Oracle® Hospitality Integration Platform User Guide





Oracle Hospitality Integration Platform User Guide, Release 23.4

F27480-21

Copyright © 2020, 2023, Oracle and/or its affiliates.

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

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

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

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

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

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

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

Contents

Preface

Digital Learning Access	1
Getting Started for Partners (for Oracle Hospitality Integration Cloud Service Users)	1-
Digital Learning Access for Partners	1-
Oracle Hospitality Open Forum	1-
Quick Start for Partners (Using the Partner Sandbox)	1-
Adding Developer Portal Users	1-
Assigning Users to Roles	1-
Signing In to the Oracle Hospitality Developer Portal	1-
Signing Out of the Oracle Hospitality Developer Portal	1-
Changing Your Password	1-
Getting Started for Hoteliers (for Oracle Hospitality OPERA Cloud Foundation Users) 1-
Digital Learning Access for Customers	1-
Quick Start for Hoteliers (in UAT Environment)	1-
Creating the Developer Portal Access Role	1-1
Adding Developer Portal Users	1-1
Signing In to the Oracle Hospitality Developer Portal	1-1
Signing Out of the Oracle Hospitality Developer Portal	1-1
Changing Your Password	1-1
Discover and Subscribe to Oracle Hospitality APIs	
API Search Engine	2-
Early Adopter API Program	2-
Eligibility for the Early Adopter Program	2-
How to Opt In to the Early Adopter Program	2-
Joining the Early Adopter Program	2-
How to provide Early Adopter Program feedback	2-



3 Register and Manage Applications

	Registering an Application	3-1
	Viewing Application Details	3-2
	Viewing the Application Key	3-2
	Editing Application Details	3-2
	Deleting an Application	3-3
	Editing an Application Subscription	3-3
	Get a Portable Export of My Application Details	3-3
	Reissuing an Application Key	3-3
	Suspending an Application	3-4
4	Call Usage Alerts	
	Configuring Call Usage Alerts	4-3
5	Environments (Gateways and Credentials)	
	Viewing Partner Sandbox Details	5-1
	Adding an Environment	5-1
	Viewing Environment Details	5-2
	Viewing the Client Secret	5-3
	Changing Your Client Secret	5-3
	Removing an Environment	5-3
	Migrating to Client Credentials-Based Authentication Scheme	5-4
	Adding an Environment Using Enterprise ID	5-5
	Viewing Environment Details	5-6
	Issuing the Client Secret	5-6
	Managing Partner Connections	5-6
6	Using the Oracle Hospitality APIs	
	Oracle Payment Interface APIs	6-1
	Oracle Hospitality Nor1 Integrated Upsell APIs	6-1
	Changing Your Integration User Password	6-2
	API Troubleshooting	6-2
	Common HTTP Errors and Messages	6-4
	HTTP Methods Supported	6-8
	HTTP Response Headers	6-8
	Github and Postman Collections	6-9
	Date Formats	6-10
	Special Characters in URLs	6-11



Obtaining Details from the Hotel	6-11
Authenticating to Oracle Hospitality Property APIs	6-12
Calling Oracle Hospitality Property APIs	6-14
API Throttling	6-15
Oracle Hospitality Asynchronous APIs	6-16
Creating the External System	6-16
Calling Asynchronous APIs	6-17
FAQs	6-17
Errors with Asynchronous APIs	6-18
Oracle Hospitality Distribution APIs	6-18
Obtaining Details from Oracle Hospitality Distribution	6-18
Authenticating to Oracle Hospitality Distribution APIs	6-18
Calling Oracle Hospitality Distribution APIs	6-19
Analytics	
Using Analytics	7-1
Business Events	
	9-1
Streaming API (push)	9-3
-	9-1 9-3 9-7 9-8
Streaming API (push) Working with Events in the Developer Portal Broken Connections	9-3 9-7 9-8
Streaming API (push) Working with Events in the Developer Portal Broken Connections Replaying Messages	9-3 9-7
Streaming API (push) Working with Events in the Developer Portal Broken Connections Replaying Messages Retrieving the Latest Message	9-3 9-7 9-8 9-9
Streaming API (push) Working with Events in the Developer Portal Broken Connections Replaying Messages Retrieving the Latest Message Interpreting the Event	9-3 9-7 9-8 9-9 9-10
Streaming API (push) Working with Events in the Developer Portal Broken Connections Replaying Messages Retrieving the Latest Message Interpreting the Event Errors	9-3 9-7 9-8 9-10 9-16
Streaming API (push) Working with Events in the Developer Portal Broken Connections Replaying Messages Retrieving the Latest Message Interpreting the Event Errors Connecting to the Streaming API	9-3 9-7 9-8 9-10 9-16 9-21
Streaming API (push) Working with Events in the Developer Portal Broken Connections Replaying Messages Retrieving the Latest Message Interpreting the Event Errors Connecting to the Streaming API WebSocket Authorization	9-3 9-7 9-8 9-10 9-16 9-21
Streaming API (push) Working with Events in the Developer Portal Broken Connections Replaying Messages Retrieving the Latest Message Interpreting the Event Errors Connecting to the Streaming API WebSocket Authorization Connecting to the Streaming API via GraphiQL	9-3 9-7 9-8 9-9 9-10 9-21 9-22 9-23
Streaming API (push) Working with Events in the Developer Portal Broken Connections Replaying Messages Retrieving the Latest Message Interpreting the Event Errors Connecting to the Streaming API WebSocket Authorization Connecting to the Streaming API via GraphiQL Connecting to the Streaming API with Postman Keeping the Stream Open	9-3 9-7 9-8 9-10 9-16 9-22 9-23 9-25
Streaming API (push) Working with Events in the Developer Portal Broken Connections Replaying Messages Retrieving the Latest Message Interpreting the Event Errors Connecting to the Streaming API WebSocket Authorization Connecting to the Streaming API via GraphiQL Connecting to the Streaming API with Postman Keeping the Stream Open Disconnecting the WebSocket	9-3 9-7 9-8 9-9 9-16 9-21 9-23 9-25 9-28
Streaming API (push) Working with Events in the Developer Portal Broken Connections Replaying Messages Retrieving the Latest Message Interpreting the Event Errors Connecting to the Streaming API WebSocket Authorization Connecting to the Streaming API via GraphiQL Connecting to the Streaming API with Postman Keeping the Stream Open	9-3 9-7 9-8 9-16 9-16 9-22 9-23 9-25 9-28



10	Moving to Production	
	Hoteliers Moving to Production	10-1
	Partners Moving to Production	10-1
	FAQ	10-2
11	Migrating from Legacy APIs to REST	
	OPERA Xchange Interface (OXI)	11-1
	HTNG	11-5
	OPERA Web Services (OWS) and KIOSK	11-7
	Property Interfaces — IFC8, FIAS and XML_POS	11-17
	Sample Messages	11-21
12	Anti-patterns	
13	Accessibility	
	Keyboard Only Users	13-1
14	Additional Resources	
15	FAQs	
1.0	A companyative A	
16	Appendix A	
	Web Service Error Codes	16-1



Preface

Oracle Hospitality Integration Cloud Service and OPERA Cloud Foundation users are authorized to access the following modules and features:

 Oracle Hospitality Integration Platform including Oracle Hospitality Developer Portal and Hospitality REST APIs.

The Oracle Hospitality Developer Portal enables users to discover Oracle Hospitality APIs, subscribe to Oracle Hospitality APIs, and to get the necessary information to consume them.

The Oracle Hospitality Developer Portal's APIs page provides information about published Oracle Hospitality APIs. Here you can find and evaluate Oracle Hospitality APIs to use with your applications.

After you discover the Oracle Hospitality APIs that you want to use, register an application and then register those APIs to your application.

To view more details about the Oracle Hospitality Developer Portal, on the user menu drop-down, click the drop-down, and select **About Developer Portal**.

Purpose

This guide explains how to use the Oracle Hospitality Integration Platform Developer Portal and how to explore the Hospitality REST APIs.

Audience

The Oracle Hospitality Integration Platform Guide is intended for customers and partners who develop applications with the Oracle Hospitality Integration Platform.

Customer Support

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

https://iccp.custhelp.com

When contacting Customer Support, include specific information, such as the end point you are calling, the Gateway URL, and so on. In addition, please provide the following information in the service request form:

- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screenshots of each step you take

Support Request

Partners and customers will see the following prompts when logging a support request:



- Enter the Production URL.
- Enter the Production API Call Gateway.
- Enter the Production End Point URL.
- Enter the Production OPERA Instance URL.
- Enter the Chain.
- Enter the Property.
- Enter the User.

If the request relates to the Streaming API, also include the following:

- Confirm whether the environment card shows "Streaming Enabled."
- Enter the applicationId. This can be found by going to the OHIP Developer Portal, opening the application that is being used for the streaming API, and copying the last part of the URL, which is a number.
- Confirm that changes are occurring in the environment to which Business Events are subscribed.
- Enter the client being used to access the Streaming API:
 - Postman
 - GraphiQL
 - Oracle sample NodeJS client
 - Your own code
- Enter the error messages (if any) that are being received.

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
November 2023	Initial publication



1

Getting Started

Both Oracle Hospitality Integration Cloud Service users and OPERA Cloud Foundation users are authorized to access the Oracle Hospitality Integration Platform, the Oracle Hospitality Developer Portal, and Oracle Hospitality APIs.

Digital Learning Access

Oracle Hospitality Digital Learning content is available for Oracle Hospitality Integration Platform (OHIP). In Digital Learning under 'Learn about Oracle's Products,' you can choose from the following products:

- Oracle Hospitality OPERA Cloud
- Oracle Hospitality Reporting and Analytics
- NOR1 an Oracle Company
- Oracle Hospitality Integration Platform

After you select a product, different learning paths are available. For OHIP, there are two available Learning Paths:

- Oracle Hospitality Integration Platform (OHIP) Learning Path is designed for OPERA
 Cloud Foundation Customers who wish to access OHIP at their organization. The Oracle
 Hospitality Integration Platform (OHIP) Learning Path will provide an overview of the
 benefits, highlight features, and provide instruction on the fundamentals of OHIP.
- Oracle Hospitality Integration Platform (OHIP) for Integrators Learning Path is
 designed for Oracle Hospitality Integration Cloud Service Integrators (also known as
 Integration Partners) who wish to access OHIP. The Oracle Hospitality Integration
 Platform (OHIP) path will provide an overview of the benefits, highlight features, and
 provide instruction on the fundamentals of OHIP.

Getting Started for Partners (for Oracle Hospitality Integration Cloud Service Users)

There are two ways to onboard partners to the Oracle Hospitality Integration Cloud Service:

- Oracle Store You can onboard by purchasing the Oracle Hospitality Integration Cloud Service through the Oracle Store. Follow the procedure below to onboard through the Oracle store.
- Partner Registration Cost Price Quote (CPQ) form— If you are unable to onboard through the Oracle Store, you can onboard by submitting the partner registration (CPQ) form. You can request this form through email by contacting hospitalityintegrations ww@oracle.com.

Oracle Store

To onboard through the Oracle Store:

Note:

You must have an Oracle account to proceed with the shopping cart checkout. To create a new Oracle account, go to the Oracle Store and click the **New user?** button and complete the form. After submitting the form, follow the instructions to check your email to verify your email address.

 Go to the Hospitality Integration Platform and click Shop now and then click Add to Cart.

Alternatively, go directly to the Oracle Shop and click Add to Cart.

- 2. Click your shopping cart to proceed to check out.
- Click Checkout.
- 4. Follow the instructions to complete your account details, additional information, service information, billing information, and payment method and agree to the terms and conditions of the Cloud Service Agreement.

Note:

Once you have onboarded with a credit card, you are also able to change your payment method to a PO or update your credit card details. To do this, contact Billing Support for assistance. Given the sensitivity of payment information, do not include that information in email communications.

Click Place Order.

To view and track your order, go to your Account Dashboard and click **Orders**.

After purchasing the Oracle Hospitality Integration Cloud Service, you will receive the following emails from either the Oracle Store or the CPQ process:

- The first email is a confirmation of your order and contains the order number for reference.
- A second email invites you to set up your Oracle Cloud Account. This email contains your order number.

Follow the below steps to create your Oracle Cloud Account by clicking the **Create Cloud Account** link in the email and providing the following details.

- 1. Cloud Account Name: A unique name for your Oracle Cloud Account.
- Email Address: Enter your email address. This is the email address to which the emails in steps 3 and 4 will be sent.
- 3. Enter the email address of the cloud account admin and service admin for your services. This admin user can create other administrators or users.
- A third email prompts you to confirm your Oracle Cloud Account.
- A fourth email confirms that your setup is complete. This includes the Oracle Cloud Console URL to enable you to perform Cloud Admin tasks as well as a



Service Instance URL to the Oracle Hospitality Developer Portal. This URL conforms to the following format:

https://partner.hospitality-dev-portal.us-ashburn-1.ocs.oraclecloud.com/<Oracle Cloud Account Name>/ui/



If you have not received all the above emails within 24 hours of placing your order, please contact the Oracle customer service number referenced in the first email.

Digital Learning Access for Partners

Oracle Hospitality Integration Platform (OHIP) for Integrators Learning Path is designed for Integration Partners who wish to access OHIP. The Oracle Hospitality Integration Platform (OHIP) path provides an overview of the benefits and highlight features and provide instruction on the fundamentals of OHIP. To gain access, follow the instructions below:

For Partners who have purchased B92141 Oracle Hospitality Integration Cloud Service:

New Partners

- New partners as of 27-MAR-2023 will be sent a Digital Learning activation email once their order is received.
- The Digital Learning Activation email will be sent to the End User Contact that appears on the order.
- If an activation email is not received, email **operaenablement_ww@oracle.com** and include the following information:
 - Company Name (as it appears on the Order/Account)
 - Primary Contact Email

Existing Oracle Hospitality Integration Cloud Service Partners

If you have access to Oracle Hospitality Digital Learning, use the search filters on the Digital Learning Platform to find your desired OHIP content.

If you do not have access, follow these instructions:

- Email operaenablement ww@oracle.com and include the following information:
 - Company Name (as it appears on the Order/Account)
 - Address (include Country)
 - Primary Contact Name
 - Primary Contact Email
 - Approximate Purchase Date (that is, the approximate date Oracle Hospitality Integration Cloud Service was purchased)

Once this information is received, the Digital Learning team will verify the information. Please allow five business days for responses.



Oracle Hospitality Open Forum

Oracle Hospitality Open Forum hosted within Slack is an inclusive platform designed to bring together individuals who share a passion for our industry. This vibrant community aims to foster collaboration, knowledge sharing, and networking opportunities, allowing members to connect, learn, and grow together.

The decision to create this open community was driven by several important reasons:

- Collaboration and Knowledge Sharing: By launching this open forum, we aim to
 encourage collaboration and knowledge sharing among Vendors, SIs, and Oracle
 Hospitality. It provides a dedicated space for members to ask questions, seek
 advice, and engage in thought-provoking discussions, leading to mutual growth
 and learning.
- Networking and Relationship Building: The Slack open community offers a
 platform for individuals to network and form valuable connections. This enables
 the establishment of relationships that can potentially lead to partnerships,
 mentorships, and career opportunities.
- Inclusivity and Diversity: The open community promotes inclusivity and diversity
 by bringing together individuals from various backgrounds and experiences. It
 fosters the exchange of diverse perspectives and creates an environment of
 understanding and empathy.
- Maturity of the OHIP Platform and a growing number of enabled platform components.

To facilitate effective communication and organization, we have structured the open community as follows:

Channels

- **1. 01_announcements**: This channel (managed by Oracle Hospitality) is used to share insightful updates on our products, maintenance, and important reminders with the partner community.
- 2. **02_open_forum**: The open forum channel enables partners, SIs, and other community members to interact directly with each other. Oracle will moderate this channel, and we kindly request all participants to adhere to etiquette rules to maintain a collaborative approach.

Additional Benefits

Note the following additional benefits:

- New partners who join OHIP will be granted access to a Private Channel during the first 30 days after joining OHIP. This channel will assist you with your initial development efforts.
- Existing partner private channels will be archived after 30 days from the open forum launch, with the exception outlined below.

Partners who meet the following criteria will remain eligible for private channel communication with Oracle Hospitality:

- Active OPN Membership
- Published Oracle Hospitality Marketplace Listing
- At least one customer in Production via OHIP



Forum Etiquette

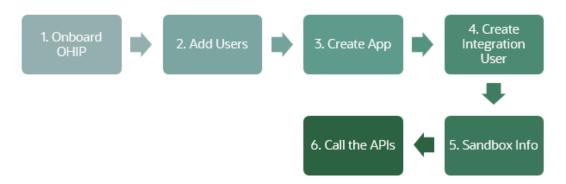
Here are some of the guidelines when interacting in the open community:

- Refrain from sharing personal or sensitive information, including usernames, passwords, and personally identifiable information (PII).
- Avoid the sharing of payment card information (PCI data) to prevent fraud or unauthorized access.
- Maintain respectful and considerate communication, avoiding harassment, discrimination, or hate speech.
- Actively participate and engage in the community by sharing expertise, asking questions, and contributing to discussions.
- Adhere to these guidelines to create a vibrant and secure space for collaboration and learning in the community.

Channel Access

You will automatically be granted access to the channels as you onboard OHIP. Please allow a few days after joining for your invitation to join.

Quick Start for Partners (Using the Partner Sandbox)



- Onboard to OHIP via the Oracle Store.
- 2. Add users to the Developer Portal.
- 3. Sign in to the Developer Portal and register an application.
- 4. Create an integration user.
- 5. Obtain the credentials and gateway for the partner sandbox. The hotelld is SAND01.
- 6. Call the APIs.

If you need additional consulting to get you started, you can purchase it in groups of 2 hours. Visit the Oracle Store for more information.



Adding Developer Portal Users



To add or manage Portal users, you must have the Cloud Account Administrator or Service Administrator user role, your activated Oracle Cloud account, and your Oracle Cloud Console URL. For more information on how to onboard or provision an Oracle Cloud account, please refer to Getting Started for Partners.

The Oracle Cloud Console is customizable and can present different views to users depending on how it is set up.

The Account Administrator and Service Administrator users can add new users from the My Oracle Services screen in the Oracle Cloud Console.



Developer Portal users do not have access to call APIs.

Follow this process to create Developer Portal users:

- 1. Log in to your Oracle Cloud Account using your Oracle Cloud Console URL.
- On the User Assignments screen, click Users.
- 3. On the Users screen, click + Add.
 - On the Add User screen, enter the user details First Name, Last Name, Email, and User Name.

The new user account is created.

Assigning Users to Roles

After adding a new user, you can assign the **ApplicationDeveloper** role to the user, which gives them access to the Oracle Hospitality Developer Portal.

- Select the Application Developer Portal Role (under Hospitality Developer Portal).
- 2. Click Finish.

Signing In to the Oracle Hospitality Developer Portal

Sign in to the Oracle Hospitality Developer Portal to create applications, discover available Oracle Hospitality APIs, and register Oracle Hospitality APIs to your applications.

Open the Oracle Hospitality Developer Portal in a browser to the URL provided.



- 2. Enter your username and password.
- 3. Click Sign In.



Your account locks if you enter an incorrect username or password three times. For help getting back in to your account, click **Can't sign in** and the follow instructions on the screen.

Signing Out of the Oracle Hospitality Developer Portal

You can sign out of the Oracle Hospitality Developer Portal using the User menu.

- 1. On the Oracle Hospitality Developer Portal, click the user menu drop-down.
- 2. Click Sign Out.



Changing Your Password



These instructions for changing your password apply to those who onboarded through the Oracle Hospitality Integration Cloud Service.

If you onboarded through Oracle Hospitality OPERA Cloud Foundation/OPERA Cloud Services, refer to Changing Your Password in the *Onboarding Customers* section.

To change your password:

- 1. Sign in to the Oracle Hospitality Developer Portal.
- 2. On the user drop down menu, click My Profile.
- 3. Click the Change My Password tab:
 - a. Enter your Old Password.
 - b. Enter the New Password.
 - c. After all password criteria are met, enter the new password to confirm, and then click Submit.



Getting Started for Hoteliers (for Oracle Hospitality OPERA Cloud Foundation Users)

Oracle Hospitality OPERA Cloud Foundation includes access to the Oracle Hospitality Integration Platform.

Upon provisioning of or migration to Oracle Hospitality OPERA Cloud Foundation, you will receive an email advising you of the Oracle Hospitality Developer Portal URL.

For production OPERA environments, it will follow this URL format:

 https://customer.hospitality-dev-portal.us-ashburn-1.ocs.oraclecloud.com/ ashburn/ui/

or

 https://customer.hospitality-dev-portal.us-ashburn-1.ocs.oraclecloud.com/ frankfurt/ui/

For non production OPERA environments, it will follow one of these URL formats:

- https://customer.hospitality-dev-portal.us-ashburn-1.ocs.oraclecloud.com/ ashburnuat/ui/
- https://customer.hospitality-dev-portal.us-ashburn-1.ocs.oraclecloud.com/ ashburnuat02/ui
- https://customer.hospitality-dev-portal.us-ashburn-1.ocs.oraclecloud.com/ frankfurtuat/ui/

Digital Learning Access for Customers

Oracle Hospitality Integration Platform (OHIP) Learning Path is designed for OPERA Cloud Foundation Customers who want to access OHIP at their organization. The Oracle Hospitality Integration Platform (OHIP) Learning Path provides an overview of the benefits and highlight features and provides instruction on the fundamentals of OHIP.

New Customers

For Customers with Oracle Hospitality OPERA Cloud Foundation (Hotel/Resorts/Reseller), follow these instructions to access Digital Learning:

- The Digital Learning Activation email will be sent to the End User Contact that appears on the customer's order.
- If an activation email is not received, email **operaenablement_ww@oracle.com** and include the following information:
 - Customer Name (as it appears on their Order/Account)
 - Primary Contact Email

Existing Customers

If you have access to Oracle Hospitality Digital Learning, use the search filters on the Digital Learning Platform to find your desired OHIP content.

If you do not have access, but have OPERA Cloud Foundation, follow these instructions:



- Email operaenablement_ww@oracle.com and include the following information:
 - Customer Name (as it appears on the customer's Oracle account)
 - Address (include Country)
 - Primary Contact Name
 - Primary Contact Email

Once this information is received, the Digital Learning team will verify the information. Please allow five business days for responses.

Quick Start for Hoteliers (in UAT Environment)

Prerequisites

OPERA Cloud Foundation SKU

The hotel must purchase an OPERA Cloud Foundation SKU.



OHIP is not available for hotels using a legacy OPERA Cloud SKU.

Onboarded in OHIP

 The chain containing properties that are on OPERA Cloud Foundation must be onboarded with OHIP.

Oracle Cloud Infrastructure

 The onboarded chain and properties must be on Oracle Cloud Infrastructure (OCI) and NOT in a legacy data Centre.

Making API Calls

An OPERA Cloud chain administrator must create the DEVELOPERPORTALACCESS role via Oracle Identity Management (OIM) for both UAT and PRODUCTION.

- Assign the DEVELOPERPORTALACCESS role to all OPERA Cloud users requiring access to the OHIP Developer Portal. This will support Single-Sign On (SSO) with OPERA Cloud. See Getting Started for more information.
 - UAT: Refer to your Welcome email for this URL.
 - PROD : Refer to your Welcome email for this URL.
- Create a new integration user via Self Service using the UAT and PROD URLs. Refer to your Welcome email for these URLs. Once a request is submitted, the OPERA Cloud chain administrator must approve it. See Using the Oracle Hospitality APIs for more information.
- 3. Access the Developer Portal for UAT or PROD (using the URLs from your Welcome email) and click the **Environment** tab.
- 4. Click the environment card and to copy the client Id and secret. See Using the Oracle Hospitality APIs for more information.



Getting Started for Hoteliers (for Oracle Hospitality OPERA Cloud Foundation Users)

- 5. Register a new application in the **Applications** tab of the OHIP Developer Portal. When creating a new application, subscribe the application to all the APIs that appear. See Register and Manage Applications for more information.
- 6. Enter the hotel ID from which you want to get data. This is not the same ID as the chain admin and should be the ID of a specific hotel.

If you need to call early adopter (v0) APIs, send an email to hospitality-integrations_ww@oracle.com requesting to join the early adopter programme. You must reply to the email accepting the terms and conditions of the programme before access is provided.

Configuring Postman

- 1. Obtain the postman collections via the following:
 - Cloning our github repo and then importing the collections / environment under the postman-collections folder.
 - Forking our public postman workspace directly.
- 2. Set up a postman environment (one for UAT and one for PROD) with the previously obtained information plus the gateway URL:
 - **a. HostName**: API gateway URLs for UAT and PROD. Refer to your Welcome email for these URLs.
 - **b. Username**: Integration username previously obtained for UAT or PROD.
 - c. Password: Integration password previously obtained for UAT or PROD.
 - d. CLIENT_ID: Client ID previously obtained from the Developer Portal for UAT or PROD.
 - CLIENT_SECRET: Client ID previously obtained from the Developer Portal for UAT or PRO.
 - f. AppKey: The application key previously obtained .
 - **g. HotelId**: Hotel ID against which you want to perform actions. For example, obtaining reservation data.
- 3. Once all environments have been configured, select the **Get OAuth Token** collection and make a call.

If everything is set up correctly, OHIP responds with a HTTP 200 OK response, which includes the OAuth token.

Now you can try out other collections as required.

Creating the Developer Portal Access Role

This procedure is for a user with Chain Admin access in SSD-OIM to create an OHIP Developer Portal role for the corresponding OPERA instance. The role name is DEVELOPERPORTALACCESS.

When creating the role, ensure the role is assigned to the correct chain code.

Once the role is created, you can assign it to users so they can access the OHIP Developer Portal with the URLs specified in Getting Started for Hoteliers.



To add the DEVELOPERPORTALACCESS role

1. Navigate to and log in to the Oracle Identity Self Service portal.

This step must be performed by a Chain Administrator because OHIP only supports CHAIN level access.



The Oracle Identity Self Service URL is listed in the Welcome Letter received by your designated OPERA Property Administrator.

- 2. Click the Manage button.
- 3. Click the Roles tile and then click the Create link.
- 4. Enter the following required information into the General Role section:
 - Name. Enter the Chain Organization name followed by DEVELOPERPORTALACCESS. For example, PARCHN01-DEVELOPERPORTALACCESS.
 - **b. Display Name**. Reenter the same name as above.



The **Owned By** field will automatically populate based on who created the role.

- 5. The Hierarchy, Access Policy, and Members steps are not required. Click the **Next** to arrive on the Organization step.
- 6. Click the Add Chain Organizations button.
- Search for the Chain Organization name and click the Add Selected button to add the role.
- 8. Click the Select button.
- 9. Verify the DEVELOPERPORTALACCESS and then click **Next**.
- **10.** Verify the information you entered and then click the **Finish** button.

Adding Developer Portal Users

To access the Developer Portal, a hotel administrator assigns the DEVELOPERPORTALACCESS role to a chain org-level user in the Oracle Hospitality Shared Security Domain. For the steps to create this role, see Creating the Developer Portal Access Role.



Note:

Users assigned to this role must belong to the same organization specified in Creating the Developer Portal Access Role. Further, users must be chain org-level users to be granted the DEVELOPERPORTALACCESS role and to successfully access the Developer Portal.

Note:

Developer Portal users do not have access to call APIs.

For details on how to manage users in the Oracle Hospitality Shared Security Domain, refer to the Customer Support Portal document:

Oracle Hospitality Shared Security Domain (SSD) for OPERA

Signing In to the Oracle Hospitality Developer Portal

Sign in to the Oracle Hospitality Developer Portal to create applications, discover available Oracle Hospitality APIs, and register Oracle Hospitality APIs to your applications.

- 1. Open the Oracle Hospitality Developer Portal in a browser to the URL provided.
- Enter your username and password.
- Click Sign In.

Note:

Your account locks if you enter an incorrect username or password three times. For help getting back in to your account, click **Can't sign in** and the follow instructions on the screen.

Signing Out of the Oracle Hospitality Developer Portal

You can sign out of the Oracle Hospitality Developer Portal using the User menu.

- 1. On the Oracle Hospitality Developer Portal, click the user menu drop-down.
- 2. Click Sign Out.





Changing Your Password



These instructions for changing your password apply to those who onboarded through the Oracle Hospitality OPERA Cloud Foundation.

If you onboarded through the Oracle Hospitality Integration Cloud Service, refer to Changing Your Password in the Onboarding Partners - Oracle Hospitality Integration Cloud Service section.

To change your password:

- 1. Sign in to the Oracle Hospitality Developer Portal.
- On the user drop down menu, click My Profile. A new browser tab opens for Oracle Identity Manager (OIM).
- Click the My Information tile.
- In the Change Password section, enter your Old Password, enter your New Password, and reenter your new password in the Confirm New Password field.
- Click Apply. After a password change, a confirmation message shows that your password was successfully updated.



2

Discover and Subscribe to Oracle Hospitality APIs

Learn how to discover and subscribe to Oracle Hospitality APIs for your applications in the Oracle Hospitality Developer Portal.

API Search Engine

The API Search Engine enables you to filter by modules, workflows, lifecycle, and method. You can also search by free text to find an API or operation that meets your business case. Search results include operation level details from which you can access links to the API documentation and the Postman sample.

The table below lists all of the filters available on the left side of the page. Select from these filters to refine your API search results. The API search results appear in the center of the page in the form of API display cards.

Table 2-1 Side Filters

Filter	Description
Content	Search by API module or workflow. A workflow is a sample list of operations a user would perform for a specific scenario, such as creating a new block or performing a check-in.
API Lifecycle	APIs can be V0, V1, or Deprecated. V0 are described in the Discover and Subscribe to Oracle Hospitality APIs chapter.
	V1 are production ready and guaranteed for backward compatibility.
	Deprecated are no longer recommended for use. You should plan to cease using these and move to a V0/V1 equivalent operation.
API Category	The APIs are split into categories relevant to different Oracle Hospitality products. For example, Property are the APIs for OPERA Cloud, and Distribution are the APIs for the distribution platform.
API Module	Within a category, there are many APIs divided into modules and each module contains many operations. Filter by Module to narrow your search or leave this blank to view all the available modules.
API Workflow	API workflows are a collection of many different API call samples showing steps on how to perform functional workflows (for example, digital check-in and checkout).



Table 2-1 (Cont.) Side Filters

Filter	Description
Method	Filter by the following REST API Methods:
	Get : Retrieve information about the REST API resource.
	Post: Create a REST API resource.
	Put: Update a Rest API resource.
	Delete : Delete a REST API resource or related component.
	Head : Similar to a get, but the server does not return a response body. This method determines if a resource exists and is currently used for Property Asynchronous APIs.

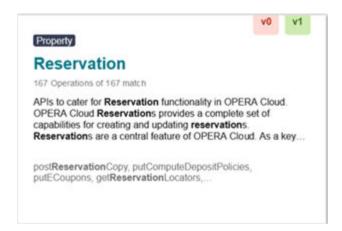


The number in brackets next to an API indicates the number of operations within it.

API Display Cards

API cards appear based on the search criteria you enter. If the search field is left blank, all API cards appear in alphabetical order.

Figure 2-1 API Display Card Example



The API Display Card displays the below information.



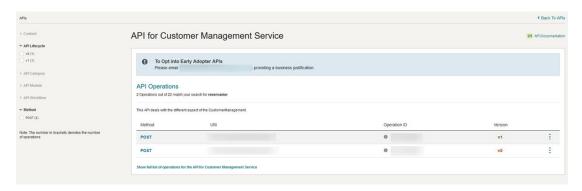
Table 2-2 API Display Card Fields

Field	Description
Property	This icon shows the category to which this API belongs. For example, Property are the APIs for OPERA Cloud, and Distribution are the APIs for Oracle Hospitality Distribution.
API Module Name	The name of the module. For example Reservation, Blocks, Cashiering, Reservations, and so on.
V0 / V1	V0 and V1 flags represent the operation level versioning in the API. If both flags are shown, it indicates that some operations are V1 and some are V0 within the module.
Number of Operations	Depending on your search, the API card will display the number of operations matching your search. If the search is left blank, the API card will show the total number of operations in that specific API.
Summary of the API	A short description of the API.
Operations that match your search	If you search a specific phrase or word and it matches the operations, the operations are highlighted on the card to provide a preview of the results displayed on the next page.

API Page

Once you click an API display card, the page for the API appears and shows more details about the operations within that API.

Figure 2-2 Example of an API Page — API for Customer Management Service



The API page shows the following details for the operations:



Table 2-3 API Page Details

Field	Description
API Documentation	Click this link to view the API documentation.
Information button	Click the button to view a short description of this operation.
Method	The type of API method, such as POST, GET, PUT, DELETE, and so on.
URI	The URI path for this operation. The URI is depreciated if it has a strike through.
Operation ID	The ID for the API operation.
Version	The API version, which is either v0 or v1.
Vertical ellipsis	Click to access links to the API documentation and the Postman sample.
Show full list link	Click the link below the table to view a complete list of operations for the API.

Viewing Oracle Hospitality APIs

The Oracle Hospitality Developer Portal's APIs page provides information about Oracle Hospitality APIs. Here you can find and evaluate Oracle Hospitality APIs to use with your applications.

- Click the API Documentation link to view the embedded documentation for the APIs.
- 2. On the left and middle panels, you can view all the available API resources and view an explanation for each field in both the request and the response. In the search field, you can enter the full name or partial name of a resource to further filter the results.
- 3. The right panel shows example requests and responses.

Early Adopter API Program

The Early Adopter API Program offers program members early access to newly released "version 0" APIs. In your Developer Portal, these APIs are in a separate Early Adopter section, and you can discover and subscribe to these APIs within your registered application.

In this release of Oracle Hospitality Integration Cloud Service, Oracle is elevating the benefits of the Early Adopter program. Members of the program benefit from the following:

- Early access to version 0 APIs
- Best endeavors assistance provided by Oracle Hospitality Integration Cloud Service product management.
- The ability to provide feedback that can potentially influence the product roadmap.



Note:

Please keep to in mind that some of the (v.0) API capabilities offered as part of the early adopter program may be less stable than Production APIs and can experience some difficulties. Furthermore, our aim is to avoid breaking changes in v.0 APIs, however we cannot guarantee full backward compatibility as we roll out patches to improve functionality and/or usability of our early adopter APIs.

Also note that the best endeavors assistance provided by product management as part of the program is not subject to service level agreements (SLAs); however, we do offer a premium (paid) service for partners and/or customers who desire dedicated support. Please contact hospitality-integrations_ww@oracle.com if this is of interest.

As an early API adopter, we look forward to your active insight and feedback as we refine and improve these API capabilities together.

Eligibility for the Early Adopter Program

Anyone who has access to the Oracle Hospitality Integration Platform is eligible to opt in to the Early Adopters Program. However, we have the following expectations from those that do opt in:

- Provide ongoing feedback that can help us improve the APIs.
- Share examples of API calls that worked or didn't work.
- When experiencing issues, provide context that can help us replicate the issue and also understand the business criticality. This information will help us prioritize accordingly.
- Be a bit patient as some of the APIs may be a little bumpy around the edges.

We're open to any feedback but ask that you please maintain a constructive tone. You can opt out at any time if this program is not for you.

How to Opt In to the Early Adopter Program

Opting in is easy. Just send an email to hospitality-integrations_ww@oracle.com and include the following information:

- use case(s)
- · desired timelines
- why you think our early adopter APIs will help you be successful
- whether you want to opt in to use Property or Distribution early adopter APIs



Joining the Early Adopter Program



- Onboard OHIP and try out the v1 APIs. For partners, follow the steps in Quick Start for Partners (Using the Partner Sandbox). For customers, see Getting Started for Hoteliers.
- Review the Early Adopter API Program, review the APIs in the program, and review the program eligibility and program expectations.
- 3. Email us at hospitality-integrations_ww@oracle.com.com to request access. In the email, state your use case(s), deadline timelines, and why you think our early adopter APIs will help you. For more information, see How to Opt In to the Early Adopter Program.

If you meet the eligibility criteria, Oracle will grant you access to the Early Adopter program.

- 4. Sign in to the Developer Portal.
- Register or edit an application. At step 10, on the subscription panel, select the Hospitality APIs tab and then select the check box. Next, select the Early Adopter tab and then select the check box.
- 6. Call the APIs.

If you need additional consulting to get you started, you can purchase it in groups of 2 hours. Visit the Oracle Store for more information.

How to provide Early Adopter Program feedback

We anticipate our early adopters to be very active in the development of integrations using our APIs and providing feedback and insight that can help improve and refine our product.

Send an email to hospitality_apis_ww_grp@oracle.com with the following information:

- Ease of use.
- Insights as to what improvements or refinements to make.
- Successful or unsuccessful examples.



Register and Manage Applications

Learn how to register and manage applications using the Oracle Developer Portal.

Registering an Application

Register new applications from the Applications page.

- 1. In the Oracle Hospitality Developer Portal, click the **Applications** tab.
- 2. Click Register Application.
- 3. On the Register Details panel, enter the application name and an optional description.
- 4. Enter the **Application Name** that applies to your application.
- 5. Optionally, add a Description for the application.
- 6. Optionally, select the Application Type.
- 7. Select the environment: **Non Production** or **Production**. An application can be either a non production application or a production application.
 - Non Production: By default, an application has access only to non production
 environments. A non production application may not access production
 environments, so to move from calling non production to calling production
 environments, you must create a new production application. To access production
 environments, please email your Oracle Partner Network (OPN) reference number to
 hgbu_integrations_provisioning_grp@oracle.com.
 - Production: Production refers to Oracle Hospitality APIs that can access Oracle
 Hospitality systems such as a production Oracle Hospitality OPERA Cloud Services
 environment. A production application may not access non production environments.
- 8. In the **Contact Information** section, enter your First Name, Last Name, and Email Address. Entering Phone Number and Company Name is optional.
- 9. Click Next.
- **10.** On the Subscriptions panel, select the group of Oracle Hospitality APIs to which you want to subscribe this application and then select the **Subscribe** check box.



ONLY subscribe to API Catalog if your application will be used for Oracle Integration Cloud (OIC) Hospitality Adaptor.

- 11. Click **View API documentation** to view the API documentation for the Oracle Hospitality APIs to which the application will be subscribed.
- **12.** Click **Register**. The message *Application Registered Successfully* confirms the registration.

13. Your newly registered application appears at the top of the list on the **Applications** tab.



You are allowed a maximum of 100 applications for registration. You cannot register additional applications if you have reached the allowed limit. If you do so, the following error appears:

Error: Cannot create your application as you have reached the maximum number of applications allowed.

Viewing Application Details

When viewing your application details, you can view the application key, the application contact details, application description, application type, and so on. The application key is masked by default.

To view Application Details:

- 1. On the Oracle Hospitality Developer Portal, click **Applications**.
- On the All Applications page, select the registered application for which you want details.
- 3. Click View details.

Viewing the Application Key

When in your application details, you can view and copy the application key. The application key is masked by default.

To view and copy your Application key:

- 1. On the Oracle Hospitality Developer Portal, click **Applications**.
- 2. On the All Applications page, select the application for which you need the application key.
- 3. Click View details, and then under the Application Key, click Show or click Copy.

Editing Application Details

Edit an Application from the Application details page:

- 1. On the Oracle Hospitality Developer Portal, click the **Applications** tab.
- 2. On the Applications page, click View details.
- 3. On the Overview tab, click the pencil icon.
- 4. In the **Edit Application Details** dialog, edit the details, and then click **Save**.



Deleting an Application

Note:

There are some important points to understand when you want to delete an application:

- You cannot delete an application if you have outstanding billing charges.
- You cannot delete an application that is still subscribed to consume events
 using the streaming API. Unsubscribe from these events first, then delete the
 application.
- Deletion cannot be undone, which means you will permanently remove any historical data and the app key will no longer work. Once you delete your app, you cannot restore it.

If you want delete your application, follow these steps:

- 1. On the Oracle Hospitality Developer Portal, click the **Applications** tab.
- 2. On the Applications screen, click View details.
- On the Application Details page, in the Overview tab, click the Delete icon and click Delete again to confirm.

The following message appears when you click the **Delete icon**:

"Are you sure you want to delete the [App_Name] application?

Deleting an application will permanently remove any historical data, and the app key will no longer work. You won't be able to restore it."

Editing an Application Subscription

To change the APIs to which an application is subscribed:

- 1. On the Oracle Hospitality Developer Portal, click the **Applications** tab.
- 2. On the Applications page, click **View details** for the application.
- 3. Click the **Subscriptions** tab.
- 4. On the **Subscriptions** tab, click the **pencil icon** to edit.
- Make your desired edits and click Save.

Get a Portable Export of My Application Details

If you need a Portable Export of your Application Details, create a ticket in the Customer Support Portal.

Reissuing an Application Key



A unique application key is created for each application, which must be sent in the header of every request to Oracle Hospitality APIs. You can reissue a key for an application from its Overview page.

Important:

When you reissue a key, requests to the Oracle Hospitality APIs that an application is subscribed to will fail until you send them the new key.

- 1. On the Oracle Hospitality Developer Portal, click **Applications**.
- 2. On the Applications screen, select the application for which you want to reissue the key.
- Click View Details.
- 4. Click the **Show** link to see the unique application key that is created for your application.
- 5. Click the Reissue link.
- Click Reissue at the confirmation message prompt.
- 7. The reissued application key appears instantly. Click Hide to hide the key.

Suspending an Application

If you wish to temporarily suspend your Application, create a ticket in the Customer Support Portal.

After the application is suspended, you can no longer make Oracle Hospitality API calls using that application.



