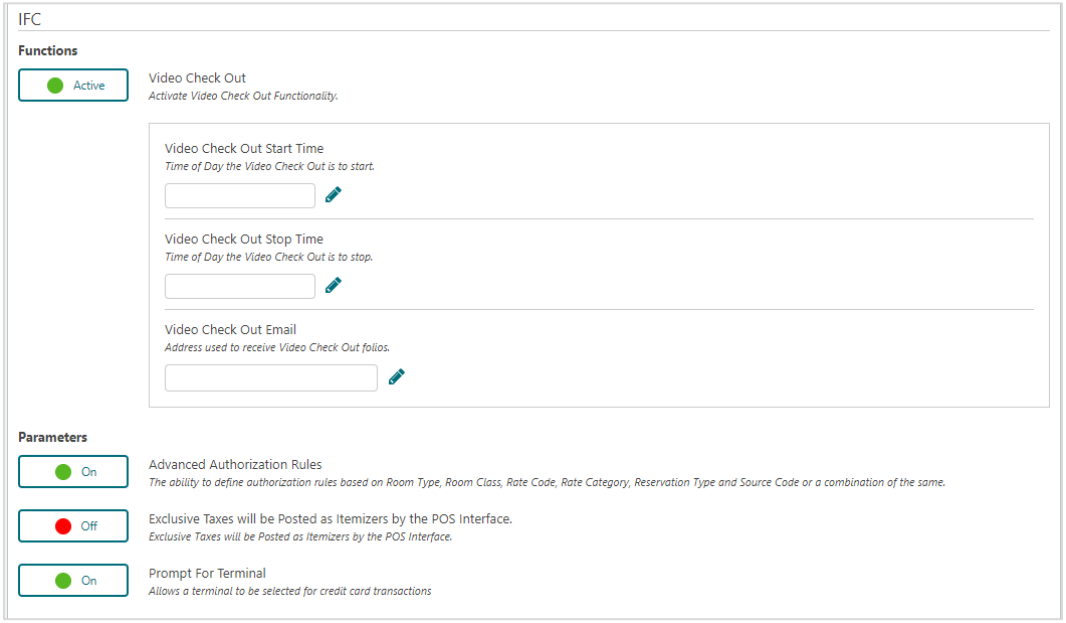


- **Authorization at Check-In**: Select the payment methods that will trigger an automatic credit card authorization at check-in.
- **Authorization Reversal Allowed**: Select the payment methods that can process authorization reversals. This provides a request transaction to the Payment Partner to remove the existing authorization on a guest credit card or debit card if the folio payment type is changed or at check-out a different payment method is used. For example, a guest checks in on a reservation for a 5-night stay using a Visa credit card for payment type. At the time of authorization, a hold is put on the Visa credit card for the total cost of the stay. If the payment type is changed to another type on the reservation or the guest checks out using cash or a different brand of credit card, OPERA will send a reversal request for the originally selected Visa credit card authorization. A partial reverse authorization is not supported.
- **Authorization During Stay/Deposit**: Select the payment methods that allow manual and automatic authorizations following check-in and prior to check-out and settlement. This option must be enabled in order to allow authorizations by the end-of-day routine.
- **Authorization Settlement at Check-Out**: Select the payment types that use credit card authorization and settlement in one transaction request. These are payment types that do not allow an authorization separate from the settlement/sale.
  - The payment types that are available in the multi-select list of values are only payment types configured as EFT payment types. Any one payment type can be

selected for credit card specific rules of Authorization at check-in, Authorization Reversal, and Authorization during Stay/Deposit. If they are selected for these card specific rules, then the payment types will not be available for Authorization During Stay/Deposit.

- **Settlement Authorization Code**: Specifies the authorization code used at settlement if multiple authorization codes exist Pre authorizations and top-up authorizations before the settlement.

6. Go to **Enterprise | OPERA Controls | Groups | IFC | Parameters**, and enable **Prompt For Terminal** to handle chip and pin EMV devices.



Activating and Using the Payment Service Directive (PSD2) Control

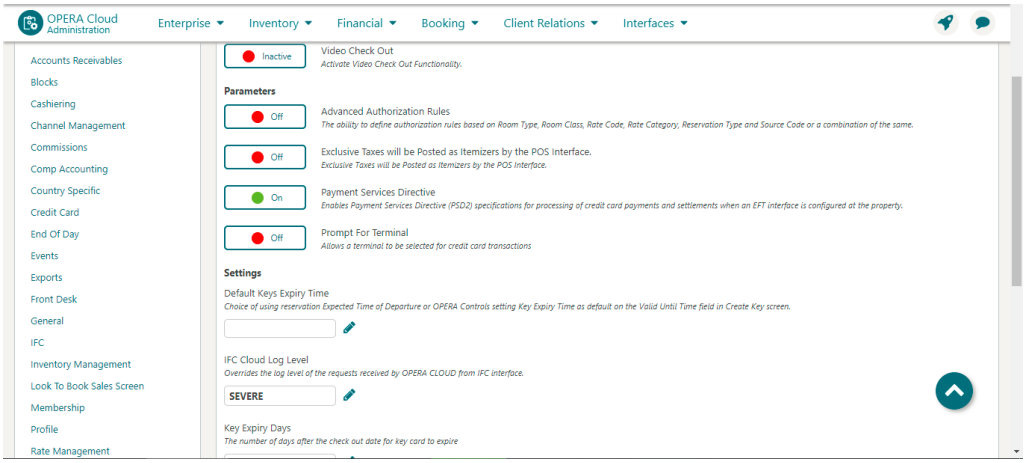
A Payment Service Directive OPERA Control is added for properties with payment integration to meet the requirements of the P2D2 European directive for card not present transactions.

The Payment Service Directive Control parameter in OPERA CLOUD need to be activated. Currently, the supported functions for OPERA CLOUD are MOTO (Mail Order/Telephone Order), and MIT (Merchant Initiated Transaction).

**CIT (Merchant Initiated Transaction is not yet supported in OPERA Cloud but will be in the future).

Activating the Payment Service Directive is available only once the credit card interface has been installed in OPERA Cloud and the Credit Card Vault function and the Chip and Pin is turned on. If this is completed follow the below sections to know the functions of MOTO and MIT:

- From the **Administration** menu, go to **Enterprise | OPERA Controls | Groups | IFC | Parameters**.
- Turn On **Payment Service Directive** option: Selecting this check box enables the Payment Services Directive (PSD2) specifications for processing of credit card payments and settlements when an EFT interface is configured at the property.



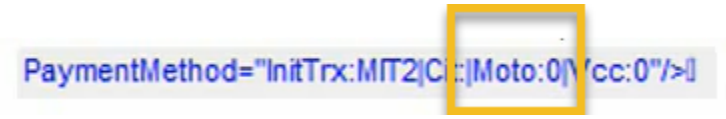
- OPERA Cloud includes the following flags when sending payments to the payment service provider for approval:
  - PSD2-PRE-PAYMENT when processing credit card payments for deposits.
  - PSD2-NOSHOW when processing credit card payment for no show fees.
  - PSD2-DELAYED_CHARGE when processing credit card payments for post-stay charges.

Mail Order / Telephone Order (MOTO) Flag

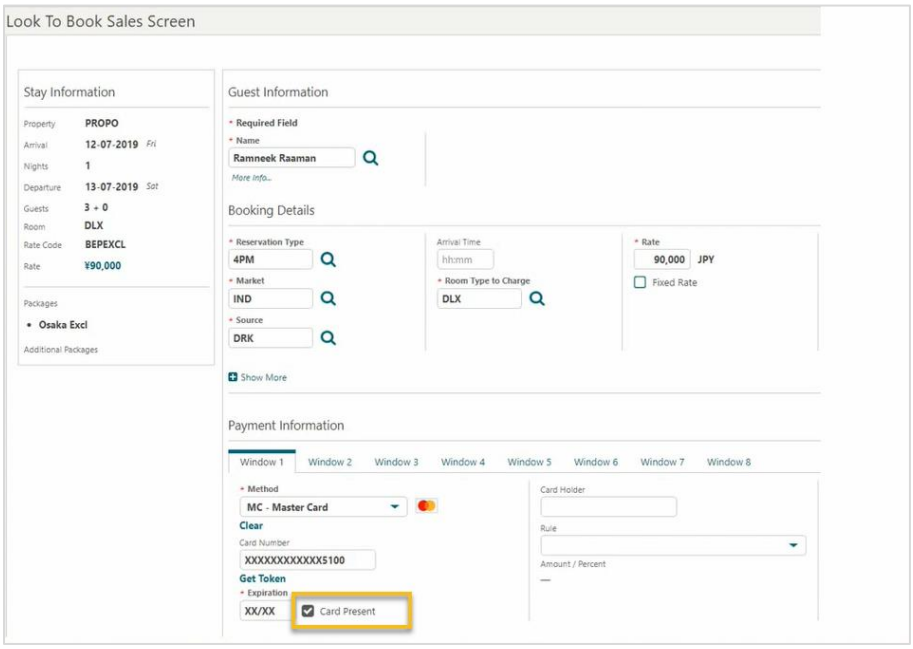
When **Payment Service Directive** is Active, the information sent from OPERA Cloud to the interface will:

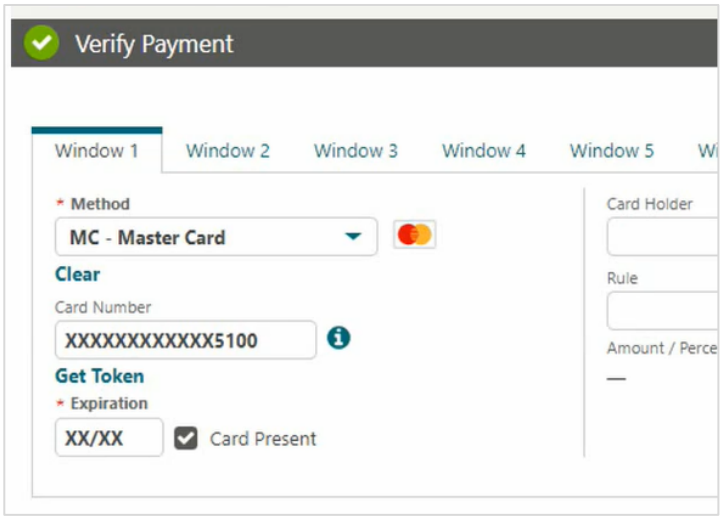
- Include a MOTO flag in the “PaymentMethod” tag indicating:
  - MOTO=0 indicates the Credit Card was NOT entered manually
  - MOTO=1 indicates that the Credit Card was entered manually

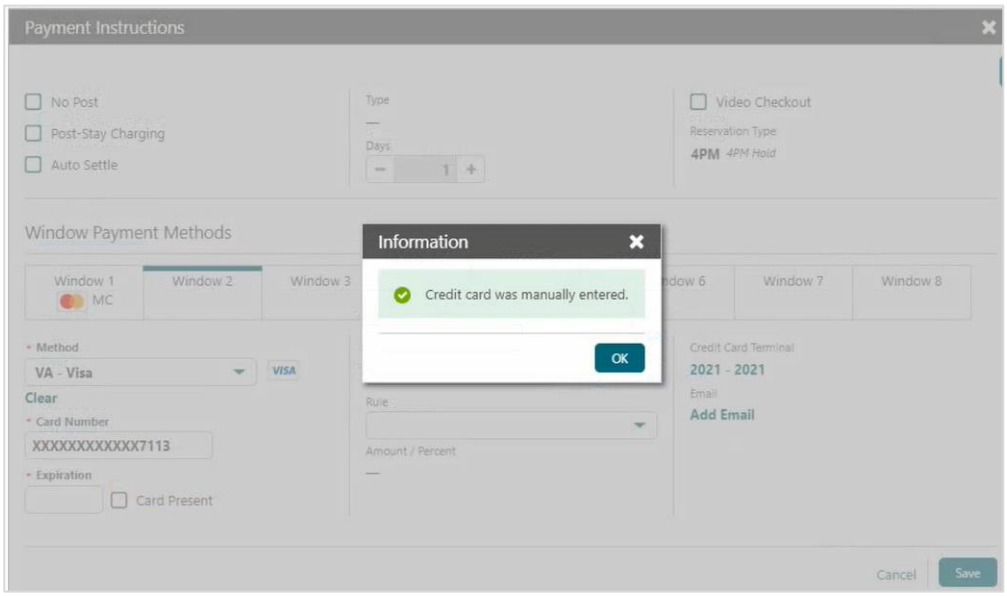
Sample:



- Display a new ‘**Card Present**’ checkbox.
  - **Card Present** checkbox selected indicates the Credit Card was not entered manually.
  - **Card Present** checkbox not selected indicates that the Credit Card was entered manually (Entering Credit card manually will also prompt a message saying “**Credit card was entered manually**”).







Merchant Initiated Transaction (MIT) Flag

When **Payment Service Directive** is Active, the information sent from OPERA Cloud to the interface which will include the MIT flag in the 'PaymentsMethod' tag when sending payments to the Payment Service Provider for approval.

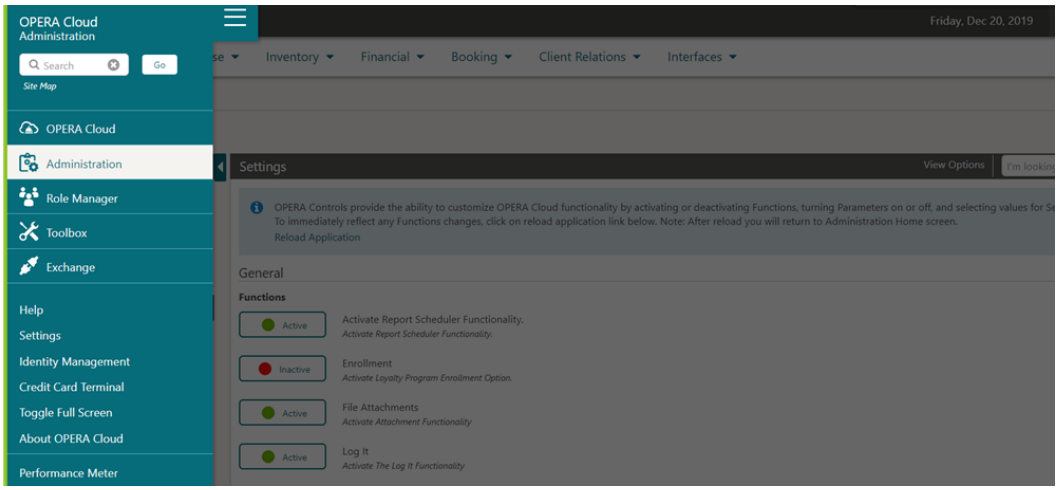
MIT Flag options include an MIT flag in the "PaymentMethod" tag indicating:

- **MIT1: NO SHOW** - used when processing credit card payment for **NO SHOW** fees.
- **MIT2: PRE-PAYMENT** - used when processing credit card **PRE-PAYMENT** for deposits.
- **MIT4**: **DELAYED CHARGE** - used when processing credit card payments for **POST-STAY CHARGES**.

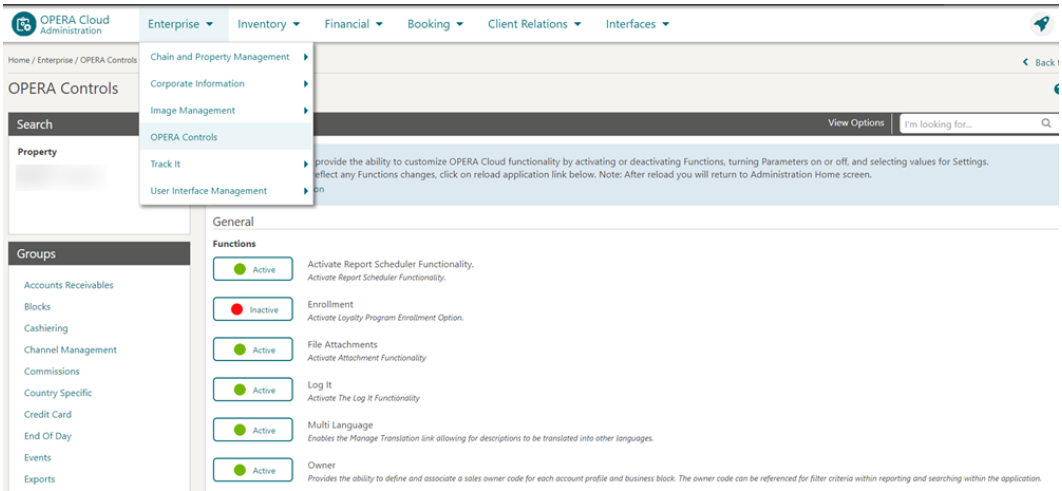
Credit Card Manual Entry into OPERA

- **Credit Card Vault** function and the **Chip and Pin** Parameter must be set active.
- OPERA Cloud uses web services rather than OPERA forms for activation. Therefore, there is no Payment Widget. Instead, credit card information is manually entered into the browser. The steps for activation/deactivation of manual entry by accessing the OPERA control setting are mentioned below.