4

Call Usage Alerts

Call usage alerts trigger an email when API usage is near or exceeds the limit assigned for API calls to an environment. On the **Alerts** tab under **Applications**, you can configure the call limit for each application and its environment(s). With call usage alerts, you can do the following:

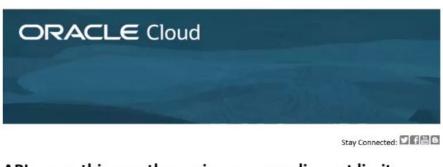
- Create a new usage alert setting
- Adjust a usage alert setting
- Remove a usage alert setting

Call usage alerts are beneficial to developer portal users concerned about unexpected spikes in usage. To avoid this potential problem you can set call limits, enabling you to better budget and monitor your API calls.

When you approach or exceed your call limit, an email is sent. Only one usage alert email is sent per day per application listing all the environments being called by the application that approach or exceed the assigned usage limit.



Figure 4-1 Usage Alert Email Example



API usage this month nearing or exceeding set limits

Oracle Cloud Customer,

Your API usage this month is nearing or has exceeded the limits you set in the Oracle Hospitality Integration Platform Developer Portal.

As a reminder, API usage counts reset each month so this alert is based upon your usage this current month.

This is not a hard limit: If you make more API calls than the limit you've assigned these API calls will still be processed.

Application

Environments

has received 84525 API calls out of the set limit of 50000.

has received 78525 API calls out of the set limit of 50000.

More information about the call limits feature is available in the Oracle Hospitality Integration Platform user guide, which also contains advice on how to change the limits and how to change the recipient of these alerts.

Thank you,

Oracle Cloud Services



Usage alerts do not prevent API calls from exceeding the chosen limit and only provide information in an email about the environments and applications that are near or exceed the call limit.

If you are using multiple applications or calling multiple environments, it is recommended to set a low limit for each environment on each application. For calls to non-production environments, a default of 10,000 calls is set for the limit, but no default limit is set for calls to production environments.

You can view your current usage in the Analytics tab.

Configuring Call Usage Alerts

You set call usage limits at the application level. Since an environment can be used for multiple applications, you can set different call usage limits for the same environment.

Setting a Call Usage Limit

- 1. On the Developer Portal, click **Applications** and then select an application by clicking it.
- Click the Alerts tab.
- 3. Choose an environment and click the pencil icon for it.
- Click the up or down arrow for the Usage Alert Setting to increase or decrease the usage limit.
 - Selecting the up arrow increases the limit and selecting the down arrow decreases it.
- 5. Click Save.

Removing a Call Usage Limit

If you no longer wish to receive usage alert emails, set the **Usage Alert Setting** to zero on each environment for each application.

- 1. On the Developer Portal, click **Applications** and then select an application by clicking it.
- 2. Click the Alerts tab.
- 3. Choose an environment and click the pencil icon for it.
- 4. Click the down arrow for the **Usage Alert Setting** until the call limit is zero.
- 5. Click Save.

Changing the Recipient for Usage Alerts

The email address on the Overview tab of an application is the email address to which usage alerts are sent. This can be changed at any time and takes effect within 24 hours.

- 1. On the Developer Portal, click **Applications** and then select an application by clicking it.
- 2. On the Overview tab, under Contact Details, click the Question Mark button.
- 3. Enter a valid email address for the new recipient.
- 4. Click Save.



Environments (Gateways and Credentials)

From the Environments page in the Developer Portal, partners can view the information (that is, clientId, clientSecret, and gateway URL) required for calling the partner sandbox. Partners who have purchased non-production OPERA Cloud environments can also obtain this information. Once partners are ready to call a hotel's environment, they can add a new environment and obtain the clientId, clientSecret, and gateway URL details.

Customers can also view their environment's clientId, clientSecret, and gateway URL on the Environments page.

Viewing Partner Sandbox Details

- Open the Developer Portal and click Environments at the top of the page. Within the Partner Sandbox section, you can view and copy your Client ID, Client Secret, and Gateway URL.
- Click the Generate your integration username and password link to create your integration user with the specified Tenant ID.

Adding an Environment

Prerequisites for Adding an Environment

- Only partners can add an environment. Customers can by default view their environments. For more information, see Viewing Environment Details.
- The hotel must be using OPERA Cloud Foundation before you can add an environment.
- Partners must ask customers if they can provide the Enterprise ID or if they need an integration user to be created for integration.
- In the case of an integration user, you must create an integration user and have the user approved by the hotel before adding an environment. See Authenticating to Oracle Hospitality Property APIs for steps to create an integration user.

To Add an Environment

If using the Integration Username:

- 1. Open the Developer Portal and click **Environments** at the top of the page.
- 2. Click Add Environment.
- Select integration username.
- Enter the Integration Username for your integration user.
- Select your Region.
- Select whether the environment you are adding is a Non Production or Production environment.



7. Click Add.

If using the Enterprise ID:

- 1. Open the Developer Portal and click **Environments** at the top of the page.
- 2. Click Add Environment.
- 3. Select Enterprise ID.
- 4. Enter the **Enterprise ID** and **chain code** received from the customer. An information message is rendered to confirm that the access request is sent for all the gateways of the chain.
- Select your Region.
- 6. Select whether the environment you are adding is a **Non Production** or **Production** environment.
- Click Add.

The environment request is sent to the customer for approval within the customer developer portal and the status of the environment is "Pending Approval." Once approved, you can view the environment details. For more information, see Viewing Environment Details.

Error Messages

If you encounter an error message when adding an environment, it could be for a variety of reasons, such as the environment owner not yet approving the integration user. The Add Environment page lists the environment errors and recommends the next course of action. If the recommendation is to raise a support request with Oracle Customer Support at the Customer Support Portal, include the exact error message and error code in your support request as this will shorten the resolution time.

If you add back a removed environment, you must use the same integration username that was previously used to add the environment. The error message will inform you which integration username was previously used to add the environment.

Viewing Environment Details

- 1. From the Developer Portal, click **Environments** at the top of the page. All your environments appear on this page.
- 2. Click the View Details link for the environment you want to view.
- 3. The following details appear based on the authentication scheme of the customer's environment.
 - a. Gateway URL for the environment.
 - b. Client ID and Secret. If the Client ID and Client Secret do not appear, you can create these by clicking the Create Client Credentials button.
 - c. Authentication scheme supported by the environment. This could be one of the following:
 - Resource Owner Group
 - Client Credentials



Based on the authentication scheme supported by the environment, additional details required for authentication appear in the environment details section.

- Unique Enterprise ID of the customer
- Authorization Scope of the client representing the access permissions assigned to the client for the environment.

For more information on the details required for authentication, see Authenticating to Oracle Hospitality Property APIs.

Viewing the Client Secret

- 1. From the Developer Portal, click **Environments** at the top of the page.
- 2. Click the View Details link for the environment you want to view.
- 3. Click the Show link for the Client Secret.

Changing Your Client Secret

To change/reissue your Client Secret:

- 1. From the Developer Portal, click **Environments** at the top of the page.
- 2. Click the View Details link for the environment.
- 3. Click the **Reissue** link for the Client Secret and click **Reissue** again to confirm.

The following message appears when you click **Reissue**:

"Are you sure you want to reissue the Client Secret? This will affect the following environments: [A list of environments appears]

The current Client Secret will no longer work for the above environment(s)."

Removing an Environment

Note:

- When you remove an environment, it will cease sending any events to which you have subscribed via the streaming API.
- You can add back the environment, but it will be subject to the customer's approval.
- If you add back an environment, you must use the same integration username that was previously used to add the environment.
- **1.** From the Developer Portal, click **Environments** at the top of the page. All your environments appear on this page.
- 2. Click the **View Details** link for the environment you want to remove.
- 3. Click Remove Environment and click Remove to confirm.



The following message appears when you click **Remove Environment**:

"Are you sure you want to remove this [Environment_Name] environment?

You can add the environment again, and it will be subject to customer's approval."

Migrating to Client Credentials-Based Authentication Scheme

Follow the below steps only for environments that are migrated from a resource owner-based authentication scheme to client credentials-based authentication scheme.



Before migrating the environments in the partner portal, you must confirm with the customer based on the authentication scheme reflected in the environment details section of the customer's environment in the OHIP customer portal.

- Add the environment using the Enterprise ID and chain code obtained from the hotel. For more information, see Adding an Environment Using Enterprise ID.
- Generate the Client ID and Secret and make note of the same. For more information, see Issuing the Client Secret.
- **3.** Fetch the **Enterprise ID** and scope from the enterprise details section. For more information, see Viewing Environment Details.
- 4. Confirm that the authentication scheme for the environment was changed to Client Credentials.
- Update the OAuth token API request with the following details:
 - a. Client ID and Secret
 - b. Enterprise ID
 - c. Scope
- Remove the integration username and password.
- Get a new token using the OAuth API request using Client Credentials-based authentication. For more information, see Authenticating to Oracle Hospitality Property APIs.

The below image depicts the changes you must make in the OAuth token API. These changes enable you to use the client credentials-based authentication scheme.





8. Update all further property API requests with a new OAuth token.

Adding an Environment Using Enterprise ID

Prerequisites

- Only partners can add an environment. Customers can by default view their environments. For more information, see Viewing Environment Details.
- The hotel must be using OPERA Cloud Foundation before you can add an environment.
- Partners must check with customers to determine if they can provide the Enterprise ID.
 For more information, see Obtaining Details from the Hotel.

Adding an Environment

- Open the Developer Portal and click Environments at the top of the page.
- 2. Click Add Environment.
- 3. Select Enterprise ID.
- 4. Enter the **Enterprise ID** and **Chain Code** received from the customer. A message appears and confirms that the access request is sent for all the gateways of the chain.
- Select your Region.
- Select if the environment you are adding is a Non Production or Production environment.
- 7. Click Add.

The environment request is sent to the customer for approval within the customer developer portal (see Managing Partner Connections) and the status of the environment is "Pending Approval." Once approved, you can view the environment details. For more information, see Viewing Environment Details.



Viewing Environment Details

- 1. From the Developer Portal, click **Environments** at the top of the page. All your environments appear on this page.
- 2. Click the View Details link for the environment you want to view.
- The following details appear based on the authentication scheme of the customer's environment.
 - a. Gateway URL for the environment.
 - **b. Client ID** and **Secret**. If the Client ID and Client Secret do not appear, you can create these by clicking the **Create Client Credentials** button.
 - c. Authentication scheme supported by the environment. This could be one of the following:
 - Resource Owner Group
 - Client Credentials

Based on the authentication scheme supported by the environment, additional details required for authentication appear in the environment details section.

- Unique Enterprise ID of the customer
- Authorization Scope of the client representing the access permissions assigned to the client for the environment.

For more information on the details required for authentication, see Authenticating to Oracle Hospitality Property APIs.

Issuing the Client Secret

For enhanced security, the client secret can be viewed only once for environments supporting a Client Credentials-based authentication scheme. It is required for customers and partners to note the client secret once it is issued. If the client secret is lost, a new secret must be issued and all integrations must be updated with the new client secret.

- 1. From the Developer Portal, click **Environments** at the top of the page.
- 2. Click the View Details link for the environment you want to view.
- 3. Click the Issue link for the Client Secret.
- 4. Click the **Issue** button on the confirmation message, which indicates the environments that will be affected once the new client secret is issued.
- 5. Click the **Copy** button to copy the new client secret.

If the Client ID and Client Secret do not appear, you can create them by clicking the **Create Client Credentials** button.

Managing Partner Connections

For customer environments supporting a Client Credentials-based authentication scheme, an additional layer of security has been added to control the access of customer environments for different partners.



Note:

For customer environments supporting a Resource Owner Group-based authentication scheme, partner connections are auto-approved based on the approval and role assignment of the integration user.

Approving Partner Connections

When a partner submits a new request to add a customer environment, follow the below steps in the OHIP customer portal to approve the partner's connection request.

- 1. From the Developer Portal, click **Environments** at the top of the page.
- 2. Click **Partner Connections**. All the partner connections appear in this section.
- 3. Search for the partner connection that is pending approval.
- 4. Click **Approve** to approve the partner connection request. The status of the partner connection request should change to "Approved" in both the customer and partner portal.

Rejecting Partner Connections

When a partner submits a new request to add a customer environment, follow the below steps in the OHIP customer portal to reject the partner's connection request.

- 1. From the Developer Portal, click **Environments** at the top of the page.
- 2. Click **Partner Connections**. All the partner connections appear in this section.
- 3. Search for the partner connection that is pending approval.
- 4. Click Reject to reject the partner connection request. The status of the partner connection request should change to "Rejected" in the Environment section of both the customer and partner portal.

Sandbox Availability

Partners wanting to integrate with customer environments supporting client credentials-based authentication scheme must work with the respective customer's non production environment.



6

Using the Oracle Hospitality APIs

Having created an application and obtained the gateway URL from the portal, calling APIs is a four-step process:

- Obtain details from the hotel. In the case of the partner sandbox, the hotel code is SAND01.
- 2. Add an environment. See Environments Gateways and Credentials for details.
- Authenticate: Obtain an oAuth token using the oAuth API in a call sent to the gateway URL.
- **4. Call APIs**: Send your API calls to the gateway URL following the API documentation displayed in the portal.

Oracle Payment Interface APIs

Overview

Reservations created via third-party channels often include a credit card number to secure the booking. The OPI Token Exchange API openPaymentBulkTokenExchange will allow partners to exchange credit card numbers for tokens, using the Payment Service Provider that OPERA Cloud is integrated to for payment processing. The tokens are then stored in OPERA Cloud against the reservation and can be used for subsequent payments as needed.

Prerequisites

To call the OPI Token Exchange API, the hotel must purchase and enable the Oracle Payment Interface Cloud Service.

Calling the Oracle Payment Interface APIs

Oracle Payment Interface APIs are called in the same way as Oracle Hospitality Property APIs.

If the hotel does not have the Oracle Payment Interface Cloud Service enabled, the following error is returned:

HTTP status: 404

Response body: OPICS-NOT_FOUND

Refer to the explanation of this error for resolution steps.

Oracle Hospitality Nor1 Integrated Upsell APIs

Obtaining Details from Oracle Hospitality Nor1

You must request access to the Nor1 Upgrades APIs by emailing the Nor1 team (hgbu_nor1_partner_rqs_grp@oracle.com) and providing the following details:

Partner Organization Name

- Oracle Cloud Account Name
- Oracle Cloud Account ID

Provide the following details if you are an OPERA Cloud Foundation customer:

- Tenant / Chain Code
- SSD URL
- Indicate if the chain is a Production or UAT chain

After sending the email, you will receive further instructions within 5 business days. Once access is granted, Oracle will send you the following:

 providerId — This is your Nor1 unique provider code that is global and used across all hotels.

Authenticating to Oracle Hospitality Nor1 Upgrades APIs

The Nor1 Upgrades APIs are secured the same way as the Oracle Hospitality Property APIs. For further details, refer to the following topics:

Changing Your Integration User Password

Integration User passwords expire after 1 year and must be changed every year. To change your password:

- 1. Find the email you received when the hotel approved your integration user. This includes a URL for the Shared Security Domain identity server. Go to this URL.
- Log in using your integration username and password.
- 3. Go to the "My Information" panel. This will show you basic information about your integration user.
- 4. Expand the "Change Password" section.
- 5. Reenter your current integration user password.
- 6. Enter your new integration user password twice. Please note the password policy, which can be viewed by clicking the "i" icon next to the New Password field.

API Troubleshooting

If you are experiencing issues when consuming APIs, check the following:

API

- Verify the API you are calling is visible in the APIs tab of the developer portal.
- Verify the API version in the URL matches the version v0 or v1 listed in the developer portal.
- If connecting to OPERA Cloud, verify the functionality being used is active and available for the relevant OPERA Cloud PMS version by reviewing the following quides:
 - OPERA Cloud Services Release Readiness Guide 23.2
 - OPERA Cloud Services Release 23.2



 Verify the input variables are relevant to the OPERA Cloud solution being called and are not a copy of Postman samples. Note that each OPERA Cloud environment is uniquely configured. You can determine the configuration specific to the hotel you are calling by reviewing the List of Values and Enterprise Configuration APIs.

Environment and Credentials

- Verify the environment (chain) card is on the Environments tab in the developer portal.
 - If you are an integration partner and the environment is not listed, then follow the steps in the Obtaining Details from the Hotel topic to gain access.
 - If you are an integration partner and this is a production environment, verify you have followed the steps in the Moving to Production topic.
- Verify the application's second tab shows the plans expected in the developer portal.
- Verify the application key being used matches the application checked in step 2 in the developer portal.
- Verify the clientId and clientSecret correspond to those on the Environment card under the Environments tab in the developer portal.
- Verify the following for the integration user:
 - 1. The user is in the organization I<SSD org code>
 - a. The user was created from the SSD URL ending "?apiuser=y"
 - 2. The username does not have spaces in it.
 - **a.** If spaces in the current username exist, create a new integration user with a shorter username with no spaces.
 - 3. The user has the <SSD org code>-WSACCESS role.
 - a. Log in to SSD using the link in the "Thank you" email and then go to "My Access" to see if the user has the WSACCESS role.
 - **b.** If not, contact the environment owner and ask for approval for this role.
 - 4. Verify if the oAuth token is still valid (note the token lasts for 60 minutes). Obtain a new oAuth token to ensure it is valid.

Mandatory Headers

Verify the required headers:

- Calling OPERA Cloud Property APIs Ensure the x-hotelid header matches a hotel in the chain being called.
 - OPERA Cloud Property APIs for OPERA Cloud 22.1+ When verifying data for the hub level, ensure you send x-hubid and not x-hotelid.
- Calling Oracle Hospitality Distribution APIs Verify the x-channelCode header matches the header provided via email by the Oracle Hospitality Distribution team.
- Calling NOR1 Upgrade API Ensure the providerId header matches the header provided via email by the NOR1 team.
- If sending a POST request, ensure you are sending the "accept" header as "application/ ison."

Errors

Verify the list of errors and follow the suggested resolution paths.



Logging an Issue

Before reporting an issue, first exhaust the self-service troubleshooting.

If you still have an issue with an API, ensure you include the following information when logging the issue:

- Full CURL request (with credentials redacted)
- Response code
- OPERA Cloud environment version number (via this API)
- OPERA Cloud environment name or gateway URL
- Context of what is being attempted (for example, type of integration, task being carried out, and so on).

Common HTTP Errors and Messages

Common error codes produced by Oracle Hospitality APIs are listed in the following table.

For a complete list of OPERA Cloud REST API error codes, refer to the Web Service Error Codes topic.

Table 6-1 Common HTTP Error Messages

Error Status	Error Response Body	How to Resolve
400	Response body details which fields are at fault.	Change the fields mentioned in the error response, such that they align with the specifications; referencing the swagger spec will help here. In some cases the values are determined by a (hotel specific) configured List of Values (LOV), so ensure you supply a value that is in the LOV for that hotel; the List Of Values Oracle Hospitality APIs will help here.
400	This API is not supported for the current database version.	Contact Oracle Customer Support at the Customer Support Portal stating the gateway being called and the error message received.
401	No response body	Ensure your oAuth token is valid and latest. Also, ensure your Application Key is valid. Check it by Viewing the Application Key



Table 6-1 (Cont.) Common HTTP Error Messages

Error Status	Error Response Body	How to Resolve
401	"invalid_grant", "[Wrong Password]"	Check the password of the integration user. See Changing Your Integration User Password for more information.
401	UnAuthorized to access the resource	This could be caused by the integration user missing the WSACCESS role. Ensure the environment owner has approved the integration user. This could also occur if you are sending the wrong hotelId. Ensure the hotel ID being sent in the x-hotelid header matches a hotel in the environment being called.
403	No response body	Ensure your oAuth token is valid and up to date. Rerequest it by using Authenticating to Oracle Hospitality Property APIs. Also ensure your integration user in OPERA Cloud Services has access to the property (hotel) you supplied in the "x-hotelid" header.



Table 6-1 (Cont.) Common HTTP Error Messages

Error Status	Error Response Body	Ho	w to Resolve
403	No Subscribed Plan or API found	an.	is occurs when accessing API to which you do not we access.
		(v0) alro che spe hea Ear	his is an early adopter) API and you think you eady have access to the rly Adopter API Program, eck that the application ecified in the x-app-key ader has access to the rly Adopter APIs by lowing this process:
		1.	In the Developer Portal, click the Applications tab.
		2.	Choose the application whose key matches the x-app-key being sent (double check against the end of the application key that appears in the list of applications).
		3.	Click View details
		4.	Click the Subscriptions tab and verify it shows all of the following: Early Adopter Hospitality APIs OAuth
		the to, in t	ou have not yet called to 0 APIs but would like contact us as explained the Early Adopter API ogram.
		you	his is a Distribution API, I must register in the veloper Portal to use the I.



Table 6-1 (Cont.) Common HTTP Error Messages

Error Status	Error Response Body	How to Resolve
403	User is not authorized to access data for resort	Check that your integration user has the WSACCESS role: • Find the email you
		received when the hotel approved your integration user. This includes a URL for the Shared Security Domain identity server. Go to this URL.
		 Log in using your integration username and password.
		 If the login fails, click the "Can't Sign In?" link to reset your password.
		 Verify the hotelId supplied in the "x- hotelid" header matches the one provided by the hotel. See Obtaining Details from the Hotel for more information.
404	No response body	If you are calling an Asynchronous API:
		Once you have sent the final GET call to obtain the results of the async processing, the data is no longer available on the same summaryId, so you will receive a 404 error. To retrieve the data again, you must restart the request sequence at step one.
404	OPICS-NOT_FOUND	Contact the environment owner to verify that Oracle Payment Interface Cloud Service has been set up by checking for product ID 14308 and ensuring that Token Exchange Service is selected. Customers can contact Oracle Consulting or a reseller to configure Oracle Payment Interface Cloud as needed.
405	No response body	Ensure the HTTP verb you are using is supported by the Oracle Hospitality APIs by checking the Oracle Hospitality APIs documentation.



Table 6-1 (Cont.) Common HTTP Error Messages

Error Status	Error Response Body	How to Resolve
406	No response body	Set your "accept" header to "application/json" as the Oracle Hospitality APIs will produce only "application/json".
413	No response body	Ensure your request matches the documented request body schema. If your scenario requires "bulk" fetch or update then consider the jobbed Oracle Hospitality APIs.
414	No response body	Consider whether you need to specify all the query parameters being specified; there may be more efficient resources or ways to structure your query.
415	Unsupported Media Type	Ensure your request payload has a content-type of "application/json".
500	Response body details the error.	Try your request again in a few moments or contact Oracle Customer Support at the Customer Support Portal.
502	No response body	Try your request again in a few moments or contact Oracle Customer Support at the Customer Support Portal.
503	No response body	Try your request again in a few moments or contact Oracle Customer Support at the Customer Support Portal.

HTTP Methods Supported

The Oracle Hospitality APIs use the following HTTP verbs:

- GET to retrieve resources.
- HEAD to query the status of jobbed requests.
- POST to create resources.
- PUT to replace resources.
- DELETE to delete resources.

HTTP Response Headers



POST always returns the location of the newly created resource in a Location header.

Github and Postman Collections

Oracle Hospitality has a Github repository containing both Oracle Hospitality REST API specifications and accompanying Postman Collections.

You can access Github and locate the REST API specifications and Postman Collections at the following URL: https://github.com/oracle/hospitality-api-docs.

REST API Specifications

In the rest-api-specs folder in Github, you can view the published V1 APIs for OPERA Cloud and/or download the json specifications for the Oracle Hospitality APIs.

Postman Collections

In the postman-collections folder in Github, you can download and use the Postman Collection to help you get you started with our APIs and become more familiar with using them. The postman-collections folder contains the following content:

- Postman collections with many different API call samples on how to perform different functional workflows (for example, digital check-in and checkout).
- Postman Environment defining the main environment variables required to use the
 postman collections against our Hospitality APIs. Ensure you update this file with the
 relevant credentials and data for the environment to which you are connecting.
- Document describing the different workflows supported in the postman collections.

The Postman collection is also available at the following URL: https://www.postman.com/hospitalityapis/workspace/oracle-hospitality-apis/overview.

Setting Up Your Postman Collection

To start calling the APIs, proceed to set up a postman environment collection using the below information. You might want to configure one environment collection for UAT and another one for Production as the variables will differ.

Table 6-2 Information for Postman Environment Collection

Hostname	This is the API gateway URL that can be viewed by logging into the Developer portal and viewing the environments tab.
Username & Password	This is the Integration username and password. See Authenticating to Oracle Hospitality Property APIs for the steps to obtain these.
CLIENT_ID & CLIENT_SECRET	The Client ID obtained from the OHIP Developer portal. See Viewing the Client Secret for details.
АррКеу	The application key that was previously obtained. See Viewing Application Details for the specific steps.



Table 6-2 (Cont.) Information for Postman Environment Collection

HotelId	The Hotel ID against which you want to perform actions (for example, obtaining reservation data).

Once you have added these values into your postman environment, you can begin to call the oAuth Token. If everything is set up correctly, OHIP will respond with a HTTP 200 OK response, including the oAuth token. Now you can proceed to try out the collections as required.

Date Formats

Dates in the Oracle Hospitality APIs are expressed in the RFC3339 "full-date" format (that is, date-fullyear "-" date-month "-" date-mday. "T" time-hour ":" time-minute ":" time-second "Z" / ("+" / "-") time-hour ":" time-minute). The following are examples of this format:

- 2023-06-05 for 5th of June 2023
- 2023-06-05T08:43Z or 2023-06-05T09:43+01:00 for 5th of June 2023 at 8:43 AM in the UTC time zone or 9:43 in the local time zone

Most times are expressed in local time zones, not in Coordinated Universal Time (UTC).

Asynchronous APIs return times in Coordinated Universal Time (UTC).

For Profiles APIs, the time depends on where the profile was created. For example:

- If the profile was created at the hub level, then Profiles APIs return times in the hub time zone if the time zone is set. If no hub time zone is set, then for a profile created at the hub level, Profiles APIs return in Coordinated Universal Time (UTC).
- If the profile was created at the property level, then Profiles APIs return times in the property time zone if the time zone is set. If no property time zone is set, then for a profile created at the property level, Profiles APIs return in Coordinated Universal Time (UTC).

Table 6-3 Asynchronous API Times Zones

API	Where was the Profile Created?	Is the Time Zone Set?	Time Zone Returned
Asynchronous APIs	n/a	n/a	Coordinated Universal Time (UTC)
Profiles APIs	Hub	No	Coordinated Universal Time (UTC)
Profiles APIs	Hub	Yes	Hub timezone
Profiles APIs	Property	No	Coordinated Universal Time (UTC)
Profiles APIs	Property	Yes	Property timezone
All other property APIs	n/a	n/a	Property timezone



Special Characters in URLs

Query parameters for some Hospitality API operations require text to be entered, for example, a rate code name or a person's name. If the text includes special or multibyte characters, these characters must be URL encoded. For example, an asterisk URL encodes as %2A.

For encoding standards, refer to the RFC Series on the RFC Editor website. The standard that defines when to encode is RFC3986 (section 2.4, When to Encode or Decode).

Oracle Hospitality Property APIs

This section contains the following topics:

Obtaining Details from the Hotel

OPERA Cloud resources are available only via the Oracle Hospitality Integration Platform if the hotel company is using OPERA Cloud Foundation. You will need the following pieces of information from the hotel whose data you are accessing:

- Production or Non Production: Many hotels run non production OPERA Cloud environments as well as their production environment(s). Determine whether the OPERA Cloud environment you are calling is a production or non production instance.
- Region: The region in which the hotel's OPERA Cloud environment is running.
- **Tenant / Chain Code**: The hotel's tenant code used to target the right tenant especially in OPERA Cloud environments that host multiple tenants.
- Hotel ID: The OPERA internal ID of a hotel in the customer's tenant.
- SSD URL: The URL on which to create an integration user.

Follow these steps to obtain this URL:

- 1. Ask the customer for their OPERA login page URL.
- 2. Go to this customer provided URL.
- 3. Click the **Register new account** button on the OPERA login page to arrive at the OPERA Shared Security Domain (SSD), which has a URL like the following:
 - https://rp15-prod2-ssd-ohs.oracleindustry.com/identity/faces/register? _afrLoop=4294503438550013&_afrWindowMode=0&_afrWindowId=null&_adf.ctrl-state=segh9ko67_1
- Change this URL to a format similar to the following example by replacing the section after the question mark with "apiuser=y". This is the URL for creating an integration user.
 - https://rp15-ssd-ohs.oracleindustry.com/identity/faces/register?apiuser=y

For environments supporting the Client Credentials authentication scheme, the below details must be obtained:



Note:

This only applies to environments supporting the Client Credentials authentication scheme.

- Enterprise ID: Unique identifier for the enterprise. This can be found in the OHIP customer portal URL of the customer.
 - For production environments: https://<domain>/<enterpriseIdprod>/ui.
 - For non-production environments: https://<domain>/<enterpriseId>uat/ui

For example, the enterprise ID for customers with a customer portal url (that is, https://oracle-test.com/testenterpriseprod/ui) would be **testenterprise**.

Authenticating to Oracle Hospitality Property APIs

You can call Oracle Hospitality APIs using different authentication schemes depending on the scheme supported by your environment. The authentication scheme supported by your environment can be found on the environments card under the Environments tab. For more information, see Viewing Environment Details.

Resource Owner-Based Authentication

To call Oracle Hospitality APIs using the Resource Owner-based authentication scheme, you need the following pieces of information:

Integration username and password: A username and password for an integration account in Oracle Hospitality Shared Security Domain granted by a hotel administrator to permit access to their data. This is one of the pieces of information needed to obtain the oAuth token. You can request this through the Oracle Hospitality Shared Security Domain (SSD) partner self-service registration portal. Completing and submitting this form sends a partner registration request to the OPERA customer for approval.

Note:

Every partner must have a unique integration user. This integration user is unique to one OPERA Tenant/Chain. Therefore, if you are accessing multiple OPERA Tenants/Chains, you need to request multiple integration users.

Please ensure you are signed out of the Oracle Hospitality Shared Security Domain (SSD) before requesting your integration user. If you are signed out, 'Anonymous' appears at the top right of the screen.

- Go to the SSD URL you obtained from the customer. For more information, see Using the Oracle Hospitality APIs.
- Specify the Tenant /Chain code as advised by the hotel, or else enter hotel code(s) advised by the hotel.



- Avoid spaces in the Vendor name field and keep the name to a maximum of 10 characters.
- Once the hotel approves your integration user, you will receive an email.
- For more information on this step, refer to the *Partner Self-Registration Guide* attached to the following Customer Support Portal document:

Oracle Hospitality Shared Security Domain (SSD) for OPERA



Please note and keep secure your generated interface ID and key. The interface ID is your integration user's username, and the interface key is your integration user password.

- OAuth Client ID and Client Secret: These grant you access to the identity servers (Oracle Hospitality Shared Security Domain). See Environments (Gateways and Credentials) for steps on how to view or add these.
- 3. **Application key**: A unique application key is created for each application upon registering an application in the Oracle Hospitality Developer Portal. This key must be passed in the "x-app-key" header of every request to the Oracle Hospitality APIs. To obtain your application key, refer to Viewing the Application Key.



A new application and its corresponding application key are required when you move to Production.

Client Credentials-Based Authentication



Only follow these steps if this authentication scheme appears on the **Environments** tab.

To call Oracle Hospitality APIs using the Client Credential based authentication scheme, you need the following pieces of information:

- OAuth Client ID and Client Secret: These grant you access to the identity servers (Oracle Hospitality Shared Security Domain). See Environments (Gateways and Credentials) for steps on how to view or add these.
- 2. Application Key: A unique application key is created for each application upon registering an application in the Oracle Hospitality Developer Portal. This key must be passed in the "x-app-key" header of every request to the Oracle Hospitality APIs. To obtain your application key, refer to the Viewing the Application Key topic.



Note:

A new application and its corresponding application key are required when you move to Production.

- **3. Scope**: A static variable that represents the authorization scope and permissions granted to the client for accessing the APIs from OHIP.
- 4. **Enterprise ID**: A unique ID for the enterprise for which the client is created.

To obtain your oAuth token, use the above details in the 'Authenticate with the Identity Server' call in the oAuth API. You can find this description in the oAuth API on the APIs page of the Developer Portal.

https://oauth34.docs.apiary.io/reference/authentication/oauthv1tokens/authenticate-with-the-identity-server.

Send this oAuth request to the gateway URL listed in the Developer Portal.



oAuth tokens expire after 1 hour (60 minutes). Currently, we do not support refresh tokens.

Calling Oracle Hospitality Property APIs

All Oracle Hospitality APIs expect the following mandatory headers:

- **1. Token**: A header "Authorization" that includes the oAuth token obtained through Authenticating to Oracle Hospitality APIs.
- 2. **x-hotelid**: Supply a hotel (or property) code from the chain to which you have access in a header "x-hotelid." This is the Hotel ID you obtained from the hotel. If you do not know your x-hotelid, contact Oracle Customer Support at https://iccp.custhelp.com.
- 3. Application key: An unique application key is created for each application upon registering an application in the Oracle Hospitality Developer Portal. This key must be passed in the "x-app-key" header of every request to the Oracle Hospitality APIs. To obtain your application key, refer to Viewing the Application Key

Required Headers:

- x-app-key:<ApplicationKey>
- x-hotelid:<HotelId>
- Authorization: Bearer <oAuth Token>
- x-hubid When you have hub-level access, you can supply the x-hubid to retrieve multiple properties.
- x-externalSystem If you have an external system in an OPERA environment (for example, for use with streaming or polling), then specifying that external



system in the header of inbound API calls will avoid echoing those changes back to the streaming and polling APIs. For the streaming APIs, the external system code is shown on the application's Events Subscribed tab.

Optional Headers:

- x-hubid When you have hub-level access, you can supply the x-hubid to retrieve multiple properties.
- x-externalSystem If you have an external system in an OPERA environment (for
 example, for use with streaming or polling), then specifying that external system in the
 header of inbound API calls will avoid echoing those changes back to the streaming and
 polling APIs. For the streaming APIs, the external system code is shown on the
 application's Events Subscribed tab.

Example

GET https://<Gateway Domain>/lov/v1/listOfValues/Titles

The below table lists the environment variables you can add to the Postman Environment.

Table 6-4 Postman Environment Variables

Variable	Value
AppKey	This value is accessed from the Developer Portal.
ClientId	This value is accessed from the Developer Portal.
ClientSecret	This value is accessed from the Developer Portal.
HotelId	This value is supplied by the hotel.
Password	This value is accessed from the "Interface Key" in the vendor self-registration portal.
Username	This value is accessed from the "Interface Id" in the vendor self-registration portal.

API Throttling

The Oracle Hospitality Integration Platform (OHIP) APIs are throttled. Throttling limits the number of concurrent calls to OPERA Cloud to avoid impacting day-to-day hotel operations. If more than 50 requests per second are received for a single OPERA Cloud environment, throttling helps maintain the day-to-day running of the hotel while still enabling API traffic. The 51st and subsequent requests received in a single second will be delayed by 1000 milliseconds. This throttling limit may be changed to protect day-to-day hotel operations. We provide advance warning of changes when possible. If you are frequently hitting the throttling limit, consider the following:

- For Shop & Book related calls, consider Distribution APIs (see Oracle Hospitality Distribution APIs for more information).
- Retrieve more coarse grained data in a single call rather than performing filtering in the client.
- Reduce the frequency of calls.
- Cache data that changes infrequently, such as Lists of Values.



- Review the API release notes for new operations that could reduce the frequency of API calls (for example, asynchronous (jobbed) operations).
- Consider Connecting to the Streaming API as an alternative to the Polling API.

Oracle Hospitality Asynchronous APIs

For long-running operations such as adding, updating, or retrieving large amounts of data, there is a series of Oracle Hospitality Property APIs called asynchronous ("async") APIs. These all work the same way with specific operation details available in the Developer Portal API documentation. Simply search for "Async" in the APIs tab.

Certain business use cases also require Asynchronous APIs, such as the Revenue Management System business use case, so refer to those specific business uses cases for details.

Creating the External System

All asynchronous operations require you to create an external system. This is so Oracle Hospitality OPERA Cloud knows for whom to process the request. The external system code is in the path of every Asynchronous API.

If you already have an external system created by the OPERA environment owner, ask them to check whether step 4–d is complete. If complete, you can use this for the Asynchronous APIs.

Only the (Customer) OPERA environment owner can create an external system. They should follow this process:

- Verify a chain-level user has the below tasks assigned. To assign these tasks, follow the steps in the Assigning Tasks to a Role topic in the OPERA Cloud User Guide.
 - a. Navigate to Interfaces Admin, Property Interfaces and External Systems.
 - b. Select New/Edit External Systems.
- 2. Log in at the Hub level (not the property level).
- From the Administration menu, select Interfaces, select Business Events, and then select External Systems.
- 4. Click **New** and enter the following details:
 - a. Code: Enter a code for the external system.
 - **b. Description**: Enter a name of the external system.
 - **c. Sequence**: Specify sequence in which the external system will display in the External Systems list.
 - d. For each property in the chain, enter or select the **Property** and click **Active** to activate it.
- 5. Click Save.

Make sure you remember the external system code you created.

6. Communicate to the integrator the external system code created at step 4.

If customers have any challenges with creating the external system, they should either contact Oracle Customer Support at the Customer Support Portal (in case of



a technical error) or contact Oracle Hospitality Consulting Services if additional help is needed.

Calling Asynchronous APIs

For Asynchronous APIs, the data flow is a three-step process. All three steps must be performed (that is, you cannot skip any step).

- POST request is the first step from an external system to OPERA, which can be performed to either:
 - a. Post bulk data to OPERA. This starts a process to accept the data into OPERA. The request size maximum is 2048 KB. If posting bulk data to OPERA that does not meet the API specifications, a validation error will be returned.
 - b. Fetch bulk data from OPERA. If fetching data, there may be a date limit range.
 Once you have sent this post request to OPERA, you should receive a 202 Accepted
 - response. In the header parameter Location, a summary ID is returned. This summary ID is important and required in the next step.
- 2. HEAD request is the second step from an external system to OPERA to check the status of the process started with POST request in the first step. Use the header parameter Location from the POST response in this HEAD request. Once the process is completed, the HEAD request returns a Status header with the value Completed, and a header parameter Location will contain a summary ID required in step 3.
- 3. GET request is the third step from an external system to OPERA to either collect the bulk data or confirm the post of data was successful. Use the Location Header returned by the HEAD response in step two. If you have added data, this GET response returns the requested data or log details and advises if there is any failure.

Async APIs Call Limits

- A maximum of 90 requests per minute per gateway can be made to the Async API. Bear this in mind when determining how frequently to poll HEAD.
- In the operation startReservationsDailySummaryProcess in the OPERA Cloud Reservation Asynchronous API, a request that uses the parameter "lastModifiedDate" (available from OPERA version 22.5) can be called only once every 30 minutes. This restriction applies per hotel, but not per caller. This means if two callers pass exactly the same criteria for the same hotel, then only one caller will receive the results. The other caller must wait 30 minutes.
- A given request body can be called only once every 30 minutes when starting an Asynchronous API request.
- Since OPERA 23.2, HEAD requests return a header "retry-after" containing the number of seconds. We recommend waiting before calling HEAD again.
- Since OPERA 23.2, the final GET call to obtain the result of the Async API will include a
 "retry-after" header containing the number of seconds that will need to be waited before
 calling the same Async API again.

FAQs

How frequently should I send HEAD?

We suggest sending the HEAD request not more than once a minute, though the frequency will depend upon your use case.



When will the response be available?

There is no set length of time. Different requests require varying amounts of processing, and operational use of OPERA Cloud will affect the speed of responding to the request.

Can I use this external system for polling Business Events?

Yes, if you already have an external system configured for the Asynchronous APIs, the OPERA environment owner would just need to follow steps 3 and 4 in Configuring the Polling API.

Errors with Asynchronous APIs

404 Not Found

Once you have sent the final GET call to obtain the results of the asynchronous processing, the data is no longer available on the same summaryld. To retrieve the data again, you must restart the request sequence at step one.

429 Too Many Requests

Please check the above note on call limits and then try again after waiting the noted length of time.

Oracle Hospitality Distribution APIs

Obtaining Details from Oracle Hospitality Distribution

As a partner, you must request access to the Distribution APIs by contacting the Distribution team (hgbu_distribution_partner_rqs_grp@oracle.com) and providing the following details:

- Oracle Cloud Account Name
- Oracle Cloud Account ID

You will then receive further instructions within 5 business days.

Once access is granted, Oracle will send you the following:

- Channel Code This is your unique channel code that is global and used across all hotels.
- Integration User
- Gateway URL This is used to access the Distribution APIs in each environment requested.

Authenticating to Oracle Hospitality Distribution APIs

Prerequisites

- A Channel Code in the Distribution platform provided by Oracle.
- A valid integration user provided by Oracle upon creation of the channel code.



Getting a Token for Distribution APIs

Use the Distribution Authorization API to obtain the access token (in the JWT format) that matches the provided credentials issued by the Oracle Hospitality Distribution administrator for a specific Distribution channel partner (see Prerequisites section).

Use this token in every call to the Distribution APIs. Once a token is generated, it can be used in subsequent calls until it expires. The expiry date is noted in the API response.



The Distribution APIs are separate from the Oracle Hospitality Property APIs, and tokens generated by the Distribution Authorization API can only be used for Distribution APIs.