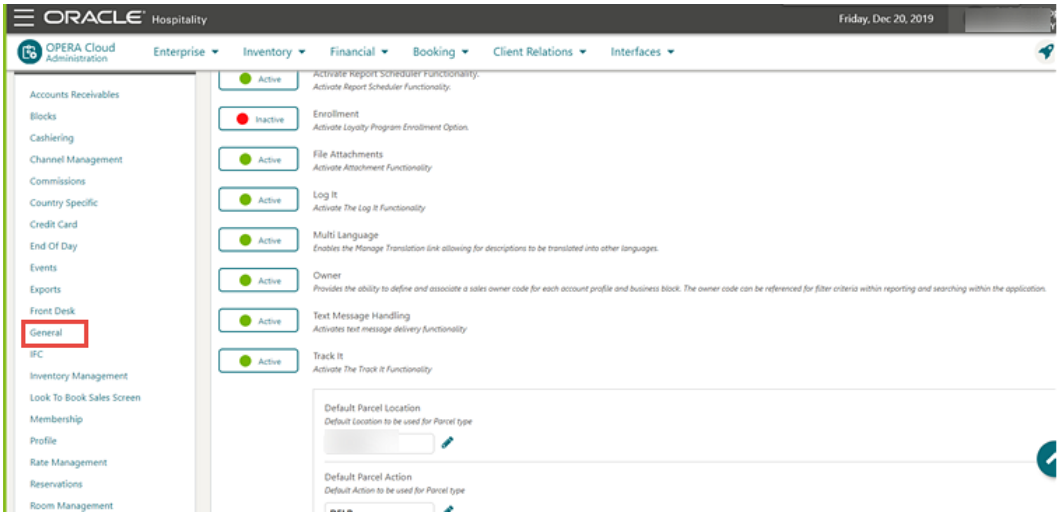
1. Go to **OPERA Cloud Administration**.



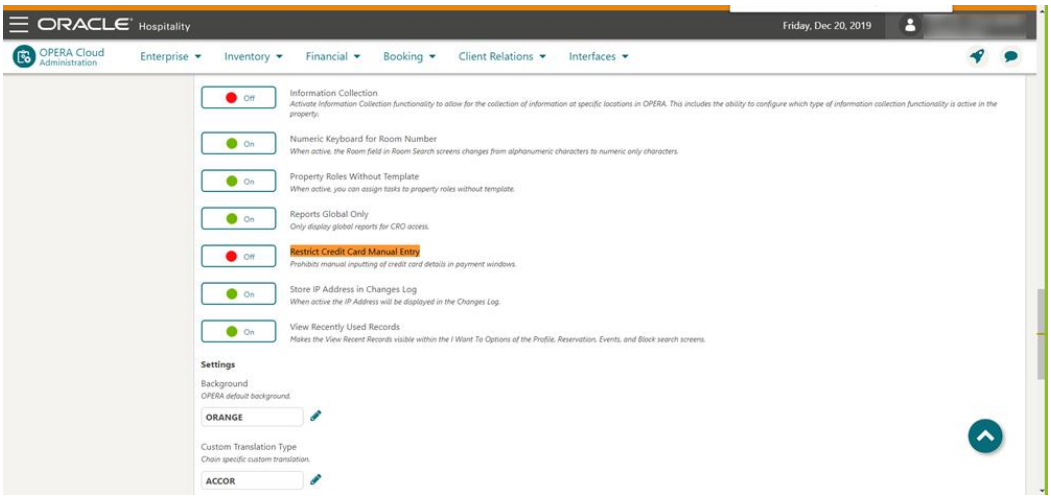
2. Go to **Enterprise** and then select **OPERA Controls**.

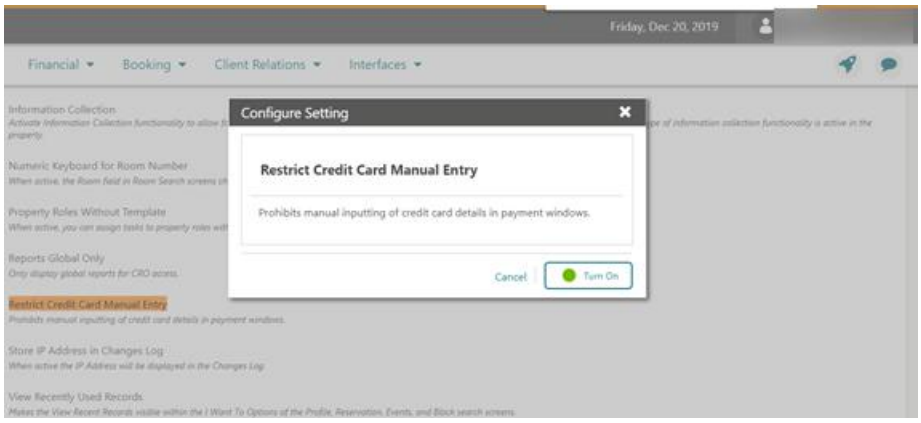


3. From the Groups select **General**.



4. Activate or Deactivate the **Restrict Card Manual entry**.

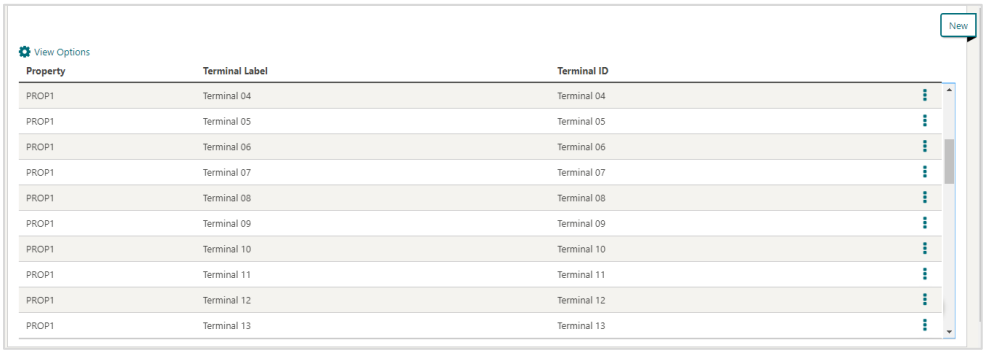




Configuring Credit Card Terminal

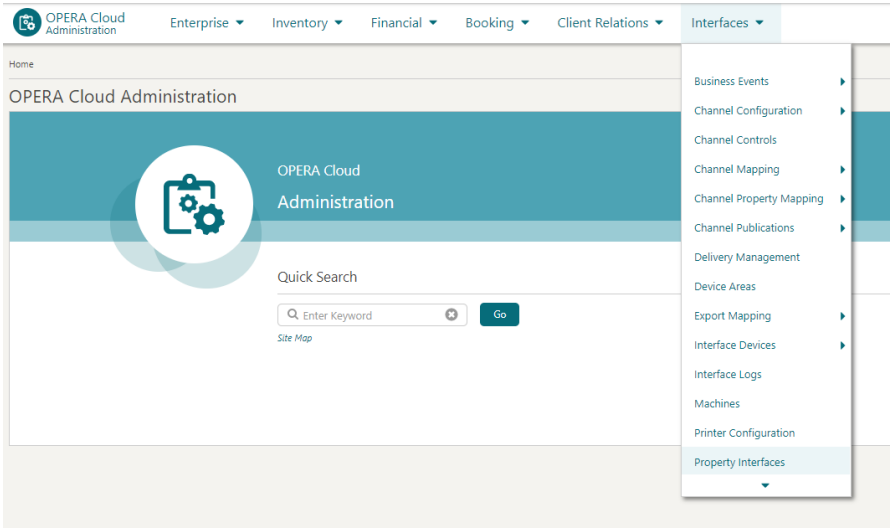
Configure the credit card terminals used that the payment partner will activate to have the card swiped or manually enter in.

1. Log in to OPERA.
2. From the **Administration** menu, go to **Administration | Interfaces | Interface Devices | Credit Card Terminals**.
3. Click **New**.
4. Enter the following information for the reader:
5. **Terminal ID**: The terminal ID number provided by the vendor. You can also locate this number on the actual card reader device. This data is what will populate the `WSNum` tag in the OPERA/IFC8 messages.
6. **Terminal Label**: A label or description for the terminal/device that identifies its physical location. This helps you easily identify the terminal/device when it appears in a list of devices.
7. Click **Save**.



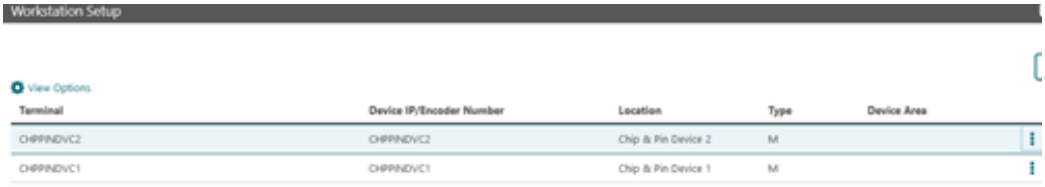
Configuring OPI for Hotel Mobile or OWS/Kiosk Setup in OPERA

1. Navigate to **Administration** > **Interfaces** > **Property Interfaces**.

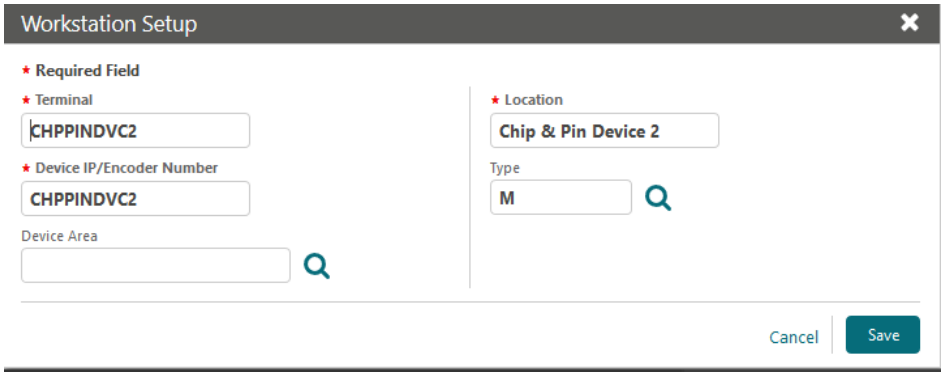


2. Edit the **OPI Interface** > **Workstations**.

3. Select **Workstation Setup**.

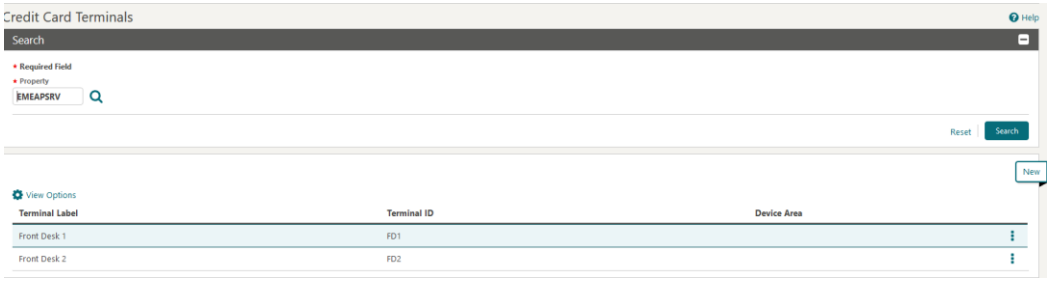


4. Complete the fields



- **Terminal**: Must match the name assigned to the EMV device by the PSP.
- **Device IP/Encoder Number**: Must match the name assigned to the EMV device by the PSP.
- **Location**: Free format description.
- **Type**: M.

5. Go to **Administration** > **Interfaces** > **Property Interfaces** > **Interface Devices** > **Credit Card Terminals**.



6. Edit as needed.

- **Terminal ID**: Must match the name assigned to the EMV device by the PSP.
- **Terminal Label**: Free format description.

Configuring the Hotel Property Interface (IFC8) Instance to the OPERA Hotel Property Interface (IFC)

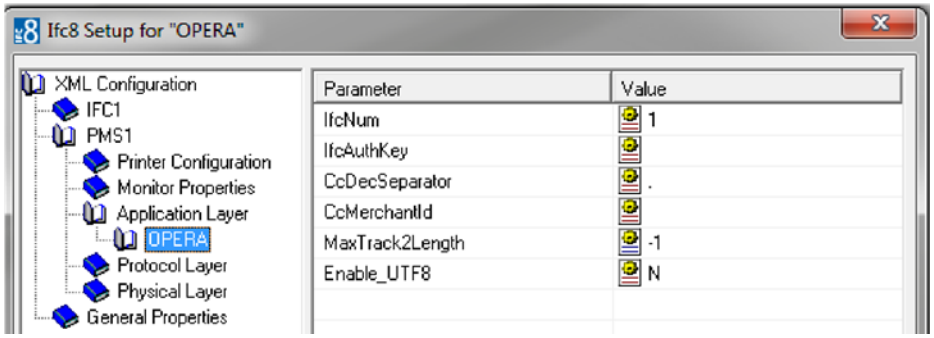
The OPERA IFC Controller is required for communication between the OPERA PMS and IFC8. If the IFC controller is not previously installed, then refer to the OPERA IFC Controller and Hotel Property Interface (IFC8) Information and Installation Guide found at:

https://docs.oracle.com/cd/E94145_01/docs/Oracle%20Hospitality%20OPERA%20IFC8.pdf

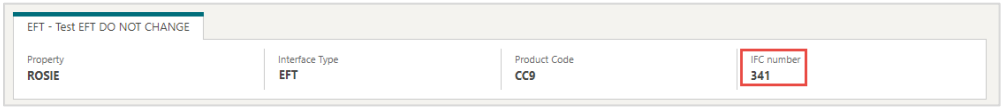
To configure the link between the interfaces:

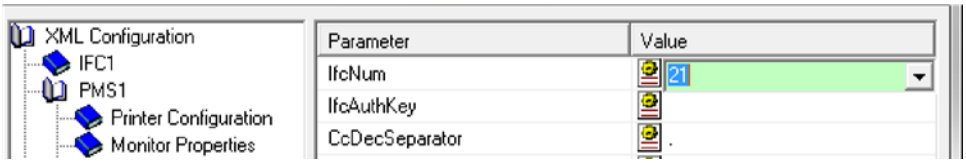
1. In the **Hotel Property Interface**, go to the **PMS1** tree and select **OPERA** in the application layer.

2. Enter the **OPERA IFC** number in the parameter IfcNum value.



You can find the OPERA IFC number in OPERA on the IFC Configuration of the related Hotel Property Interface (IFC) (Row_ID).

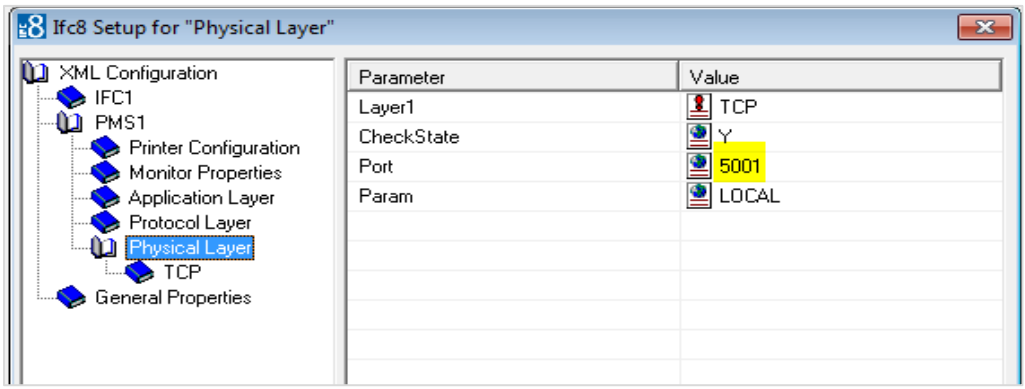




3. Go to the **PMS1** tree in the **Physical Layer**.

4. Enter the port number into Parameter value Port. This is the port IFC8 uses to communicate with the OPERA IFC controller.

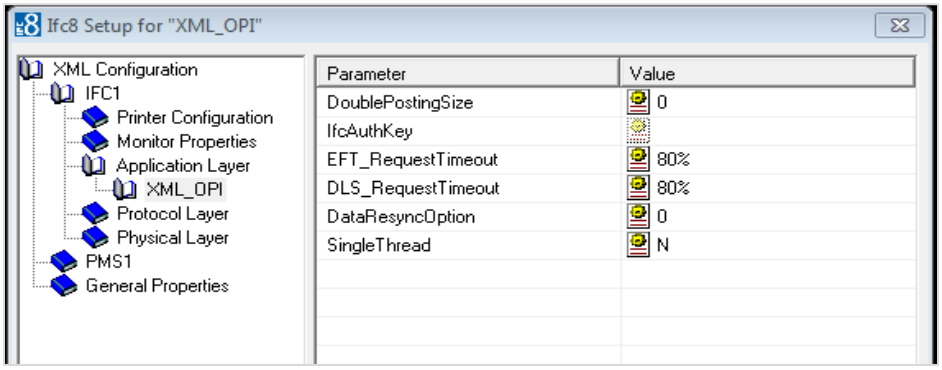
5. Select **Enter** and **Apply** to re-initiate IFC8, and then click **Save**.