Calling Oracle Hospitality Distribution APIs

The Distribution Reservation Notifications API enables authorized channel partners to create and update reservations for any active property in Oracle Hospitality Distribution, whether that property is using OPERA Cloud, OPERA 5, or on-premise PMS versions.

This API is meant to transmit reservations already created and committed in the channel external system and does not perform any Pricing and Availability validation.

Headers

The Oracle Hospitality Distribution APIs require the following mandatory headers:

- **Token**: A header "Authorization" that includes the OAuth token obtained from the Oracle Distribution Authentication API.
- x-channelCode: A channel code provided by Oracle.
- Application key: An unique application key is created for each application upon registering an application in the Oracle Hospitality Developer Portal. This key must be passed in the "x-app-key" header of each request to the Oracle Hospitality APIs. To obtain your application key, see Viewing the Application Key.

For a list of Oracle Hospitality Distribution APIs, see Oracle Distribution APIs.



7

Analytics

The Analytics tab enables you to view the details of API usage, such as the total number of API calls, the number of API calls that were successful, and the number of API calls that failed or produced errors. With analytics, you can troubleshoot your API calls and quickly identify where the error is occurring in your application.

When paying for API usage, it is critical to know when one of your applications starts making unusual calls, so you can avoid unexpected bills and better plan your expense budget.

Analytics data enables you to ensure your applications are running correctly.



Usage does not exactly equate to what you are billed as there are a number of free calls. For a list of the API calls that are not billed, see FAQs.

Analytics data applies to both inbound and outbound API calls.

Search Parameters

You can filter analytics using the following parameters:

- Hotel ID
- Environment Type Non Production, Production, or All.
- Application
- Organization
- AP
- Date You can select the Last 24 Hours, Last 7 Days, Last 31 Days, Last 12
 Months, Current Billing Cycle, or Last Billing Cycle for partners. You can also select
 Custom to enter a specific date range. The last 24 hours is the default date in the
 search.

API Response Status Code

The response status code is the easiest way to understand what happened with an API request without reading and decoding the response body.

Using Analytics

You can view the details of usage analytics at a global level or at an application level. Each view includes a breakdown of error codes.

Viewing Analytics from the Main Analytics Tab

This provides a view of usage analytics at a global level.

- 1. Open the Developer Portal and click the **Analytics** tab.
- 2. Optionally choose search parameters to narrow results to specific hotel(s), environment type(s), application(s), organization(s), API(s), and date range:
 - **x-hotelids**: Enter the OPERA property ID of one or more hotels. This was sent in the x-hotelid header of the API request.
 - Call Type: Select either REST or Streaming for the call type. Alternatively, you can select All, which provides analytics for both REST and Streaming combined.
 - Environment Type: Select All, Non Production, or Production for your environment type. This selection is determined based on the environment being called, either a non production or production instance.
 - APIs: Select one or more API(s) from the list.
 - Application: Select one or more application(s) for which you want to view analytics.
 - **Organization**: Hoteliers can select whether to view their own analytics or those of one or more partner organization(s).
 - API: Select one or more API(s) from the list.
 - Choose Range: Select a date range from which to view usage analytics. You can select Last 24 Hours, Last 7 Days, Last 31 Days, Last 12 Months,
 Current Billing Cycle, or Last Billing Cycle for partners. You can also select Custom to enter a specific date range.

The Usage graph appears below and shows the total request number, the number of successful API calls, and the number of errors based on the search parameters you defined.

If there are errors, the error codes and the total number for each error code appear in a table below the graph.

Viewing Analytics from the Applications Analytics Tab

This provides a view of usage analytics at an application level.

- 1. Open the Developer Portal and click the **Applications** tab.
- 2. Search for an application and click the View details link for it.
- 3. Click the **Analytics** tab.
- 4. Optionally choose search parameters to narrow results to specific hotel(s), environment type(s), organization(s), API(s), and date range:
 - **x-hotelids**: Enter the OPERA property ID of one or more hotels. This was sent in the x-hotelid header of the API request.
 - Call Type: Select either REST or Streaming for the call type. Alternatively, you can select All, which provides analytics for both REST and Streaming combined.
 - Environment Type: Select All, Non Production, or Production for your environment type. This selection is determined based on the environment being called, either a non production or production instance.
 - APIs: Select one or more API(s) from the list.



- **Organization**: Hoteliers can select whether to view their own analytics or those of one or more partner organization(s).
- Choose Range: Select a date range from which to view usage analytics. You can select Last 24 Hours, Last 7 Days, Last 31 Days, Last 12 Months, Current Billing Cycle, or Last Billing Cycle for partners. You can also select Custom to enter a specific date range.

The Usage graph appears below and shows the total request number, the number of successful API calls, and the number of errors based on the search parameters you defined.

If there are errors, the error codes and the total number for each error code appear in a table below the graph.

Downloading Overall Analytics

- 1. Open the Developer Portal and click the **Analytics** tab.
- 2. Select the search parameters as required.
- 3. Click the **Download Report** button and click **Download** again to confirm.

Downloading Application Analytics

- 1. Open the Developer Portal and click the **Applications** tab.
- 2. Search for an application and click the View details link for it.
- 3. Click the **Analytics** tab.
- 4. Select the search parameters as required.
- 5. Click the **Download Report** button and click **Download** again to confirm.

This exports the report as a .csv file that you can open or save. The usage report also contains the breakdown by error codes for the given time period.

Note:

- The download reflects dates and times in the UTC time zone.
- If the x-hotelids search parameter is selected, the report provides aggregated
 usage analytics per period in the details section and total usage analytics in the
 summary section. The report can only cover a period of 31 days in a single
 download.
- To get aggregated usage analytics by all x-hotelids, select all x-hotelids in the x-hotelid search parameter section.
- If no x-hotelid is selected, the report provides the aggregate usage analytics for the given time period without any aggregation by x-hotelid.



8

Business Use Cases

Business Use Cases is a searchable page for finding business use case articles. On this page, you can search for a business use case and view detailed information about it to assist you when building your application. The business use case articles include helpful information, such as an overview, key terminology, sample workflows, and FAQs. The following business use case articles are available and more will be added in future releases:

- Blocks
- Business Events and Streaming
- Nor1 Upsell
- Payments
- Property Interface Posting Charges
- RMS Revenue Management Systems



Business Events

A business event is an event (that is, an update) that happens to a resource, for example, a reservation. Rather than GETting the reservation repeatedly, subscribing to the Update Reservation event will inform you when this or other reservations are changed. Oracle Hospitality systems emit Business Events in multiple scenarios, such as creating a new resource, updating a resource, or deleting a resource. Each business event has the following pieces of information:

- Resource This is the resource that has received the event (for example, a reservation).
- Event The name of the event, for example, an update to a reservation.
- Old value This is the old value for the field.
- New value This is the new value for the field.

There are two methods for consuming events from Oracle Hospitality APIs: Polling and Streaming.

For a list of business events and data elements, refer to the Configuring Business Events topic in the OPERA Cloud User Guide.

Streaming API (push)

Overview of Event Consumption via the Streaming API

When partners or customers consume business event data from OPERA Cloud, they can choose which events an application will receive. These are the events to which the application subscribes.

A partner or customer can subscribe to business events from a specific environment, but approval from the environment owner is required.

For more information on streaming, read our blog post.

The following resources can help you get started with the streaming API:

- GraphiQL This provides a visual playground for familiarizing yourself with the streaming API. The Connecting to the Streaming API via GraphiQL topic provides instruction on how to use this tool.
- Postman collection The Github and Postman Collections topic provides instruction on how to set up and use this tool.
- Node reference implementation in TypeScript.

Customer Approval for Partners

A customer Developer Portal user can only approve the sending of business events for hotels to which they have access.

Customers can log in to the Developer Portal and do the following:

- See a list of the partners who are requesting to consume events.
- View a list of events a partner is consuming and see from which hotels and environments the partner is consuming these events.
- Approve event consumption for one or many hotels in the requested environment.

Note:

In the following circumstances, the event subscription will automatically be approved.

- Partners consuming business events from the partner sandbox.
- Partners consuming business events from their dedicated non production environment.
- Customers consuming business events from their own non production environment.
- Customers consuming business events from their own production environment.

Customer - Enabling Streaming

To get started with their first environment, customers must purchase the OHIP Premium Remote Assistance SKU (B93152) to engage with Oracle Professional Services.

For subsequent environments, customers must raise a technical SR. The Technical SR must include the following details, which are found on the customer's **Environments** card in the OHIP developer portal:

- Customer Name The customer's name can be found on the hotelier's
 Environments card in the OHIP developer portal and appears before the brackets
 on the card.
- Customer Chain The customer chain to be accessed. This can be found on the hotelier's Environments card in the OHIP developer portal and appears after the brackets on the card.
- **Environment Name** This can be found on the hotelier's **Environments** card in the OHIP developer portal and appears in brackets on the card.
- Shared Security Domain This is the URL via which the integration user for the hotelier's environment was created.



Streaming is enabled at the chain level, so once enabled for a chain, you do not need to enable it at the hotel level.

Partner - Enabling Streaming

Partners can initiate their testing in the partner sandbox environment. To gain access, request this in the partner Slack community. Partners should complete a successful



streaming test by confirming that their code correctly receives Business Events and does not encounter errors either from OHIP or from downstream systems. This is not an Oracle validation, but a necessary assurance for both the partner and the hotelier before the partner accesses a hotelier's environment.

Following a successful streaming test, partners must open a Technical SR if they wish to get a customer environment UAT or Production environment enabled for streaming. The Technical SR must include the following details, which are found on the customer's **Environments** card in the OHIP developer portal:

- **Customer Name** The customer's name can be found on the hotelier's **Environments** card in the OHIP developer portal and appears before the brackets on the card.
- Customer Chain The customer chain to be accessed. This can be found on the hotelier's Environments card in the OHIP developer portal and appears after the brackets on the card.
- **Environment Name** This can be found on the hotelier's **Environments** card in the OHIP developer portal and appears in brackets on the card.
- **Shared Security Domain** —This is the URL via which the integration user for the hotelier's environment was created.



Streaming is enabled at the chain level, so once enabled for a chain, you do not need to enable it at the hotel level.

Partners must also ensure approvals have been obtained for the events they have configured on the customer environment. Customers can grant access to consume events within their developer portal.

Working with Events in the Developer Portal

Prerequisites for Consuming Events

- You must first add an OPERA environment from which to consume events before adding and subscribing to events.
- The OPERA environment must either have streaming enabled (see Streaming API) or have polling configured (see Configuring the Polling Subscription).

For information on working with business events in OPERA Cloud, refer to the Configuring Business Events topic in the OPERA Cloud User Guide. This topic also provides a list of business events and data elements.

Creating a Template of Events for an Application

The event template represents the list of events a given integration will use. When subscribing to consume events from a given OPERA environment, the template is a faster way to ensure the correct list of events is subscribed.

Before subscribing to consume events from a given OPERA environment, you must first create a template for the integration.



The template can be edited at any time. For example, your integration might change, and it now needs to consumer more events or fewer events.



Changes made on the template do not affect existing subscriptions to OPERA environments but will take effect when subscribing to new OPERA environments.

To configure the template events, complete the following steps:

- 1. Open the Developer Portal and click the **Applications** tab.
- 2. Search for and click an application to open it.
- 3. Click the **Events** tab.
- 4. Click **Add Event to Template** and complete the following information:
 - **a. Category**: Select a category for the event, such as Reservation.
 - b. Event: Select an event for the category, such as Check In.



To remove an event from the template, click the **Remove** link.

- 5. Click **Add** to add the event to the template.
- **6.** Repeat these steps to add additional events to the template.

Once you have configured all the events your integration requires, click the **Subscribed** tab and choose any OPERA environment(s) from which to consume these events.

Subscribing to Events

A partner can subscribe to business events from a customer. Subscriptions to business events are specific to each application.

Use the Subscribe tab to subscribe to the list of events that you added on the Template tab.

- 1. Open the Developer Portal and click the **Applications** tab.
- 2. Search for and click an application to open it.
- 3. Click the **Events** tab.
- 4. Click the **Subscribed** tab.
- 5. Click the Subscribe link.
- 6. Select an Environment and click Subscribe.
- As a customer subscribing to events from your environment, select which hotels will consume the events.

The subscribed to event will be in a 'Pending Approval' status.



Note:

Only OPERA environments enabled for streaming appear in the list of environments.

Unsubscribing from Events

Once events are approved, you can unsubscribe from them as needed.

Note:

Unsubscribing from events on the Subscribe tab does not affect the events that appear on the Template tab. Also, changes made to events on the Template tab do not affect event subscriptions.

- 1. Open the Developer Portal and click the **Applications** tab.
- 2. Search for and click an application to open it.
- 3. Click the Events tab.
- 4. Click the Subscribed tab.
- Under Event Subscriptions, locate the event and click the green arrow to expand it and then click Unsubscribe.

Approving Events

A customer with Developer Portal access can approve the consumption of events from a specific environment. The customer can approve a partner's request to consume events before any events are sent to the partner. This enables customers to protect their data.

- 1. Open the Developer Portal and click the **Applications** tab.
- 2. Search for and click an application to open it.
- 3. Click the **Partner Applications** tab.

Note:

Applications with pending event subscriptions appear with a red ribbon icon on the application card.

- 4. Click an application with a pending event to open it.
- 5. Click the **Events** tab.
- 6. Click **Next** to proceed with approval.
- 7. Select the properties for the event subscription and click **Next**.
- 8. Click Approve.

The event status changes to 'In Progress' and then to 'Approved' status. The partner can see this status in the Developer Portal.



Rejecting Events

- 1. Open the Developer Portal and click the **Applications** tab.
- 2. Search for and click an application to open it.
- 3. Click the Partner Applications tab.
- 4. Click an application with a pending event to open it.
- 5. Click the **Events** tab.
- 6. Click **Reject** to reject the subscription.

The event status changes to 'In Progress' and then to 'Rejected' status. The partner can see this status in the Developer Portal.

Revoking Events

As a customer, if you no longer want a partner to consume events from your chain, deselect all hotels on the partner's application:

- 1. Open the Developer Portal and click the **Applications** tab.
- 2. Search for and click an application to open it.
- 3. Click the Partner Applications tab.
- 4. Click an application with a pending event to open it.
- 5. Click the **Events** tab.
- 6. Click **Edit** next to the list of hotels.
- 7. Deselect all the hotels.
- 8. Click Save.

Adding Events to Existing Subscription

To add events to an existing approved subscription:

- 1. Add the events on the Template tab (see the 'Creating a Template of Events for an Application' procedure above).
- 2. Subscribe again to consume events from the same environment (see the 'Subscribing to Events' procedure above).

Adding Hotels to an Existing Subscription

A customer with Developer Portal access can adjust an existing approved subscription to consume events from different hotels.

- 1. Open the customer or partner application.
- 2. Go to the Events tab.
- Click Edit next to the list of hotels.
- 4. Select the hotels that can consume the events.
- 5. Click Save.



Broken Connections

To avoid missing messages, you should keep the WebSocket connected. However, interrupted connections do occur, so OHIP retains a record of the last message sent to each connection as well as up to 7 days of messages. If the WebSocket gets disconnected, reconnect as described in the Authentication message. OHIP will then send any messages that have occurred since the disconnection occurred. For example:

Note:

OHIP holds the last offset for 24 hours only. If you do not reconnect within 24 hours, you must send the offset in the subscribe message that reflects the last offset you received.

Table 9-1 How the Streaming API works around broken connections

Oracle Hospitality System Emits Offset	OHIP Sends Partner Offset	Partner Receives Offset
191	191	191
192	192	192
193	193	193
194		Connection broken
195		Connection broken
196		Connection broken
	194	Connection re-established
	195	194
	196	195
		196
197	197	197

If the WebSocket remains disconnected for over 7 days, this might result in missed messages. Refer to the following table for examples.

Table 9-2 How the Streaming API stores and replays 7 days of events

Day	Oracle Hospitality System Emits Offset	OHIP Sends Partner Offset	Partner Receives Offset
1	191	191	191
1	192	192	192
1	193	193	193
2	194 to 317		Connection disconnected for day 1
3	318 to 520		Connection disconnected for day 2



Table 9-2 (Cont.) How the Streaming API stores and replays 7 days of events

Day	Oracle Hospitality System Emits Offset	OHIP Sends Partner Offset	Partner Receives Offset
4	521 to 701		Connection disconnected for day 3
5	702 to 929		Connection disconnected for day 4
6	930 to 1027		Connection disconnected for day 5
7	1028 to 1240		Connection disconnected for day 6
8	1241 to 1403		Connection disconnected for day 7
9	1404 to 1581		Connection disconnected for day 8
10	1582 to 1826		Connection disconnected for day 9
11		521 to 1826	Connection re- established
			521 to 1826
11	1827	1827	1827

In this example, messages 194 to 521 are missed and it is not possible to replay them.

Replaying Messages



If you use the 'offsetType' parameter in the subscribe message, then events that occurred before that parameter was used are not included in any message replay.

The OHIP schema includes the metadata attribute "offset," which is the message number.

To replay messages already received, specify the offset value following the chainCode. For example in Postman:

```
moduleName eventName detail { oldValue newValue elementName } } "
}
```

In GraphiQL add the offset parameter after the chainCode. For example:

```
subscription{
  newEvent(input:{chainCode: \"<CHAIN CODE>\" offset: \"<OFFSET>\"}) {
    moduleName
    eventName
    detail{
        newValue
        oldValue
        elementName
    }
    metadata{
        offset
        uniqueEventId
    }
}
```

OHIP sends event 193 and all events that occurred after event 193.

As noted in Broken Connections, if offset 193 was emitted more than 7 days ago, OHIP will return all messages emitted since 7 days ago. This is because OHIP retains events for only 7 days.

Retrieving the Latest Message

To retrieve only the latest message, use the "offsetType" parameter and specify the value as "highest." For example:

Streaming Scenario

Imagine the following scenario: A stream has produced 10 events over the previous 24 hours. A consumer has connected and consumed events 0 to 6 inclusive, and then disconnected again.

While the consumer is disconnected, events 7 to 10 occur.

If the consumer connects again without specifying an offset, then events 7 to 10 are sent to the caller followed by subsequent events.

If the consumer connects again and specifies an offset of 3, then events 3 to 10 are sent to the caller followed by subsequent events.

If the consumer connects with the offsetType highest, then only event 10 is sent, followed by subsequent events.

If the consumer (having first sent offsetType highest and disconnected), then reconnects and sends offset 3 in the subscribe message, then only offset 10 will be sent followed by subsequent events. This occurs because events prior to 10, whether they had previously been consumed (that is, read) or not, are now purged from the queue.

Therefore, only use the offsetType highest if you have no interest in historic events because you will no longer receive them. Similarly, you can never maintain the sequence of events if you use offsetType highest.

A good use case for offsetType highest is when a resource is changing rapidly, and you are only interested in the last state of the resource.



Do not use offsetType highest if you must synchronize an external system with OPERA Cloud as it would get (and remain) out of sync.

Interpreting the Event

Determining Changes

Three key fields are used to determine what has changed:

- elementName
- oldValue
- newValue



New Records

When receiving the record of a new Reservation, the payload will include the following for each field in the Reservation:

```
"elementName": "First Name",
   "newValue": "NewFirstName"
   "oldValue": null
```



For the polling API, the "oldValue" will not be in the payload.

Updated Records

The following scenarios reflect when a record is updated and a field is changed:

1. If a field was blank before the update,

The polling API returns:

```
{
  "dataElement": "First Name",
  "newValue": "NewFirstName",
}
```

The streaming API returns:

```
{
   "elementName": "First Name",
   "newValue": "NewFirstName",
   "oldValue": ""
}
```

2. If the field is updated with a blank value,

The polling API returns:

```
{
   "dataElement": "First Name",
   "oldValue": "TheOldFirstNameValue"
}
```

The streaming API returns:

```
{
  "elementName": "First Name",
  "newValue": "",
```



```
"oldValue": "OldFirstName"
}
```

3. If the field was not changed during this event,

The polling API returns:

```
{
   "elementName": "First Name",
   "newValue": "MyFirstName",
   "oldValue": "MyFirstName"
}
```

By default, the streaming API returns the same fields. However, if the "delta" input variable is set to true, the streaming API returns only fields whose value has changed. In this scenario, the elementName "First Name" would not be sent by the streaming API.

Removed Fields

If a field has been removed, this is reflected as:

```
{
   "elementName": "First Name",
   "oldValue": "OldFirstNameValue"
}
```

Retrieving Unchanged Fields

As you can see in Updated records, if a field remains unchanged neither the "oldValue" nor "newValue" is sent. To retrieve the current (unchanged) value, make a GET call to the resource using the "primaryKey" field that is sent in the event payload. For example, if the event is UPDATE RESERVATION, the primaryKey will be a reservationId, so the full resource can be obtained using the getReservation API.

Comparing the Event Payload from Polling and Streaming APIs

Polling API Business Event payload



Streaming API Business Event payload

```
"data": {
 "newEvent": {
   "metadata": {
     "offset": 100,
      "uniqueEventId": "0ed06ced-843e-4e35-86ec-e2564cf495ee"
   },
   "moduleName": "Reservation",
   "eventName": "NEW RESERVATION",
    "primaryKey": "123456",
    "timestamp": "2021-06-03 16:45:48.000",
    "hotelId": "ABC123",
    "publisherId": "15951",
    "actionInstanceId": "222222",
    "detail": [
        "newValue": "NewFirstNameValue",
        "oldValue": "",
        "elementName": "FIRST NAME",
        "scopeFrom": "",
        "scopeTo": "",
        "elementType": null,
       "elementRole": null,
        "elementSequence": null
      },
        "newValue": "123456789",
        "oldValue": "",
        "elementName": "CONFIRMATION NO",
        "scopeFrom": "",
        "scopeTo": "",
        "elementType": null,
        "elementRole": null,
        "elementSequence": null
 }
```



}

 Table 9-3
 Comparing Fields in the Polling and Streaming APIs

Section	Field Name in Polling	Section	Field Name in Streaming	Use
Header	moduleName	Event Header	moduleName	Grouping of events, useful guide to which API to use if unchanged data are needed.
Header	actionType	Event Header	eventName	Name of the event that occurred.
Header	actionId			Number of the event emitted from OPERA.
		Event Header	actionInstanceI d	Number of the event emitted from OPERA.
Header	primaryKey	Event Header	primaryKey	OPERA internal ID of the resource on which the event occurred. For example, an UPDATE RESERVATION event occurs on a reservation resource, so the primaryKey is the reservationId.
Header	parentActionId			
Header	publisherId	Event Header	publisherId	User reference Id of the user who created the transaction in OPERA.
Header	createdDateTim e	Event Header	timestamp	Date and time the event occurred.
Header	hotelId	Event Header	hotelId	OPERA internal Id of the hotel in which the event occurred.



Table 9-3 (Cont.) Comparing Fields in the Polling and Streaming APIs

Section	Field Name in Polling	Section	Field Name in Streaming	Use
		Subscription	chainCode	OPERA Shared Security Domain organization code within which the event occurred.
		Metadata	offset	Offset number of the event emitted from OHIP.
		Metadata	uniqueEventId	Unique identifier for the event emitted from OHIP.
Detail	dataElement	Detail	elementName	Name of the field that changed.
Detail	oldValue	Detail	oldValue	Old value of the field that changed (see notes in the 'Determining Changes' section)
Detail	newValue	Detail	newValue	New value of the field that changed (see notes in the 'Determining Changes' section)
Detail	scopeFrom	Detail	scopeFrom	Beginning of the data range for which the business event is valid. For example, if a rate code or rate amount is different for different stay dates and the rate is updated, the scopeFrom determines the start of the stay date range that was updated.



Table 9-3 (Cont.) Comparing Fields in the Polling and Streaming APIs

Section	Field Name in Polling	Section	Field Name in Streaming	Use
Detail	scopeTo	Detail	scopeTo	End of the data range for which the business event is valid. For example, if a rate code or rate amount is different for different stay dates and the rate is updated, the scopeTo determines the end of the stay date range that was updated.

Errors

All errors result in the connection being broken and require the below fixes before connecting again.

Table 9-4 Potential Streaming API Errors and Fixes

Error Returned	How does this Happen?	How to Fix	Error Type
429 Too Many Requests	Sending more than 150 requests to upgrade to WebSocket and sending the requests within 2 minutes from the same application.	Retry after 2 minutes.	НТТР
499	The client disconnected before the server was able to send a response to the initial HTTP upgrade, so the WebSocket was not opened.	Ensure your calling architecture is leaving the connection open long enough for the server to reply.	НТТР
1000 Normal Closure	The WebSocket was disconnected by the caller	Reconnect from the Authentication message.	WebSocket
1001 Going Away: Going away	Maintenance by Oracle	Reconnect from the Authentication message.	WebSocket



Table 9-4 (Cont.) Potential Streaming API Errors and Fixes

Error Returned	How does this Happen?	How to Fix	Error Type
1006 Abnormal Closure: Abnormal Closure	Connection broken	Wait 4 seconds and then reconnect from the Authentication message.	WebSocket
Error: Unexpected server response: 400	Incorrect key or URL	 Check the sha256 hash of the application key is correct. Check that the application key is subscribed to consume events and that the event subscription is approved. Check the URL matches the environment listed in the Developer Portal. Check that the environment is Streaming Enabled. 	HTTP
4400 Error: Bad Request - Invalid GraphQL Subscription	Invalid field in subscription message	 Check the response body which includes details of the invalid field. For example, "Cannot query field XYZ on type ABC" or "Value for <field> is invalid - Expected ABC to match pattern ZYZ."</field> Check that the fields in the subscription request match the OHIP schema Github link. Reconnect from the Authentication message. 	WebSocket



Table 9-4 (Cont.) Potential Streaming API Errors and Fixes

Error Returned	How does this Happen?	How to Fix	Error Type
4401 Error: Unauthorised - Invalid credentials	Invalid credentials sent in the Authentication message	 Check you are sending the application key, not the sha256 hash of the application key. Check that the application is subscribed to consume events and that the event subscription is approved. Check that the oAuth token is valid and current. 	WebSocket
4403 Error: Forbidden - You are not authorized to access this resource	Invalid chainCode in subscription message	 Check that the chain code in the subscription message matches the chain code being accessed. This is the value at the start of the integration that the user sent to obtain the oAuth token. Check that streaming is enabled for the environment you are accessing Reconnect from the Authentication message. 	WebSocket
4406 Error: Subprotocol not acceptable	Failing to include the WebSocket protocol header.	Include the header "Sec-WebSocket- Protocol: graphql- transport-ws"	WebSocket
4408 Error: Disconnect	Connection initialization time out	Send the Authentication message within 5 seconds of opening the connection.	WebSocket



Table 9-4 (Cont.) Potential Streaming API Errors and Fixes

Error Returned	How does this Happen?	How to Fix	Error Type
4409 Too Many Requests	More than one client or process is trying to consume events from the same gateway using the same application key and chain code. This often happens in the following circumstances:	key and chain code. Ensure that you send the Complete	WebSocket
	1. When consuming events in code and in Postman/GraphiQL. message before disconnecting from the WebSocket.		
	2. Where multiple developers are trying to consume events from a single application.		
	3. Where an application has spawned additional threads all consuming events from the same gateway, application key, and chain code.		
	4. When disconnecting without sending the Complete message.		
4429 Error: Too Many Requests	Resending the subscription message when the connection is already open Resending the connection_init message when the connection is already open	The WebSocket connection is already open, so it cannot be reopened. Look for the connection_ack message and do not resend connection_init if you have received a connection_ack.	WebSocket



Table 9-4 (Cont.) Potential Streaming API Errors and Fixes

Error Returned	How does this Happen?	How to Fix	Error Type
4500 Server Error - No configuration found. If this problem persists, contact Oracle Customer Support at the Customer Support Portal.	A Subscribe message was sent but either there are no events subscribed for this application, or the subscription is not approved by the environment owner.	Check that the application is subscribed to events and shows as approved for that environment.	WebSocket
4500 Unable to find configuration between Application, Chain, and Environment. Please ensure your application has access. If this problem persists, contact Oracle Customer Support at the Customer Support Portal.	A piece of internal configuration might be missing.	Ensure your application is approved to consume events and that the URL you are calling is a streaming enabled gateway. If the problem persists, contact Oracle Customer Support at the Customer Support Portal.	WebSocket
4500 Internal Server Error received 6 minutes after sending the subscribe message.	When subscribing, the consuming application should wait up to 6 minutes before receiving any events. If the subscription is valid and an internal issue has occurred, this message is received 6 minutes after sending the subscribe message.	Reconnect and send the Authentication message and then send the Subscription message.	WebSocket
4501 Socket closed with error 4501 Not Supported Environment for subscriptions	Connecting to an environment that does not support streaming Business Events.	Ensure the environment shows as "Streaming Enabled" on the Environments tab of the developer portal. Streaming Business Events from OPERA requires a minimum of OPERA Cloud version 22.3.0.1.	WebSocket



Table 9-4 (Cont.) Potential Streaming API Errors and Fixes

Error Returned	How does this Happen?	How to Fix	Error Type
4504 Socket closed with error 4504 Service Timeout	This error occurs when the OCI Streaming Service goes down for more than 30 seconds.	Try again after 15 seconds. If this problem persists, contact Oracle Customer Support at the Customer Support Portal.	Websocket

Connecting to the Streaming API

Overview

The streaming API is built on <u>GraphQL over WebSocket protocol</u>. This protocol defines that a given stream (identified by application key, URL, and chainCode) can only be consumed by one application/process/thread. Therefore, do not use multithreading when connecting to the Streaming API.

Prerequisites

Streaming Business Events from OPERA Cloud requires a minimum version of OPERA Cloud 22.3.0.1.

Before connecting to consume Business Events from the WebSocket, verify the following prerequisites are met:

- Onboard to OHIP by following the steps in Getting Started for Partners.
- Create an application by following the steps in Registering an Application.
- Take a note of the application key.

Note:

It is important that you write down the application key.

You can only connect to the streaming API from one application at a time using the same application key. Using a single application key to simultaneously access the API from multiple applications will stop the streaming service.

- Add an environment from which to consume events. For more information, see Environments (Gateways and Credentials). Take note of the following:
 - ClientId and ClientSecret These are needed to obtain the oAuth token.
 - Gateway URL
- Check that the environment is streaming enabled. It will have a label "Streaming Enabled" if this is the case.
- Set up the template of events. For more information, see Working with Events and Creating a Template of Events for an Application.



• Subscribe to consume the events from an environment. For more information, see Working with Events and Subscribing to Events.

If the environment is the partner sandbox or an environment owned by your organization, the request to consume events is automatically approved. If not, environment owners (usually customers) must approve the request to consume events from their environment. To do this, following the process in Working with Events and Approving Events.

Once the request to consume events is approved, the event is listed as "Approved" on the Developer Portal.

GraphQL

The streaming API uses GraphQL subscriptions delivered via WebSocket. To learn more about this technology, read our blog post.

WebSocket Authorization

Access to the streaming API is protected by oAuth and an application key. The application key comes from the application you created in Registering an Application.

To obtain the oAuth token, follow the processes described in Using the Oracle Hospitality APIs and in Authenticating to Oracle Hospitality Property APIs. For an example of the oAuth token, visit the Get OAuth Token page on the Postman API Platform site at https://www.postman.com/hospitalityapis/workspace/oracle-hospitalityapis/request/15729853-58d0804e-b607-4c37-bf2f-0656c254573c.

Information required to call the WebSocket

To connect to the streaming API, the following pieces of information are required:

- Application Key (Create an application by following the steps in Registering an Application.)
- Valid oAuth Token
- URL



If the URL listed on the Environment panel in the Developer Portal is "https://www.oracle.com," the URL for the streaming API should be "wss://www.oracle.com/subscriptions." The change from "https" to "wss" is required for connection via WebSocket.

Browsing the OHIP Schema

The Documentation Explorer is located on the right-side of the screen.

- Click the Subscription link to browse the schema for creating the subscription.
 The Subscription object requires you to specify a "NewEventInput" object containing the chainCode and the offset.
- 2. Click **NewEventInput** to view the data type and limits on these fields.



- 3. Click the **Subscription** arrow to go back to the definition of the Subscription object. Returned in the response to this subscription is the type called "EventHeader."
- Click the EventHeader to view details of the fields that can be returned (if included in the query).
- 5. Click any of these fields to see the object definition, data types, and limits on the fields. One of the response fields is the "detail" array, which includes fields such as newValue, oldValue, and elementName (that is, the name of the data element that changed).
- 6. Compose your GraphQL query using the left-side of the screen, which includes intellisense to speed up the completion of the query.
- 7. Click Start to open the WebSocket connection. Any events meeting the subscription configured in the Developer Portal are sent and appear on the right-side of the screen, but include only those fields specified in the subscription query on the left-side of the screen.

The right-side of the screen only shows the latest event. Since many events will be sent at once, use the developer tools in the browser to view the full list of sent events.

8. Click **Stop** to disconnect the WebSocket.

Note:

When the Auth Token expires, the connection must be severed and then reestablished with a fresh Auth Token every hour.

Connecting to the Streaming API via GraphiQL

To better visualize the streaming API, a playground application is available that uses a tool called GraphiQL. The GraphiQL tool is often utilized with GraphQL APIs. It is available as a standalone web page from our public Github repository.

Note:

The GraphiQL page has a limitation that a single browser can only stream events from one application at a time. GraphiQL cannot be open in multiple tabs or windows consuming events from different applications.

Connecting via GraphiQL

- 1. Enter the **URL** (see the 'Information required to call the WebSocket' section in WebSocket Authorization).
- 2. Enter an **Auth Token** as described in WebSocket Authorization.
- Enter the API key as it is listed in the Developer Portal.This is the not the sha256 hash of the API key.
- 4. Click the Start button.



- This stores the values on your machine not on the server. Only you can view these saved values.
- This populates the Socket Key.

The connection is open if you see the three boxes appear below the Start button.

- The left-hand box holds the subscription request. By default, this includes a getHelp query and an example subscription.
- The middle box holds the latest response.
- The right-hand box is a navigable representation of the GraphQL schema showing the fields you can include in the subscription.

Since the middle box holds only the latest response, you should open developer tools in your browser, usually the Network tab, so that all events sent on the stream are visible.

- 5. Click the **play** button to open the WebSocket connection. By default, this returns the getHelp guery with useful links to this guide.
- **6.** Comment out the getHelp query and remove the comments in front of the example subscription.

Use **CTRL** + *I* to comment or uncomment.

- 7. Optionally, add elements from the GraphQL schema into the subscription. Press CTRL + space to list fields from the schema.
- 8. Click the **play** button to open the WebSocket connection. All events that occurred after the subscription was approved are now sent with the latest event shown in the middle pane. The WebSocket connection remains open until you click the stop button. This means if any of the events chosen in the Developer Portal occur in the subscribed hotel(s), the events are immediately sent on the streaming API and appear in the middle pane.



When the Auth Token expires, the connection must be severed by clicking the stop button and then reestablished with a fresh Auth Token every hour. As noted in the Broken Connections topic, OHIP sends any events that occurred between stopping and restarting the WebSocket connection.

Viewing Historic Events

To view historic events, use your web browser's developer tools. For example:

- 1. In Mozilla Firefox, press **F12** to open developer tools.
- Click the Network tab.
- 3. Click **WS** to show only WebSocket requests.
- 4. After clicking the **play** button, click the last web service request sent.
- 5. When the details appear, click the **Response** tab.

You will see all the sent business events. You can view each business event inside the developer tools by clicking it, or you can copy it by right clicking the business event in the list of responses and clicking **Copy Message**.



Connecting to the Streaming API with Postman

Postman can be accessed online or from the Postman API Client https://www.postman.com/product/api-client/. You must be signed in to a Postman workspace to use WebSocket APIs in Postman.

Note:

While it is possible to support WebSocket via Postman, it is not yet possible to save WebSocket requests in Postman except while signed in to a Postman workspace.

You can connect to a given stream from only one application and thread at a time. Ensure the stream (identified by the application key, URL, and chainCode) is not being used by any other applications.

Postman does not support the sending of a ping, so any postman connection closes after 5 minutes.

Consuming Events in Postman

To consume events in Postman, follow one of the two options below:

Option A

- 1. Fork this Postman collection and fork this Postman environment file.
- 2. Use this oAuth API example to first obtain an oAuth token.

Option B

- 1. Select New and then select WebSocket Request.
- 2. Enter the **URL** in the following format: wss://www.oracle.com/subscriptions (as described in 'Information required to call the WebSocket').
- 3. Add the query parameter (see the 'Query Parameters' section).
- **4.** Add the **headers** (see the 'Headers' section).
- 5. Send the Authentication message.
- **6.** Send the **subscription message** within 10 seconds of the Authentication message.
- 7. View the **events** returned.

Query Parameters

The GraphQL subscription resource has one mandatory query parameter named "key." The value is a sha256 hash of the application key obtained from Registering an Application.

If LINUX environments are running, echo-n ABC-123 | sha256sum (where "ABC-123" is the application key) will return the required hash. In Microsoft Windows environments, use a code snippet or download GitBash or Windows Subsystem for Linux. To run this command, visit the Install WSL page on the Microsoft website at https://docs.microsoft.com/en-us/windows/wsl/install. Alternatively, you can use an online sha256 hash generator.





Ensure only lowercase hashes are used.

To add this to Postman:

- 1. In Postman, click the Params tab
- 2. In the first column, enter the value "key."
- 3. In the second column, enter the value of the 256 hash that was calculated above.

Headers

The Oracle Hospitality streaming API uses the GraphQL-WS protcol passed in headers:

- 1. In Postman, click the **Headers** tab.
- 2. In the first column. enter the value "Sec-WebSocket-Protocol."
- 3. In the second column, enter the value "graphql-transport-ws."

ID

All messages, except the "ping" message (see Keeping the Stream Open), require you to specify an ID in the request payload.

The ID should be a GUID to avoid collision with other consumers.

The same ID value must be used throughout a stream's life.

Authentication Message

Send the authentication "Connection Initialization" message before sending the subscription message.

1. In Postman, click the area marked **New Message** and enter the following:

```
{
  "id": "<GUID>"
  "type": "connection_init",
  "payload": {
      "Authorization": "Bearer <OAUTH TOKEN>
      "x-app-key": "<APPLICATION KEY>"
  }
}
```

Where:

- oAuth Token is the access_token returned from the oAuth request. For more information, see Web Socket Authorization.
- APPLICATION KEY is the application key from Registering an Application.



Once the authentication message is successfully received, the following "Connection Acknowledged" message is returned:

Where APPLICATION NAME is the name of the application that corresponds to the application key. This validates that the correct application is being used.

In Postman, the connection will show as "CONNECTED."

Subscription Message

- 1. Send the subscription message within the next 10 seconds now that the connection is authenticated and connected.
- In Postman, overwrite the Authentication message request body with the following request body:

```
{
    "id": "<GUID>",
    "type": "subscribe",
    "payload": {
        "variables": {},
        "extensions": {},
        "operationName": null,
        "query": "subscription { newEvent(input: { chainCode:
    \"OHIPCN\" }) { metadata { offset } moduleName eventName detail
    { oldValue newValue elementName } } }"
    }
}
```

The "query" is the GraphQL query formatted against the OHIP schema. It contains the fields to be returned along with business events.

For the full schema of what can be sent in the Subscribe request body, consult the Documentation navigator in GraphiQL.

- 3. For the chainCode, specify the "tenant" entered when creating the integration user. Refer to step 1 in Authenticating to Oracle Hospitality Property APIs. This is also prefixed on your integration username.
- 4. Click the **Send** button.

Viewing the Events Returned

In Postman, messages from the server begin with a down arrow.

To see the JSON response payload:

Click to expand the message.

The payload includes only those elements from the "query" specified in the Subscription message.

When multiple events are pending subscription, each event is returned in sequence.

Keeping the Stream Open

To keep the connection open, you must send a "ping" request at least every 15 seconds on the WebSocket (see the below JSON example).

```
{"type":"ping"}
```



You are not charged for this "ping" request.

An example implementation is listed on GitHub in the Recipes section under 'Client usage with ping/pong timeout and latency metrics.'

The server also sends pings to the client. It is important that as soon as it receives a "ping" from the server the client return a "pong" message to this request from the client as documented in the Protocol:

```
{"type": "pong"}
```

Updating Authentication

The streaming API is secured by an oAuth token whose life is limited to one hour (sixty minutes). To continue receiving events, you must keep the stream open by doing the following:

- 1. Close the WebSocket (see Disconnecting the WebSocket for more information).
- 2. Request a new oAuth token from the oAuth API.
- Reopen the websocket and specify the new "access_token" received from the oAuth API.

Disconnecting the WebSocket

WebSockets are designed to stay open. When planning to disconnect from a WebSocket (refer to the Broken Connections topic), be aware of the following:

- Events will queue up while disconnected, but only 7 days of events are retained. This can be a large volume of events, so before reconnecting, verify your consuming architecture can support the volume.
- Send the "Complete" message (see the example below).

Sending the Complete Message

Before disconnecting, ensure you send the below Complete message (see the protocol for more information):

```
{
    "id": "<GUID>",
```



```
"type": "complete"
}
```

You must send the Complete message to connect to the stream (identified by the application key, URL, and chainCode). Failure to send the Complete message will make it impossible to connect to the stream. If a subscribe message is sent to a stream that has not yet received a complete message, a 4409 error will occur.

Reconnecting after Complete

Ensure there is a minimum of 500 ms between sending the "Complete" message to close a WebSocket connection and sending the next "Subscribe" message to reopen a WebSocket connection.

Streaming Best Practices



You must connect to the WebSocket at least once every 24 hours. If not, then you must send the optional "offset" input parameter together with the value of the last offset you received.