Configuring Authentication for the Hotel Property Interface (IFC8) with OPI

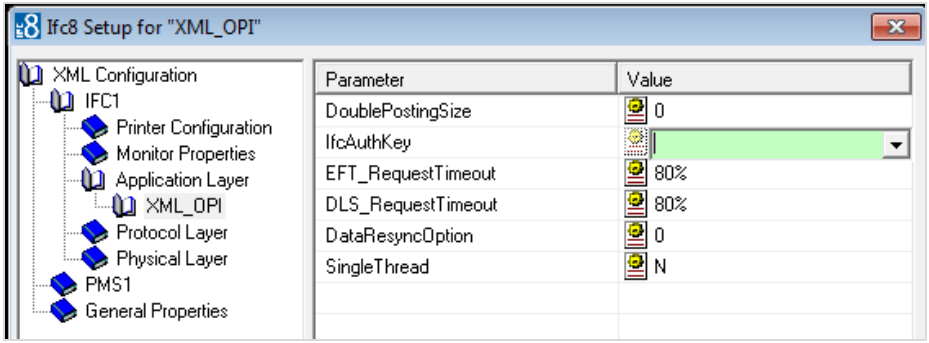
You must secure the connection between OPI and the Hotel Property Interface (IFC8) by exchanging encryption keys at startup. This authentication key must be defined by OPI. The corresponding key must be entered in the Hotel Property Interface (IFC8) configuration.

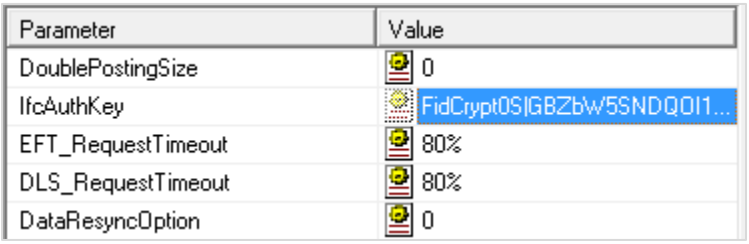
1. In the Hotel Property Interface (IFC8) configuration, go to the IFC1 tree, and then in the **Application Layer**, select the **XML_OPI** option.



2. Copy the **generated key** from Configuring OPI - OPERA merchant step 3.

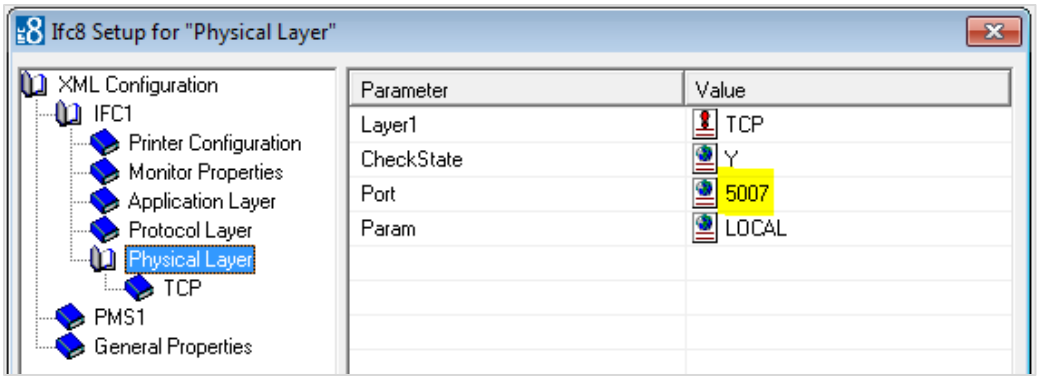
3. Copy this string into the IFC8 Parameter **IfcAuthKey** value field.





4. Go to the **IFC1** tree and select the **Physical Layer**.

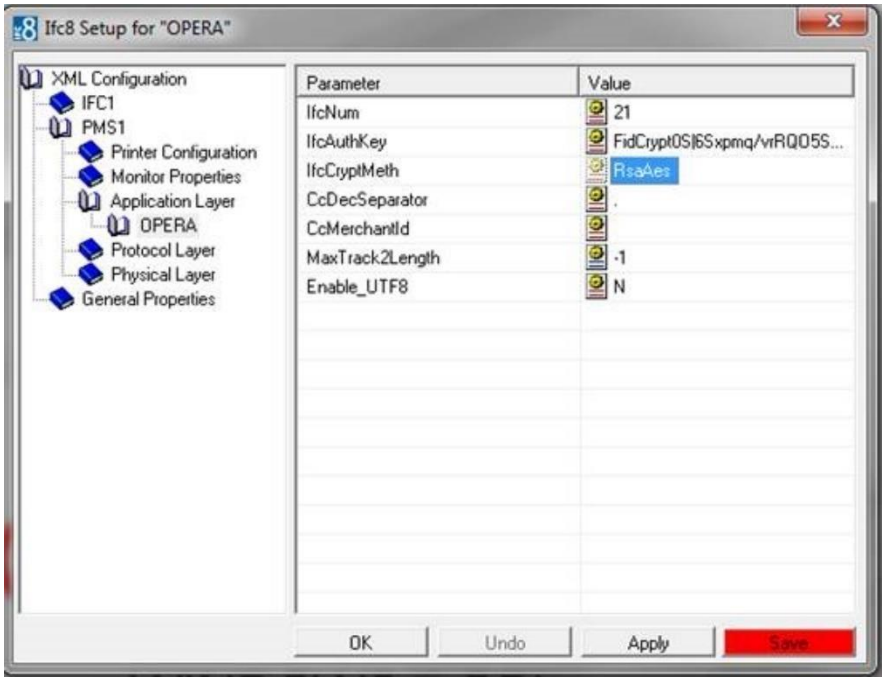
5. Enter the port number in the port value. This is the same port that was configured in OPI.



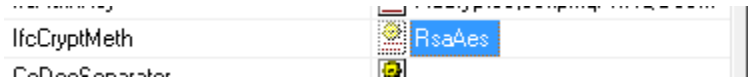
6. Click **Apply**, IFC8 reinitiates.

   The IfcAuthKey value now shows an encrypted key and the entered string is now encrypted by IFC8.

7. In the Hotel Property Interface (IFC8) configuration, go to the **IFC1** tree, and then in the **Application Layer**, select the **OPERA** option.



   Current OPERA versions do not yet support RsaAes encryption method.

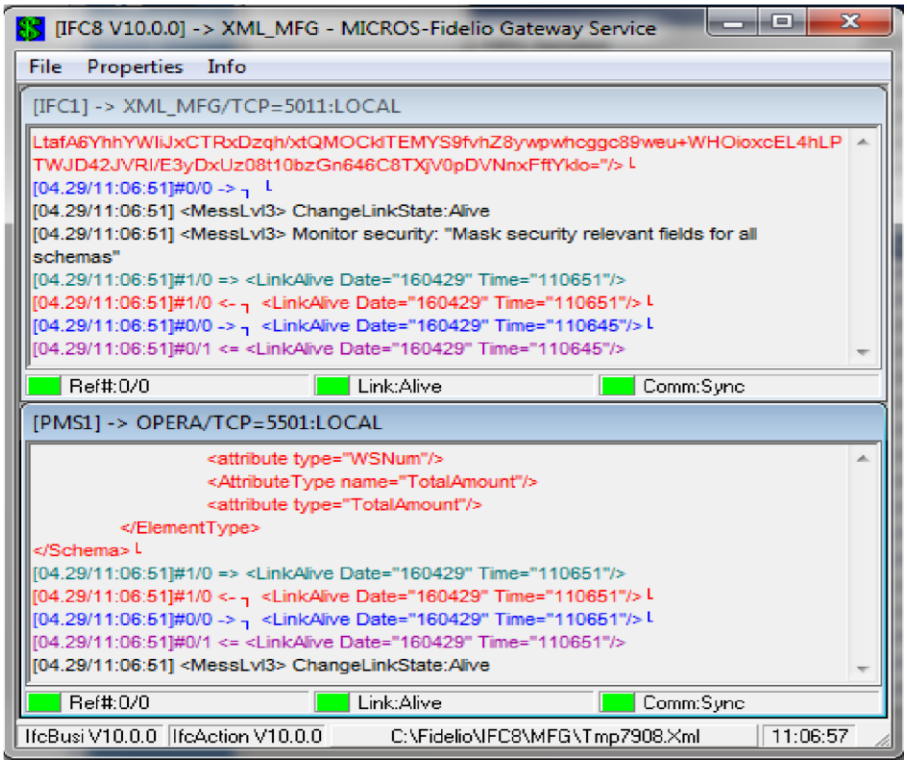


8. Change the Parameter value **IfcCryptMeth** (for IFC8 **PMS OBJECT**) from "**RsaAes**" to "**Des3Idx_Opera_1**".

9. Click **Enter** and **Apply**.

10. Click **Save** and then click **OK** to close the IFC8 Configuration form.

    IFC8 now connects with OPI and the OPERA IFC Controller. To verify IFC8 successful status, confirm that all 6 status indicators are green.



Perform the Bulk Tokenization

Bulk Tokenization is used to convert all historical credit card data in the OPERA database to tokens. With Vault activated for the OPI EFT Property Interface in OPERA Administration.

Go to **Toolbox>Utilities>Data Management>Credit Card Vault Conversion**.

> **NOTE:**
>
> You must be a **Support Organization** user to access **Credit Card Vault Conversion** option. Log in at the resort level where **Vault** is active.

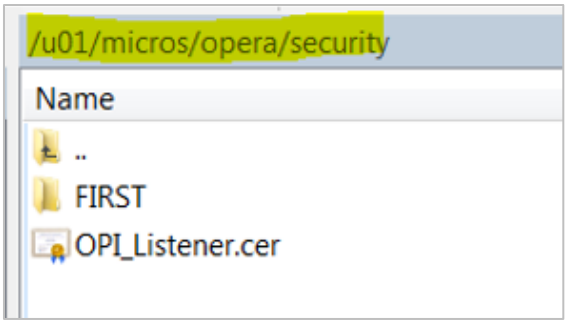
- Select the **Start Tokenization** to exchange the existing credit card numbers in the database to tokens (uses the TPS certificate found on the WS servers).
- A successful message appears once all cards are tokenized.

> **NOTE:**
>
> De-tokenization is not allowed in OPERA Cloud.

Certificate

For every Cloud Server (UI and WS) OPERA has, there is a deployment properties file where the application security path is located. It is in the below location where OPERA expects to find the certificate/JKS for hosted OPI TPS.

> **NOTE:**
>
> Certificates are required on the OXI and OEDS machines.



For information about creating the certificate in OPI TPS, refer to the Self-Hosted Token Proxy Service Installation and Configuration Guide:

https://docs.oracle.com/cd/E79534_01/docs/E91140-05.pdf

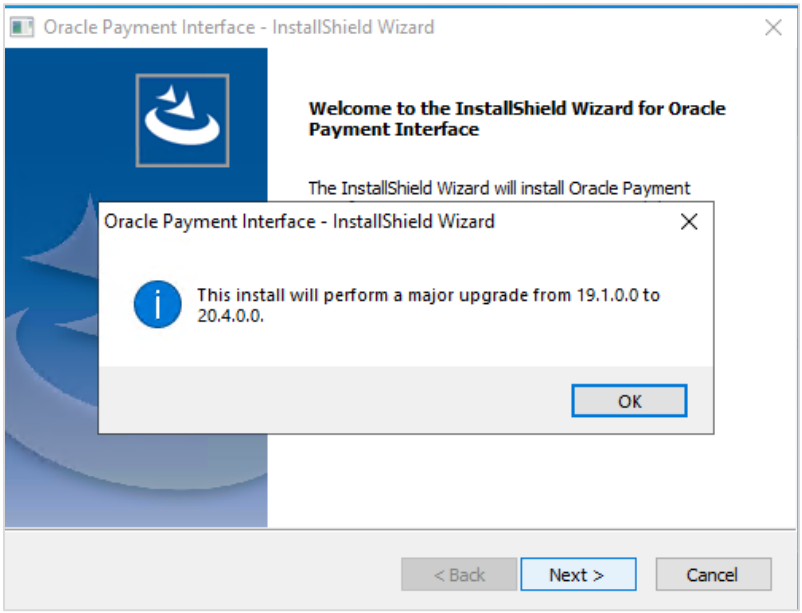
4 Upgrading the OPI

VERY IMPORTANT: Read and follow the upgrade directions.

> **NOTE:**
>
> - OPI upgrade functionality supports:
>   - Upgrading OPI 19.1 (include patch releases) to OPI 20.4
>   - Upgrading OPI 20.1 (include patch releases) to OPI 20.4
>   - Upgrading OPI 20.2 (include patch releases) to OPI 20.4
>   - Upgrading OPI 20.3 (include patch releases) to OPI 20.4

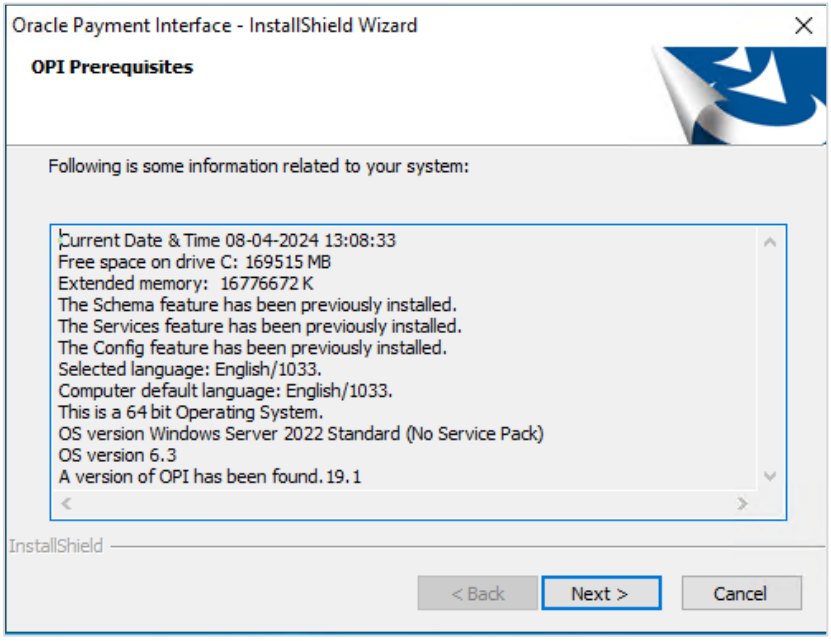
Upgrading OPI 19.1.0.0 to 20.4.0.0

1. Right-click **OraclePaymentInterfaceInstaller_20.4.0.0.exe** file and select **Run as Administrator** to perform an upgrade.
2. Select your language from the drop-down list, and click **OK**.
3. Click **Next**.
4. Click **OK**.



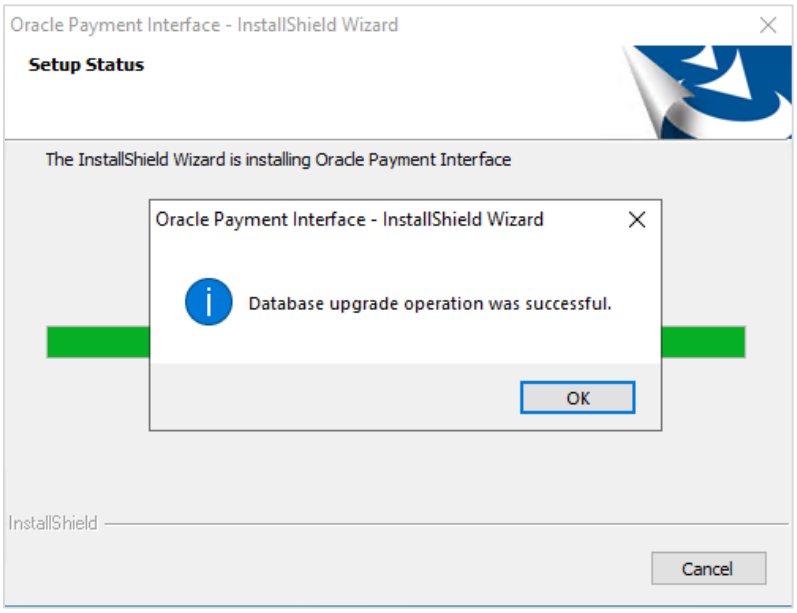
5. Click **Next**.

Ensure all the prerequisites for the OPI installation are met.



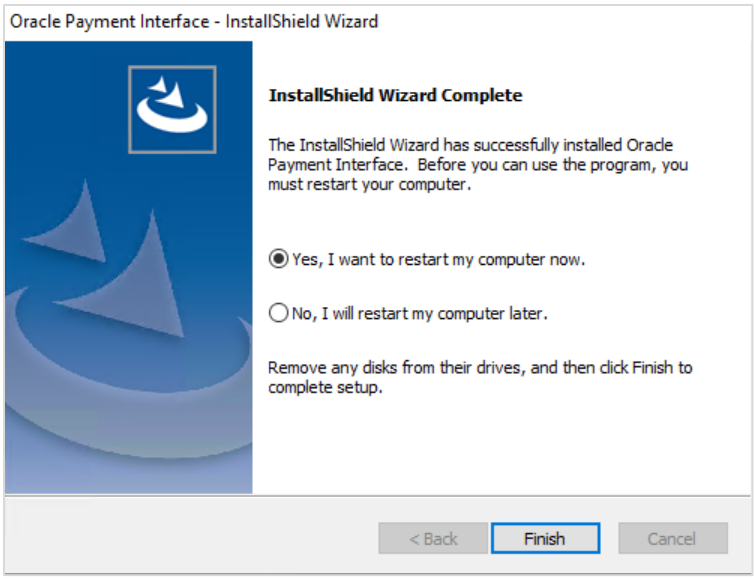
6. Choose a Destination Location. Accept the default installation location or click **Change**… to choose a different location.
7. Click **Next**.