Ensure there is a minimum of 500 ms between sending the "complete" message to close one WebSocket connection and the next "subscribe" message to reopen a WebSocket connection.

The Streaming API is not throttled. As events are produced, they are immediately sent out. Potentially, this means many events will be pushed at the same time and create a backpressure.

To cope with this potential backpressure, it is essential the consuming architecture can scale, for example, by buffering before writing to back-end systems. If the backpressure exceeds the ability of the consuming architecture to scale, you can disconnect the WebSocket and then restart it later once more capacity is available in the consuming architecture. Any events that occurred since the WebSocket disconnect will be sent as soon as you reconnect.

No option is currently available to clear the backlog of events, and you must continue to process those events. Alternatively, you can create a new application and delete the old one if it is not required.

Streaming Troubleshooting

If you are experiencing issues consuming the Streaming API, check the following:

Environment

- Verify the OPERA environment from which you wish to stream events is listed on the Environments tab of the developer portal.
- Verify the OPERA environment shows as Streaming Enabled on the Environments tab of the developer portal.
- Verify you have valid credentials to obtain the oAuth token (see API Troubleshooting for more information).



 Verify the oAuth token is current. They expire after 60 minutes. If not, request a new oAuth token. Check the oAuth token is current. They expire after 60 minutes. If not, request a new oAuth token.

Configuration

Ensure your application streaming configuration is both requested and approved (see Working with Events in the Developer Portal for more information).

Postman

Postman cannot send "ping" on an open WebSocket, so the connection will automatically close. When it closes, you must resend the "init" message and then resend the "subscribe" message.

It is not yet possible to save WebSocket requests in Postman, except when signed in to a Postman workspace.

GraphiQL

If you receive errors from GraphiQL, ensure you have it opened only once. It cannot support streaming events from different applications in different tabs (see Connecting to the Streaming API via GraphiQL for more information).

Not Receiving the Expected Data

If you are not receiving the pieces of data you expected, check the subscribe message to ensure it includes the expected field.

The hotelld will always be null for chain-level entities, such as profiles, which tend to be shared across all hotels in the chain.

Verify this page lists the expected data values for the event(s) to which you are subscribed (see the 'Business Events - Activity' heading under the Configuring Business Events topic in the OPERA Cloud User Guide).

Receiving Unexpected Events

Keep in mind that a single action, such as checking a guest in, can trigger multiple business event notifications because that single action modifies multiple resources.

For integration partners developing against the sandbox, keep in mind that the actions taken by other partners in the sandbox will generate events.

Not Receiving Expected Events

If you are not receiving all new reservations, it is possible the customer has an external CRS setup. Request the customer to set up a "publisher" on your external system (the external system code is displayed on the **Application**, **Events**, **Subscribed** tab in the developer portal) following this process (see the 'Managing External System Publishers' heading under the Configuring External Systems topic in the OPERA Cloud User Guide).

If you are not receiving any events, it is possible you have not connected for greater than 24 hours. In this case, stop the WebSocket and reopen it, specifying in the subscribe message the last offset you received.

Verify you are not unexpectedly using the "hotelId" filter in the subscribe message.



Getting Overwhelmed with Events

The Streaming API sends events as soon as they are available, so it is important that consuming architecture can scale and potentially buffer events to avoid choking database connections (see Streaming Best Practices for more information).

Other Errors

See the Errors topic for suggested resolutions to common errors.

If the "init" request is failing, ensure you send it within 5 seconds of the HTTP upgrade request.

If the connection keep closing:

- Ensure you send "ping" every 15 seconds (see Keeping the Stream Open for more information).
- Postman cannot send "ping," so the connection will automatically close.
- Wait at least 500ms between closing and re-opening the WebSocket, or you will receive 4409 errors (see Disconnecting the WebSocket for more information).
- Ensure that only one process/thread/user is connected to a given stream (identified by application key, URL, and chainCode) at any one time.
- Ensure you have connected only one WebSocket per application: Connecting more than one WebSocket with the same application key will result in 4409 errors.
- If the socket closes with a 4401 error, obtain a new oAuth token before reconnecting. The
 socket will automatically close every one hour when the oAuth token expires (see
 Keeping the Stream Open for more information).
- Receiving a 4403 error:
 - Verify the chain to which you are subscribing in the subscribe message matches the chain for the integration user that was used in the oAuth request.
- Receiving a 4409 error:
 - Ensure only one client or process consumes events from a given gateway using a given application key and chain code.
 - Ensure you send the Complete message before disconnecting from the WebSocket.
 - Ensure you send the ping message to keep the stream open (see Keeping the Stream Open for more information).
 - Reconnect after 5 minutes.

Confused About Implementation?

We adhere to the GraphQL over WebSocket protocol, so ensure your implementation meets this protocol.

An example implementation is available on this GitHub page.

It is suggested that you create a second application using the GraphiQL tool to better distinguish between implementation and configuration issues.



Polling API (pull)

To consume business events generated in OPERA Cloud using the polling APIs, visit OPERA Cloud Integration Processor API and follow the instructions.

Prerequisites

- The customer must be onboarded to consume Business Events via OHIP. For more information, see Getting Started.
- OPERA Cloud properties on OPERA Cloud version 21.2.1+ can configure
 Business Events in OPERA Cloud without impediment. If an OPERA Cloud
 property is below version 21.2.1, the customer can raise a Service Request to
 apply the OPP_BSEV license without cost, which enables them to configure
 Business Events.

You can discover your OPERA Cloud version using the following API call:

https://www.postman.com/hospitalityapis/workspace/oracle-hospitality-apis/request/15729853-8dca939b-a6b5-4dca-bc0f-663027d11a88

Configuring the Polling Subscription

The polling API requires the owner of the OPERA Cloud environment to configure the subscription in OPERA Cloud.

- Verify a chain-level user has the below tasks assigned. To assign these tasks, follow the steps in the Assigning Tasks to a Role topic in the OPERA Cloud User Guide.
 - a. Interfaces Admin Property Interfaces —External Systems:
 - New/Edit External Systems
 - b. Toolbox:
 - External Databases
 - c. Interfaces Admin Property Interfaces —Business Events:
 - New/Edit Business Events
- 2. Create an external system for your organization by following the steps in Configuring External Systems topic in the OPERA Cloud User Guide.



Make sure you remember the external system code you created.

- 3. Create an external database by following the steps in the Configuring External Databases topic in the OPERA Cloud User Guide.
- 4. Configure the chosen events on the external system by following the Configuring Business Events steps in the OPERA Cloud User Guide. For the list of events that can be consumed, see the Business Events Data Elements guide.





If there are challenges with this process, the owner of the OPERA Cloud environment should contact Oracle Customer Support at the Customer Support Portal, raise a Technical SR, and select Oracle Hospitality OPERA Cloud as the product.

5. Communicate or make note of the external system code created at step 2.

Consuming Business Events using the Polling API

- 1. Onboard to OHIP by following the steps in Getting Started for Hoteliers.
- 2. Create an application by following the steps in Registering an Application. Take a note of the application key.



Make sure you remember the application key.

- 3. Add an environment for the environment from which you need to consume events. For more information, see Environments (Gateways and Credentials). Take note of the following:
 - ClientId and ClientSecret These are needed to obtain the oAuth token.
 - Gateway URL
- 4. Determine the hotelld of the hotel from which to consume business events.
- 5. Call the FetchBusinessEvents API and specify the external system code as configured in the 'Configuring the Polling Subscription' task above.
- 6. Specify the x-hotelld as the hotelld from step 4 above.

If the following response is received from the FetchBusinessEvents API, contact Oracle Customer Support at the Customer Support Portal to raise a technical Service Request quoting this error. (This is resolved in OPERA Cloud version 21.2.1.)

```
"shortText": "Failed to initialize <your external system code> interface for <hotelCode> resort: <your external system code> is not registered as an application user."
```

For information on how to interpret the event responses and for the differences between the polling and streaming APIs, see Interpreting the Event.

For more information on the polling API, watch OPERA Cloud Business Events.



10

Moving to Production

This chapter consists of two sections:

- **Hoteliers Moving to Production** This section explains how a hotelier would move their own integrations to Production once the development and testing phase is complete.
- Partners Moving to Production This section explains how a partner would move an application to Production once testing and development is complete (otherwise known as "activating an application with a customer chain"). In this scenario, all actions are on the Partner side within the Partner Organization Developer Portal, and the only action required by the customer (that is, OPERA Chain Administrator) is to approve the integration user submitted by the partner in the vendor registration portal. Customers will receive notice in their Shared Security Domain that a partner has requested access to their customer chain environment.

Hoteliers Moving to Production

- 1. Create and register an application. Ensure you choose "Production" as the environment.
- 2. Create an integration user.
- 3. View environment.
- 4. Call the APIs.

Partners Moving to Production





You only need to perform steps 1 to 3 on your first integration.

 Join OPN. Please note that the minimum level required for OHIP is the OPN Member Level. For more information, visit How Do I Join Modern OPN?

- 2. Publish your app to the Marketplace. To publish your solution, visit Publish Services and Applications on the Oracle Cloud Marketplace and follow the steps on this page.
- 3. Contact us via Slack once your application is listed in the marketplace under the OHIP product category. If you're not part of the OHIP Slack Community, email us at hgbu_integrations_provisioning_grp@oracle.com to request your private channel.
- 4. Check the customer's environment by asking customers to verify they are running OPERA Cloud and have an active subscription for OPERA Cloud Foundation. Customers can verify this with their account manager if in doubt.
 - If you are using both Early Adopter (v0) and v1 APIS, you will need to subscribe your app to both.
 - If your solution involves calling Asynchronous APIs, contact Oracle Support to check if they are supported in the production environment being called. Include the OPERA Cloud URL or gateway URL in the support request.
- Create and register an application. Ensure you choose "Production" as the environment.
- 6. Create an integration user.
- 7. View environment.
- 8. Call the APIs.

FAQ

How do I know the customer has approved my integration?

You will receive an email with a subject line.

How do I know the URL for the vendor registration portal?

If you have not received this from customers, ask them for the URL with which they access OPERA Cloud.



11

Migrating from Legacy APIs to REST

Integrations with Oracle Hospitality products now utilize REST APIs exposed through Oracle Hospitality Integration Platform (OHIP). As there are many active integrations certified on our legacy integration products, such as OXI, OWS, ADS, HTNG, and Kiosk, this chapter will help Hoteliers and Partners understand the process to migrate an existing legacy interface to the new REST APIs.

In OHIP, we have the following Oracle Hospitality products:

- Property APIs (OPERA Cloud)
- Distribution APIs

Depending on your integration requirements, there are different scenarios for integrating with Property APIs versus Distribution APIs.

OPERA Xchange Interface (OXI)

The OXI Interface works on an asynchronous pattern which follows the below flow:

- 1. A message is sent from an external system to OXI.
- The message sits in a queue.
- 3. The message is processed.
- 4. A record is inserted or updated in OPERA Cloud.

Once processed, a response message is returned to the external system, and it again sits in a queue until processed. This same pattern occurs for messages being generated from OPERA Cloud to an external system. The REST APIs work on a synchronous pattern. Conforming to REST architecture, the APIs allow for interaction with RESTful web services.



The REST APIs use JSON formatting.

You can move your integration from OXI to REST and even enhance it as there is greater functionality available with the REST APIs.

OXI Outbound Messages

For messages sent from OPERA Cloud to an external application, the REST APIs utilize the same Business Event functionality as OXI. Therefore, the same data can be triggered from OPERA Cloud. There are two approaches available for use: polling for Business Events using getBusinessEvents operation or using streaming services. For more information on property Business Events available in OHIP, refer to the Business Events topic that explains both options in detail.

OXI Inbound Messages

Data from the external application to OPERA Cloud can be achieved using REST APIs. The below mapping table shows the OXI messages and shows the equivalent Property REST API to use.

Key Considerations

OXI can synchronize data between the two applications. For example, users could enter a date range of reservations, and a batch of resync messages are sent to the external system. This was often used when a hotel went live with a new interface, ensuring the external system had all the required data, including rates, inventory, restrictions, and so on. The REST Property APIs have Asynchronous APIs, which enable the user to send a REST request to OPERA Cloud for a significant amount of data (for example, 30 days of reservations). OPERA Cloud processes the request, collects all the data, and then allows the data to be fetched using the get request.

OXI provided the ability to map OPERA Cloud codes to external system codes, such as room type codes, rate codes, package codes, and so on. The REST APIs with OPERA Cloud no longer follow this approach, and codes must now be one to one. Alternatively, the external system would need to cater for mapping on their side and ensure that when posting a message to OPERA Cloud, the message contained the OPERA Cloud code(s).

OXI XML messages send a full object in XML format as opposed to business event messages (either pull or push approach), which send key value pairs in JSON format. You will receive a JSON message with the old value and the new value. For more information, see Interpreting the Event.

Rest APIs handle credit card data differently than OXI, which allowed tokenization of card data. With REST APIs, the consumer must perform a step to fetch the token from the Payment Service Provider (PSP) and then use that token in the reservation. This only applies to customers with OPI active.

Table 11-1 OXI to REST

Functional Module	OXI Inbound Operation (External System to OPERA Cloud)	REST API Operation	REST Module
Activity	Create Activity	postActivity	ACT
Activity	Update Activity	putActivity	ACT
Activity	Delete Activity	deleteActivity	ACT
Activity	Fetch Activity	getActivity	ACT
Profile	New Profile	postProfile	CRM
Profile	Update Profile	putProfile	CRM
Profile	Delete Profile	deleteProfile	CRM
Profile	Merge Profile	postMergeProfiles	CRM
Profile	Create Relationship	postProfileRelations	CRM
Profile	Update Relationship	putProfileRelations	CRM
Profile	Delete Relationship	deleteProfileRelatio ns	CRM



Table 11-1 (Cont.) OXI to REST

Functional Module	OXI Inbound Operation (External System to OPERA Cloud)	REST API Operation	REST Module
Profile	Lookup	getExternalProfiles	CRM-OUTBOUND
Profile	Download	downloadExternalP rofile	CRM-OUTBOUND
Reservations	Add Reservation	postReservation	RSV
Reservations	Edit Reservation	putReservation	RSV
Reservations	Cancel Reservation	postCancelReservati on	RSV
Reservations	Share Reservations	postCombineShareR eservations	RSV
Reservations	checkout	postCheckOut	CSH
Reservations	checkin	postCheckIn`	FOF
Reservations	Cancel Checkin(reverse check in)	deleteCheckin	FOF
Reservations	Fintrx	postDepositPayment	CSH
Reservations	Turnaway	postTurnawayReser vation	RSV
Reservations	Routing	putRoutingInstructi ons	RSV
Reservations	Reinstate	putReinstateReserva tion	CSH
Reservations	No Show	putReservationStatu sToNoShow	BOF
Reservations	Reservation Trace	getTracesByReserva tion	RSV
Reservations	Waitlist Reservation	postReservation	RSV
Reservations	Reactivate Waitlist Reservation	putReservation	RSV
Reservations	Room Move	move In House Guest	FOF
Allotment (Group Blocks)	New Allotment	postBlock	BLK
Allotment (Group Blocks)	Edit Allotment	putBlock	BLK
Allotment (Group Blocks)	New Allotment - Header	postBlock	BLK



Table 11-1 (Cont.) OXI to REST

Functional Module	OXI Inbound Operation (External System to OPERA Cloud)	REST API Operation	REST Module
Allotment (Group Blocks)	New Allotment - Header with Detail	postBlock	BLK
Allotment (Group Blocks)	Allotment - Header - Status Change	putBlockStatus	BLK
Allotment (Group Blocks)	New Block Reservation	postReservationByB lock	RSV
Allotment (Group Blocks)	Update Block Reservation	putBlockReservatio ns	BLK
Allotment (Group Blocks)	Fetch Block Reservation	getBlockReservation s	BLK
Allotment (Group Blocks)	Update Block Grid Allocation	putBlockAllocation	BLK
Allotment (Group Blocks)	Block Grid Wash	putBlockAllocation Wash	BLK
Allotment (Group Blocks)	Update Block Rates	putBlockRates	BLK
Allotment (Group Blocks)	Update Block Pickup	putBlockStatusToOp en	BLK
Allotment (Group Blocks)	Update Catering Status	putCateringStatus	BLK
Allotment (Group Blocks)	Cancel Block	postCancelBlock	BLK
Hurdles	Hurdle	Block Asynchronous, Inventory Asynchronous, Par Asynchronous & Reservation Asynchronous Modules	ASYNC
Inventory	Inventory - KATOVER (overbook)	changeSellLimitByD ate	INV
Inventory	Inventory - 000	postOutOfOrderRoo ms	HSK
Stay Records		getStayHistory	CRM



Table 11-1 (Cont.) OXI to REST

Functional Module	OXI Inbound Operation (External System to OPERA Cloud)	REST API Operation	REST Module
Packages	Packages - New	postPackage	RTP
Packages	Packages - Edit	putPackage	RTP
Rates	Rate - Header	postRatePlan	RTP
Rates		postNegotiatedRates	RTP
Rates		postRatePlanPackag es	RTP
Rates	Rate - Detail (Rate Set)	postRatePlanSchedu les	RTP
Rates	Rate Strategy	postRateStrategy	RTP
RAVL (Rate Restrictions)	Restriction - Change	postRestriction	PAR
RAVL (Rate Restrictions)	Restriction - Change	clearAllRestrictions	PAR
RAVR (Rate/ Room Type Restrictions)	RAVR - New	postRestriction	PAR
RTAV (Inventory Snapshot)	RTAV	getHotelInventory	INV
Configuratio n	Configuration - RATE_CATEGORY	createRateCategory	ENTCFG
Configuratio n	New Item Inventory	postInventoryItems	EVMCFG
Configuratio n	New Item Load	postItemPools	EVMCFG
Configuratio n	Update Item Inventory	putInventoryItems	EVMCFG
Configuratio n	New Item Inventory Class	postItemClasses	EVMCFG

HTNG

The legacy HTNG integration was most commonly used for Hoteliers and partners with activity management applications, such as spa and golf booking applications. It used the OPERA Electronic Distribution Systems (OEDS) integration and provided web services utilizing SOAP calls. The HTNG interface with OPERA used a combination of synchronous SOAP requests from the external system to OPERA as well as Business Events from OPERA to the external system. The Business Event functionality is still available when migrating to the REST APIs. Although the messages look a little different, the available data is still in REST format. For further information on Business Event functionality, refer to the Business Events topic.

The legacy HTNG interface also provided the ability for posting financial transactions to OPERA.



The below mapping table provides the suggested APIs to use when migrating from the legacy HTNG interface to the REST APIs available in OHIP.

Table 11-2 HTNG to REST

HTNG Functionality	HTNG Operation	REST API Operation	REST Module
Lookup Profile Information	ProfileLookup	getProfiles	CRM
Retrieve Profile information	FetchProfile	getProfiles	CRM
Send a Profile Update	UpdateProfile	putProfile	CRM
Establish a link between system	Subscription	putProfile	CRM
Send a New Profile	NewProfile	postProfile	CRM
Merge Profiles	MergeProfile	mergeProfiles	CRM
Send a Delete Profile	DeleteProfile	deleteProfiles	CRM
Lookup Reservation Information	ReservationLookup	getReservations	RSV
Retrieve Reservation Information	FetchReservation	getReservation	RSV
Send Reservation Updates	GuestStatusNotificatio n	getBusinessEvents	INT
Send Messages for Guest	GuestMessage	postGuestMessages	RSV
Send Location information	LocationNotification	postReservationLocato rs	RSV
Send a New Activity	CreateActivity	postActivityBooking	LMS
Update an Activity	UpdateActivity	putActivityBooking	LMS
Cancel an Activity	CancelActivity	deleteActivityBooking	LMS
Lookup Activities	ActivityLookup	getActivityBooking	LMS
Post Charges to guest folio	PostPayment	postBillingCharges	CSH
Retrieve Extended Reservation Information	FetchReservationExt	getReservation	RSV



Table 11-2 (Cont.) HTNG to REST

HTNG Functionality	HTNG Operation	REST API Operation	REST Module
Send Extended Reservation Updates	GuestStatusNotificatio nExt	getBusinessEvents	INT
Retrieve Booked Packages from reservation	FetchBookedPackages	getReservation	RSV
Retrieve Package Details from configuration	FetchProductItems	getReservationPackage sLOV	LOV
Retrieve List of values for a field	FetchLOV	getLov	LOV
Send a check- in reservation	CheckIn	postCheckIn	FOF
Send Queue Room Information	QueueRoomBE	getBusinessEvents	INT
Send Room Status update	RoomStatusUpdateBE	getBusinessEvents	INT
Send Room Status update	UpdateRoomStatus	putRoomRelatedStatus	HSK
Retrieve Housekeeping Task Sheets	FetchHousekeepingTas k	getHousekeepngTasks	HSK
Retrieve Room Status Information	FetchRoomStatus	getHousekeepingOverv iew	HSK
Activity Updates with reservation change	OutofScopeNotification	Not available in OPERA Cloud	Not available in OPERA Cloud
View Check information on guest Folio	FetchCheckDetails	Not available in OPERA Cloud	Not available in OPERA Cloud
OPERA Cloud to Retrieve Activities for Guest	FetchActivities	Not available in OPERA Cloud	Not available in OPERA Cloud

OPERA Web Services (OWS) and KIOSK

The legacy OWS and Kiosk interfaces use SOAP Web Services technologies to support data transfer from a client application to OPERA. The interface is commonly used for web booking engines and check-in applications, but it is also used for customer relationship management and membership functionality. While the legacy interfaces provide a lot of functionality,



migrating to the new REST API provides even more functionality for your integration to OPERA Cloud. Furthermore, the REST APIs also have an asynchronous interface just like OWS.

The below table provides suggested APIs and operations to use when migrating from legacy OWS/KIOSK interface to the REST APIs. However, there are a few operations currently not available in REST that are available in OWS. Management of membership functionality is not yet available.

Table 11-3 OWS to REST

OWS Module	OWS Operation	REST Operation	REST Module
Availability	Availability	getHotelAvailability	PAR
Availability	FetchAvailableItems	getItemInventory	INV
Availability	FetchAvailablePackage s	getPackages	RTP
Availability	FetchBlockInventory	getBlock	BLK
Availability	FetchCalendar	getRestrictionsByDateR ange getInventory	PAR INV
Availability	FetchExpectedCharges	getRateInfo	REV
Availability	FetchItemGroups	getItemInventory	INV
Availability	RegionalAvailability	getHotels getHotelAvailability	PAR
Availability	RegionalAvailabilityEx t	getHotels getHotelAvailability	PAR
GuestServices	UpdateRoomStatus	put Room Related Status	HSK
GuestServices	WakeUpCall	getWakeUpcalls	HSK
HouseKeeping	ChangeRoomMaintena nce	putRoomMaintenance	HSK
HouseKeeping	CreateRoomMaintenan ce	postRoomMaintenance	HSK
HouseKeeping	DeleteRoomMaintenan ce	deleteRoomMaintenan ce	HSK
HouseKeeping	FetchHouseKeepingDis crepancies	getHousekeepingDiscr epancies	HSK
HouseKeeping	FetchHouseKeepingRo omStatus	getHousekeepingOverv iew	HSK
HouseKeeping	FetchHouseKeepingRo omTaskStatus	getHouseKeepingTasks	HSK
HouseKeeping	FetchHouseKeepingSta tistics	getFrontOfficeStatistics	FOF
HouseKeeping	FetchHouseStatus	getFrontOfficeStatistics	FOF
HouseKeeping	FetchOOSRooms	getOutOfServiceRooms	HSK
HouseKeeping	FetchRoomMaintenanc e	getRoomMaintenance	HSK
HouseKeeping	ResolveRoomMaintena nce	putRoomMaintenance	HSK



Table 11-3 (Cont.) OWS to REST

OWS Module	OWS Operation	REST Operation	REST Module
HouseKeeping	UnResolveRoomMainte nance	putRoomMaintenance	HSK
HouseKeeping	UpdateHouseKeepingD iscrepancies	putRoomRelatedStatus	HSK
HouseKeeping	UpdateHouseKeepingR oomStatus	putRoomRelatedStatus	HSK
Information	CurrencyConverter	calculateForeignCurre ncy	CSH
Information	QueryAwardsSchedule s	getPromotioncodes	RTP
Information	QueryChainInformatio n	getChain	ENTConfig
Information	QueryHotelInformatio n	getHotelDetails	ENTConfig
Information	QueryLov	getLov	LOV
Information	QueryPackageItems	getPackages	RTP
Information	QueryRate	getAvailabilityRatePlan InfoByMultipleRatePla ns	PAR
MeetingRoom	CreateBlock	postBlocks	BLK
MeetingRoom	MeetingAvailability	getEventCalendarMulti pleHotelIds	EVM
MeetingRoom	MeetingCreateEvent	postEvents	EVM
MeetingRoom	MeetingFetchEvent	getEvent	EVM
MeetingRoom	MeetingFetchMenu	getEventResourceByM enu	EVM
MeetingRoom	MeetingFetchMenuIte m	getCateringMenuItems	EVM
MeetingRoom	MeetingFetchMiscellan eousItem	getEventResourceByM enu	EVM
MeetingRoom	MeetingFetchPackageE vent	getCateringPackages	EVM
MeetingRoom	MeetingModifyEvent	putEvents	EVM
MeetingRoom	MeetingModifyPackag eEvent	putCateringPackages	EVM
MeetingRoom	MeetingMultiProperty Availability	getFunctionSpaceAvail ability	EVM
MeetingRoom	MeetingPackageAvaila bility	getCateringPackages	EVM
MeetingRoom	MeetingRoomCopyBloc k	putCateringCopys	EVM
MeetingRoom	MeetingRoomCreateRe lationship	putEvent	EVM



Table 11-3 (Cont.) OWS to REST

OWS Module	OWS Operation	REST Operation	REST Module
MeetingRoom	MeetingRoomFetchBlo ck	getEvent	EVM
MeetingRoom	ModifyBlock	putBlocks	EVM
Membership	AddPromoSubscriptio n	putProfile	CRM
Membership	CreateEnrollment	postMemberships	CRM
Membership	DeletePromoSubscripti on	deleteAward	CRMConfig
Membership	FetchAvailableECertific ates	getMembershipIssueA wardsList	CRM
Membership	FetchBenefits	getFlexibleBenefitAwa rds	CRM
Membership	FetchECertificates	getAwards	RSV
Membership	FetchEnrollmentCode	$\label{lem:codes} fetch Membership Enrol\\ lment Codes$	CRMConfig
Membership	FetchMemberPoints	getMembershipAward PointsByHotel	CRM
Membership	FetchMembershipTran sactions	getMembershipTransa ction	CRM
Membership	FetchNextCardNumber	postMembershipNumb er	CRM
Membership	FetchProductAwards	getAvailableAwardsBa sedOnType	CRM
Membership	FetchPromoSubscripti ons	getAwardsToGrant	CRM
Membership	FetchRateAwards	getAvailableAwardsBa sedOnType	CRM
Membership	FetchTransactionAwar ds	getAvailableAwardsBa sedOnType	CRM
Membership	FetchUpgradeAwards	getAwards	RSV
Membership	IssueTransactionAwar d	postAwards	RSV
Membership	ModifyEnrollment	putMemberships	CRM
Membership	ReIssueMemberCard	postMembershipNum ber	CRM
Membership	TransferPoints	$transfer Membership Po\\ints$	CRM
Membership	UpdateEnrollmentCod e	putMemberships	CRM
Name	DeleteAddress	putprofile	CRM
Name	DeleteComment	putprofile	CRM
Name	DeleteEmail	putprofile	CRM
Name	DeleteGuestCard	deleteMembership	CRM



Table 11-3 (Cont.) OWS to REST

OWS Module	OWS Operation	REST Operation	REST Module
Name	DeletePassport	putprofile	CRM
Name	DeletePhone	putprofile	CRM
Name	DeletePreference	deletepreferences	CRM
Name	DeletePrivacyOption	putprofile	CRM
Name	FetchAddressList	putprofile	CRM
Name	FetchClaimsStatus	getMembershipClaim	CRM
Name	FetchCommentList	getProfile	CRM
Name	FetchDocumentList	getProfile	CRM
Name	FetchEmailList	getProfile	CRM
Name	FetchGuestCardList	getProfile	CRM
Name	FetchName	getProfile	CRM
Name	FetchNameUDFs	getProfile	CRM
Name	FetchPhoneList	getProfile	CRM
Name	FetchPreferenceList	getPreferenceForProfil e	CRM
Name	FetchPrivacyOption	getProfile	CRM
Name	FetchProfile	getProfile	CRM
Name	FetchProfileBenefits	getFlexibleBenefitAwa rds	CRM
Name	FetchSubscription	getProfile	CRM
Name	ForgetProfile	deleteProfile	CRM
Name	GetPassport	getProfile	CRM
Name	InsertAddress	postProfile	CRM
Name	InsertClaim	putProfile	CRM
Name	InsertComment	putProfile	CRM
Name	InsertEmail	putProfile	CRM
Name	InsertGuestCard	postMembership	CRM
Name	InsertPhone	putProfile	CRM
Name	InsertPreference	postPreferences	CRM
Name	InsertUpdateNameUDF s	putProfile	CRM
Name	InsertUpdatePrivacyO ption	putProfile	CRM
Name	NameLookup	getProfiles	CRM
Name	RegisterName	postProfile	CRM
Name	TravelAgentLookup	getProfiles	CRM
Name	UpdateAddress	putProfile	CRM
Name	UpdateClaim	putProfile	CRM
Name	UpdateComment	putProfile	CRM



Table 11-3 (Cont.) OWS to REST

OWS Module	OWS Operation	REST Operation	REST Module
Name	InsertUpdateDocumen t	uploadFileAttachment	CRM
Name	UpdateEmail	putProfile	CRM
Name	UpdateGuestCard	putMemberships	CRM
Name	UpdateName	putProfile	CRM
Name	UpdatePassport	putProfile	CRM
Name	UpdatePhone	putProfile	CRM
Name	ValidateForgetProfile	putvalidateForgetProfil es	CRM
Reservation	AddAccompanyGuest	putReservation	RSV
Reservation	AssignRoom	postRoomAssignment	FOF
Reservation	BookHoldItems	putReservation	RSV
Reservation	BreakShare	deleteShareReservatio n	RSV
Reservation	CancelBooking	postCancelReservation s	RSV
Reservation	ClearItemHold	put Item Inventory Hold	INV
Reservation	CombineShare	Postcombinesharesres ervations	RSV
Reservation	ConfirmBooking	putReservation	RSV
Reservation	CreateBooking	postReservation	RSV
Reservation	CreateItemHold	postHoldItemInventor y	RSV
Reservation	CreateMultipleBooking s	postReservation	RSV
Reservation	DeleteAccompanyGues t	putReservation	RSV
Reservation	DeleteInventoryItem	putReservation	RSV
Reservation	DeletePackages	putReservation	RSV
Reservation	FetchAvailableOffers	getReservationUpsellIn fo	RSV
Reservation	FetchBookedInventory Items	getReservation	RSV
Reservation	FetchBookedPackages	getReservation	RSV
Reservation	FetchBooking	getReservation	RSV
Reservation	FetchBookingForPoint Update	getReservation	RSV
Reservation	FetchHoldItems	getHoldItemsInventory	INV
Reservation	FetchRoomUpgrades	getReservationUpsellIn fo	RSV
Reservation	FetchSummary	getReservation	RSV



Table 11-3 (Cont.) OWS to REST

OWS Module	OWS Operation	REST Operation	REST Module
Reservation	FutureBookingSumma ry	getReservations getProfile	RSV CRM
Reservation	GetReservationStatus getReservation		RSV
Reservation	GuestRequests	getServiceRequest	RSV
Reservation	MergeReservations	put Merge Reservations	RSV
Reservation	ModifyBooking	putReservation	RSV
Reservation	ModifyItemHold	putHoldItemsInventor y	INV
Reservation	PreCheckin	postPreCheckin	RSV
Reservation	ReInstateReservation	putReservations	RSV
Reservation	ReleaseRoom	putRoomAssignment	FOF
Reservation	RoomMove	put Move In House Guest	FOF
Reservation	UpdateInventoryItem	putReservation	RSV
Reservation	UpdatePackages	putReservation	RSV
Reservation	UpgradeReservation	putReservation	RSV
Reservation	UpsellReservation	post Up sell Reservation	RSV
ResvAdvanced	AddPayment	get Credit Card Unique Id	FOF
ResvAdvanced	AdditionalKeys	postRoomKeys	FOF
ResvAdvanced	AlternateRooms	putVerifyCheckinReser vation	FOF
ResvAdvanced	AssignRoom	postRoomAssignment	FOF
ResvAdvanced	CancelCheckIn	deleteCheckin	FOF
ResvAdvanced	CheckIn	postCheckin	FOF
ResvAdvanced	CheckOut	postCheckout	CSH
ResvAdvanced	CreateFixedCharges	postFixedCharges	CSH
ResvAdvanced	CreateGuestLocator	postReservationLocato rs	RSV
ResvAdvanced	DeleteFixedCharges	deleteFixedCharges	CSH
ResvAdvanced	DeleteGuestLocator	deleteReservationlocat ors	RSV
ResvAdvanced	DeletePayRouting	deleteRoutingInstructi ons	RSV
ResvAdvanced	ExternalPayment	postBillingPayments	CSH
ResvAdvanced	FetchAuthorizationsHi story	getAuthorizationHistor y	CSH
ResvAdvanced	FetchFixedCharges	getFixedCharges	CSH
ResvAdvanced	FetchKeyData	getRoomKey	FOF
ResvAdvanced	FetchPromotionCode	putReservation	RSV
ResvAdvanced	FetchQueueReservatio ns	getQueuedReservation s	FOF



Table 11-3 (Cont.) OWS to REST

OWS Module	OWS Operation	REST Operation	REST Module
ResvAdvanced	FetchResPromotionCod e	getReservation	RSV
ResvAdvanced	FetchRoomSetup	gethousekeepinvovervi ew	HSK
ResvAdvanced	FetchRoomStatus	getHotelRooms	HSK
ResvAdvanced	FolioTransactionTransf er	putTransferTransactio nToReservation	CSH
ResvAdvanced	GuestMessages	getReservation	RSV
ResvAdvanced	InsertPayRouting	postRoutingInstruciton s	RSV
ResvAdvanced	Invoice	getFolios	CSH
ResvAdvanced	KioskAvaliablity	getHotelAvailability	PAR
ResvAdvanced	MakePayment	postBillingpayments	CSH
ResvAdvanced	PayRouting	get Routing instructions	RSV
ResvAdvanced	PostCharge	postBiilingCharges	CSH
ResvAdvanced	PrintPreCheckOutBill	postDepositFolio	CSH
ResvAdvanced	QueueReservation	get Queued Reservation	FOF
ResvAdvanced	ReleaseRoom	putRoomAssignment	FOF
ResvAdvanced	ReservationRequestCo de	getRequestCodes	V0
ResvAdvanced	esvAdvanced SetResPromotionCode putR		RSV
ResvAdvanced	ToggleTurndownFlag	postTurnawayReservat ion	RSV
ResvAdvanced	UpdateFixedCharges	putFixedcharges	RSV
ResvAdvanced	UpdateGuestLocator	putLocators	RSV
ResvAdvanced	UpdateMethodOfPaym ent	putReservation	RSV
ResvAdvanced	UpdatePayRouting	put Routing Instructions	RSV
StayHistory	StayHistory	getStayhistory	CRM
HouseKeeping	DeleteRoomMaintenan ceImages	Not available in OPERA Cloud	Not available in OPERA Cloud
HouseKeeping	FetchRoomMaintenanc eImages	Not available in OPERA Cloud	Not available in OPERA Cloud
MeetingRoom	MeetingCreatePackage Event	Not available in OPERA Cloud	Not available in OPERA Cloud
Name	DeleteDocument	Not available in OPERA Cloud	Not available in OPERA Cloud
Reservation	EmailConfirmation	Not available in OPERA Cloud	Not available in OPERA Cloud
ResvAdvanced	InsertSignedRegCard	Not available in OPERA Cloud	Not available in OPERA Cloud



Table 11-3 (Cont.) OWS to REST

OWS Module	OWS Operation	REST Operation	REST Module
ResvAdvanced	GenerateRegistrationC ard	Not available in OPERA Cloud	Not available in OPERA Cloud
ResvAdvanced	FetchSignedRegCard	Not available in OPERA Cloud	Not available in OPERA Cloud
Availability	GdsAreaAvailability	Not available in OPERA Cloud	Not available in OPERA Cloud
Availability	GetCacheStatus	Not available in OPERA Cloud	Not available in OPERA Cloud
Brochure	SendBrochure	Not available in OPERA Cloud	Not available in OPERA Cloud
GuestServices	FetchOptInSetup	Not available in OPERA Cloud	Not available in OPERA Cloud
GuestServices	UpdateReservationFor OptIn	Not available in OPERA Cloud	Not available in OPERA Cloud
Information	GetScreenItems	Not available in OPERA Cloud	Not available in OPERA Cloud
MeetingRoom	MeetingFetchBlockDel egates	Not available in OPERA Cloud	Not available in OPERA Cloud
MeetingRoom	MeetingFetchContract	Not available in OPERA Cloud	Not available in OPERA Cloud
MeetingRoom	MeetingFetchMyRegist eredEvents	Not available in OPERA Cloud	Not available in OPERA Cloud
MeetingRoom	MeetingRegisterEvent Attendees	Not available in OPERA Cloud	Not available in OPERA Cloud
MeetingRoom	MeetingRoomFetchMy Blocks	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	AddBenefit	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	CancelConsumedPoint s	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	CancelECertificate	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	ConsumeECertificate	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	ConsumePoints	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	ConsumePointsOthers	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	FavoriteGuest	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	FetchEcertificateTierPo ints	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	FetchFeeHistory	Not available in OPERA Cloud	Not available in OPERA Cloud



Table 11-3 (Cont.) OWS to REST

OWS Module	OWS Operation	REST Operation	REST Module
Membership	FetchMemberTierWiza rd	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	FetchPointsExchange	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	FetchStatement	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	FetchStatementRefs	Not available in OPERA Cloud	Not available in OPERA Cloud
Membership	IssueECertificate	Not available in OPERA Cloud	Not available in OPERA Cloud
Name	AssociateBooker	Not available in OPERA Cloud	Not available in OPERA Cloud
Reservation	SetDailyPoints	Not available in OPERA Cloud	Not available in OPERA Cloud
Reservation	ConsumeVouchers	Not available in OPERA Cloud	Not available in OPERA Cloud
ResvAdvanced	SetKeyData	Not available in OPERA Cloud	Not available in OPERA Cloud
ResvAdvanced	InstantPaymentNotific ation	Not available in OPERA Cloud	Not available in OPERA Cloud
UnitOwners	AddProfileToContract	Not available in OPERA Cloud	Not available in OPERA Cloud
UnitOwners	CreateContract	Not available in OPERA Cloud	Not available in OPERA Cloud
UnitOwners	DeleteProfileFromCont ract	Not available in OPERA Cloud	Not available in OPERA Cloud
UnitOwners	FetchAuthorizedProfile s	Not available in OPERA Cloud	Not available in OPERA Cloud
UnitOwners	FetchContract	Not available in OPERA Cloud	Not available in OPERA Cloud
UnitOwners	FetchContractDetails	Not available in OPERA Cloud	Not available in OPERA Cloud
UnitOwners	OwnedUnitAvailability	Not available in OPERA Cloud	Not available in OPERA Cloud
UnitOwners	OwnerStatementDetail s	Not available in OPERA Cloud	Not available in OPERA Cloud
UnitOwners	UpdateContract	Not available in OPERA Cloud	Not available in OPERA Cloud
UnitOwners	UpdateProfileInContra ct	Not available in OPERA Cloud	Not available in OPERA Cloud
Reservation	IgnoreBooking	Not available in OPERA Cloud	Not available in OPERA Cloud
Name	UpdateCreditCard	Not available in OPERA Cloud	Not available in OPERA Cloud



OWS Module	OWS Operation	REST Operation	REST Module
Name	InsertCreditCard	Not available in OPERA Cloud	Not available in OPERA Cloud
Name	FetchCreditCardList	Not available in OPERA Cloud	Not available in OPERA Cloud
ResvAdvanced	DCCCheck	Not available in OPERA Cloud	Not available in OPERA Cloud
Name	DeleteCreditCard	Not available in OPERA Cloud	Not available in OPERA Cloud

Table 11-3 (Cont.) OWS to REST

Property Interfaces — IFC8, FIAS and XML_POS

The Oracle OPERA Hotel Property Interface application (IFC8) is used to connect various onpremise vendor management systems with the Oracle Property Management system. It sends out room and guest data to the vendor system, such as, for example, check-in of guest and check-out of guest. The interface can also receive data (for example, charges or status changes) from the external system to be stored in OPERA using synchronous TCP/IP or serial connection exchanging messages, which are based on either Oracle's universal FIAS API, XML-POS API, or many vendor-based specifications.

Some examples of vendor systems connecting via the Property Interface IFC8 application are the following:

- Telephone Management Systems (TMS) or middleware to TMS systems
- · Door Locking Systems
- HSIA Internet Access Systems
- Point of Sale Systems (Restaurant, SPA, Golf)
- Video Services Systems
- Guest Service systems
- Minibar systems
- Building Management systems
- Miscellaneous / Other systems installed at property

The typical data exchanged via the Property Interface are check-in / check-out notifications (for example, room and guest details, guest rights), charge postings received from vendor systems, make door key requests, wake up requests, credit card payment requests, guest message notifications, room maid status notifications, and many more. This data is exchanged at the time the action occurs in OPERA or on the external system and is usually exchanged without a delay in transmission.

For IFC8 actions exchanged between OPERA Cloud and an external application, the REST APIs utilize multiple ways of connection.

There are inbound actions from the external system that will be exposed through the OHIP REST APIs. Some examples of these inbound actions are sending charges to the guest's room or hotel account, inquiry requests for Guest information by a Point-Of-Sale system, sending room status changes, wake up requests, and guest bill balance requests.



Some outbound IFC8 actions will be exposed using streaming APIs. Some examples include check-in, check-out, room-move notifications, wake-up requests, and guest text messages.

Specific outbound synchronous messages will be exposed using additional outbound service connections from the PMS to the external system. Some examples are door lock key actions (for example, make key and delete key), which require related response messages.

The below table provides suggested APIs and operations to use when migrating from legacy FIAS/XML-POS IFC8 interface to the REST APIs. There are a few operations currently not available in REST that are available via IFC8.



Posting charges via room number only (instead of reservationId) is not yet available with REST.

Table 11-4 Suggested APIs and Operations

IFC8 Module	IFC8 Operation	REST Module	OHIP REST API	OPERA Cloud Business Event (Push or Pull)
Enhanced Posting	PostInquiry - by Room number, Name, Track2 Post List	RSV	getReservations	
Extended Guest Data	GuestMessage- Request, GuestMessage- Text	RSV	guestMessages	
Extended Guest Data	GuestMessage Text-online	Business Event		NEW GUEST MESSAGE
	GuestMessage- retrieved			UPDATE GUEST MESSAGE
	GuestMessage- Delete			DELETE GUEST MESSAGE
Room Data	Room Equipment: Voice mail notification from vendor to PMS	RSV	guestMessages	
Simple Posting	PostSimple: Phone charge, Minibar charge, Video charge using room number only PostAnswer	CSH	postBillingCharge s	



Table 11-4 (Cont.) Suggested APIs and Operations

IFC8 Module	IFC8 Operation	REST Module	OHIP REST API	OPERA Cloud Business Event (Push or Pull)
Enhanced Posting	PostRequest: Point-of-Sale, SPA, Golf charges using Reservation Number	CSH	postBillingCharge s	
	PostAnswer			
Room Data	RoomEquipment: send Room Maid Status from vendor to PMS	HSK	SetRoomStatus	
Room Data	RoomEquipment: send Room Maid status from PMS to vendor	Business Event		UPDATE ROOM STATUS
Room Data	RoomEquipment: send Class Of Service, TVRights, MinibarRights, Do not Disturb (Phone) from PMS to vendor	Business Event as of OPERA 23.4		UPDATE INTERFACE STATUS
Room Data	RoomEquipment: send MessageLight ON/OFF as message notification from PMS to vendor	Business Event as of OPERA 23.4		UPDATE INTERFACE STATUS
Wake-up Call	Wakeup Request Wakeup Clear Wakeup Answer from vendor to PMS	FOF	postwakeUpCalls delete wakeUpCalls put wakeUpCalls	
Wake-up Call	Wakeup Request Wakeup Clear Wakeup Answer from PMS to vendor	Business Event as of OPERA 23.4		available soon
Guest Data	GuestIn notification from PMS GuestOut notification from PMS GuestdataChange notification from PMS, Room Move notification	Business Event		CHECK IN CHECK OUT UPDATE RESERVATION



Table 11-4 (Cont.) Suggested APIs and Operations

IFC8 Module	IFC8 Operation	REST Module	OHIP REST API	OPERA Cloud Business Event (Push or Pull)
Room Data	RoomEquipment: set Guest Service Status (Make Up Room, Do Not Disturb) from vendor to PMS	HSK	serviceRequests	
Room Data	RoomEquipment: receive Guest Service Status change (Make Up Room, Do Not Disturb) from PMS to vendor	Business Event as of OPERA 23.4		GUEST SERVICE STATUS REQUEST
Guest Locator	Locator On, Locator Off, Retrieve Locator	RSV	guestLocators	
Extended Guest Data	Guest Bill Request / Guest Bill Items / Guest Bill Balance	CSH	getGuestsTransac tions or getFolios	
Extended Guest Data	Remote check-out Request (Video Check-out)	CSH	postBillingPayme nts + postFolios + postCheckout	
Night Audit	Night Audit Start notification Night Audit End notification	Business Event		CLOSE BUSINESS DATE ROLL BUSINESS DATE
Key Services	Key Request (New Key, Duplicate Key, One Shot Key) Key Delete Key Data Change (Room move, change check out date) - Online Key card systems Key Read	FOF Outbound as of OPERA 23.4	post externalRoomKey s OPERA Cloud Outbound Syncronous	



Table 11-4 (Cont.) Suggested APIs and Operations

IFC8 Module	IFC8 Operation	REST Module	OHIP REST API	OPERA Cloud Business Event (Push or Pull)
Virtual Numbers (DID)	GuestIn notification with Virtual Number/ Equipment Number, Status, Pool Id	Feature is not available with OPERA Cloud	N/A	N/A
	GuestdataChange notification with Virtual Number/ Equipment Number, Status, Pool Id			
	GuestOut notification with Virtual Number/ Equipment Number, Status, Pool Id			

Sample Messages

Along with the mappings provided with legacy to REST APIs, there are a number of Postman Workflows put together to aid in the development of integrations. The Property Workflow collection navigates and suggests operations to perform for a common workflow. For example, how to perform a check-in or the steps required to search availability and make a new Reservation. There is another collection for Property APIs by Module. This collection has over 2200 sample messages for the operations in each Property API, including Reservation, Blocks, Profiles, and Asynchronous APIs. The collection for Distribution APIs by Module contains sample messages for the Distribution APIs, such as Shop, Book, and Reservation. You can find these collections in gitHub or in Postman.com.



Anti-patterns

An anti-pattern is a software design practice that is ineffective or counterproductive—in other words, the opposite of a "best practice." To put it another way, an anti-pattern is something that the software allows you to do, but that may have an adverse functional or performance impact.

Table 12-1 Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
Using REST APIs to extract bulk data. For example, Folios, Profiles, often specifying a large "limit" query parameter or a large date range.	Functional	Faster access with less operational impact on the hotel	The Oracle Hospitality APIs accommodate many use cases but were not designed for bulk data extract. It is recommended to use either an extract from Oracle Reporting and Analytics for bulk data use cases.
Multi-property shop against property availability API	Functional	Faster access with less operational impact on the hotel	The Oracle Hospitality OPERA APIs are optimized for resort-level resources. While it is possible to shop for availability across many different properties using the Oracle Hospitality OPERA APIs, it is recommended to use the Shop API which is specially designed for this purpose and returns data from a live cache.
			For example, I want to be able to create a reservation for a guest at Hotel1, and then for the same guest book another reservation at Hotel2. The Shop API has the functionality available for you to look at availability across multiple properties.



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
Implementing multi- threaded Java application calling streaming API	Technical	Functional and scalable	The Streaming API adheres to the graphql-ws protocol which requires that a given stream receives a connection from only one source to preserve the ordering of events.
			A stream is identified as a combination of the following: gateway + the chainCode + an application key. For an example, refer to the Spring Boot documentation
			Tip: Use a single WebSocketGraphQlClient instance for each server to have a single, shared connection for all requests to that server. Each client instance establishes its own connection, which is typically not the intent for a single server. While we recommend
			using our GraphiQL tool or using Postman to solidify understanding of the Streaming API, it is important to use separate applications for GraphiQL, Postman, and your client code. Similarly, your client code must be single threaded.
			Our recommendation is to use a single-threaded application to consume the stream, then deploy a tool like Apache Kafka and multithreaded clients to consume events from Apache Kafka to populate back end systems.



Table 12-1 (Cont.) Anti-patterns

A satisface at the same	Ontonom	Detionals	December detien
Anti-pattern	Category	Rationale	Recommendation
Sending a token request with every API call	Functional	More cost effective for partners, protects identity servers Performance impact and operational impact as a result of rate limiting by the identity servers	oAuth tokens have a lifetime of 60 minutes, and requesting an oAuth token is billable to integration partners. Our recommendation is to request a token only once every 59 minutes and implement code that caches and automatically renews the token every 59 minutes and stores it securely. Code that makes API calls can then use the cached token and be assured it is always valid.



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
postReservation, putReservation, postProfile and putProfile with invalid codes, such as rate, room type, source and market codes, address type, membershipType, and so on.	Functional	Corrupt data	OPERA Cloud is highly configurable and most of our OPERA Cloud customers leverage this to create the unique experiences offered by their resort. This means that many configuration items will differ from one resort to another.
			When creating or modifying reservations in OPERA Cloud, code valid to the resort must be used in the request body. For example, Market Code or Source Code. Failure to use codes valid for the property will result in reservations being created in OPERA Cloud with invalid codes. As soon as a user views the reservation, the user must update the reservation with valid codes.
			To avoid this, integrators should use the List of Values Management and Enterprise Configuration APIs to determine the configuration particular to the resort they are calling.
			An example is postReservation. When creating a new reservation, there are codes required as part of the request body. Prior to posting the reservation, ensure you have called the List Of Values, such as getSourceCode, getMarketCodes, getGuaranteeCodes, getGuaranteeCodes, getMembershipTypes, and so on. The postman workflow samples we have offer an integrator a suggested set of operations to call prior to posting the new reservation. Please take a



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
			look at this to start building your integration.
Writing straight to back end databases after receiving an event	Technical	Overloads back end databases	OPERA Cloud can generate many thousands of events in certain circumstances, and the Streaming API is not throttled. If the streaming client is coded to write straight to a back end database, this can overwhelm the back end database.
			To avoid this, implement a buffering mechanism such that events are consumed from the buffer before being written to the back end database. Ensure that the code reading from the buffer can scale to accommodate large numbers of events without overwhelming the back end database.
Call APIs directly from browsers or mobile apps	Technical	Security of credentials and data	The Oracle Hospitality Integration Platform APIs are certified only to be called from back end systems. This is partly a security posture and partly that the APIs are not optimized for mobile data restrictions. If Oracle Hospitality APIs are needed as part of a browser or mobile app-
			based experience, implement a "Backend for Frontend (BFF)" pattern, which creates an abstraction layer consuming OHIP APIs and provides Experience APIs that are better suited to be called from mobile apps or web browsers.



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
Generating implementations tied to API specifications	Technical	Resilience against change	As business APIs, the Oracle Hospitality APIs contain a wealth of data. However, a given integration may need only some of that data. To protect the integration against API changes, it is recommended to implement the "Tolerant Reader" pattern such that consuming code looks only at the fields needed by the implementation. While we always support backwards compatibility for v1 APIs, it is our goal to also support this for v0 APIs. However, changes can occur and the Tolerant Reader pattern can reduce the impact radius of these API changes.
Mapping Experience APIs 1:1 to OHIP APIs	Technical	Chatty, network heavy clients	When writing Experience APIs for consumption by mobile apps or web browsers, the APIs provided by Experience APIs do not need to map 1:1 to Oracle Hospitality APIs. We recommend using "API Composition" to gather all the required information from multiple Oracle Hospitality APIs together with the "Backends for Frontends" pattern to orchestrate multiple OHIP API calls but expose as a single Experience API.



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
Sending GET calls to either a collection or single resource repeatedly in case it has changed	Functional	Expensive for integration partners and not real time	Assuming Business Events are configured, every change that occurs within our Hospitality applications triggers a Business Event. Rather than continuously GETting a resource to see if it has changed, we provide the ability to consume Business Events as they occur. For Property APIs, see Business Events.
			For example, my integration requires housekeeping information to be kept in sync with OPERA Cloud. Rather than GETting the data using the HouseKeeping APIs, configure the business events for the housekeeping module. This will ensure events are generated and sent to the external system each time a resource is changed directly in OPERA Cloud. As soon as someone changes a room to Out of Order in OPERA, a business event will be generated for the external system.



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
Placing consuming architecture far from the OHIP gateway	Technical	Creates a high latency and poor consumer experience. For the streaming API, this can result in a massive backlog of events that can never be consumed.	When implementing a Backends for Frontends (BFF) against a given OHIP API Gateway instance, verify that high levels of network latency do not exist between these two components. This is because latency can have a negative impact to users of the application connecting to OHIP. For example, fetching an OAuth token should take no longer than 100ms. For ultimate speed and low latency, consider implementing your BFF in the same region as the OHIP API Gateway and housing the OPERA Cloud instance(s) within the Oracle Cloud Infrastructure (OCI). Not only does this reduce latency, but it also increases security because the API traffic remains inside of Oracle Cloud.
Brittle handling of errors	Technical	Incomplete orchestration, unexpected results	Errors tend to be short lived, so to help create a fault tolerant consumer and a safe Backends for Frontends (BFF), use the circuit breaker pattern to retry the same API call when receiving an error. This is particularly important when orchestrating multiple OHIP API calls.



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
Specifying all fetch instructions on a resource	Functional	Slow performance	Many of the Oracle Hospitality OPERA Cloud APIs by default return only a subset of a resource or only the parent resource. For example, getProfile returns only the basic information about a person. Many of these APIs use a standard query parameter "fetchInstructions," which allows additional, often child, information on the resource to be returned. By tailoring which additional pieces of information is returned to your use cases, you can increase the performance of and reduce the response body size of your API calls. To achieve this, orchestrate using the "indicators" fetchInstruction that will show which child elements are filled, and then send a call listing only those child elements as fetchInstructions. For example: First call: /crm/v1/ profiles? profilesIds={{profileId}}&f etchInstructions=Indicato rs Then based on the results Second call: /crm/v1/ profiles? {{profileId}}&fetchInstru ctions=Communication



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
Not using the "summaryInfo" query parameter	Functional	Slow performance	If only the summary information of a resource is needed, not child elements, then use the "summaryInfo" query parameter. This will both increase the performance of and reduce the response body size of your API calls. For example: /roomTypes?
			summaryInfo=true
Using Business Events to publish yield updates out to other systems	Functional	Performance impact to OPERA Cloud and to all external systems of that OPERA Cloud	Yield systems supply OPERA Cloud with updated rates to ensure price per room is optimized. This requires sending a large amount of price adjustments, each of which triggers many business events.
			By default, changes made by one external system are not pushed to another external system. The "publisher" feature within OPERA Cloud enables this to be overridden.
			However, the "publisher" feature must not be enabled on external systems in OPERA that supply yield updates because this will flood other external systems with needless rate updates and impact the timeliness of sending unrelated business events to those external systems.



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
As a revenue management system, using Synchronous REST APIs to fetch bulk data, or update bulk data.	Functional	Performance impact	Revenue partners should be using asynchronous APIs to perform actions that will take some time for the OPERA Cloud database to action. For example, fetching a year's worth of reservations in OPERA Cloud. The Property APIs have asynchronous operations that cater to these business use cases. For more information, see Business Use Case.
Using APIs beyond their stated scope	Functional	Functional	Ensure you understand the scope of APIs by referencing the API specifications and any Business Use Case articles in the Oracle Hospitality Integration Platform developer portal.



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
Enabling business events for an external system in OPERA or in OHIP ahead of being ready to consume	Functional	Causes a large backlog of events, potentially choking the consumer. This can have an operational impact.	As soon as events are subscribed to an external system in OPERA — be it from the OPERA Cloud user interface or OHIP — the subscribed events will start to be enqueued. If not consumed, this will result in a very large queue, which is challenging for consuming systems to process. Further, if the external system sends responses back to OPERA Cloud as a result of events received and is slow to process the events, then operational impact can occur as the state of the data in OPERA Cloud would differ from the state of the data perceived by an external system that is running behind. To avoid this, when creating external systems in the OPERA Cloud would significance.
			in the OPERA Cloud user interface, configure the Business Events, but mark the external system inactive. Activate the external system only once the consuming architecture is ready. Similarly, subscribe to business events via the streaming API only when the consuming architecture is ready.



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
Not staying connected to the streaming API	Functional	Causes a large backlog of events, potentially choking the consumer.	The Streaming API is built upon WebSocket, where the connection remain open. Barring network events, it is expected that WebSocket connections will remain open and connected permanently to the Streaming API, subject to disconnecting every 1 hour to refresh the oAuth token.
			Disconnecting and then reconnecting some time later risks a large backlog of events queuing up, which can be challenging for the consuming architecture to process.
Incorrectly disconnecting from the streaming API	Functional	Connection will not re-open	When disconnecting from the Streaming API, it is important to follow the protocol and send the "Complete" message. After closing this, the connection can be closed. However, consuming systems must wait 500ms before reconnecting.
			Consuming systems that do not follow this process will find the WebSocket does not re-open.
Not sending "ping" to the Streaming API	Functional	Connection closes	To keep the WebSocket connection, the consumer must send a non-billable "ping" every 15 seconds. For more information, see Keeping the Stream Open. If the consumer does not send a ping, then the connection will automatically be closed after 30 seconds.



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
Disconnecting then reconnecting from the Streaming API starting from a given offset	Functional	Functional	Each business event sent on the streaming API is given a different offset number. While these appear to increment, a linear progression is not guaranteed. The offset number also changes if the consumer has been disconnected from the stream for over 24 hours. It is recommended to
			remain connected. When you disconnect (for example to obtain a new oAuth token), reconnect without specifying an offset in the subscribe message. OHIP will resume sending events starting from the next event.
Two developers using the same application for streaming API	Functional	Functional	The Streaming API adheres to the graphql-ws protocol which requires that a given stream receives a connection from only one source to preserve the ordering of events.
			A stream is identified as a combination of the following: gateway + the chainCode + an application key.
			If two developers are trying to use the same application to access the Streaming API, they will lock each other out.
			Instead, create one application per developer, then once development is complete, delete those development applications.



Table 12-1 (Cont.) Anti-patterns

Anti-pattern	Category	Rationale	Recommendation
Using any cashierId Functional in payment APIs	Functional	Impairs auditing payments	The cashierId usually represents a person at the front desk, but since it is possible to make payment changes using APIs, it is important to tie back the change to the organization or user who made the change. When multiple organizations use the same cashierId, it hinders auditing payments.
			Contact the environment owner and ask the owner to allocate a cashierId to your organization. Only use this provided cashierId when calling payment APIs.



Accessibility

Accessibility involves making your application usable for differently abled persons such as low vision or blindness, deafness, or other physical limitations. This means creating applications that can be used without a mouse (keyboard only), used with a screen reader for blind or low-vision users, and used without reliance on sound, color, or animation and timing.

Keyboard Only Users

When you log in to the Oracle Hospitality Developer Portal and go to the APIs page, you can use the keyboard keys to bring the focus to the Early Adopter message for Early Adopter APIs.

- 1. On the Early Adopter APIs panel:
 - a. Press the **Tab** key in any of the rows on the APIs page.
 - **b.** Press the **Tab** key and select the highlighted text for the Early Adopter and then press **F6**. The content is highlighted.
 - **c.** Press the **Tab** key to select the email address in the highlighted text. To send an email, press **Enter**. The selected email address opens in your default email client.
 - d. Press the **Esc** key to let go of the pop-up text.
- 2. To copy an application key using keyboard keys:
 - a. Press the **Tab** key to move to the list of applications while on the Applications page.
 - **b.** Press the **Arrow** keys to move from one application to the next.
 - c. Press **F2** to select an application.
 - d. Press the **Tab** key to select **Copy** or to select **View Details**.
 - e. Press Enter to
 - view the application details while on View Details.

or

- copy the application key to the clipboard while on Copy.
- 3. For users who can view Early Adopter APIs, tab to the early adopter API banner and use the below keyboard commands.

Table 13-1 Keyboard Commands for Early Adopter API Users

Target	Key	Action
Focus within Popup	Tab or Shift + Tab	Navigate the content of the popup. Close the open popup if there are no tab stops in the popup.



Table 13-1 (Cont.) Keyboard Commands for Early Adopter API Users

Target	Key	Action
	F6	Move focus to the launcher for a popup with modeless modality. Close the open popup if the modality is modal.
	Esc	Close the open popup.
Popup Launcher	F6	Move focus to the first tab stop within the open popup. If there is not a tab stop within the content, focus is established on the popup.
Side Filters	Press Tab once	Move focus to side filters.
Search bar	Press Tab again when focus is set on side filters	Move focus from side filters to search bar.
Category	Up and Down Arrows	When focus is set on side filters on any category, you can use the arrow keys to move up or down a category (for example, API Lifecycle, Methods).
Check boxes	F2	Press F2 to move within a category and access the check boxes.

^{4.} Tab to the data visualization chart to navigate between the data points on the Analytics tab.

Table 13-2 Keyboard Commands for Data Visualization Chart

Key	Action
Tab	Move focus to the next element.
Shift + Tab	Move focus to the previous element.
Up Arrow	Move focus and selection to the previous data item.
Down Arrow	Move focus and selection to the next data item.
Left Arrow	Move focus and selection to the previous data item (on left).
Right Arrow	Move focus and selection to the next data item (on right).



Additional Resources

The resources below can help you familiarize yourself with the Oracle Hospitality Integration Platform, existing integrations to OPERA Cloud, hospitality industry terminology, and the application nomenclature associated with the Oracle Hospitality APIs.

OHIP Overview, Registration, and Marketplace

- Oracle Hospitality Integration Platform Product Page
- Oracle Hospitality Integration Platform Self Service Registration
- Oracle Hospitality Cloud Marketplace
- Oracle Hospitality Integration Platform Cloud Premium Remote Assistance
- Oracle Partner Network

Blogs

Oracle Hospitality Integration Blogs

OPERA Cloud Resources

OPERA Cloud Services



15 FAQs

APIs

Do I need to supply the x-hotelid in the header as well as the URL?

Yes, the header parameter is used for authorization where any hotellds in the URL refer to the resource being accessed.

How can I call early adopter (v0) APIs and what are the implications?

See the Early Adopter API Program topic for details.

How long after a v0 API is promoted to v1 will I have to repoint my integration to v1?

Integrations calling v0 APIs have six months during which to point to v1 after a v0 API is promoted to v1. We highly recommend the Tolerant Reader pattern to mitigate this work.

Do I need to request an OAuth each time I make an API call?

No, please avoid doing this. Instead of requesting a token repeatedly, just request a token once per user and keep using that same token for the 1 hour it is valid. Additional calls are unnecessary and may add to your per cost calls.

Billing

If I am using Oracle Hospitality Integration Cloud Service, how do I view my billing and API usage?

View your billing and usage in the Billing Metrics area of the Oracle Cloud Console.

Will all API calls be counted in my API charged usage for Oracle Hospitality Integration **Cloud Service?**

No, 500, 502, 503, and 504 errors will not be charged, and the API calls you make to your own OPERA Cloud nonproduction environment will not be counted or charged as API Cloud usage.

How am I charged for consuming events?

With the streaming API, partners are charged for each event consumed at a rate of \$0.001 per event. When replaying events, partners are charged the first time they replay an event. With the polling API, partners are charged for each API call made at a rate of \$0.001 per API call.

For any other questions about Oracle invoicing, refer to Oracle Invoicing FAO | Oracle United Kingdom.

Connecting to a Customer

How can a partner connect to an OPERA Cloud property?

See the Partners Moving to Production topic for details.

How can I verify that an integration user was created correctly?

- 1. Find the email you received when the hotel approved your integration user. This includes a URL for the Shared Security Domain identity server. Go to this URL.
- 2. Log in using your integration username and password.
- 3. Go to the My Access tab.
- 4. Verify you have the <Tenant>-WSACCESS role.

If you have the WSACCESS role, then the integration user is correctly set up and has been approved by the environment owner.

Eligibility

What are the minimum requirements for a partner to call production OPERA Cloud environments?

1. Your solution must be posted in the Oracle Hospitality Cloud Marketplace (listed under the OHIP product category).



A current Oracle Partner Network Membership (that is, Member Level) is required to post a solution on the Marketplace.

- To join the Oracle Partner Network (OPN), follow the steps here: https:// www.oracle.com/middleeast/partnernetwork/program/join/
- To publish your solution, follow the steps here: https:// cloudmarketplace.oracle.com/marketplace/en US/partnerLandingPage
- Once your application is listed in the marketplace in the OHIP product category, email your listing ID to hgbu_integrations_provisioning_grp@oracle.com and Oracle will grant you access to call production OPERA Cloud Environments.
- **3.** Create a new application by selecting **Production** at step 7 in Registering an Application.
- **4.** Create an integration user within the customer's production tenancy and ensure the customer chain administrator has approved your user.
- **5.** Follow the procedure in Adding an Environment and enter the user name of the integration user.

How can a customer confirm if their subscription is to OPERA Cloud Foundation?

If there is a customer employee at the hotel who is familiar with the hotel's OPERA contract, they can confirm this by reviewing their active subscriptions. Alternatively, the hotel can contact their Account Manager to verify this.

What are the minimum requirements for the streaming API?

For the streaming API, a hotel must be running OPERA Cloud Foundation version 22.3.0.1 or beyond. To get started, customers must engage with Oracle Professional Services.

How do I know if a customer is eligible to use OHIP?

We recommend partners check the following to ensure a smooth production move:



 The customer must be running OPERA Cloud and have an active subscription for OPERA Cloud Foundation.



OHIP is only available for OPERA Cloud Foundation customers at this point.

Events

How long will OHIP retain events?

When using the streaming API, OHIP retains messages for 7 days; therefore, messages sent in those 7 days can be replayed (see Replaying Messages for more information). Messages not consumed within 7 days are lost and cannot be replayed.

When using the polling API, events are retained forever, but events cannot be replayed via the polling API.

How frequently should I connect to consume events?

It is recommended to keep the WebSocket connected, but depending on use case, this may be neither practical nor needed. However, connecting at least every few days ensures no messages will be lost.

There is no guarantee that a subscription to consume events will remain in place if the application fails to consume the subscribed events for 2 weeks.

What do the terms WebSocket and GraphQL mean?

To learn more, read our blog posts at https://blogs.oracle.com/hospitality/post/ohip-introduces-state-of-the-art-streaming-api-and-rich-analytics and https://blogs.oracle.com/hospitality/post/ohip-streaming-api-understanding-our-strategy.

Is the polling API for fetching business events going away?

No, for some use cases it is the right fit, so it will be available alongside the streaming API.

Can I use the streaming API to fetch ARI (availability, rates, and inventory)?

Yes, but we are working on a more cost effective alternative for ARI.

How many events can I consume at once?

With the polling API, a maximum of 20 events can be retrieved in one API call. The streaming API makes events available as soon as they occur, so there is no maximum number of events.

Will streaming affect throttling?

Only inbound API calls to OPERA Cloud are throttled; events produced from OPERA Cloud are not.

The events tab is not appearing in the application window. What am I missing?

You must have at least one OPERA Cloud environment with streaming enabled added to your Environments tab. You can identify if streaming is enabled for an environment by looking for the Streaming Enabled flag on the environment's card (located under the Environments tab).



Is it possible to clear the backlog of events for my application?

No option is currently available to clear the backlog of events, and you must continue to process those events. Alternatively, you can create a new application and delete the old one if it is not required.

Onboarding

Do we need to sign an agreement to work with OHIP as an integration partner?

No, you must purchase Oracle Hospitality Integration Cloud Service from the Oracle Shop, but there is no further agreement required.

Is there a sandbox provided for testing?

As a customer. we recommend developing and testing in your UAT environment. For more information, see the Quick Start Guide for customers.

Integration partners have complimentary access to a sandbox environment. For more information, see the Quick Start Guide for partners.

OPN and Marketplace

Is a validation or certification needed for OHIP?

A review is optional. By default, OHIP is intended to offer a self-service experience that enables developers to bring their solutions to life without the need for a formal validation. If you would like to request an Oracle Hospitality review, please email hospitality-integrations ww@oracle.com.

How do I add my application to the Cloud Marketplace?

Click the link below and follow the instructions on the page:

https://cloudmarketplace.oracle.com/marketplace/en_US/partnerLandingPage

Where can I find information for joining the Oracle Partner Network (OPN)?

To join the Oracle Partner Network (OPN), follow the steps here: https://www.oracle.com/middleeast/partnernetwork/program/join/



Please note that the minimum level required for OHIP is the OPN Member Level.



Appendix A

Web Service Error Codes

Error codes in OPERA Cloud are standardized based on the format Message MODxxxxx. For example, the Reservation module has error RSV00001. Other than the module specific errors, there are generic error codes that apply to all modules. The error code for generic errors is GENxxxxx. For any system generated errors or unhandled exceptions, the detailed error is logged in the application log and the generic error is returned to the web service consumer.

Each web service has a response with the following common pattern:

SuccessType

Each web service response returns an element of Success type to indicate the successful processing of the message. This is used in conjunction with the Warning Type to report any warnings.

WarningType

After a message has been successfully processed to report warnings, this type returns the collection of warnings. Consumers can catch these warnings and take further action.

Multi-record handling operations provide warnings for partial failures. Successfully processed data changes are persisted in the OPERA database.

ErrorType

Returned when the processing of a user's request generates an error. This type returns a collection of the errors, and the web service responds successfully without raising a SOAP fault message.



After handling an error, OPERA Cloud Services never raises a web services fault for business errors or unhandled exceptions. All errors are reported via the "Errors" element.

Customer Relation Management Services (CRM)

Table 16-1 Customer Relation Management Services – Error Codes

Error Code	Error Description
CRM00004	Required data to create a preference is missing
CRM00020	Either Group parameters or Module parameters are required



Table 16-1 (Cont.) Customer Relation Management Services – Error Codes

Error Code	Error Description
CRM00026	Invalid module or search parameters requested for profile activity log
CRM00027	Error creating profile
CRM00028	Name is required when creating a profile
CRM00029	Updating the hotel code is not allowed Using previous value
CRM00030	Updating the preference group is not allowed Using previous value
CRM00031	Unable to find preference {0}
CRM00032	Record is not of type new {0}
CRM00033	Record is not of type modify {0}
CRM00034	Record is not of type remove {0}
CRM00035	Duplicate record found
CRM00036	Membership already exists of type {0}
CRM00037	An inactive membership already exists of type $\{0\}$ with card number $\{1\}$
CRM00038	Failed to process instruction {0}
CRM00039	No City and State found
CRM00040	Ignored invalid preference description for preference type $\{0\}$ and preference $\{1\}$
CRM00041	Invalid user passed to the request
CRM00044	Invalid operation
CRM00045	Membership ID must be specified to do an update and delete
CRM00046	Membership not found
CRM00047	Membership type must be specified
CRM00048	Membership card number must be specified
CRM00049	Membership card number must be specified
CRM00050	Name ID must be specified
CRM00051	Membership card number already exists for this guest
CRM00052	An active membership for type {0} exists for this profile
CRM00053	{2} active card(s) with same card no {1} for membership type {0} exists
CRM00054	Invalid card number
CRM00055	Expiration date must be specified
CRM00056	Member since must be specified
CRM00057	Expiration Date should be greater than Joined Date
CRM00058	Expiration Date should be for month {2}
CRM00059	Membership Level must be specified
CRM00060	Cannot inactivate because future reservations/blocks exists
CRM00061	Unable to fetch Profile Attachments
CRM00062	{0} should not exceed more than {1} characters
CRM00063	Unable to delete membership associated with future reservation
CRM00064	No valid device type attached to membership type



Table 16-1 (Cont.) Customer Relation Management Services – Error Codes

Error Code	Error Description
CRM00065	No membership ID defined for active device
CRM00066	No active device attached to the membership
CRM00067	Device is already attached to another membership
CRM00068	Device already exists as an orphan record
CRM00069	Enrollment code is required
CRM00070	Invalid Value for Downgrade
CRM00071	Invalid Value for Tier administration
CRM00072	Profile Type not configured for membership type
CRM00073	Profile ID does not exist
CRM00074	Member status does not exist
CRM00075	Enrollment code does not exist
CRM00076	Membership level does not exist for membership type
CRM00077	Membership type does not exist
CRM00078	Profile relationship already exists
CRM00079	Could not find profile relationship to update
CRM00080	Could not find profile relationship to delete
CRM00081	Profile is already linked either directly or indirectly
CRM00082	This Login Name already exists
CRM00083	Could not find web user account to update
CRM00084	Could not find web user account to delete
CRM00085	Could not generate a password
CRM00086	Invalid Password
CRM00087	Cannot send notification because no email account is associated with this profile
CRM00088	Cannot send email to notify about the changes made in Web User Account
CRM00089	Unable to delete Address It is attached to an AR account
CRM00090	Document of this ID Type and Number already exists
CRM01003	Profile cannot be changed because a Folio or Invoice has been created for this payee and/or guest
CRM01004	Profile with membership cannot be changed
CRM01005	An error while creating the certificate :[{0}]
CRM01017	Selected Profile to be Merged has current or future Reservations Merg cannot be performed
CRM01018	Incoming Profile is not created in OPERA Subscriptions Update subscription cannot be performed
CRM01019	Profile cannot be designated as Private
CRM01020	Unable to locate information based on QAS configuration
CRM01023	Invalid IATA Number



Table 16-1 (Cont.) Customer Relation Management Services – Error Codes

Error Code	Error Description
CRM01026	Duplicate IATA Number.
CRM01027	Duplicate Corporate Number.
CRM01028	Profile ID must be numeric
CRM01029	Comment Type must be numeric
CRM01031	Comment ID must be numeric
CRM01035	Member is below the threshold limit of $\{0\}$ points. Insufficient points for requesting Award.
CRM01036	Reservation cancellation number is not entered.
CRM01037	Award cancellation failed, {0}
CRM01038	Please enter valid room number
CRM01039	Insufficient points. Total points {0} less than the points required.
CRM01040	Member does not have enough points.
CRM01041	Please enter reservation number.
CRM01042	Booking date cannot be greater than Arrival date.
CRM01043	Arrival date cannot be greater than Departure date.
CRM01044	First name must be specified
CRM01045	Last name must be specified
CRM01046	Name on Card must be specified
CRM01047	Membership Type cannot be empty.
CRM01048	Award Code cannot be empty.
CRM01049	Process Type cannot be empty.
CRM01050	Calculate Until Date cannot be empty.
CRM01051	Calculate Until Date cannot be greater than {0}.
CRM01052	Membership Card Registration Code must be specified
CRM01053	Membership Type {0} does not exist.
CRM01054	Award Code {0} for Membership Type {1} does not exist.
CRM01055	Please provide the membership claim number.
CRM01056	Incorrect membership claim number.
CRM01057	Please provide the caller name.
CRM01058	Please provide the claim status.
CRM01059	Please provide the profile ID.
CRM01060	Please provide the claim date.
CRM01061	Profile ID must be specified
CRM01062	Property must be specified
CRM01073	Alternate Name cannot exceed 40 characters including a combination of extended special characters
CRM10003	Field {0} ignored because of update
CRM10004	Name ID is required.
CRM10005	Hotel code is required.
	_



Table 16-1 (Cont.) Customer Relation Management Services – Error Codes

Error Code	Error Description
CRM11006	Unable to associate profiles as no default profile link exists
CRM11007	Cannot copy commissions to resort {0}
CRM11009	Copied commission successfully to resort {0}
CRM11010	Postal Code cannot be empty
CRM11011	Country Code cannot be empty
CRM11012	Invalid Preference Type Combination
CRM11013	Preference {0} does not exist for property {1}
CRM11015	Preference {0} for property {1} already exists for this profile
CRM11017	An Error occurred while deleting profile attachment
CRM11018	Attachment ID and Profile ID are required
CRM11020	Street address search may only be performed with Name or City criteria
CRM11022	Only one profile owner can be set as primary
CRM11023	Proper profile ID is required to fetch profile awards and certificates
CRM11024	Preference {0} for properties {1} was successfully copied
CRM11026	Preference {0} does not exist for properties {1}
CRM11028	Preference {0} for properties {1} already exists for this profile
CRM11029	Error obtaining database connection from view object
CRM11030	Missing required activity group REP_PROFILE
CRM11031	Activity type required for profile group activity log
CRM11032	No Search Type is passed Search type Any is used
CRM11033	No profile found
CRM11037	You are going to cancel an award with cancel penalty.