   The **Ready to Install the Program** screen appears.
8. Click **Install** to begin the installation.
9. Click **OK**.



10. Enter the **Host** and **Port** that should be used to connect to the OPI Config Service for the Merchant Configuration.

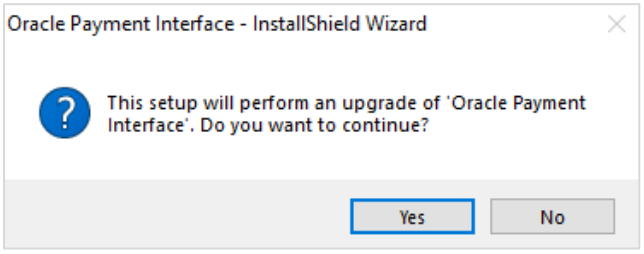
11. Once the installation is complete, the installer will prompt for a reboot of the host machine.



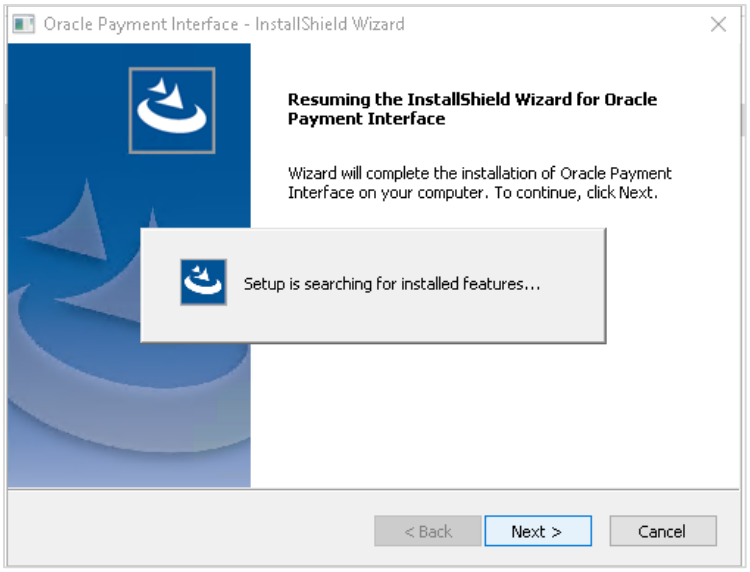
12. Click **Finish**.

Upgrading OPI 20.1.0.0 to 20.4.0.0

1. Right-click **OraclePaymentInterfaceInstaller_20.4.0.0.exe** file and select **Run as Administrator** to perform an upgrade.

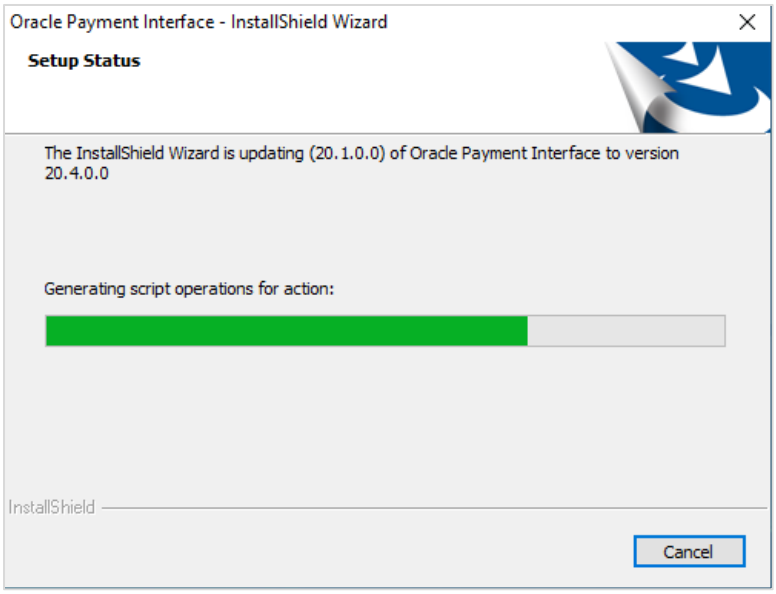


2. Click **Yes**.



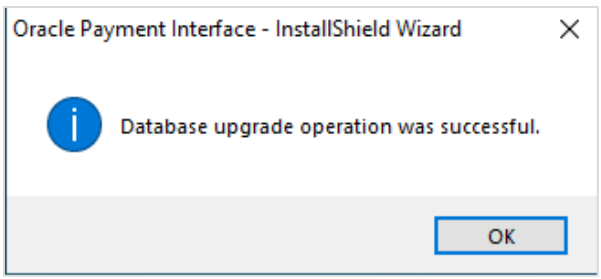
3. Click **Next**.

   Setup is searching for installed features.

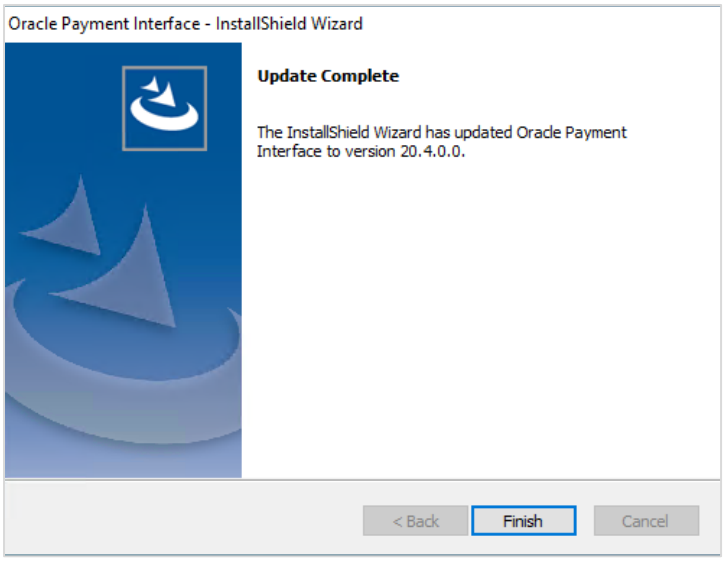


4. Click **Next**.

   The Install wizard is updating from **OPI 20.1** to version **20.4**.



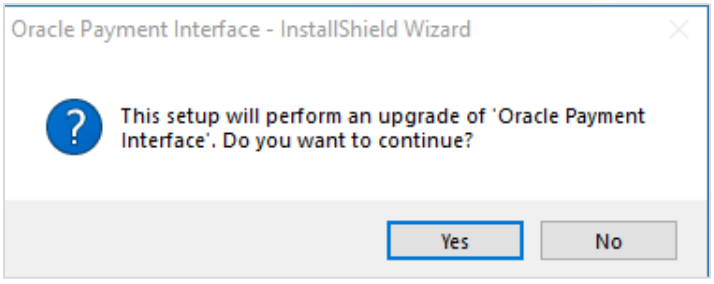
5. Click **OK**.



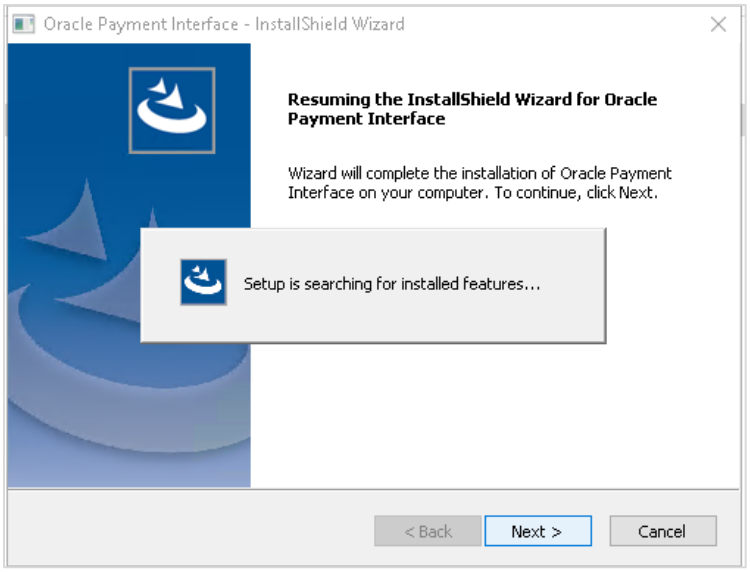
6. Click **Finish**.