Front Office and Fulfillment Services (FOF)

Table 16-2 Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00001	Hotel code is required
FOF00002	Reservation ID is required
FOF00003	Property cannot be empty
FOF00006	A Reservation ID or a Confirmation ID is required to process request
FOF00007	This reservation is not valid for split
FOF00031	Overlapping instructions were found
FOF00032	The reservation was not found based on the criteria Operation cannot proceed
FOF00033	A Reservation ID is required to process request
FOF00034	Hotel code and Date Range are required to process request



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00035	Reservation needs to be Checked-In to be able to utilize the room move functionality
FOF00036	The room being requested is not configured for the property
FOF00037	Room is Sleep discrepant
FOF00038	The room being requested is currently Dirty
FOF00039	The room being requested is currently Out-of-Order
FOF00040	The room being requested is currently Out-of-Service
FOF00041	The room being requested is currently occupied by $\{0\}$ from $\{1\}$ until $\{2\}$
FOF00042	The room being requested is currently booked by $\{0\}$ from $\{1\}$ until $\{2\}$
FOF00043	The minimum occupancy ({0}) has not been reached for Room No{1}
FOF00044	The minimum occupancy ($\{0\}$) has not been reached for room type $\{1\}$
FOF00045	The max occupancy ({0}) has been exceeded for Room No{1}
FOF00046	The max occupancy ({0}) has been exceeded for room type {1}
FOF00047	The max adult occupancy ({0}) has been exceeded for Room No{1}
FOF00048	The max adult occupancy ({0}) has been exceeded for room type {1}
FOF00049	The max child occupancy ({0}) has been exceeded for Room No{1}
FOF00050	The max child occupancy ({0}) has been exceeded for room type {1}
FOF00051	The rooms rate pricing is currently not available
FOF00052	The operation requires a valid Hotel, Reservation ID and Room information to complete its process.
FOF00053	The operation requires Fixed Charge
FOF00054	The operation requires Fixed Charge ID
FOF00055	The operation requires Fixed Charge Schedule
FOF00056	The operation requires Fixed Charge Detail
FOF00057	The operation requires Frequency (O, D, W, M, Q, Y)
FOF00058	The operation requires Start Date
FOF00059	The operation requires End Date
FOF00060	The operation requires Transaction Code
FOF00061	The operation requires Quantity
FOF00062	The operation requires Amount
FOF00063	The operation requires Day to Execute if Frequency is set to (W, M, Q)
FOF00064	The operation requires Date to Execute if Frequency is set to Y
FOF00065	Reservation ID or Resort was not supplied
FOF00066	Reservation cannot be found with the supplied hotel code and reservation ID
FOF00067	The guest's arrival is not scheduled for today Check-in not possible
FOF00068	Reservation status is not valid for check-in



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00069	The reservation is for more than one room Splitting the rooms for the reservation is required before check in
FOF00070	Room information was not supplied
FOF00071	Payment information was not supplied
FOF00072	Credit Card in the reservation has expired
FOF00073	Failed to authorize amount on credit card upon check-in
FOF00074	There are not enough rooms available on House level
FOF00075	There are not enough rooms available on Room Type level
FOF00076	There are not enough rooms available on Room Class level
FOF00079	Room is in Dirty Status
FOF00080	Room is in Pick Up Status
FOF00081	Room is in Clean Status
FOF00083	Check-in process affected the reservation details of shared guests on the reservation
FOF00084	Check-in process did not affect the reservation details of shared guests on the reservation
FOF00085	Room is Occupied Please select a different room
FOF00086	Room is Booked Please select a different room
FOF00087	Could not fetch alerts Resort is missing
FOF00088	Could not fetch alerts Reservation Name ID is missing
FOF00089	Required parameters are missing
FOF00090	Resort or Reservation ID was not supplied
FOF00091	Reservation not found
FOF00092	Payment Method was not supplied
FOF00093	Invalid Payment Method
FOF00094	Invalid Cashier
FOF00095	Transaction Code was not supplied
FOF00096	The reservation does not exist, room assignment cannot proceed
FOF00097	The reservation's status is not valid for room pre-assignment
FOF00098	The current room being requested for room assignment is currently locked
FOF00099	The current room is already in use
FOF00100	Check number was not supplied
FOF00101	Cashier is closed
FOF00102	Cashier Closure is in progress
FOF00103	Posting amount cannot be zero
FOF00104	Could not fetch reservation from given Resort and Reservation Name ID
FOF00105	Guest has checked out Please reinstate reservation before attempting to post charges or payment



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00106	Invalid transaction code: {0}
FOF00107	The guest's departure is not scheduled for today Check-out not possible
FOF00108	Balance exists on one or more folio(s), please settle before proceeding
FOF00109	Reservation status is not valid for check out
FOF00110	Cannot reduce reservation stay
FOF00111	Task Sheet information is missing or incorrect
FOF00112	Task Rooms information is missing or incorrect
FOF00113	The Originating Task Sheet information is incorrect
FOF00114	The Target Task Sheet information is incorrect
FOF00115	Criteria for generating task sheets is missing/incorrect
FOF00116	Task Date is required
FOF00117	A task is required
FOF00118	Room Status is required to generate task sheets
FOF00119	Number of Attendants or Maximum Credits Per Sheet is required to generate task sheets
FOF00120	The room list cannot be empty
FOF00121	The Task Sheet does not exist
FOF00122	The Task Sheet Number is required
FOF00123	Folio window has a balance and folio cannot be generated
FOF00124	Reservation status is not valid for folio generation
FOF00125	Folio needs to be generated before guest check out
FOF00126	Guest is not checked in Please check in reservation before attempting to post charge or payment
FOF00127	Posting amount is missing or incorrect
FOF00128	Transactions that were automatically generated cannot be processed
FOF00129	Only transaction(s) without Folio Numbers can be selected
FOF00130	Transactions with Invoice Numbers cannot be selected to be processed
FOF00131	Deposit Transactions cannot be selected to be processed
FOF00132	The status of the reservation is not valid for Financial Transactions processing
FOF00133	The Transaction number(s) are invalid
FOF00134	Folio window number was not supplied
FOF00135	Transaction details are missing or invalid
FOF00136	Negative postings are not allowed
FOF00137	Transaction price was not supplied
FOF00138	Transaction quantity was not supplied
FOF00139	Transaction remark was not supplied
FOF00140	Transaction revenue date was not supplied
FOF00141	Transaction revenue date cannot be less then business date



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00142	Transaction revenue date cannot be after reservation departure date
FOF00143	Invalid arrangement code
FOF00144	Invalid scheduled checkout date Scheduled checkout possible only on the day of departure after current time
FOF00145	Scheduled checkout functionality is not active
FOF00146	Date information for Posting Advance Room Charges is not complete
FOF00147	Reservation is currently not In-House
FOF00148	Date range requested is not valid
FOF00149	Advance Room Charges Posting was not completed successfully as there was an Error during posting
FOF00150	Room Charges have already been posted for the requested dates
FOF00151	Advance Room Charges could not be completed {0}
FOF00152	An early departure could result in a change to the room rate, due to the reduced length of stay
FOF00153	Exchange Rates not setup for {0} and {1}
FOF00154	An Early Departure Penalty of {0} is applicable
FOF00155	The partially consumed package(s) will be charged to the guest account
FOF00157	The reservation status is not valid for an early departure
FOF00158	Early Departure is not required as the reservation is already in Due Out status
FOF00159	The target reservation information is missing or incorrect
FOF00160	Invalid financial transaction type
FOF00161	Transaction Splitting Criteria is missing or incorrect
FOF00162	Transaction cannot be split as the automatically generated transactions are not in the same folio window/reservation
FOF00163	At least one reservation identifier is needed to retrieve transactions for a guest
FOF00164	Percentage should be between 1 and 100
FOF00165	The target(reservation or window) information is missing or incorrect
FOF00166	The target window is incorrect Should be between 1 and 8
FOF00167	Room cannot be changed Checked In Sharers exist
FOF00168	Could not find rate information for selected room type
FOF00169	Rate code $\{0\}$, room type $\{1\}$ does not satisfy max stay through of $\{2\}$ days
FOF00170	Rate code $\{0\}$, room type $\{1\}$ does not satisfy minimum stay through of $\{2\}$ days
FOF00171	Rate code {0} is closed for arrival on {1}
FOF00172	Rate code {0}, room type {1} is closed for stay on {2} date
FOF00173	The rate code $\{0\}$ room type $\{1\}$ combination is closed for arrival on $\{2\}$ date



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00174	Rate code {0}, room type {1} does not satisfy arrival minimum length of stay of {2} days
FOF00175	Rate code $\{0\}$, room type $\{1\}$ does not satisfy arrival max length of stay of $\{2\}$ days
FOF00176	Rate code {0} does not satisfy minimum occupancy for {1} persons
FOF00177	Rate code {0} does not satisfy maximum occupancy for {1} persons
FOF00178	Rate code {0}, room type {1} does not satisfy minimum advance booking for {2} days
FOF00179	Rate code {0}, room type {1} does not satisfy maximum advance booking for {2} days
FOF00180	Rate code {0}, room type {1} is closed for departure on {2} date
FOF00181	Could not find rate for some of the dates for the selected room type
FOF00182	Room is not valid for Check in
FOF00183	No outstanding postings with bill number exist for the reservation
FOF00184	Room {1} has been successfully assigned to {0}
FOF00185	A room was not assigned to {0}
FOF00186	Room Selection criteria is missing/incorrect
FOF00189	Cannot assign room to {0} as the status is not valid
FOF00190	Reservation for {0} has multiple rooms and room cannot be assigned. Select I Want To Split Reservations to continue.
FOF00191	Room is already assigned to {0}
FOF00192	Transaction Adjustment Criteria is missing or incorrect
FOF00193	A valid adjustment amount or percentage is required
FOF00194	Adjustment reason code and reason text is required
FOF00195	Package Wrappers would have to be adjusted entirely(100%) using the Percentage option
FOF00197	The transactions for adjustment are not valid
FOF00198	Unable to generate a room key for reservation with no room assigned
FOF00199	Unable to generate a room key for reservation Key encoder interface for property {0} timed out Please check that the key encoder interface is properly setup and running
FOF00200	Unable to generate a room key for reservation Key encoder status: {0}
FOF00201	Unable to read room key encoder status: {0}
FOF00202	A remark is required for a negative posting
FOF00203	A valid reason code is required
FOF00204	Payments cannot be deleted
FOF00205	The transactions(s) cannot be deleted
FOF00206	Direct Bill Payment cannot be deleted Please use the void function
FOF00207	Direct Bill Payment cannot be deleted as the date is in the past
FOF00208	Cannot delete the transactions as the date is in the past

Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00209	Cannot delete the transactions as the generates exists elsewhere
FOF00210	Cannot delete the transactions as linked packages exist
FOF00211	The split amount should be greater than 0
FOF00212	The split amount {0} is more than the transaction amount {1}
FOF00213	Invalid Fixed Charge ID {0}
FOF00214	The reservation room number is locked and cannot be changed
FOF00215	The reservation's departure date does not match the requested check- out time's date
FOF00216	Automatically generated transaction amount cannot be changed
FOF00217	Package Wrapper transaction amount cannot be changed
FOF00218	Paid Out transaction amount cannot be changed
FOF00219	Transaction amount of postings in the past cannot be changed
FOF00220	Revenue Date of postings in the past cannot be changed
FOF00221	The reservation status is not valid for posting changes
FOF00222	The reservation status is not valid for posting deposits
FOF00223	Deposit Payments cannot be made with the current setting of Advance Deposit Handling
FOF00224	Credit card interface is inactive
FOF00225	Timeout occurred during Credit Card Authorization
FOF00226	Failed to authorize amount on credit card ({0})
FOF00227	Failed to settle amount on credit card ($\{0\}$)
FOF00228	Time-out occurred during Credit Card Settlement
FOF00229	There are not enough rooms available on Business Block level
FOF00230	Invalid amount for credit card authorization
FOF00231	Credit card details are invalid for authorization
FOF00232	The fetch task room request is invalid or incomplete
FOF00233	The task sheet is not valid
FOF00234	The task room is not valid
FOF00235	A task room is required for processing
FOF00236	A Transaction Number is required
FOF00237	A Deposit Policy ID is required
FOF00238	The Deposit Policy ID in invalid
FOF00239	An error occurred during this operation {0}
FOF00240	A valid room is required
FOF00241	Room is not occupied
FOF00242	An error occurred during this operation {0}
FOF00243	Room maintenance request not found
FOF00244	Invalid maintenance request ID
FOF00245	Invalid room number



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00246	Invalid maintenance reason code
FOF00247	Guest Service Status functionality is currently not available for this Property
FOF00249	Error occurred during update of the service request - {0}
FOF00250	Queue Rooms functionality is currently not available for this Property
FOF00251	Reservation or Property details are not valid
FOF00252	A Sharer is already checked in
FOF00253	Reservation status is not valid for queue rooms
FOF00254	Reservation is not arriving today
FOF00255	Cannot set priority as reservation is not on Queue
FOF00256	Reservations for this room type are currently on Queue
FOF00257	Reservation is already in Queue
FOF00258	Reservation for Pseudo Room Types cannot be added to Queue
FOF00259	Room maintenance remarks are required
FOF00260	Multi Room Reservations cannot be added to Queue
FOF00261	Generic V5 Routing Error: {0}
FOF00262	Room type routing requires a valid code
FOF00263	Resort is required to fetch or set guest housekeeping instructions
FOF00264	Reservation ID or room number is required to fetch guest housekeeping instructions
FOF00265	Reservation ID is required to set guest housekeeping instructions
FOF00266	Unable to save housekeeping instructions for reservation with ID {0}
FOF00267	Room is locked for update by another user
FOF00268	Room is already occupied by new guest
FOF00269	Reinstate is not allowed for past departure dates
FOF00270	Reservation status is not valid for reinstate
FOF00271	A valid Profile ID is required to post this transaction
FOF00272	A valid charge is required to post
FOF00273	The Article Code is not valid
FOF00274	A valid resort is required to post this transaction
FOF00275	Room {0} is a component of the component room {1} which is blocked
FOF00276	Room {0} is a component of the component room {1} which is occupied
FOF00277	The Reservation details to transfer the deposit is incorrect or invalid
FOF00278	The deposit amount to transfer cannot exceed {0}
FOF00279	The reservation status for guest {0} is not valid for Deposit Transfer
FOF00280	Invalid/Incomplete reservation details for Deposit Transfer
FOF00281	A Credit Card Payment Method is required for this guarantee code
FOF00282	Telephone number is required for this guarantee code
FOF00283	Address is required for this guarantee code



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00284	Arrival Time is required for this guarantee code
FOF00285	Resort is required for Front Desk related search
FOF00286	The expected room ({0}) doesn't match the configured room ({1})
FOF00287	Reservation ID is required to fetch reservation housekeeping schedule
FOF00288	Unsupported operation AR Account ID was not found
FOF00289	A valid resort is required
FOF00290	A valid profile is required
FOF00291	A valid AR Address is required
FOF00292	The address is not a valid AR address or is currently used for another Account
FOF00293	Account Number is required
FOF00294	The Account Number is out of sequence
FOF00295	Account Number must be between the AR Number Sequence values $\{0$ and $\{1\}$
FOF00296	An AR account already exists with this Account Number Please select another Account Number
FOF00297	Hotel code, Account Number or Profile information is required to process request
FOF00298	The unique Account ID is required
FOF00299	The requested AR Account does not exist or is invalid
FOF00300	Multiple AR Accounts exist for this AR Account Number The unique Account ID is required
FOF00301	Unable to fetch housekeeping schedule for a nonexistent reservation
FOF00302	Unable to find task requested for deletion
FOF00303	Unable to find task requested for editing
FOF00304	Unable to customize housekeeping schedule due to improper request
FOF00305	The task that you are trying to add already exists for this reservation
FOF00306	Task end date must be within the reservation dates
FOF00307	Task start date must be within the reservation dates
FOF00308	Start date of the task must precede end date
FOF00309	Start date of the task cannot be earlier than today
FOF00310	The unique Account ID is required
FOF00311	The requested AR Account does not exist or is invalid
FOF00312	Multiple AR Accounts exist for this AR Account Number The unique Account ID is required
FOF00313	Account cannot be deleted Account is attached to transaction code {0}
FOF00314	Account is attached to an Authorizer with comp routing instructions and cannot be deleted
FOF00315	Permanent Account cannot be deleted
FOF00316	Account has an Open Balance Account cannot be deleted



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00317	Account has active transactions Account cannot be deleted
FOF00318	There are invoices waiting to be transferred into AR for this Account cannot be deleted
FOF00319	Routing Instructions exist for this account cannot be deleted
FOF00320	A pending credit card settlement has been posted to the AR Account cannot be deleted
FOF00321	Duplicate codes exist: {0}
FOF00322	Cannot edit/create tasks due to empty schedule
FOF00323	Cannot checkout this Guest with an Open Folio
FOF00324	The Reservation's status is not valid for posting transactions
FOF00325	The Reservation Folio is not Open
FOF00326	A Comment ID is required to process
FOF00327	Unable to change room status because of Insert Room Repair operation error
FOF00328	Room Status From Date cannot be greater than Through Date
FOF00329	Room {0} is invalid
FOF00330	Room {0} is not under repair
FOF00331	Room {0} is already Out of Order/Service
FOF00332	Room {0} has been placed on hold by {1} Please select another room
FOF00333	Room {0} is locked for update by another user
FOF00334	Rooms {0} are locked for update by another user
FOF00335	Room {0} is closed for the web
FOF00336	Room {0} is already under repair
FOF00337	Room {0} is blocked
FOF00338	Error in checking room assignment for room {0}
FOF00339	Unable to change the room status of room {0}
FOF00340	Room {0} is a combination room
FOF00341	Room {0} is attached to events during the specified date range
FOF00342	A valid Profile is required
FOF00343	The requested Profile is not valid
FOF00344	A valid currency exchange is not available in the selected resort(s)
FOF00345	Cannot change the amounts for a Folio transaction
FOF00346	Cashier ID is required
FOF00347	Cashier Closure Number is required
FOF00348	Invalid Cashier ID
FOF00349	Invalid Closure Number
FOF00350	{0} checks shift drop amount not found for {1}
FOF00351	{0} checks expected shift drop amount is incorrect for {1}
FOF00352	Not all shift drop amounts are passed for closing



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00353	The current cashier is already closed
FOF00354	The current cashier was not closed and still open
FOF00355	Trace ID is required
FOF00356	AR Traces parameter is inactive
FOF00357	The quantity should be greater than 0
FOF00358	AR Traces Text is required
FOF00359	AR Traces Date is required
FOF00360	The requested Fixed Charge does not exist or is invalid
FOF00361	AR Fixed Charges parameter is inactive
FOF00362	This cashier is being closed from another workstation
FOF00363	Unable to extend cashier lock may have already expired or released
FOF00364	Unable to release cashier lock may have already been released or broken
FOF00365	Unable to break cashier lock may have already been released or broken
FOF00366	Unable to lock cashier ({0}) Another user currently holds the lock
FOF00367	Cashier lock is required to perform this operation
FOF00368	The closure information is not provided to get reports list
FOF00369	The Deposit Folio fetch instruction is not valid
FOF00370	Deposits have been consumed Cannot create a Credit Bill
FOF00371	Arrivals not checked in exist
FOF00372	Please select "Departures" to Check Out all guests due for departure
FOF00380	FBA transactions cannot be used for processing/modifications
FOF00381	Post Room and Tax Routine has errors
FOF00386	A balance exists, cannot generate a Folio
FOF00387	The Profile is not valid for this Folio
FOF00388	Cannot create a Credit Bill for a Void Folio
FOF00389	Cannot create a Credit Bill for a Post It Folio
FOF00390	The Original Folio information is invalid/missing
FOF00391	A valid Resort and Folio Number is required
FOF00392	The Credit Bill functionality is not active
FOF00393	The Folio Type is not valid for Credit Bills
FOF00394	Credit Bill has already been generated for this Folio
FOF00395	Credit Bill cannot be created for a Folio with DB amount
FOF00396	The Gross Amount for this Folio has exceeded Cannot create a Credit Bill
FOF00397	The Folio was generated today Cannot create a Credit Bill
FOF00398	The Maximum Number of Credit Days has been exceeded



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00399	Credit Bill cannot be created on this Folio as the Gross Amount is zero or less
FOF00400	The Total amount exceeds the Creditable Amount
FOF00401	The Total of the Credit Bill cannot be positive
FOF00402	The Folio details are invalid or incomplete
FOF00403	The valid Folio Number is required
FOF00404	Functionality for Voiding Folios is not active
FOF00405	The Folio Date is not valid for Voiding
FOF00406	This Folio cannot be voided
FOF00407	Functionality to Create Deposit Folios is not active
FOF00408	Unable to generate folio Charges will not be posted Any Credit card payments already processed will be moved to Default Posting Room
FOF00409	Please verify that the application setting default posting room.
FOF00410	Account Number cannot have leading or trailing spaces Please correct
FOF00411	AR Account(s) Information is missing/incomplete
FOF00412	AR Reminder(s) Information is missing/incomplete
FOF00413	The Account ID {0} is not valid
FOF00414	The Account {0} does not have invoices to be included in the statement
FOF00415	The Account is currently locked Could not update the Statement Information
FOF00416	Please wait for users logged into {0} property to be logged out End of Day will proceed in {1} seconds
FOF00417	OPERA V5 End of Day is in progress
FOF00418	You do not have rights to automatically close open cashiers
FOF00419	Automatic cashier closure has failed
FOF00420	A cashier is locked. Number of times cashier is opened has not been reset successfully
FOF00421	Number of times cashier is opened has not been reset successfully
FOF00422	Credit card verification has failed
FOF00423	Some settlements have failed
FOF00424	A Rate Code is required to post
FOF00425	The Rate Code is invalid or Rate Details do not exist
FOF00426	The number of nights cannot be changed
FOF00427	This task sheet cannot be removed
FOF00428	Wake up call must be set on or after the business date
FOF00429	Wake up call must belong to a room or in house reservation
FOF00430	Wake up call must belong to a property
FOF00431	Wake up call time must be in future
FOF00432	Wake up call must have a time



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00433	Wake up calls cannot end on the date prior to business date
FOF00434	Wake up calls cannot end on the date prior to business date
FOF00435	Wake up calls cannot end before they begin
FOF00436	Wake up calls cannot begin prior to arrival
FOF00437	Wake up calls cannot continue after the reservation has departed
FOF00438	Wake up calls cannot be created for reservation that has not been checked in
FOF00439	Wake up call status is invalid
FOF00440	Wake up call that you are trying to change is not found
FOF00441	CC Surcharge Default Transaction Code is not set
FOF00442	A valid Account is required
FOF00443	The Account Information is incorrect/missing
FOF00444	Missing originating currency code
FOF00445	Missing target currency code
FOF00446	Calculating amount of originating currency is not defined
FOF00447	Missing resort in which calculation is to take place
FOF00448	This currency cannot be sold
FOF00449	Please select "Close Folios" to close all reservations with Open Folio and balances
FOF00450	Cannot post without specifying Reservation, Guest, or Passer By
FOF00451	Cannot post without defined exchange type
FOF00452	Cannot post without defined exchange type
FOF00453	No transaction code defined for this transaction type
FOF00454	No Credit transaction code defined for this transaction type
FOF00455	Currency Exchange Transaction Code has not been defined in application settings
FOF00456	Cannot post exchange with zero amount
FOF00457	Unable to convert currency to local currency
FOF00459	Please select "Process Reports" to generate and print final reports
FOF00460	Cannot process the Rounding Difference transaction
FOF00461	There was an error during deletion of existing Task Sheets Please try again
FOF00462	No payments exists to apply this credit against A credit note will be created without an associated invoice
FOF00463	Reminder Letter is not configured for {0} account receivable type
FOF00464	Activity Information is missing
FOF00465	Business date cannot be empty
FOF00466	Business date is invalid
FOF00468	No permission to post room and tax



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description	
FOF00469	Please contact database administrator to increase job queue limit	
FOF00470	Mandatory procedure is already in progress	
FOF00471	End of day cannot continue while sessions are active	
FOF00472	Hotel code cannot be empty	
FOF00474	Cannot change status of the wake-up call that is not scheduled for today	
FOF00475	This Settlement cannot be Reversed	
FOF00476	This is not a Settlement Record	
FOF00477	This is not a Non-VAT Payment	
FOF00478	Cannot reverse an AR Settlement	
FOF00479	Reservations exist with incomplete address information, State and/or Country are not defined	
FOF00480	Reservations exist with incomplete address information, Country is not defined	
FOF00481	Invoice Number is required	
FOF00482	The requested Invoice does not exist or is invalid	
FOF00483	The Invoice Information is incorrect/missing	
FOF00484	Reservations exist with incomplete address information, State is not defined	
FOF00485	End of Day cannot start until cashier(s) {0} negative shift drop has been resolved	
FOF00486	There's not enough disk space	
FOF00487	The Invoice To Apply is incorrect	
FOF00488	Currency exchange has not been configured for this exchange type	
FOF00489	Transaction code cannot be empty	
FOF00490	Transaction code {0} does not exist for auditing	
FOF00492	Please select "Audit Amounts" to complete auditing transactions	
FOF00493	Applied Payment It cannot be reversed	
FOF00494	Invoice Transactions are required	
FOF00495	The total Invoice amount should be greater than zero	
FOF00496	The parameter setting for AR SETTLEMENT CODE is missing	
FOF00497	Invoice(s) for which the payment(s) is to be applied to, is missing or incorrect	
FOF00498	The payment transaction does not exist or is invalid	
FOF00500	Parameter value for folio type method is not set.	
FOF00501	Maximum of {0} open business date(s) has been reached Please close other business dates first	
FOF00502	Fiscal Printing has timed out	
FOF00503	Fiscal Program error : {0}	
FOF00504	Fiscal Program error : {0}	



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00505	Download file error : {0}
FOF00506	v5 Server Web Temp URL configuration not found
FOF00507	v5 Server Web Temp directory configuration not found
FOF00508	v5 Server URL configuration not found
FOF00509	Fiscal Print URL call error : {0}
FOF00510	Please select "Process Reports" to generate and print interim reports
FOF00511	Account Number cannot exceed 20 characters or 10 extended special characters
FOF00513	The From invoice detail is invalid
FOF00514	The invoice detail is invalid
FOF00515	The From and To invoice resort should be same
FOF00516	One or more posting has already been transferred to another invoice
FOF00517	FISCAL_BILL_NO sequence is not configured for this property
FOF00518	Unable to obtain Fiscal Bill No lock
FOF00519	Invalid Fiscal Bill No lock ID
FOF00520	Could not update Fiscal Bill No
FOF00521	Invoice {0} cannot be changed
FOF00522	Parameter for Charges Transfer is not active
FOF00523	Imbalance Check: Problem encountered in invoice {0}
FOF00524	The invoice details are not valid
FOF00525	This invoice has already been transferred
FOF00526	The reservation is still in house Cannot transfer charges
FOF00527	Statement number has to be unlinked before transferring
FOF00528	Payment transactions cannot be transferred
FOF00529	Package Wrapper transactions cannot be transferred
FOF00530	The Guest has overpaid VAT A credit note is due Multiple Payments/N Payments exist to apply to a credit note
FOF00531	Failed to auto check in room - {0}
FOF00532	Fiscal Folio Web Service was not found
FOF00533	Invalid procedure name ({0}) encountered
FOF00534	Run Additional Procedures has errors
FOF00535	Invoice is not closed
FOF00536	Incorrect call of folio process
FOF00537	Fiscal Printing functionality is not active
FOF00538	No response from Fiscal Printing service
FOF00539	Fiscal Service response error: status {0}, code {1}, message {2}
FOF00540	Invoice or Payment already transferred
FOF00541	Individual Charge Transfer is not possible on partially or fully transferred invoices



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00542	Total transfer amount is more than the account's credit limit
FOF00543	Reservation status is not valid to apply certificate
FOF00544	Flexible Benefits Award transaction is not found
FOF00545	Transaction is not part of Flexible Benefits Award posting and cannot be reversed
FOF00546	Please configure Flexible Benefit Awards Transaction Code
FOF00547	Active/In Use FBA certificate cannot be posted to a folio/window which has a 000 or credit balance Please cancel the certificate
FOF00548	Application Function flexible benefit awards is not active.
FOF00549	Certificate is locked by another user
FOF00550	Operation allowed only on FBA Certificates
FOF00551	Operation allowed only on a Res Certificate
FOF00552	Invalid status of FBA Certificate Operation not allowed
FOF00553	Flexible Benefit Awards have been posted
FOF00554	No settlement has been selected
FOF00555	Invoice number {0} not found
FOF00556	Invoice number {0} is not in valid status for transfer
FOF00557	Select a Transaction Code to Post Charge
FOF00558	Interface time-out occurred Processing terminated
FOF00559	Payment Transaction Number is required
FOF00560	Negative Cash parameter is inactive
FOF00561	Payment Transaction record does not exist
FOF00562	Payment Reversal can only be done for Cash / Check Payment Types
FOF00563	Payment Transaction is already reversed
FOF00564	Transaction Date should match the Business Date
FOF00565	Billing should not exist
FOF00566	Payment Reversal can only be done for Cash / Check Payment Types
FOF00567	Target reservation has allowances linked to other reservations and cannot be linked
FOF00568	Unable to Unlink allowances are already consumed by other reservations
FOF00569	Source reservation has allowances currently linked to {0}
FOF00570	Source reservation is not valid
FOF00571	Source reservation has allowances routed from {0}
FOF00572	Target reservation is not valid
FOF00573	Collect paper certificate from guest
FOF00574	Award Voucher Number is not available for: {0}
FOF00575	Negative Amount for Cash / Check Payment Type is not allowed



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00576	Please select "Reservation" to reconcile balances of reservations with Post Stay Charges privileges
FOF00577	Please select "Reservation" to close all reservations with Open Folio and balances, and reconcile balances of reservations with post stay charges privileges
FOF00578	Fiscal Folio Bill Number sequence was not found
FOF00579	Fiscal Folio web service call error Please make sure Fiscal Folio web service is available
FOF00580	End Of Day has been initiated in OPERA V5 To continue End Of Day in OPERA 9, please press Continue
FOF00581	Error occurs while trying to close cashiers Please make sure cashiers are not locked
FOF00582	Daily Docket entry does not exist
FOF00583	Please enter a numeric value
FOF00584	Tax Number must be 11 characters long
FOF00585	Invalid Payee Tax Number
FOF00586	Payee tax is empty
FOF00587	Resort was not supplied
FOF00588	Payee is not found
FOF00589	Unable to settle folio The account has been flagged and you do not have sufficient permissions
FOF00590	No records found for folio generation and Generate Zero Bill parameter is inactive
FOF00591	Only one invoice can be selected to apply payment
FOF00592	This option is not valid to apply to invoice
FOF00593	Please wait
FOF00594	Account receivable credit card payment records cannot be locked.
FOF00595	Payment transaction was not found
FOF00596	Account Receivable Settle Code parameter is not configured
FOF00597	Account Receivable Credit Code parameter is not configured
FOF00598	List of Account Receivable payments is required for this operation
FOF00599	List of Account Receivable payments cannot include different transactions codes
FOF00600	Total amount for transactions in list is not equal to passed Total Amount value
FOF00601	Payment transaction code does not belong to AR account
FOF00614	Room Type {0} is closed for arrival on {1} date
FOF00615	Room Type {0} does not satisfy arrival min length of stay of {1} days
FOF00616	Room Type {0} does not satisfy arrival max length of stay of {1} days
FOF00617	Room Type {0} does not satisfy minimum advance booking for {1} days
FOF00618	Room Type {0} does not satisfy maximum advance booking for {1} days



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF00619	Room Type {0} is closed for stay on {1} date
FOF00620	Room Type {0} does not satisfy minimum stay through of {1} days
FOF00621	Room Type {0} does not satisfy max stay through of {1} days
FOF00622	Room Type {0} is closed for departure on {1} date
FOF00623	Number of nights requested {0} does not satisfy LOS Restriction
FOF00624	Room is on hold by another user
FOF00625	Room is occupied
FOF01001	A mobile number is required
FOF01002	Invalid message type
FOF01003	Text Message Handling functionality is currently not available for this property
FOF01004	Reservation was not found in Queue
FOF01006	Reservation and payment method information is required to batch process credit card authorizations
FOF01010	The functionality for no show and cancellation postings is not availabl
FOF01011	Reservation status is not valid for transfer of Deposits
FOF01014	Mobile Number cannot exceed 40 characters
FOF01015	Bill No is required
FOF01016	Folio Type is required
FOF01018	User needs to have a default Cashier ID, or Night Audit Cashier application setting should be configured to start End of Day
FOF01019	This reservation does not have at least one allowance package
FOF01020	Invalid target folio window in Transfer Folio(s) operation
FOF01021	Folio number list is required for Transfer Folio(s) operation
FOF01022	Shift drop transaction code must be defined in application parameters
FOF01023	Selected Folio cannot be converted
FOF01025	Folio Type is required
FOF01026	Generation Date is required
FOF01027	Department code is required
FOF01028	Service recovery adjustment already applied
FOF01029	Transaction code does not have service recovery adjustment code
FOF01030	Amount or Percentage cannot be greater than selected posting
FOF01040	Cannot close a Block Open Folio
FOF01041	Cannot check-out the last PM room reservation unless all the other reservations for this business block are checked-out
FOF01042	Cannot check-out the last PM room reservation unless all the other reservations for this business block have a zero balance
FOF01043	Positive Gift Card amount is required
FOF01044	Gift Card cannot be created for checked-out guest



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF01045	Interface Error: {0}
FOF01046	Gift Card transaction code is not configured
FOF01050	Code cannot be empty.
FOF01051	Priority cannot be empty.
FOF01052	Remarks cannot be empty
FOF01053	Status cannot be empty
FOF01054	Open date cannot be empty
FOF01055	Open time cannot be empty
FOF01056	Department cannot be empty
FOF01057	Contacted By cannot be empty
FOF01058	Completion date cannot be empty
FOF01059	Completion time cannot be empty
FOF01060	Contact Method cannot be empty
FOF01061	Action Taken cannot be empty
FOF01062	Followed up by cannot be empty
FOF01063	Closed date cannot be empty
FOF01064	Closed time cannot be empty
FOF01065	Completion date cannot be earlier than open date
FOF01066	Close date cannot be earlier than completion date
FOF01069	Prepaid card interface details request error - {0}
FOF01070	No Show Procedure is still running
FOF01072	Certificate Number is not supplied
FOF01073	Prepaid card interface details request error - {0}
FOF01074	Prepaid card interface redeem error - {0}
FOF01075	Application setting Redemption Reimbursement Account is not set Please configure and retry again
FOF01076	Application setting Redemption Clearing Account is not set Please configure and retry again
FOF01077	Application setting Redemption Invoice Transaction Code is not set Please configure and retry again
FOF01078	More than one Redemption Reimbursement Account found Please configure and retry again
FOF01079	More than one Redemption Clearing Account found Please configure and retry again
FOF01080	Please configure valid Redemption Reimbursement Account and retry again
FOF01081	Please configure valid Redemption Clearing Account and retry again
FOF01082	Compress folio type is not setup for the resort
FOF01083	Folio type cannot be compressed



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF01084	Compress is not allowed on transactions which do not have a corresponding Folio Tax record
FOF01085	More than 1 invoices is required to compress
FOF01086	Invoices are required to compress
FOF01087	Current day invoices cannot be compressed
FOF01088	Invoice or Payment is invalid
FOF01089	Invoice has payments
FOF01090	Folio type cannot be uncompressed
FOF01091	Credit card settlement ID cannot be null
FOF01092	Invalid credit card settlement ID
FOF01093	Cannot perform {0}
FOF01094	Invalid expiration date
FOF01095	{0} step is already executed
FOF01096	Attendant ID is missing
FOF01097	Date from which the attendant will be assigned is missing
FOF01098	Attendant ID is not valid
FOF01099	Delete operation failed on attendant ID {0}
FOF01100	Attendant schedule is empty
FOF01101	{0} cannot be assigned on {1}
FOF01102	Resort cannot be greater than 20 characters
FOF01103	Process name cannot be greater than 200 characters
FOF01104	Process status cannot be greater than 80 characters
FOF01105	Process message cannot be greater than 2000 characters
FOF01106	Process name is required
FOF01107	Duplicate Record Found
FOF01108	The split quantity should be greater than 0
FOF01109	Cannot split this transaction by Quantity
FOF01110	Split Quantity {0} is greater than the Transaction Quantity of {1}
FOF01111	No authorizers were found for the transaction list
FOF01112	Authorizer already exists for this folio window
FOF01113	There was an Error during creation of comp routing instruction :{0}
FOF01114	Authorization limit has been exceeded
FOF01115	Invalid Authorizer
FOF01116	Transaction code {0} is not attached to Authorizer
FOF01117	Transaction cannot be transferred as the Authorizer credit limit will be exceeded
FOF01118	You do not have the required permission for comp transfer
FOF01119	Step failed ({0})
FOF01120	Refresh payment reconciliation dates failed



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description	
F0F01121	Transaction code in parameter 'Check Transaction Code' is not configured	
FOF01122	Transaction code in parameter 'Old Balance Transaction Code' is not configured	
FOF01123	Amount cannot be lesser than the Service Recovery Adjusted Amount	
FOF01124	Amount cannot be more than the original amount for this Service Recovery Adjustment transaction	
FOF01125	Folio Number cannot be negative	
FOF01126	Amount cannot be empty	
FOF01127	Folio Number cannot be empty	
FOF01128	Paid Amount cannot be more that Invoice Amount	
FOF01129	Please enter amount in at least one of the aging period	
FOF01130	Date of Oldest Item cannot be empty	
FOF01131	Date of Oldest Item cannot greater than {0}	
FOF01134	Reservation does not exist	
FOF01135	Reservation cannot be set to No Show Reservation is not expected for arrival	
FOF01136	Element Check is required to process the request	
FOF01137	Missing Check ID or Check Number	
FOF01140	Check with Check ID $\{0\}$ does not exist. Void operation cannot be completed	
FOF01141	Duplicate void for Check ID : {0} cannot be accepted	
FOF01142	Invalid void for Check ID :{0}	
FOF01143	Please select "PM Account" to check in.	
FOF01144	Step cannot be executed Please check that all End of Day steps before this step are completed	
FOF01145	Step is already in progress or is completed	
FOF01146	Please select "Arrivals with Deposit Balance" to check in or settle deposit balance	
FOF01147	Amount too large for authorization	
FOF01148	Assigned user information cannot be modified as maintenance request is already resolved	
FOF01149	Comp Transfer cannot be applied to regular transaction	
FOF01150	Transaction code is not authorized for transfer	
FOF01151	Transaction code is not attached to Authorizer	
FOF01152	Direct Bill Payment must be deleted prior to Transferring/Deleting/ Correcting the selected Transaction(s)	
FOF01153	Transaction cannot be transferred as the routing limit will be exceeded	
FOF01154	Cleaning End of Day journals	
FOF01155	Cleaning folio details	
FOF01156	Updating payment reconciliation dates	



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF01157	Cleaning pro forma invoices
FOF01158	Cleaning deferred taxes
FOF01159	Processing Credit Card
FOF01160	Processing No Show procedure
FOF01162	Tax Code should be between 1 and 20
FOF01164	Room already assigned
FOF01165	Internal program error
FOF01169	Please select "Arrivals not Checked In" to check in or settle deposit balance
FOF01170	Checkout error - {0}
FOF01172	Interface ID or DBF Logo is required
FOF01173	Account Balance exceeds the Account Credit Limit
FOF01174	Invalid room number Please select from the list For room $\{0\}$, Guest $\{1\}$
FOF01175	Interface update request object cannot be null
FOF01176	No valid interface exists for {0} property with interface ID {1}
FOF01178	No valid interface exists for {0} property with Logo {1}
FOF01180	Debit Activity for Credit Card Rebate is Insufficient. Select Override to Process Rebate
FOF01181	Deposits with Tax or Deposit Tax Transactions cannot be changed
FOF01182	There is no AR Account attached to this Profile.
FOF01187	Credit Card Account already exists!
FOF01190	An active credit card interface is required to process batch deposits.
FOF01197	Charges cannot be posted to {0} prior to check in.
FOF01198	Cannot post to {0} since this is either a No show or a cancelled reservation.
FOF01199	No PM reservation checked in for {0}.
FOF01200	Reservation for {0} is checked out. Cannot post to the reservation.
FOF01206	Please close previous business dates first.
FOF01220	Message Server is currently unavailable. Please try again.
FOF01222	Chilean taxes are calculated only if a property is located in Chile.
FOF01225	{0} cash shift drop amount not found for {1}
FOF01226	{0} cash expected shift drop amount is incorrect for {1}.
FOF01229	Step is still in progress. To continue End Of Day, please press Continue.
FOF01237	Posting amount cannot be more than due amount
FOF01246	Limit for {0} exceeded. Daily Limit Amount Remaining is {1}.
FOF01247	Limit for {0} exceeded. Monthly Limit Amount Remaining is {1}.
FOF01248	Limit for {0} exceeded. Daily Limit Amount Remaining is {1}. Monthly Limit Amount Remaining is {2}.
FOF01249	Limit has exceeded.



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
FOF01250	Nationality must be specified for foreign transactions.
FOF01251	Passport must be specified for foreign currency transactions.
FOF01252	Cleaning fiscal credit folios.
FOF01253	Folio cannot be found.
FOF01254	Fiscal Credit Bill generation could not be completed {0}.
FOF01256	All mandatory procedures have not been completed for the previous business date. End Of Day cannot proceed.
FOF01260	Split is not allowed on a transaction that includes package(s) with outstanding allowance(s).
FOF01261	Unable to Split transaction when one transaction results in a Zero Amount.
FOF01270	Folio tax record not found.
FOF01271	Unable to delete fiscal folio record.
FOF01273	Unable to store fiscal folio record.
FOF01274	Unable to find fiscal folio record.
FOF01280	Apply credit or payment is not allowed for selected invoice(s).
FOF01282	{0} Cash Shift Drop parameter is required.
FOF01283	{0} Check Shift Drop parameter is required.
FOF02223	Transaction has been adjusted. Cannot Split.
FOF11005	Redemption Rate retrieval failed
FOF11010	Please select Batch Folios to generate folios for Auto Folio Settlement
FOF11017	No interface record found linked to reservation ID {0}
FOF11018	No valid interface right found for reservation ID $\{0\}$ with rights code $\{1\}$
FOF11020	Account successfully copied to property {0}
FOF11021	Account cannot be copied to property {0} : {1}
FOF11022	Account cannot be copied to property {0} : parameter Automatically Assign Account
	No is on
FOF11024	Request cannot be empty
FOF11025	Activity ID cannot be empty
FOF11026	To complete the request, at least one Reservation ID or a Confirmation ID is required
FOF11027	Start Date cannot be empty
FOF11028	Purpose cannot be empty
FOF11029	Activity Type cannot be empty
FOF11030	Owner cannot be empty
FOF11031	Cannot finalize a Credit Invoice.
FOF11032	Cannot transfer a Credit Invoice.
FOF11036	Cannot delete an attachment because required parameters are missir



Table 16-2 (Cont.) Front Office and Fulfillment Services – Error Codes

Error Code	Error Description
F0F11037	Activity group params are required
FOF11038	Missing required activity group
FOF11039	Activity type required for {0} group activity log
FOF11040	Invalid module or search parameters requested for fulfillment activity log
FOF11041	Checkout failed: {0}
FOF11042	Transaction number cannot be empty
FOF11043	Partial amount transfer is not allowed on this invoice
FOF11044	Amount to transfer is more than the invoice amount
FOF11045	Vendor Interface ID is required
FOF11046	The prepaid card account was not found
FOF11048	Missing Transaction Amount or Currency Code
FOF11049	Check with Check ID :{0} already exists. Duplicate check cannot be accepted
FOF11053	Fiscal Bill Number setup is missing
FOF11054	Application setting logical weight is not set.
FOF11055	Folio Type for this folio is not available Please configure Folio Types
FOF11058	Confirmation Number {0} for {1} has no commissioned postings.
FOF11075	Pseudo Rooms not checked in exist.
FOF11076	Pseudo Rooms not checked in exist after roll business date.

Generic Messages (GEN)

Table 16-3 Generic Messages – Error Codes

Error Code	Error Description
GEN00001	Value {0} cannot be empty
GEN00002	{0} cannot be after {1}
GEN00003	Unique Key attributes are not supplied
GEN00004	No matching record exists to update
GEN00005	Invalid web service Request
GEN00006	Request cannot be empty
GEN00011	No matching record exists to delete
GEN00012	{0} already exists
GEN00014	Request should contain both Start date and End date
GEN00016	No matching record found with key {0}
GEN00017	Invalid input
GEN00018	Failed to initialize OPERA Database Missing required parameters
GEN00019	Failed to initiate change resort. OPERA context has not been initialized yet.



Table 16-3 (Cont.) Generic Messages – Error Codes

Error Code	Error Description	
GEN00020	Failed to initialize OPERA Database Operation is not supported	
GEN00021	Failed to retrieve user name from web service security context.	
GEN00022	OPERA context has not been initialized yet.	
GEN00023	User does not have access to requested property	
GEN00024	Credit card number already exists	
GEN00025	Credit Card is invalid	
GEN00026	An error occurred during uploading {0}	
GEN00027	Initializer Class is not defined in the WSPort [{0}]	
GEN00028	Method to initialize the context for operation [$\{0\}$] is not defined in class [$\{1\}$]	
GEN00029	Authorization rule [$\{0\}$] is not valid based on amount [$\{1\}$] and percentage [$\{2\}$]	
GEN00030	Invalid Code	
GEN00031	You must enter a value	
GEN00032	Please enter additional search criteria	
GEN00033	Failed to override running app	
GEN00034	Please complete pending changes to {0}	
GEN00035	Reservation ID cannot be empty	
GEN00036	Value {0} is invalid.	
GEN00037	Context Property can't be null when doing this operation	
GEN00038	Could not find record to lock Record may have been deleted by another user	
GEN00039	End of Day No Show process is running, cannot Lock the record at this time Please try again later	
GEN00040	This Reservation is being changed by another user	
GEN00041	This Reservation or the guest profile is being changed by another user	
GEN00042	Super Search functionality is currently not available, Please use Advanced Search	
GEN00043	Sequence number cannot be negative	
GEN00044	Could not find rate information for selected room type	
GEN00045	An error has occurred	
GEN00046	Request validation for [{0}] failed for illegal access: [{1}]	
GEN00048	Method to validate operation [{0}] is not defined in class [{1}]	
GEN00049	Request validation Class is not defined in the WSPort [{0}]	
GEN00050	No results found	
GEN00051	Invalid child age	
GEN00052	Please enter all ages of children	
GEN00053	An error occurred while retrieving the records	
GEN00054	An error occurred while changing the records	



Table 16-3 (Cont.) Generic Messages – Error Codes

Error Code	Error Description
GEN00055	Username or Password cannot be empty
GEN00056	An incorrect Username or Password was specified
GEN00057	User {0} does not have required permission
GEN00057	Invalid password entered for user {0}
GEN00059	An error occurred while validating
GEN00060	This functionality is not active
GEN00061	Record already exists
GEN00062	Dependencies were found
GEN00063	Information is missing
GEN00064	User ID [{0}] exceeds maximum length (60 characters including domain) for OPERA DB
GEN00065	Invalid user ID for access to OPERA
GEN00067	Please define at least one search criteria
GEN00068	{0} operation returned empty response, Please contact System Administrator
GEN00069	Invalid OPERA DB context is set, cannot perform requested operation Please contact System Administrator
GEN00070	This web service Operation is not implemented Please use alternate operation or contact System Administrator
GEN00071	This communication entry has already been deleted
GEN00073	This code has dependencies and cannot be deleted
GEN00074	This record is inserted by the system and it cannot be deleted
GEN00075	Rate Plan Description must be 10 lines or less and each line must be 62 or less
GEN00076	Amount to authorize is not set
GEN00077	Unable to delete Standard texts exist for the department {0}
GEN00078	Unable to delete Reservation Trace exists for the department {0}
GEN00079	Unable to delete Department {0} is used in a Catering Resource Item
GEN00080	Unable to delete Department {0} is used in a Catering Menu Item
GEN00081	Unable to delete Application has users for the department {0}
GEN00084	An error occurred while deleting the records
GEN00087	Cannot add or attach the certificate as awards type is null or empty.
GEN00088	Cannot add or attach the certificate without properly specified Profile ID
GEN00089	Cannot add or attach the certificate without properly specified reservation ID
GEN01003	Child age does not fall into defined range(s) or Child Age range(s) is not defined



Table 16-3 (Cont.) Generic Messages – Error Codes

Error Code	Error Description
GEN01004	Insufficient inventory is found Please proceed to LTB to update the reservation
GEN01005	Invalid email address
GEN01006	External System Connection was not established
GEN01008	Sequence number should be greater than 0
GEN01011	New Start date is missing
GEN01013	Amount details value and type(Flat or Percentage) are required
GEN01014	Please select the row to be deleted
GEN01015	Department code is missing
GEN01016	Trace text is missing
GEN01017	From Date is missing
GEN01018	To Date is missing
GEN01019	Date is missing
GEN01020	Block Name is missing
GEN01021	Guest Name is missing
GEN01022	Trace parameters are not sufficient to operate
GEN01023	Please select the property
GEN01024	{0} cannot exceed {1} characters
GEN01025	Unexpected error from Integration: {0}
GEN01026	Error from {0} Interface: {1}
GEN01027	Error found while deleting the code and cannot be deleted
GEN01028	Error from Integration: {0}
GEN01029	A Web Registration Card already exists for this combination of Property, Language and Membership Type.
GEN01031	Property cannot be empty
GEN01032	Primary/Default record should be assigned
GEN01033	End Sell Date should be greater than or equal to Begin Sell Date
GEN01034	The record was modified by another user while attempting to process your request Please try again later
GEN01036	Cutoff Date already exists for this Block
GEN01037	Additional information is required on your user account to determine the origin of new blocks. Please ask system administrator to mark your user account as a Conference/Reservation Sales person at Central/Property level to enable new block creation
GEN01038	{0} - Please enter a valid number
GEN01039	{0} - Please enter a valid value
GEN01043	Hub Code cannot start with "DFLT_".
GEN01044	Hub Code should be less than or equal to 20 characters.
GEN01045	Hub Code cannot contain commas.



Table 16-3 (Cont.) Generic Messages – Error Codes

Error Code	Error Description
GEN01046	Hub Code cannot contain single quotes.
GEN01047	Hub Code cannot contain spaces.
GEN01048	No file is selected to upload.
GEN01053	File content is not recognized by application.
GEN01056	{0} business date is currently being rolled. Please try again later
GEN01057	End Date cannot be empty.
GEN01066	Invalid Profile ID.
GEN01067	Invalid ID Type.
GEN01068	Invalid Name ID.
GEN01069	Invalid Template Name.
GEN01070	From Date cannot be less than Business Date.
GEN01071	To Date cannot be less than Business Date.
GEN01074	To Date cannot be less than From Date.
GEN01075	Departure cannot be earlier than Arrival.
GEN01076	End Date cannot be earlier than Begin Date.
GEN01077	Begin Date cannot be earlier than Business Date.
GEN01078	End Date cannot be earlier than Business Date.
GEN01080	Arrival Date cannot be earlier than Cancel Date.
GEN01081	Arrival cannot be earlier than Business Date.
GEN01082	Stay Date cannot be earlier than Arrival From.
GEN01083	Arrival To cannot be earlier than Arrival From.
GEN01084	Stay Date cannot be earlier than Arrival To.
GEN01085	Guest Type must be numeric
GEN01086	End Date cannot precede Start Date.
GEN01087	Amount must be a whole number.
GEN01088	Hub code cannot exceed 8 characters.
GEN01091	Code cannot exceed 10 characters.
GEN01092	Rule code cannot exceed 8 characters.
GEN01093	Description cannot exceed 40 characters.
GEN01094	Chain Code cannot exceed 8 characters.
GEN01095	Hotel Code cannot exceed 8 characters.
GEN01096	Start Date cannot be after End date.
GEN01099	Rule Code is required.
GEN01100	Profile Type is required.
GEN01150	Transaction Code criteria cannot exceed 100 items
GEN01151	Payment Method criteria cannot exceed 100 items
GEN01152	Article Code criteria cannot exceed 100 items
GEN01153	Property is required.



Table 16-3 (Cont.) Generic Messages – Error Codes

Error Code	Error Description
GEN01154	Code is required.
GEN01155	Description is required.
GEN01172	End data should be later than begin data.
GEN01175	Please fill all fields in Configuration section
GEN01179	Start date must be less than Business date.
GEN01181	End date must be less than Business date.
GEN01186	Formula is invalid.
GEN01187	Database ID not found. Valid Interface type and/or resort must be provided
GEN09995	The request timed out Possibly too many records were returned/ processed Please narrow your query and try again
GEN09996	Record is locked
GEN09997	An unexpected error has occurred, Please contact your administrator
GEN10001	Request resulted into zero records in the response
GEN10002	Response does not contain all records
GEN10003	No data to display
GEN10004	Access Denied
GEN10005	Please select a Channel
GEN10006	Exception while converting Date
GEN10007	Errors while copying
GEN10008	Invalid code - {0}
GEN10009	Property criteria cannot exceed 100 items
GEN10010	This code has dependencies and cannot be deleted
GEN10011	Error found while deleting the group and cannot be deleted
GEN10012	Finalizer Class is not defined in the WSPort [{0}]
GEN10013	Method to finalize for operation [{0}] is not defined in class [{1}]
GEN10014	Hotel code cannot be empty
GEN11001	Please revise search criteria
GEN11002	Owner Code must have at least two characters to search
GEN11004	Connection was not established
GEN11012	Use (*) for wildcard search
GEN11016	Please, use Level="ALL" instead of selecting many items.
GEN30001	Credit Card Payment Method cannot be determined
GEN30016	Interface system responded with an Error: {0}



Master Data Management Services (MDM)

Table 16-4 Master Data Management Services – Error Codes

Error Code	Error Description
MDM00001	The LOV required parameter is missing
MDM00002	Invalid Room Type
MDM00003	The LOV Name in the request is not supported
MDM00004	The LOV parameter name in the request is not supported
MDM00010	Request parameter required for menu
MDM00014	Request application parameter does not exist
MDM00015	At least one option is required for the Quick Links menu
MDM00016	Quick Links allows for a maximum of {0} options
MDM00020	Activity group params are required
MDM00021	Missing required activity group REP_CONFIGURATION
MDM00027	Exception querying user activity log types LOV for group [{0}]:{1}
MDM00030	Exception querying Hotel Events Info: {0}
MDM00040	Code is required for Image Path
MDM00041	No image path found for code [{0}]
MDM00042	Missing required image parameter(s)
MDM00043	No image sets specified for update
MDM00045	Unable to update image set [{0}] - cannot locate original record for key {1}
MDM00061	Cannot update a [{0}] that has already been deleted
MDM00062	Cannot create new site plan A duplicate Site Plan already exists
MDM00063	Cannot create new site plan section A duplicate section already exists
MDM00080	Report ID is required
MDM00081	Error changing property to [{0}]
MDM00082	Report module ID is invalid
MDM00083	Error changing running app
MDM00089	Request does not contain Rate Category details
MDM00090	Rate Code exists for Rate Category {0} It cannot be deleted
MDM00091	Rate Category {0} already exists for the Property {1}
MDM00095	Required parameter Chain code is missing
MDM00097	Unable to retrieve Marketing Cities
MDM00098	Template code {0} already exists
MDM00099	Template Guarantee code is marked for Mass auto cancellation, Please specify
	Pending days or mark it as Deposit required
MDM00100	Template code {0} does not exist
MDM00101	Reservation Type {0} already exists for property {1}



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM00102	Guarantee code is marked for Mass auto cancellation, Please specify Pending days or mark it as Deposit required
MDM00103	Guarantee code {0} does not exists
MDM00105	Guarantee code {0} cannot be deleted It has dependent records
MDM00106	System is not properly configured for BLOB storage type: ATTACHMENT_SCHEMA_NAME is incorrect or missing
MDM00110	Transaction Code $\{0\}$ is used as an Adjustment for Transaction Code $\{1\}$
MDM00111	Transaction Code {0} is used as a Package Profit Transaction Code
MDM00112	Transaction Code {0} is used as a Package Loss Transaction Code
MDM00113	Transaction Code {0} is used for a {1} Payment Method
MDM00114	Transaction Code {0} is used as {1}
MDM00115	Transaction Code {0} does not exist
MDM00116	Trace text with the same settings already exists
MDM00117	The selected trace text is not allowed to be deleted
MDM00120	Departure room default task already exists
MDM00121	Housekeeping task {0} for property {1} does not exist
MDM00124	Cannot delete housekeeping task that is in use
MDM00125	There already exists a Primary Image in this category Please set Image Order to a different value
MDM00128	Housekeeping code {0} for property {1} does not exist
MDM00130	Report ID is required in order to lookup status
MDM00132	Housekeeping code description cannot exceed 40 characters
MDM00134	Transaction Code already exists
MDM00138	Deposit Posting Transaction Code cannot be marked as Revenue or Paid out
MDM00142	Transaction Code is used as a Generates Deposit Posting flag does not match with the main Transaction Code
MDM00157	Template Marketing City {0} in Region {1} already exists
MDM00158	Marketing City $\{0\}$ in Region $\{1\}$ for the Property $\{2\}$ cannot be found to delete
MDM00160	Marketing City $\{0\}$ in Region $\{1\}$ for the Property $\{2\}$ cannot be found to update
MDM00161	Template Marketing City {0} in Region {1} cannot be found to update
MDM00162	Marketing City cannot contain commas
MDM00163	You must select at least 1 Marketing City Template to copy to the Property
MDM00164	You must select at least 1 Property to copy the Marketing City Template(s) to
MDM00178	Template Airport Code {0} cannot be found to update



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM00183	Reason Code {0} already exists for the Property {1}
MDM00103	Latitude degree must be between 0 and 90
MDM00193	Longitude degree must be between 0 and 180
MDM00194 MDM00195	Local Currency is required
MDM00193	Short Date Format is required
MDM00197 MDM00198	You must select at least 1 Property to copy the Reason Template(s)
	to
MDM00205	No Record Found
MDM00207	Restaurant Code {0} already exists for the Property {1}
MDM00214	The Restaurant Code should be less than or equal to 8 characters
MDM00215	The Restaurant Description should be less than or equal to 40 characters
MDM00216	The Restaurant type should be less than or equal to 40 characters
MDM00225	Season code {0} cannot be found to delete
MDM00229	Season code {0} for property {1} has {2} dependencies and cannot be deleted
MDM00230	Property {0} is already the alternate hotel for the Property {1}
MDM00232	Alternate Hotel {0} for the Property {1} cannot be found to delete
MDM00233	Prefix must be numeric
MDM00235	Exception updating user log table {0}
MDM00236	Web Registration Card Created for Script ID [{0}] Property [{1}] Language Code [{2}] Membership Type [{3}]
MDM00240	Contact with Name ID {0} for the property {1} cannot be found to delete.
MDM00243	Country Code {0} for the Property {1} already exists
MDM00244	Template Country Code {0} already exists
MDM00261	This Membership Type already exists Please enter another type
MDM00262	Cannot update Child records exist
MDM00263	Membership type description required
MDM00264	Sequence already exists
MDM00265	Cannot delete Record has dependent records
MDM00266	Catering Currency is required
MDM00267	Catering Currency Format is required
MDM00268	There already exists an Image in this category
MDM00269	Adjustment Code {0} for property {1} already exists
MDM00270	Adjustment Code {0} for property {1} does not exist
MDM00271	Code cannot be empty
MDM00272	Source Property cannot be empty
MDM00273	Target Property cannot be empty for the reason code {0}



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM00275	Please enter Property Name
MDM00284	State Code should be less than or equal to 8 characters
MDM00285	Country Code is required
MDM00287	Country Code should be less than or equal to 3 characters
MDM00288	State code {0} already exists for Country {1}
MDM00289	Statistic Code is required
MDM00290	Statistic Code should be less than or equal to 3 characters
MDM00291	Default Address Format is required
MDM00292	Default Address Format should be less than or equal to 20 characters
MDM00293	Address Doctor Mode should be less than or equal to 20 characters
MDM00294	Region Code should be less than or equal to 3 characters
MDM00295	ISO Code should be less than or equal to 20 characters
MDM00296	ISO Name should be less than or equal to 40 characters
MDM00297	Report Sequence should be between 0 and 99999
MDM00298	Sequence should be between 0 and 99999
MDM00299	Description is required
MDM00300	Room Class {0} already exists
MDM00301	Sell Sequence must be between 1 and 99999
MDM00302	Room Class is required
MDM00303	Room Class must be less than or equal to 20 characters
MDM00304	Description must be less than or equal to 2000 characters
MDM00305	Description should be less than or equal to 40 characters
MDM00306	Hotel Code is required
MDM00307	Property should be less than or equal to 20 characters
MDM00308	State {0} for the Country {1} cannot be found to update
MDM00309	State with ID {0} cannot be found to delete
MDM00310	Room Amenities should be less than or equal to 2000 characters
MDM00311	Card Range must be numeric value
MDM00312	Revenue Bucket Type {0} for property {1} does not exist
MDM00313	Cannot delete the {0} revenue bucket type
MDM00314	Please enter either a city or from postal code
MDM00315	Postal code should be less than or equal to 15 characters
MDM00316	City should be less than or equal to 40 characters
MDM00317	Territory Code should be less than or equal to 20 characters
MDM00318	District Code should be less than or equal to 10 characters
MDM00319	City Postal Code with From Postal Code {0}, To Postal Code {1}, City {2}, State Code {3} and Country Code {4} already exists



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM00320	City Postal Code with sequence {0} cannot be found to update
MDM00321	City Postal Code with sequence {0} cannot be found to delete
MDM00322	Could not update/delete city postal code without city postal code ID (sequence number).
MDM00323	Track it Groups cannot be empty
MDM00324	Record for Code {0} and Resort {1} does not exist
MDM00325	Display Sequence already exists Please enter a new Display Sequence
MDM00326	Code {0} already exist. Please enter different code
MDM00327	Entity Type, Level Type, and Level Code are required to retrieve protection configurations
MDM00328	Entity Type, Level Type, Level Code, and Protection Groups are required to set protection configurations
MDM00329	Definition record could not be found for screen {0}
MDM00330	Definition record could not be found for screen {0} and field {1}
MDM00331	Cannot delete Record has dependent records
MDM00332	Cannot delete Code is used as a default
MDM00334	Failed to copy $\{1\}$ to property $\{2\}$ Transaction Code $\{0\}$ of $\{1\}$ does not exist or
	Type/Subgroup/Group does not match
MDM00336	Track it Group cannot be empty
MDM00337	Code cannot be longer than 8 characters
MDM00339	Description cannot be empty
MDM00340	Description cannot exceed 40 characters
MDM00341	Message Code cannot be empty
MDM00342	Invalid value of Action Status must be Open or Closed
MDM00343	Invalid Message Code please enter a valid value
MDM00344	Record with Code {0} already exists for Property {1}
MDM00345	Turn away code {0} for property {1} does not exist
MDM00346	Turn away code {0} does not exist
MDM00347	Unsuccessful copy to Property {0}: Track-It Action code {1} already exists
MDM00348	Resort cannot be empty
MDM00349	Code cannot be empty
MDM00350	Unsuccessful copy to Property {0}: Track-It Type code {1} already exists
MDM00351	Unsuccessful copy to Property {0}: Track-It Location code {1} already exists
MDM00352	Turn away Code {0} for property {1} already exists
MDM00353	Code cannot be empty
MDM00354	Description cannot be empty



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM00355	Property cannot be empty
MDM00356	Turn away type cannot be empty.
MDM00357	Code cannot exceed 8 characters
MDM00359	Reservations exist for turn away code {0}
MDM00360	Turn away code {0} already exist
MDM00361	Sequence should be between 0 and 999
MDM00366	Code cannot be empty
MDM00367	Hotel Code cannot be empty
MDM00368	Record with Arrangement ID {0} does not exist for property {1}
MDM00371	Code {0} already exists for property {1}
MDM00372	Code {0} does not exist for property {1}
MDM00373	Code has an invalid character: ,
MDM00374	Transaction code {0} does not exist for property {1}
MDM00375	Description cannot exceed 40 characters
MDM00376	Validation rules are not allowed with Chip and Pin
MDM00378	Number Code {0} does not exist
MDM00379	Cannot invalidate package arrangement {0} for property {1} as it is associated to one or more packages
MDM00380	Rule code {0} has been successfully copied to property {1}
MDM00382	Yield category {0} already exist for Property {1}
MDM00383	Unsuccessful copy to Property {0}: {1}
MDM00385	Yield adjustment code {0} already exists for property {1}
MDM00386	Routing Code cannot be deleted It has dependent records
MDM00387	Yield Category {0} for Property {1} cannot be found to update
MDM00388	Yield Category {0} for the Property {1} cannot be found to delete
MDM00389	Yield Category cannot be deleted, Dependencies exist
MDM00390	Code cannot be empty
MDM00391	Description cannot be empty
MDM00392	Code cannot be greater than 8 characters
MDM00393	Property cannot be empty
MDM00394	Description cannot be greater than 25 characters
MDM00395	Cannot find Year ID {0} for Property {1}
MDM00396	Year cannot be empty
MDM00397	Description cannot be empty
MDM00398	Start Date cannot be empty
MDM00399	End Date cannot be empty
MDM00400	Year Type can only be Calendar or Fiscal



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM00402	Overlapping days within the year {0}
MDM00403	Year for Property {1}, Start Date {2} and Type {0} already exists
MDM00404	End Date cannot be before Start Date
MDM00405	Year Type cannot be empty
MDM01003	Revenue Types cannot be empty
MDM01004	The rule code {0} is already exists in property {1}
MDM01005	The rule code {0} was not found in property {1}
MDM01006	An error occurred while copying rule code {0} to property {1}
MDM01007	Revenue Group {0} already exists
MDM01008	Label cannot be empty
MDM01009	Revenue Type {0} already exists
MDM01011	Revenue Group Code {0} does not exist
MDM01012	Revenue Type {0} does not exist
MDM01013	Export Bucket Code {0} is already associated to another revenue type
MDM01015	Year ID cannot be empty
MDM01016	Property cannot be empty in the Search Criteria
MDM01018	Year should be 4 digits long
MDM01019	{0} already exists
MDM01020	Property Group {0} already exists
MDM01021	Market code is required
MDM01022	Cannot inactivate the attendant, dependent records exist
MDM01023	{0} Market group does not exist
MDM01024	{1} already exists for market group {0}
MDM01025	{code} in {resort} already exists
MDM01026	Hotel code is required.
MDM01027	Hotel Code cannot be greater than 20 characters
MDM01029	From room type is required
MDM01030	Display Sequence already exists
MDM01031	From room type cannot be greater than 20 characters
MDM01032	To room type is required
MDM01033	To room type cannot be greater than 2000 characters
MDM01034	Display sequence must be 1 or higher
MDM01035	Room Hierarchy Type is required and valid values are 'Type' and 'Class'.
MDM01036	From room class is required
MDM01037	From room class cannot be greater than 20 characters
MDM01038	To room class list is required
MDM01039	To room class list cannot be greater than 2000 characters



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01040	Invalid codes [{0}] specified for property {1}
MDM01041	Market Group {0} cannot be deleted It has dependent records
MDM01043	To codes cannot contain from code [{0}]
MDM01044	Duplicate Record Found
MDM01045	Type cannot be empty
MDM01046	Membership level {0} for type {1} cannot be found to update
MDM01047	Membership level {0} for type {1} cannot be found to delete
MDM01049	Description cannot be greater than 40 characters
MDM01050	Membership level {0} already exist for type {1}
MDM01051	Rank already exists
MDM01052	Membership level cannot be deleted, Dependencies exist
MDM01053	Report Group Already Exists
MDM01054	Revenue Type Code cannot be empty
MDM01055	Unable to copy code {0} to property {1}
MDM01056	Only maximum of 7 Meal Types are allowed to be configured
MDM01057	Record does not exist for property {0} and location code {1}
MDM01058	Cannot delete location code that is being used
MDM01059	Location {0} for Property {1} already exists
MDM01062	Cannot delete Record has dependent records
MDM01063	Notes Group cannot be empty in the Search Criteria
MDM01064	Sequence must be between 1 and 99999
MDM01065	Cannot remove SID Note Codes
MDM01066	Cannot create a new revenue group There are already 9 or mor revenue groups
MDM01067	Rate Group {0} already exists
MDM01069	Rate Code {0} already exists for Rate Group {1}
MDM01071	Room Type cannot be empty
MDM01072	Room Category cannot be empty
MDM01075	Report group has reports attached Cannot be deleted
MDM01077	A record already exists for this combination
MDM01078	Report group has reports attached in other resorts Cannot be deleted
MDM01079	This report group cannot be deleted
MDM0108	Report group is attached to user groups Cannot be deleted
MDM01082	Record does not exist for this combination
MDM01083	Property shell is Busy
MDM01084	Period Type cannot be empty in the search criteria
MDM01085	Fiscal Period with Year ID {0} for Property {1} starting on {2} do not exist



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01086	Period Type can only be Calendar or Fiscal
MDM01087	Period with Year ID {0} for Property {1} starting on {2} already exists
MDM01088	Period {0} for Property {1} for Year ID {2} of Type {3} already exists
MDM01089	Overlapping days within the period {0}
MDM01090	Period dates should be between {0} and {1}
MDM01091	Custom database API name is required
MDM01092	Custom database API call error - {0}
MDM01093	Only one class may be selected as a loyalty program.
MDM01094	Only one class may be selected as a frequent flyer program
MDM01095	Membership class Code {0} does not exists
MDM01096	Membership class code {0} already exists
MDM01097	Membership class code cannot be empty
MDM01100	Display Sequence already exists
MDM01101	One Membership Class code cannot be flagged as both loyalty and frequent flyer program
MDM01102	Membership Class code cannot be greater than 8 characters
MDM01106	Cycle cannot be empty
MDM01107	The number must be between 1 and 999
MDM01108	Rate Group {0} does not exist
MDM01109	Period Prefix cannot be longer than 3 characters
MDM01110	{1} already exists for property group {0}
MDM01111	{0} Property group does not exist
MDM01112	{1} already exists for property group {0}
MDM01113	Cannot delete setup style that is being used
MDM01114	Setup Style Code ID cannot be empty
MDM01115	Transaction Group {0} already exists
MDM01116	Transaction Group {0} does not exist
MDM01117	Transaction Group details cannot be empty
MDM01119	Property Group {0} cannot be deleted It has dependent records
MDM01120	Setup Style {0} already exists
MDM01122	{0} cannot be empty for LOS Range {1}
MDM01123	Number of tiers has to be between 2 and 5
MDM01124	The first LOS Range must begin with 1
MDM01125	The Start LOS for LOS Range {0} must be exactly 1 more than the End LOS for LOS Range {1}
MDM01126	The End LOS cannot be less than the Start LOS for LOS Range {0}
MDM01127	{0} should not be greater than {1}



Table 16-4 (Cont.) Master Data Management Services – Error Codes

MDM01128	Viold Adjustment Code (0) for the Presents (1) connet be formed to
	Yield Adjustment Code {0} for the Property {1} cannot be found to delete
MDM01129	Yield Adjustment Code {0} for the Property {1} cannot be found to update
MDM01130	Yield Adjustment Code cannot be deleted, Dependencies exist
MDM01131	Yield Adjustment Code {0} cannot be found to copy to Property {1
MDM01132	Unsuccessful copy to Property {0} : Yield Adjustment Code {1} already exists
MDM01133	Successfully Copied Yield Adjustment Code {0} to Property {1}
MDM01134	Currency code cannot be empty
MDM01135	Number of Upsell occupancy levels has to be between 1 and 4
MDM01136	{0} cannot be empty for Upsell occupancy {1}
MDM01137	The first Upsell occupancy must begin with 0
MDM01138	The ToOccup for upsell occupancy {0} must be exactly 1 more than the FromOccup for upsell occupancy {1}
MDM01139	The FromOccup cannot be less than the ToOccup for upsell occupancy {0}
MDM01140	{0} can take only Y or N
MDM01141	Request cannot be empty
MDM01142	Please Enter Market Code
MDM01144	Please enter at least one search criteria
MDM01146	Property Note with ID {0} cannot be found to update
MDM01147	Property Note with ID {0} cannot be found to delete
MDM01148	Note Type is required
MDM01149	Note Type should be less than or equal to 20 characters
MDM01150	Note Title is required
MDM01151	Note Title should be less than or equal to 200 characters
MDM01152	Note is required
MDM01153	Note should be less than or equal to 4000 characters
MDM01154	Period Type cannot be empty.
MDM01155	There is an exception while inserting folio Text Please contact Administrator
MDM01156	Hub code cannot be empty
MDM01160	Note ID is required
MDM01161	Stop Processing Reason Code {0} does not exists
MDM01162	Enrollment Group {0} already exists
MDM01163	Stop Processing Reason Code {0} already exists
MDM01164	Enrollment Group {0} does not exist
MDM01165	Enrollment Codes cannot be empty
MDM01166	Stop Processing Reason code cannot be empty



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01167	Stop Processing Reason code cannot be greater than 8 characters
MDM01168	Enrollment Code cannot be empty
MDM01174	Yield Market Code {0} already exists for the Property {1}
MDM01176	Number of levels has to be between 2 and 6
MDM01178	The first level must begin with 1
MDM01179	The Start value for level {0} must be exactly 1 more than the End value of level {1}
MDM01180	The End value cannot be less than the Start value for level {0}
MDM01188	Tax Percentage should be between 0 and 100
MDM01189	{1} Property already exists for Revenue Type {0}
MDM01190	{0} Revenue Type does not exist
MDM01192	Branch Code cannot be empty
MDM01193	Account Number cannot be empty
MDM01194	Currency cannot be empty
MDM01198	Account ID cannot be empty
MDM01200	Property code of source property is required
MDM01201	Property creation method not found
MDM01202	Event code {0} for property {1} does not exist
MDM01204	Cannot delete an Event code that is being used
MDM01206	Bank account with account ID {0} for property {1} does not exist
MDM01207	There are active transactions in this bank account Cannot delete
MDM01208	Bank account cannot be deleted Active Travel Agent or Source profiles attached
MDM01209	The Payment Method cannot be changed, there are commission records existing Please create a new Bank Account for the new Payment Method
MDM01210	Check number has already been used
MDM01211	{0} Revenue Group does not exist
MDM01212	Sequence must be between 0 and 99999
MDM01214	Branch Code cannot be longer than 20 characters
MDM01215	Invalid value of payment method. It should be 'CHK', 'CENT' or 'EFT'.
MDM01218	Invalid file name
MDM01219	Invalid file extension
MDM01220	Cannot delete {0} Revenue Group has dependent records
MDM01221	Invalid codes {0} specified for {1}
MDM01223	Reservation queue and pre stay charges cannot be active at the same time
MDM01224	External System {0} already exists
MDM01225	Unable to create External System User {0}



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01226	Unable to delete External System {0} as Publishers exist
MDM01227	Unable to delete External System {0} as Action Subscribers exist
MDM01228	Unable to delete External System Users {0} due to {1}
MDM01230	Class ID cannot be empty
MDM01231	Updating Event Items failed
MDM01234	Class ID {0} cannot be found to delete
MDM01235	Item Class {0} for property {1} cannot be found to update
MDM01236	Label {0} for property {1} already exists
MDM01237	Quick Insert Code must be unique
MDM01244	Invalid SQL formula
MDM01245	Invalid formula for Column Name
MDM01246	Inventory Item with ID {0} for Resort {1} cannot be found to update
MDM01249	Item Rate $\{0\}$ for Property $\{1\}$ is in used in Events It cannot be deleted
MDM01250	Item {0} in Property {1} is associated with an Item Pool It cannot be deleted
MDM01251	Item {0} in Property {1} is associated with Auto-Attach Reservations It cannot be deleted
MDM01252	Item {0} in Property {1} is attached to Packages It cannot be deleted
MDM01253	Unsuccessful copy to Property {0}: {1} already exists
MDM01254	Successfully copied code {0} to Property {1}
MDM01256	Copy Code(s) was successful
MDM01257	Unsuccessful copy to Property {0}: {1} does not exists
MDM01259	Day of Week does not match the date range specified
MDM01260	At least two Item Codes must be selected
MDM01261	Property cannot be empty
MDM01262	Item Class cannot be empty
MDM01263	Code cannot be empty
MDM01264	Description cannot be empty
MDM01265	Code {0} already exists
MDM01266	Code {0} not exists
MDM01267	Sequence should be between 0 and 99999
MDM01269	Invalid where clause in the filter column
MDM01270	Could not update invoice aging levels Please try again later
MDM01275	{0} Market code does not exists
MDM01276	Quantity in stock must be a positive number
MDM01277	An Item Vendor is required when the External Order flag is checked



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01279	Property {0} can be associated only once for Revenue Type {1}
MDM01280	Invalid value {0} specified for {1}
MDM01281	Vendors must be unique for Inventory Items Please check for duplicates
MDM01282	Default Print Sequence cannot be empty
MDM01283	Invalid value specified for {0} Value need to be a {1}
MDM01285	Date entered must be greater than or equal to business date
MDM01286	Move to window takes either Y or N.
MDM01287	Please specify the physical device
MDM01288	{0} already exists, please specify another one
MDM01289	Please specify a valid printer
MDM01290	Code should be less than or equal to 8 characters
MDM01291	Description should be less than or equal to 40 characters
MDM01295	Code has an invalid character: '
MDM01296	Day type code {0} for property {1} does not exist
MDM01297	Day type code {0} does not exist
MDM01298	Cannot delete a day type code that is being used
MDM01301	Code {0} cannot be deleted It has dependent records
MDM01302	Code {0} does not exists
MDM01303	Year cannot be empty
MDM01307	Please specify at least one segment criteria to fetch budget forecast information
MDM01308	There are Commission transactions Currency Code cannot be changed
MDM01309	Error Activating Link Down Mode
MDM01310	Error Inactivating Link Down Mode
MDM01318	Invalid Item Codes {0}
MDM01319	Successfully copied {0} Code {1} to Property {2}
MDM01322	Search criteria is empty
MDM01323	Arrival Date is required
MDM01324	Nights is required
MDM01325	Adults is required
MDM01326	Preference Group Code {0} cannot be found
MDM01327	Based on should have at least one condition
MDM01328	Number of Rooms is required
MDM01329	Room Type is required
MDM01330	Script requires html and body tags
MDM01332	Invalid column format mask
MDM01333	Required parameter missing from request



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Farman O a la	Europ Bookinsting
Error Code	Error Description
MDM01335	Days in Advance cannot be greater than 5 digits
MDM01336	A parameter in the request is not supported
MDM01337	Amount - Enter a value between 0 and 99999999999999
MDM01338	Percent - Enter a value between 0 and 100
MDM01339	Occupancy levels - Enter a value between 0 and 9999999999999999
MDM01340	Occupancy levels - Enter a value between 0 and 100
MDM01341	Folio needs to be generated before guest check out
MDM01342	Cannot checkout this Guest with an Open Folio
MDM01343	The Reservation Folio is not Open
MDM01344	Reservation can't be found with the supplied hotel code and reservation ID
MDM01347	Exchange service tax can only be configured if {0} has exchange service tax parameter active
MDM01348	From amount is required
MDM01349	To amount is required
MDM01350	Percentage is required
MDM01351	Code has to be one of these values [R1, R2, R3]
MDM01352	Minimum service tax is required for R1 code and it should not be specified for any other code
MDM01353	Maximum service tax is required for code R3 and it should not be specified for any other code
MDM01354	{0} should be greater than or equal to {1}
MDM01355	To amount should be greater than from amount
MDM01356	Ranges overlapping each other Please check from amount and to amount
MDM01357	Resort is required
MDM01358	Code is required
MDM01360	Article No {0} does not exist in Source Property {1}
MDM01361	Item Class Code {0} does not exist in Property {1}
MDM01362	Article No {0} already exists in Property {1}
MDM01363	Item {0} copied to Property {1} successfully
MDM01364	Color should be between 0 and 1
MDM01365	Angle should be between 0 and 360
MDM01366	X-Position should be between 0 and 611
MDM01367	Y-Position should be between 0 and 1006
MDM01368	Font size should be between 0 and 72
MDM01370	Source Property is required
MDM01371	Destination property is required
MDM01372	Source Quick Insert Code is required
	•



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01373	Unable to create Export
MDM01374	Invalid data source name provided for export
MDM01375	Business Event module cannot be empty
MDM01376	Report Group is invalid
MDM01377	Data Element cannot be null
MDM01378	Business Event cannot be null
MDM01379	Failed
MDM01380	Method Name $\{0\}$ is not supported Please provide correct method name
MDM01381	{0} {1} not in expected format
MDM01382	Method {0} could not be found in {1} Please specify correct DB operation in data definition class
MDM01383	Please specify a DB operation name in {0} class
MDM01384	Process ID cannot be null
MDM01385	Message code in DB does not match the data sync status values in Enum
MDM01386	Total of Processor Threads per Instance should be equal to Forecast Processor Threads
MDM01387	Invalid Room Type Configuration as Room Type {0} is not unique
MDM01388	{0} is required
MDM01390	Credit Rating {0} already exists.
MDM01391	Operations on credit ratings can only be performed when credit ratings parameter is on
MDM01392	Mapping Codes exist for the selected Mapping Type {0}
MDM01394	Alert ID is required to delete global alert
MDM01395	Default Closing Script cannot be deleted.
MDM01396	Default Web Registration Card cannot be deleted.
MDM01397	A queue name already exists Please use a different queue name
MDM01399	Please enter numbers in this field
MDM01400	Start Bill No with selected series already used please select another start bill no
MDM01401	Start Bill No must end with a number and should be greater than 999
MDM01402	Starting folio number has to be greater than the max folio no
MDM01403	Please enter a Starting Folio No
MDM01404	Invalid Export Mapping Type specified for {0}
MDM01406	LOV Name cannot be empty when UseLOV flag is turned on for {0}
MDM01407	Data type is required for {0}



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01409	Description is missing for mapping codes {0}
MDM01410	The Export Mapping Code "{0}" is linked already at the Mappings screen It cannot be deleted
MDM01411	{0} mapping codes are not found
MDM01412	Cannot create Day Type The Parameter Day Types is not active for property {0}
MDM01413	Term code can't be null
MDM01414	Language code can't be null
MDM01415	No record found to update
MDM01416	Rate floor can only be configured if {0} has rate floor parameter active and rate floor level of control parameter set to 'Room Type Level'.
MDM01417	Language cannot exceed 5 characters
MDM01418	VIP code cannot be empty
MDM01419	Special type cannot be empty
MDM01420	Keyword type cannot be empty
MDM01421	Rate code cannot be empty
MDM01422	Preference cannot be empty
MDM01423	Membership cannot be empty
MDM01424	Minimum number of adults cannot be empty
MDM01425	Minimum number of children cannot be empty
MDM01426	Preference Code cannot be empty
MDM01431	Number of open brackets should be equal to number of close brackets
MDM01432	Based on cannot be null or invalid type
MDM01437	External System Code is missing
MDM01442	Code and property required to create/update/delete the service request code
MDM01444	Hotel name not specified
MDM01445	Special characters are not allowed
MDM01446	Code with blank space is not allowed
MDM01448	The selected authorization rule is not allowed to be deleted
MDM01450	Datamart is active, please synchronize the data from the interfaced property
MDM01451	Cannot run Synchronization PMS license is inactive for this property
MDM01452	Invalid module name was specified
MDM01453	An error occurred while running Synchronization
MDM01455	This parameter cannot be changed because the parameter USE_TIME_ZONES_FOR_ACTIVITIES is active
MDM01456	Cannot disable the parameter value, Title Suffix exist



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01457	Rate transactions defined on the Room Class level exist You cannot turn off this parameter
MDM01458	Advanced Deposit Handling Setting is currently set to a value different from 0, 1 or
	2, Credit Card Surcharge can only be activated when the Advanced Deposit Handling Setting is set to 0, 1 or 2
MDM01459	This parameter cannot be changed because Cashiers are currently attached to multiple Users Please check the Cashier configuration
MDM01460	Cannot set {0} to {1} when {2} = {3}
MDM01461	Records exist for FOLIO_TYPE_METHOD = {0} Cannot change FOLIO_TYPE_METHOD
MDM01462	Rates and/or Packages are configured using foreign currency
MDM01463	FOLIO_GENERATION parameter is turned off GENERATE_ZERO_BILL parameter cannot be turned on
MDM01464	Collecting Agent Taxes are configured using Tax Types
MDM01465	Active wake up calls exist. Cannot inactivate wake up calls function.
MDM01466	{0} parameter cannot be turned off while rational dynamic pricing function is on.
MDM01467	{0} function cannot be turned off while rational dynamic pricing function is on.
MDM01468	The "Default Transaction Code for Rate Codes" parameter is not defined
MDM01469	This parameter cannot be set to a PK (Wrapper) type transaction code
MDM01470	Events with alternate function space exist
MDM01471	Please change default for update, no show or cancel assigned room status before inactivating function.
MDM01472	If S & C is installed, Business Block cannot be turned off
MDM01473	Current or Future Blocks are still active Unable to inactivate Business Block function
MDM01474	The Default Block Code Template Parameter must contain at least seven Characters
MDM01475	Shoulder Dates cannot be disabled
MDM01476	Cannot turn the block type parameter to off in SCH mode.
MDM01477	Authorization rule already exists
MDM01478	Either a Room Type, Rate Code, Rate Category, Guarantee Code or Source Code must be specified
MDM01479	Either a Room Type, Room Class, Rate Code, Rate Category, Guarantee Code or Source Code must be specified
MDM01480	Authorization rule must be specified
MDM01481	Amount cannot be empty
MDM01482	Percentage cannot be empty



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01483	Date must be less than Business Date
MDM01484	Period code can't be null
MDM01485	Date range cannot be more than {0} months
MDM01487	S & C or SFA is active, cannot deactivate Owner
MDM01488	S & C is active, cannot deactivate Contacts
MDM01489	Please check the permanent folio storage file name format setting and remove {0}.
MDM01491	Auto Room Number Generation cannot be turned on because there is an active PMS license code
MDM01492	Auto Room Number Generation cannot be turned off because automatically generated room numbers exist
MDM01493	Print task {0} already assigned to {1}
MDM01494	Print task is required
MDM01495	Tile Code is required
MDM01496	Screen Code is required
MDM01497	{0} are not valid print tasks for {1} property
MDM01498	{0} is not a valid print task for {1} property
MDM01500	An error occurred while copying service request code {0} to property {1}
MDM01501	The service request code {0} is already exists in property {1}
MDM01502	The service request code {0} was not found in property {1}
MDM01503	Name {0} in category {1} already exists
MDM01504	Telephone Name is required
MDM01505	Telephone book entries is required
MDM01506	Telephone Category is required
MDM01507	Category code is required
MDM01508	Category code {0} in Property {1} already exists
MDM01509	Category code {0} does not exist
MDM01510	Category code {0} does not exist for property {1}
MDM01511	From Date cannot be empty in Search Criteria.
MDM01512	To Date cannot be empty in Search Criteria
MDM01515	To Date cannot be less than From Date
MDM01516	{0} cannot be greater than {1}
MDM01517	Item Template {0} with ID {1} does not exist
MDM01518	Item ID $\{0\}$ already exists for Item Template ID $\{1\}$ under property $\{2\}$
MDM01519	Name {0} in category {1} does not exist
MDM01521	Property Shell Name Required
MDM01522	Minutes to wait before killing logged sessions should be within 1 to 99