Upgrading OPI 20.2.0.0 to 20.4.0.0

1. Right-click **OraclePaymentInterfaceInstaller_20.4.0.0.exe** file and select **Run as Administrator** to perform an upgrade.

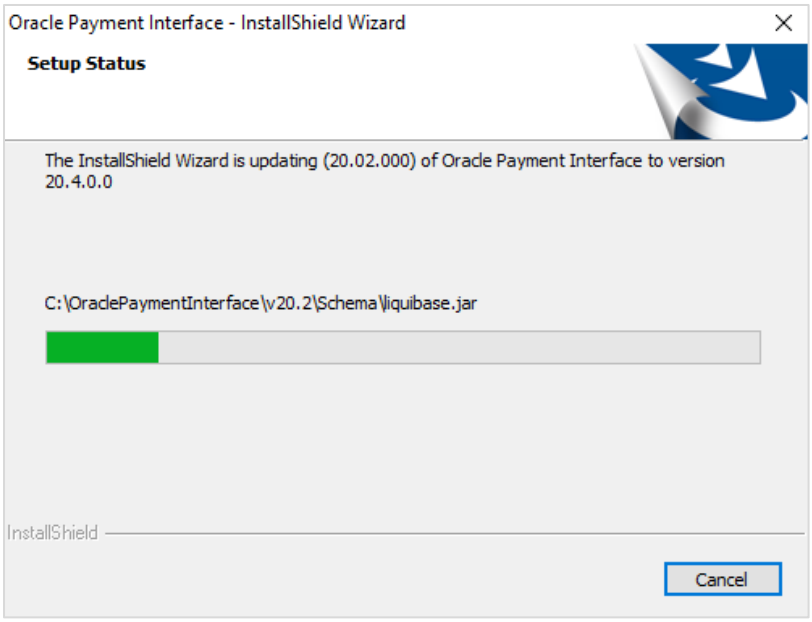


2. Click **Yes**.



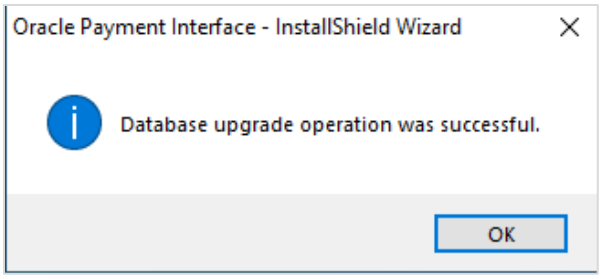
3. Click **Next**.

   Setup is searching for installed features.

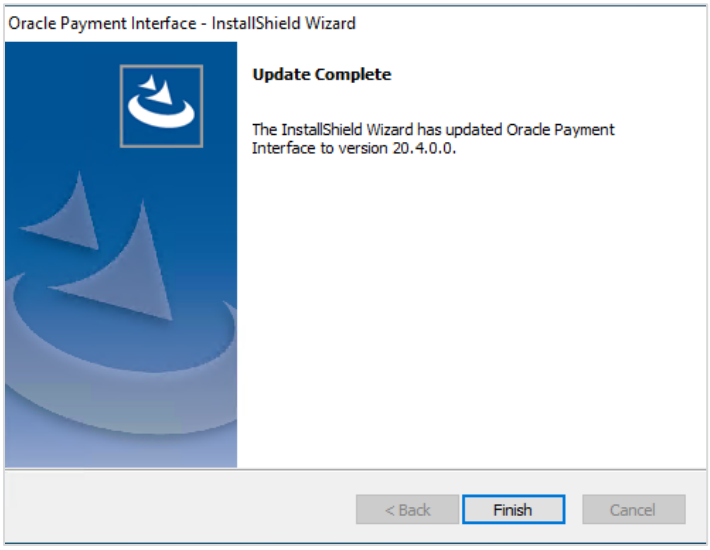


4. Click **Next**.

   The Install wizard is updating from **OPI 20.2** to version **20.4**.



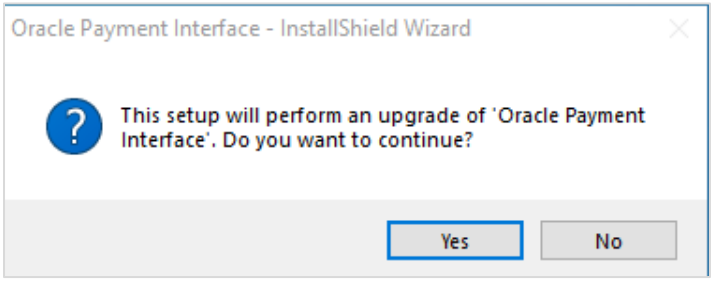
5. Click **OK**.



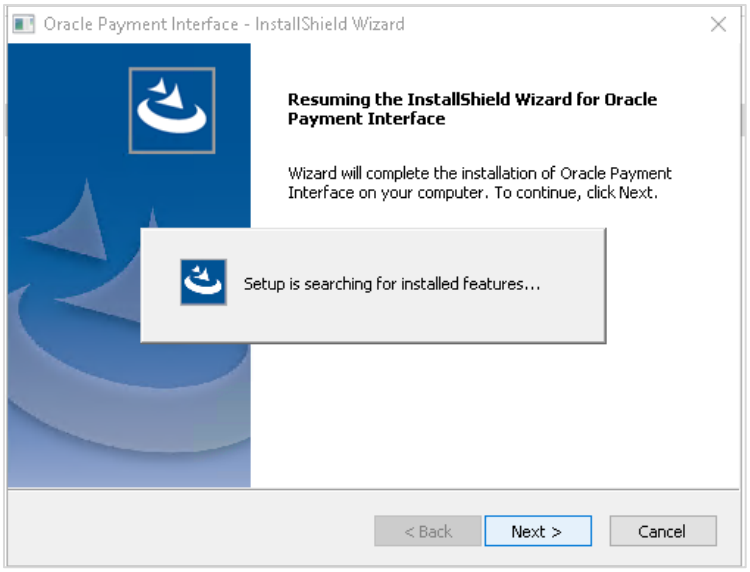
6. Click **Finish**.

Upgrading OPI 20.3.0.0 to 20.4.0.0

1. Right-click **OraclePaymentInterfaceInstaller_20.4.0.0.exe** file and select **Run as Administrator** to perform an upgrade.



2. Click **Yes**.

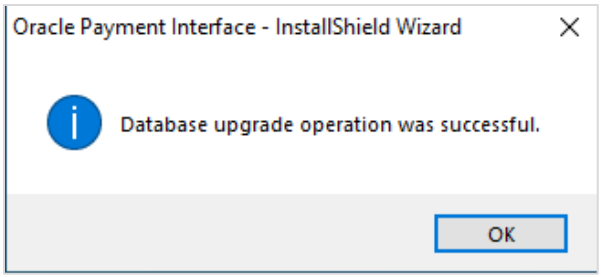


3. Click **Next**.

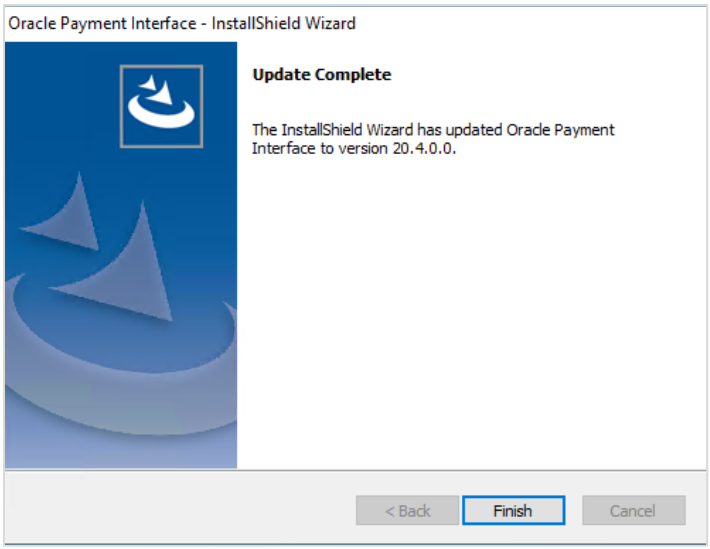
   Setup is searching for installed features.

4. Click **Next**.

   The Install wizard is updating from **OPI 20.3** to version **20.4**.



5. Click **OK**.



6. Click **Finish**.