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Freez Decerintion
MDM01523	Account ID should be in correct format
MDM01524	Maximum number of characters for Account ID is 20.
MDM01524 MDM01526	Base directory location (USER_DUMP_DEST1) for import/export
WDW01320	not found in DBMS directories
MDM01527	Import shell directory not found
MDM01528	insert_prpsid file is not found in import shell directory.
MDM01529	insert_chnsid file is not found in import shell directory.
MDM01530	insert_crosid file is not found in import shell directory.
MDM01531	insert_syssid file is not found in import shell directory.
MDM01532	insert_repsid file is not found in import shell directory.
MDM01534	Auto Folio Settlement Preference cannot be null
MDM01535	Telephone Book Entry ID is required
MDM01536	Telephone Book Entry ID is incorrect
MDM01537	The ID {0} is not correct, please check it
MDM01539	Proposed Date cannot be empty
MDM01540	Property and Proposed Date are required
MDM01541	Telephone Categories is required
MDM01542	Credit card reader device ID does not exits
MDM01543	Online Settlement Functionality cannot be activated when Batch Settlement is active.
MDM01544	Either Online Settlement or Authorization Settlement at Checkout must be active.
MDM01545	Online Settlement must be active while Chip and Pin functionality and Authorization at Check-In are active.
MDM01546	Batch Settlement Functionality cannot be activated when Chip and Pin is active.
MDM01547	Blacklist card check should be inactive
MDM01548	Either Online Settlement or Batch Settlement must be active
MDM01557	Category code {0} of Property {1} cannot be deleted. It has dependent records.
MDM01558	Credit card reader No {0} already exists
MDM01562	The selected schedule requires a day of week selection
MDM01563	The week number has to be provided for monthly repeat interval
MDM01564	Item ID {0} is already associated to another Pool Code
MDM01566	Invalid Class Code {0}
MDM01568	Invalid Distribution type - {0}
MDM01572	Invalid value specified for Print Invoice Details, Valid values are [Y, N, F]
MDM01573	Post On Day should be between 1 and 28
MDM01579	Reminder cycle has to be either days cycle or end of month cycle



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01581	Finance charges can only be configured when AR_FINANCE_CHARGES application function is active
MDM01582	Cycle for number of days {0} already exist
MDM01583	Reminder cycle not found for ID {0}
MDM01584	Invalid value specified for Reminder Cycle ID
MDM01585	Job name is required
MDM01586	Job name is invalid
MDM01589	Purge up to and Including cannot be greater than business date [{0}] of the property
MDM01591	{1} {2} cannot be copied to property {0} because the Room Class function is turned on at this property and {1} {2} does not have a valid room class configured
MDM01596	CRS Room Type {0} for property {1} already exists
MDM01597	Redemption Clearing Account and Redemption Reimbursement Account cannot be the same
MDM01598	Restriction(s) / Strategy is set for the room type {0} Currently it is not possible to delete the room type
MDM01599	Restriction(s) / Strategy is set for the room type {0} Currently it is not possible to inactivate the room type
MDM01601	Unable to calculate date value
MDM01602	Invalid Parent ID, the record could not be found for the given property
MDM01603	Start No is required
MDM01604	Start No must be less than or equal to End No
MDM01605	Unable to obtain lock Records are locked by another user
MDM01610	Guest message code {0} for property {1} does not exist
MDM01611	Guest message code {0} does not exist
MDM01612	Alert {0} cannot be deleted It has dependent records
MDM01613	Alert {0} of Property {1} cannot be deleted It has dependent records
MDM01614	{messageCode} already exists
MDM01615	{messageCode} in {resort} already exists
MDM01616	Message code is required
MDM01617	Message code cannot be greater than 8 characters
MDM01619	Room Number {0} already exist for property {1}
MDM01632	New Code cannot be empty
MDM01633	Commission code(s) cannot be empty
MDM01634	All room types must be moved to the default room class in order to deactivate the room class function. Use the utility in tool box to update the room class associated to a room type.
MDM01635	Failed to delete commission code



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01637	Status Code already exists Please provide a new value
MDM01638	Machine name is required
MDM01639	Interface Type is required
MDM01640	Product Code is required
MDM01641	Provide criteria to fetch commission code details
MDM01643	Active EFT interface already exists Please select a different Interface Type
MDM01644	Active CCW interface already exists Please select a different Interface Type
MDM01645	Machine ID or Machine Name does not exist
MDM01646	Interface already exists on the Resort
MDM01647	External Systems cannot be empty.
MDM01648	Status Code does not exist
MDM01651	Name is required
MDM01652	Market Code cannot be empty
MDM01653	Target Market Code cannot be empty
MDM01657	Sales and Catering Active Date cannot be empty
MDM01658	Commission code selected is already exists Please select another name
MDM01659	Provide criteria to fetch commission codes summary
MDM01660	Transactions exist for this code Cannot delete
MDM01661	The previous Revenue Type change for Property {0}, from Revenue Type {1} to {2} did not complete
MDM01662	The property is currently using this wash code Please select another
MDM01663	Another wash code currently exists for this property and cutoff day
MDM01664	Error found while deleting the wash code/ wash code detail and cannot be deleted
MDM01669	Inventory Item Template ID is required
MDM01671	Inventory Item ID is required
MDM01673	Service recovery adjustment code is wrong
MDM01676	Items copy operation was successful
MDM01677	Membership Type {0} does not exist
MDM01678	Cannot delete default bank account
MDM01679	Cannot delete primary contact
MDM01680	There was an error when trying to manage the export columns Please check the request and try again
MDM01681	Chip and Pin Functionality cannot be activated when Batch Settlement is active



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01682	Exclude Rate from Authorization based on Routing functionality cannot be activated when Rule 7 and Rule 8 are used as authorization rule
MDM01683	Block without Rate Code. New Room Type Rates for this block must be reviewed.
MDM01684	The request is missing required parameters
MDM01685	The add-on license {0} cannot be activated
MDM01692	Error found while creating the wash code/ wash code detail and cannot be created
MDM01693	Error found while updating the wash code/ wash code detail and cannot be updated
MDM01694	Smoking preference should be {0}
MDM01696	Please enter a number between 1 and 365
MDM01697	Value cannot be less than the current number of open business dates ($\{0\}$)
MDM01698	You cannot allow more than 999 for prompt privacy days.
MDM01699	The scheduled job does not exist in the queue please contact the system administrator
MDM01700	Create Property program is already in process please wait till process complete
MDM01702	Process ID cannot be empty
MDM01703	Pending Days should be greater than 0
MDM01704	An error occurred while attempting to validate the endpoint Please verify the connection details are correct and try again If the error persists please contact your administrator for assistance
MDM01705	Template code {0} cannot be removed
MDM01706	Room class cannot have multiple generic room types
MDM01707	Could not change Smoking Preference to {0} as Rooms with Room Type {1} have different Smoking Preference(s)
MDM01708	Room class is currently in use Please go to Toolbox to change the room class
MDM01709	Change room class failed
MDM01710	An error occurred while attempting to deliver the export Please contact your administrator for assistance
MDM01711	UPC must be unique
MDM01712	UPC Code cannot have non-numeric characters
MDM01713	Template Property Detail {0} under Category {1} does not exist
MDM01714	Template Property Detail {0} under Category {1} already exists
MDM01715	Property Detail Value Code cannot be blank
MDM01716	Property Detail Value Description cannot be blank
MDM01717	Property Detail Value {0} already exists for Template Property Detail {1} under category {2}



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01718	Template Property Detail Code cannot be blank
MDM01719	Template Property Detail Category cannot be blank
MDM01720	Template Property Detail Description cannot be blank
MDM01721	Template Property Detail {0} does not exist for Category {1}
MDM01722	Property Detail Value {0} does not exist for Property Detail {1} under Category {2}
MDM01724	An error occurred while changing the chain mode for property {0}
MDM01725	UPC Code length should be 12 digits
MDM01726	Property Detail {1} under Property {0} and Category {2} does not exist
MDM01727	Property Detail Code cannot be blank
MDM01728	Property Detail Category cannot be blank
MDM01729	Property Detail Resort cannot be blank
MDM01730	Property Detail Value {3} under Property {0} and Property Detail {1} and Category {2} already exists
MDM01731	Property Detail Value {3} under Property {0} and Property Detail {1} and Category {2} does not exist
MDM01732	One or more of the selected dates still has the Income Audit business date open which could lead you to believe an out of balance exists Prior to re-running this utility, we recommend you close all open business dates
MDM01733	Purged profiles exist. Please run imbalance analysis starting from {0}.
MDM01734	Attachment storage directory is not set for some resorts Please setup and try again
MDM01735	Global storage schema is not accessible Please check the configuration and try again
MDM01736	All attachments are not moved Please contact your support
MDM01737	Property preference using this template exists Please go to Toolbox to flag the template preference as Global
MDM01738	Dependencies were found You may not flag the template preference as not global
MDM01739	Code {0} already exists
MDM01740	{0} cannot be greater than {1} characters
MDM01741	Could not attach Element Type {0} to be based On {1}
MDM01743	User Defined Field Group {0} cannot be found to update
MDM01744	User Defined Field Group {0} cannot be found to delete
MDM01745	User Defined Field Group {0} cannot be deleted
MDM01746	User Defined Field Group {0} already exists
MDM01747	Group Code should be less than or equal to 8 characters
MDM01748	Invalid code {0} specified for {1}



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01749	Dependencies found Cannot modify group
MDM01750	Transaction Subgroup {1} cannot be copied as Transaction Group {0} does not exist in property {2}
MDM01751	Transaction Subgroup $\{0\}$ with group $\{1\}$ cannot be found to copy to property $\{2\}$
MDM01752	Transaction Subgroup {0} with group {1} already exists for the property {2}
MDM01753	Transaction Subgroup {0} with group {1} was copied to property {2} successfully
MDM01754	The Data Length should be less than or equal to 8
MDM01755	Group Code is required
MDM01756	Property Detail {1} under Property {0} and Category {2} already exists
MDM01758	Group Code is invalid
MDM01759	User Defined Field Value $\{0\}$ with Group Code $\{1\}$ cannot be found to update
MDM01760	User Defined Field Value $\{0\}$ with Group Code $\{1\}$ cannot be found to delete
MDM01762	Code {0} with Group Code {1} already exists
MDM01768	Successfully copied Property Detail {1} with Category {2} to Property {0}
MDM01772	Transaction Subgroup copy operation was successful
MDM01773	Cannot run Update Business Date PMS license should be inactive and S&C license should be active
MDM01774	This is a redemption reservation and cannot be cancelled
MDM01775	Reservation has associated cancellation rules
MDM01776	Reservation has suite night award request
MDM01777	Reservation has a deposit
MDM01778	Business Date Update failed
MDM01779	Please setup Line Number Prefix or Add to Line Numbers for each Line
MDM01780	The combination of Line Number Prefix and Add to Line Numbers cannot be same for different Lines
MDM01783	Unable to cancel
MDM01784	Export is delivered via interface.
MDM01787	Membership Benefit Program {0} for Membership Type {1} does not exist
MDM01789	Membership Benefit Program {0} for Membership Type {1} already exists
MDM01790	Membership Benefit Program {0} cannot be deleted It has dependent records
MDM01793	To Date cannot be empty



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01794	From Date cannot be empty
MDM01795	Membership Type cannot be empty
MDM01796	Minimum Membership Level cannot be empty
MDM01798	Membership Type {0} does not exist
MDM01799	Membership Level {0} does not exist for Membership Type {1}
MDM01800	Record with default relationship cannot be deleted
MDM01801	Profile link is protected, cannot delete
MDM01802	ROOMCLASS_YN parameter is not active for Property {0}
MDM01803	Resource is not available Cannot start another Background process Verify settings for job_queue_processes in initialization file
MDM01804	Forecast Processor is already running or a 'killed' session is still active in the database
MDM01805	The Block Data Processor is already running or a 'killed' session is still active in the database
MDM01806	Check Out Processor is already running or a 'killed' session is still active in the database
MDM01807	The Rate Strategy Processor is already running or a 'killed' session is still active in the database
MDM01809	Please enter a numeric value
MDM01810	Please Enter Y or N
MDM01811	A Maximum of {0} Application Functions can be selected when the OPERA Xpress license code (OPE) is active
MDM01812	A maximum of {0} Application Functions can be selected when the MICROS Hotel System license code is active
MDM01813	A maximum of {0} Application
	Functions can be selected when the OPERA PMS LITE license code is active
MDM01814	At least one comment type must be selected
MDM01815	Only one comment type can be selected when parameter Show All Comment Types is turned on
MDM01816	Please select from the list provided
MDM01817	Please select 10 tax buckets
MDM01818	This parameter cannot be changed because Cashiers are currently attached to multiple Users Please check the Cashier configuration
MDM01819	Cannot be activated if the OPZ_XXX license code is active
MDM01820	Please inactivate Campaign Management function first
MDM01821	Dependent rates exist on the current level and therefore the setting cannot be modified Please review dependent rate structure
MDM01822	Property Specific Potential records exist Parameter cannot be inactivated



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Please enter a value between 90 and 3650 Please enter a value between 90 and 1200 Parameter OWNER in Group GENERAL should be set to Y INTERACTIVE and FASTCOMPLETION modes cannot exist together Fixed charges cannot be deleted because records are being changed by another user Transactions already exist for {0} currency More than one business date exists Unable to change local currency Machine name already exists
Parameter OWNER in Group GENERAL should be set to Y INTERACTIVE and FASTCOMPLETION modes cannot exist together Fixed charges cannot be deleted because records are being changed by another user Transactions already exist for {0} currency More than one business date exists Unable to change local currency
INTERACTIVE and FASTCOMPLETION modes cannot exist together Fixed charges cannot be deleted because records are being changed by another user Transactions already exist for {0} currency More than one business date exists Unable to change local currency
together Fixed charges cannot be deleted because records are being changed by another user Transactions already exist for {0} currency More than one business date exists Unable to change local currency
changed by another user Transactions already exist for {0} currency More than one business date exists Unable to change local currency
More than one business date exists Unable to change local currency
currency
Machine name already exists
From date cannot be empty
To date cannot be empty
End date cannot be less than from date
Please enter a valid number
Please enter the fiscal end date as dd-mon-yy
Please enter the fiscal start date as dd-mon-yy
Parameter value cannot be null
Open Business Date(s) exist with incomplete "Print Final Reports process, Income Audit cannot be activated
Cannot switch the parameter INCOME_AUDIT to No Please close all business days first
Active waitlist reservations exists Please remove waitlist reservations prior to inactivating the function
Date/time must be entered in the following format: {0}
Dependent record exists
Function TASK ASSIGNMENT is activated! Unable to activate the SIMPLE TASK ASSIGNMENT function
Packages with allowances have been configured Application setting cannot be changed until the allowances are removed
Unable to deactivate Function, please deactivate CONSUME ALLOWANCE WHEN
NOPOST OR POST STAY FLAG
Please turn off CONTACTS function first
Please turn on RELATIONSHIPS function first
Please change the application setting for ROOM MOVE ROOM STATUS, before invalidating this function
Please change the Upsell Room Type's Room Status in Upsell Configuration Screen, before deactivating this function
Unable to deactivate Function, please change value for Application Setting
DEFAULT DAY USE ROOM STATUS



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01858	{0} cannot be activated while REAL TIME RATE/ROOM AVAILABILITY is active
MDM01859	Postings exist for transaction code {0} Parameter value cannot be changed
MDM01860	{0} exists Unable to inactivate the function
MDM01861	Parameter value cannot be changed while there are In-House guests
MDM01862	Dual Currency exists in financials, Cannot turn on this parameter
MDM01863	Value cannot be changed if {0} is active
MDM01864	FIXED BILL NUMBER PER WINDOW cannot be active if any of the following are active: FIXED BILL NUMBER PER RESERVATION, FOLIO NO REPRINT, FOLIO REVISION NUMBER
MDM01865	FIXED BILL NUMBER PER RESERVATION cannot be active if any of the following are active: FIXED BILL NUMBER PER WINDOW, FOLIO NO REPRINT, FOLIO REVISION NUMBER
MDM01866	FOLIO NO REPRINT cannot be active if any of the following are active: FIXED BILL
	NUMBER PER RESERVATION, FIXED BILL NUMBER PER WINDOW, FOLIO REVISION NUMBER
MDM01867	FOLIO REVISION NUMBER cannot be active if any of the following are active:
	FIXED BILL NUMBER PER RESERVATION, FIXED BILL NUMBER PER WINDOW, FOLIO NO REPRINT
MDM01868	Inclusive taxes have been defined for {0} Unable to activate {1}
MDM01869	Function SIMPLE TASK ASSIGNMENT is activated! Unable to activate the TASK ASSIGNMENT function
MDM01870	Function TASK ASSIGNMENT is activated! Unable to activate the SIMPLE TASK ASSIGNMENT function
MDM01871	Unable to inactivate the FACILITY MANAGEMENT function while the
	HOUSEKEEPING CREDITS application setting is equal to {0}
MDM01872	Customize Facility Schedule Prior To Check In parameter is active Unable to inactivate the function
MDM01873	Rates based on Base Rates are already setup!
MDM01874	Value cannot be less than 2
MDM01875	Please enter a positive number
MDM01876	Please enter numbers only
MDM01877	The Application Parameter value cannot be changed In House reservations exist where generates have been separated from their main transaction
MDM01878	Application Function cannot be activated unless {0} is active
MDM01879	VOID BILL Parameter has to be ON for this country mode
MDM01880	CREDIT BILL parameter cannot be activated when E-INVOICE parameter is active



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01881	{0} cannot be greater than {1}
MDM01882	{0} cannot be less than {1}
MDM01883	Chip and Pin Functionality cannot be activated with Batch Settlement Credit Card Function
MDM01884	Please activate either the Online Credit Card Settlement or the Authorization
	Settlement at Checkout option before activating the Chip and Pin functionality Either option is required for Chip and Pin functionality
MDM01885	A valid Payment Type CP was found Please change this payment type, before activating the Chip and Pin
MDM01006	Functionality Pact BAB by Day functionality is supportly active Places switch off
MDM01886	Best BAR by Day functionality is currently active Please switch off BBAR to use Dynamic Best Available Rates functionality
MDM01887	Best BAR by LOS functionality is currently active Please switch off BBAR to use Dynamic Best Available Rates functionality
MDM01888	Maximum of three Phone Types can be selected
MDM01889	Parameter ROUTING LIMITS cannot be turned ON as routing codes attached to other routing codes have been found Please correct your routing code configuration before attempting to activate this parameter
MDM01890	Parameter BYPASS CASHIER LOGIN must be set to N before activating parameter FLOATING CASHIER ID
MDM01891	Parameter FLOATING CASHIER ID must be set to N before activating parameter BYPASS CASHIER LOGIN
MDM01892	Unable to change the Transaction Code, as postings exist
MDM01893	Invalid source code
MDM01894	Invalid Room Class
MDM01895	Invalid market code
MDM01896	Reservations have been found with an open folio status Parameter POST STAY
	CHARGES cannot be turned OFF
MDM01897	Reservations have been found with pre stay charges Parameter PRE STAY
	CHARGES cannot be turned OFF
MDM01898	Parameter value cannot be less than 6
MDM01899	{0} value must be between {1} and {2} Please try again
MDM01900	Calculation Rule for the Early Departure Penalty Amount should be defined
MDM01901	Early Departure Penalty Transaction Code should be defined
MDM01902	Reservations with Pre Stay charges exist NO SHOW AND CANCELLATION
	POSTINGS cannot be deactivated



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01903	Session can't be timed out before 5 minutes Please set value greater than 4 Null value will switch off the functionality
MDM01904	Negative numbers are not allowed
MDM01905	Please enter an integer value
MDM01906	Please enter a value between {0} and {1}
MDM01907	Dynamic Best Available Rates functionality is currently active Please switch off DBAR to use Best BAR by Day
MDM01908	Dynamic Best Available Rates functionality is currently active Please switch off DBAR to use Best BAR by LOS
MDM01909	Reservations have been found with an open folio status Parameter OPEN FOLIO cannot be turned OFF
MDM01910	No Show reservations have been found with a balance Parameter POST REVENUE
	TO NO SHOWS cannot be turned OFF
MDM01911	Value cannot be longer than {0}
MDM01912	At least one Reserve Account has nonzero balance Cannot turn off the function
MDM01913	There are checked in reservations with deposits that have not yet matured Setting cannot be changed
MDM01914	End of Day Processes are running Cannot change parameter value
MDM01915	Duplicate AR numbers exist Unable to change the parameter value
MDM01916	Incompatible authorization rule Please change the current authorization rule before attempting to change this setting
MDM01917	This parameter cannot be activated In order to activate this parameter, the licenses
	OPP_EZRM,OPP_OPUS,OPP_IDEA,OPP_HIRO,OPP_OPTM,OPP_KSK,OPP_IPS,O
	PP_ESM should not be active and any OXI license cannot be active with the exception of
	OPX_ACRS,OPX_ACSC,OPX_ARIS,OPX_BALL,OPX_CONC,OPX_CONC 2,OPX_G
	A1,OPX_GA2,OPX_MA2,OPX_OPCI,OPX_CMS400,OPX_KONAMI,OPX_RTP
MDM01918	Future Master Allocations exist This Function cannot be disabled
MDM01920	Post script printing format (Parameter-PS TO PDF) is active Can't switch on stream printing
MDM01921	Stream printing (Parameter-STREAM_PRINTING) is active Can't switch on post script printing
MDM01923	Please enter amount greater than 0
MDM01924	At least one active reservation with ASB rate exists Apartment Style Billing function cannot be turned off
MDM01925	At least one Apartment Style Billing Rate Code is configured The functionality cannot be turned off



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01926	Parameter cannot be changed because at least one in-house guest has Apartment Style rate code, or at least one guest checked out today has Apartment Style rate code
MDM01927	Real time rate availability (Parameter REALTIME RATE/ROOM AVAILABILITY) is active Reservation flow should be RATE QUERY Cannot change Reservation flow
MDM01928	Parameter {0} cannot be set for property {1} because its parameter RATES BY DEFINED BUCKETS is not turned on
MDM01929	ALLOW INVENTORY ITEMS OUTSIDE OF STAY DATES Parameter is active
	Cannot deactivate ITEM INVENTORY
MDM01930	ITEM INVENTORY is used for WELCOME OFFER OPTIONS Application Setting Unable to inactivate the function
MDM01931	ITEM INVENTORY value active in PACKAGE AVAILABILITY CONTROLS application setting Cannot deactivate ITEM INVENTORY function
MDM01932	AR settlements exist with Dual Currency Functionality Cannot turn this parameter ON
MDM01933	Please activate the cache schema using OPERA_SMT
MDM01934	Parameter{0} cannot be null
MDM01935	Cannot switch off PROPERTY CALENDAR parameter because the DAY TYPES parameter is active
MDM01936	Cannot switch off PROPERTY CALENDAR parameter while the RESERVATION FLOW setting = {0}
MDM01937	The Mobile/Audio Key parameter is active This parameter cannot be inactivated
MDM01938	Value must be in the range of {0} to {1}
MDM01939	Once Nightly Revenue Split is active, it cannot be deactivated
MDM01940	The maximum level allowed is 9
MDM01941	Early Departure Penalty Flat Amount must be between {0} and {1}
MDM01942	MAXIMUM NUMBER OF BLOCK DAYS must be greater than or equal to the value set for MAXIMUM NIGHTS FOR BLOCK RESERVATIONS ({0})
MDM01943	MAXIMUM NIGHTS FOR BLOCK RESERVATIONS must be less than or equal to the value set for MAXIMUM NUMBER OF BLOCK DAYS ({0})
MDM01944	Future Master Blocks exist This function cannot be disabled
MDM01945	Parameter {0} cannot be active at the same time as {1}
MDM01946	Please enter a date in YYYY-MM-DD format
MDM01947	Financial Transactions exists, cannot be changed
MDM01948	Parameter "Maintain Control Centrally After CFL" is active Cannot activate parameter "Allow Lead Update on Property"



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01949	Parameter "Allow Lead Update on Property" is active Cannot activate parameter
	"Maintain Control Centrally After CFL"
MDM01950	Parameter value cannot be changed while unresolved Deposits exist
MDM01951	Please enter a valid E-mail address
MDM01952	AWARDS function is currently active Please switch off AWARDS function to use
	AWARD REDEMPTION functionality
MDM01953	AWARD REDEMPTION function is currently active Please switch off AWARD
	REDEMPTION function to use AWARDS functionality
MDM01954	The parameters PRE-REGISTRATION CHECK IN, CC PRE CHECK IN AUTHORIZATION and the function DO NOT MOVE ROOM should be active in order to activate this function
MDM01955	The Multiple Guest Room Key parameter is active This parameter cannot be activated
MDM01956	The Mobile/Audio Key parameter is active This parameter cannot be activated
MDM01957	Multiple fiscal printers have been assigned the same Queue Name Please assign unique Queue Name to each fiscal printer before turning this parameter inactive
MDM01958	This parameter cannot be activated while data contacts exist for the property
MDM01959	Days to keep Room Repair History should not be less than 90
MDM01960	Parameter BAR APPLIED TO RATE DETAILS must be set to N before activating function OCCUPANT THRESHOLD PRICING METHOD
MDM01961	Function OCCUPANT THRESHOLD PRICING METHOD must be set to N before activating parameter BAR APPLIED TO RATE DETAILS
MDM01962	The Parameter REALTIME RATE/ROOM AVAILABILITY cannot be activated because the following must be inactive: {0}
MDM01963	Invalid Value, only upper case is allowed
MDM01964	You do not have the required permission
MDM01965	REMOTE CHECKOUT FOLIO DELIVERY must be set to PRINT before activating this parameter
MDM01966	Package Arrangement Codes cannot be activated when AR Folio Style or Cashiering Folio Style is set to {0}
MDM01967	Package Arrangement Codes cannot be activated when Catering Folio Style is set to {0}
MDM01968	Package Arrangement Codes cannot be activated when OEDS Folio Style is set to {0}



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01969	The parameter STORE CHECK DETAILS BY CHECK NUMBER ONLY is active
	This parameter cannot be inactivated
MDM01970	Some current / future reservations could not be marked as fixed rate, these will have to be marked manually before the application function can be activated
MDM01971	Package code used for cribs must be different from the package code used for extra beds
MDM01972	Please enter a valid product code
MDM01973	Business Blocks with control set to "Both" exist This parameter cannot be inactivated
MDM01974	Please enter an integer value between 1 and 365
MDM01975	Value cannot be less than currently open number of business dates
MDM01976	{0} exists Unable to inactivate the parameter
MDM01977	Package(s) configured with Valid until C/O EOD check box selected, cannot deactivate the parameter
MDM01978	The application setting DEFAULT PROFILE DISCOUNT REASON is required when PROFILE_DISCOUNTS is active
MDM01979	E-INVOICE parameter cannot be activated when CREDIT BILL parameter is active
MDM01980	VOUCHERS function cannot be deactivated when ELECTRONIC VOUCHER parameter is active
MDM01981	ELECTRONIC VOUCHER parameter cannot be turned OFF as there is unexpired
	Electronic Voucher associated with in-house reservation
MDM01982	Benefit already exists, cannot deactivate the parameter
MDM01983	Parameter "Advanced Rate Code Posting Rhythm" is active Cannot activate parameter "Rate Code Posting Rhythm"
MDM01984	Parameter "Rate Code Posting Rhythm" is active Cannot activate parameter
	"Advanced Rate Code Posting Rhythm"
MDM01985	Parameter Room Type Auto Room Assign is active Cannot activate function
	Enhanced Room Assignment
MDM01986	Function Enhanced Room Assignment is active Cannot activate parameter Room Type Auto Room Assign
MDM01987	WELCOME OFFER ALERT parameter is active Unable to inactivate the function
MDM01988	In house Reservations with Welcome Offer Alert exist Unable to inactivate the parameter
MDM01989	ECOUPONS is used for WELCOME OFFER OPTIONS Application Setting Unable to inactivate the parameter



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM01990	POST IT is used for WELCOME OFFER OPTIONS Application Setting Unable to inactivate the parameter
MDM01991	At least one option should be selected if the WELCOME OFFER ALERT parameter is active
MDM01992	Please enter a number greater than zero
MDM01993	Corporate Protection configuration exists, parameter cannot be deactivated
MDM01994	Number of seconds delay to be added must be between 1 and 5
MDM01995	Number of times to retry must be between 1 and 10
MDM01997	MULTI BLOCK RATES is used for REALTIME RATE/ROOM AVAILABILITY
	Application Function Unable to inactivate the parameter
MDM01998	In House reservation(s) exist having Threshold rule attached, parameter cannot be deactivated
MDM01999	Web Registration Card is not configured. Please Configure your web Registration card
MDM02000	AR Invoice Exist Cannot Change the Values
MDM02001	{0} should not be NULL
MDM02002	Please select at least one record
MDM02003	Transaction group {0} does not exist in property {1}
MDM02004	Unsuccessful Template Creation: {0} already exists
MDM02005	Successfully created Template {0}
MDM02006	Transaction Subgroup $\{0\}$ does not exist in group $\{1\}$ and propert $\{2\}$
MDM02007	Subgroup cannot be empty
MDM02008	Card Range From/To should only contain numbers.
MDM02009	Payment Method Code is required
MDM02010	Payment Method Code should be less or equal to 8 characters.
MDM02011	Event Type Code {0} does not exist.
MDM02012	Group {0} does not exists.
MDM02013	Initialization properties are required
MDM02014	No servers specified in application parameter REPORT_SERVERS for _GLOBAL resort
MDM02015	Report module ID [{0}] failed to create/load report
MDM02016	Event Code {0} already exist.
MDM02019	The combination of Room Number, Line Number, and Type already exists. Please enter a new combination
MDM02020	Missing required status input parameters
MDM02021	Invalid reservation name ID parameter
MDM02022	Invalid conformation letter ID parameter
MDM02024	SV Redeem Transaction is required.



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM02026	Batch ID is required
MDM02027	Missing required item input parameters
MDM02052	Please specify a valid email address for printer
MDM02053	{0} printer already exists, please specify another name
MDM02054	Printer name cannot be null
MDM02056	Currency symbol cannot be greater than 10 characters.
MDM02057	One of selected codes must be marked as a primary code under {0}.
MDM02058	Job Name ID is required.
MDM02059	Job Procedure Code is required.
MDM02060	Job with ID {0} not found.
MDM02061	{0} to {1}: {2}.
MDM02076	Membership program rule cannot be created/updated without valid Membership type and Sequence no.
MDM02077	Membership program rule begin date {0} cannot be greater than end date {1} Please provide valid details.
MDM02086	Membership program rule is not found with Membership type {1} and Sequence {2}
MDM02099	Log Date cannot be empty.
MDM02104	No file content found in request.
MDM02105	Duplicate upload file name. Please use different file name in Name input text field.
MDM02106	Invalid parameters. Please make sure all parameters are included in the Request.
MDM02107	Error while saving file in the Database.
MDM02109	OPERA resort is not configured correctly.
MDM02110	Chain code is not configured correctly.
MDM02111	Unable to process deposits for this reservation.
MDM02113	Property, Hub and Chain cannot have same code, Please enter different code for each of them.
MDM02147	Rule Code {0} does not exist for profile type {1}.
MDM02150	Match Attribute(s) is required.
MDM02154	Invalid {0}. Reserved keyword, {1}, is not allowed.
MDM02157	$\{0\}$ only available when $\{1\}$ add-on license is active and room type is not Pseudo
MDM02160	ChannelCode resort cannot be empty.
MDM02161	Channel Rate Code cannot be empty.
MDM02162	OPERA Rate Code cannot be empty.
MDM02163	Channel Room Category cannot be empty.
MDM02164	OPERA Room Category cannot be empty.



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM02165	Channel Currency cannot be empty.
MDM02166	OPERA Currency cannot be empty.
MDM02167	Room category conversion is not configured correctly in OPERA.
MDM02168	Rate and Room combination is not available.
MDM02169	Rate code conversion is not configured.
MDM02170	Currency conversion is not configured correctly in opera.
MDM02171	Channel is not configured correctly.
MDM02172	Invalid Credit Card.
MDM02173	Schedule already exists for following criteria. Begin Date: {0} End Date: {1} Rate
	Code: {2} Reservation Type: {3} Credit Rating: {4}
MDM02175	Interface Type Cannot be empty.
MDM02176	Database code {0} already exists.
MDM02177	Please select at least one property.
MDM02178	Resort {0} already exists for Database {1}.
MDM02182	Transaction Code {0} should have Transaction Group {1} configured for Property {2}
MDM02183	Transaction Code {0} should have Transaction Subgroup {1} configured for Property {2}
MDM02185	Transaction Code {0} is successfully copied to Property {1} as {2}
MDM02189	Target transaction code is required
MDM02190	Transaction Code {0} already exists for property {1}
MDM02238	Invalid Database code {0} selected for copy subscription.
MDM02241	Transaction Code {0} should have Transaction Group {1} configured for Property {2}
MDM02242	Transaction Code {0} should have Transaction Subgroup {1} configured for Property {2}
MDM02249	Folio Type {0} for property {1} does not exist.
MDM02250	Folio Type {0} already exists for property {1}.
MDM02251	Report Group {0} with language {1} already exists for property {2}.
MDM02252	Folio Type code cannot be empty.
MDM02253	Auto folio settle end of day takes either Y or N.
MDM02254	Auto folio default reservation takes either Y or N.
MDM02257	Invalid value specified for Statement Type Mode, Valid values are [B, I]
MDM02258	Invalid value specified for Reminder Cycles, Valid values are [D, E]
MDM02259	Finance charge value should be between 0 and 100



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM02260	Days older than should be between 1 and 999
MDM02261	Invalid value specified for Statement Name.
MDM02273	Bill Number cannot be less than 0.
MDM02274	Fiscal Bill Number cannot be less than 0.
MDM02276	Waiting State cannot be more than 99999
MDM02280	Attachment ID must be numeric
MDM02284	New code must be a whole number.
MDM02287	Amount must be between 0 and 999.
MDM02288	Display Sequence must be between 0 and 99999.
MDM02289	Before Arrival must be between 0 and 99999.
MDM02290	Before Arrival must be a whole number.
MDM02291	After Booking must be a whole number.
MDM02292	After Booking must be between 0 and 99999.
MDM02293	Amount must be between 0 to 99,999,999,999,999.99
MDM02294	Display Sequence must be a whole number.
MDM02295	Amount must be between 0 and 999.
MDM02297	Report cannot be configured to Print or Send to Email if it is configured to be filed with format other than PDF.
MDM02299	Default Transaction Code cannot be blank.
MDM02300	Machine cannot be blank.
MDM02301	Cashier ID cannot be blank.
MDM02302	PathID1 cannot be blank.
MDM02303	All Folio Types have been configured.
MDM02304	Credit Flag and Debit Flag cannot be selected for the same folio type.
MDM02305	Credit Flag and Deposit Flag cannot be selected for the same folio type.
MDM02306	Direct Bill flag cannot be selected in combination with any folio type other than Manual
MDM02307	Folio Type has already been configured.
MDM02308	Folio Type with Credit Flag already exists.
MDM02309	Folio Print Task configuration is invalid. Please verify guest type, service type and credit flag.
MDM02310	Folio Print Task configuration already exists.
MDM02311	Folio Type with debit flag already exists.
MDM02312	Folio Type with deposit flag already exists.
MDM02313	Folio Type with Direct Bill Flag already exists.
MDM02314	Folio Type with this configuration already exists.
MDM02315	Folio Type with Manual Credit Flag already exists.



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM02316	Folio Type with Manual Debit Flag already exists.
MDM02317	Folio Type with Manual Direct Bill Flag already exists.
MDM02318	Folio Type with Manual Simple Flag already exists.
MDM02319	Folio Type with simple flag already exists.
MDM02320	Folio Type with Information/Pro-Forma Flag already exists.
MDM02323	Tax No flag {0} with credit flag {1} exists.
MDM02324	Folio Type for Internal Bill already exists.
MDM02325	Internal Bill cannot be combined with any other folio type.
MDM02326	Name Tax Type {0} with credit flag {1} exists.
MDM02327	Credit and Simple Flag cannot be selected at the same time for the same folio type.
MDM02328	Debit and Simple Flag cannot be selected at the same time for the same folio type.
MDM02329	Information/Pro-Forma flag cannot be selected in combination with other folio types.
MDM02330	Non Fiscal Folio Type already exists.
MDM02331	Folio Type for Folio Header Correction already exists.
MDM02357	Membership Award {0} for Membership Type {1} does not exist.
MDM02358	Membership Award {0} for Membership Type {1} already exists.
MDM02394	Chain Code {0} cannot be found to update
MDM02401	Waiting State must be between 0 and 99999.
MDM02402	Number to Process must be between 0 and 99999999999999999999999999999999999
MDM02403	Single Rooms must be less than or equal to 5 digits.
MDM02404	Double Rooms must be less than or equal to 5 digits.
MDM02405	Twin Rooms must be less than or equal to 5 digits.
MDM02406	Suites must be less than or equal to 5 digits.
MDM02407	Family Rooms must be less than or equal to 5 digits.
MDM02408	Max Adults In Family Rooms must be less than or equal to 5 digits.
MDM02409	Max Children In Family Rooms must be less than or equal to 5 digits.
MDM02410	Non-Smoking Rooms must be less than or equal to 5 digits.
MDM02411	Connecting Rooms must be less than or equal to 5 digits.
MDM02412	Accessible Rooms must be less than or equal to 5 digits.
MDM02413	Guest Room Floors must be less than or equal to 5 digits.
MDM02414	Guest Room Elevators must be less than or equal to 5 digits.
MDM02415	Executive Floor No must be less than or equal to 1000 characters
MDM02417	Code must be less than or equal to {0} characters.
MDM02423	Points Required cannot be empty.



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Eurou Codo	Furan Bassintian
Error Code	Error Description
MDM02424	Award Value cannot be empty.
MDM02425	Exchange Rate cannot be empty.
MDM02426	Number Of Nights cannot be empty.
MDM02427	Number Of Nights must be greater than 0.
MDM02428	Cancel Penalty Days must be greater than 0.
MDM02429	Cancel Penalty Charge must be greater than 0.
MDM02430	Cancel Penalty Charge Percent must be less than or equal to 100.
MDM02431	Online Settlement must be active while Chip and Pin functionality and Authorization Reversal Allowed are active.
MDM02432	Online Settlement must be active while Chip and Pin functionality and Authorization during Stay/Deposit are active
MDM02433	Batch Settlement Functionality cannot be activated when Online Settlement is active.
MDM02445	Resort cannot be greater than 20 characters
MDM02446	Account Type cannot be greater than 20 characters
MDM02447	Description cannot be greater than 40 characters
MDM02448	Description cannot be greater than 200 characters.
MDM02449	Credit rating cannot be greater than 10 characters.
MDM02450	Auto Folio Settlement type cannot be greater than 40 characters
MDM02451	Financial Transaction already exists for Membership Award {0}.
MDM02452	Financial Transaction {0} does not exist for Membership Award {1}.
MDM02453	Membership Award Group Upgrade ID {0} does not exist for Membership Award {1}.
MDM02454	From Room Group cannot be empty.
MDM02455	To Room Group cannot be empty.
MDM02456	From Room Group and To Room Group cannot be same.
MDM02457	Membership Award Group Upgrade record does not exist for ID {0}.
MDM02458	Product Code {0} already exists for Membership Award {1}.
MDM02459	Product Code {0} does not exist for Membership Award {1}.
MDM02460	Rate Code {0} already exists for Membership Award {1}.
MDM02461	Rate Code {0} does not exist for Membership Award {1}.
MDM02462	Membership Award Upgrade ID {0} does not exist for Membership Award {1}.
MDM02463	Membership Award Upgrade record does not exist for ID {0}.
MDM02464	From Room cannot be empty.
MDM02465	To Room cannot be empty.
MDM02466	From Room and To Room cannot be same.



Table 16-4 (Cont.) Master Data Management Services – Error Codes

MDM02467 Max Percent Allowed Percent must be between 1 and 100. MDM02470 Start LOS cannot be empty for Level 1. MDM02471 End LOS cannot be empty for Level 1. MDM02481 Award Based On cannot be empty. MDM02483 Rule Code {0} already exists for profile type {1}. MDM02484 Application setting input is incomplete MDM02487 Daily Currency Limit should be between 0 and 9999999999.99. MDM02488 Monthly Currency Limit should be between 0 and 9999999999.99. MDM02489 Local/Foreign Daily Currency Limit. MDM02490 Local/Foreign Daily Currency Limit should be less than Local/Foreign Monthly Currency Limit. MDM02491 Local/Foreign Daily Currency Limit. MDM02492 Currency rounding is only available for the properties with zero currency decimals. MDM02497 Property code and reservation ID are required MDM02498 Exception generating report: {0} MDM02500 Unable to open URL to report MDM02501 No report servers specified in global parameter REPORT_SERVERS MDM02502 Unable to create file path for registration card MDM02503 Image code is required. MDM02504 Folio Type h	Error Code	Error Description
MDM02471End LOS cannot be empty for Level 1.MDM02481Award Based On cannot be empty.MDM02483Rule Code {0} already exists for profile type {1}.MDM02484Application setting input is incompleteMDM02487Daily Currency Limit should be between 0 and 9999999999999.99.MDM02488Monthly Currency Limit should be between 0 and 999999999999.99.MDM02489Local/Foreign Daily Currency Limit should be less than Local/Foreign Monthly Currency Limit.MDM02492Currency rounding is only available for the properties with zero currency decimals.MDM02497Property code and reservation ID are requiredMDM02498Exception generating report: {0}MDM02500Unable to open URL to reportMDM02501No report servers specified in global parameter REPORT_SERVERSMDM02502Unable to create file path for registration cardMDM02503Image code is required.MDM02504Folio Type has been used. Cannot delete this Folio Type.MDM02505Link ID is required.MDM02506Folio Type has been used. Cannot delete this Folio Type.MDM02507Room Maintenance does not exist.MDM02508Image code and image set are required.MDM02509Invalid image set.MDM02510Invalid room maintenance ID.MDM02511Total Membership Level Rank should be between 1 and 5.MDM02512Value must be in the range of 1 to 365MDM02513Please enter an integer value for Stay Points.MDM02514Please enter an integer value for Revenue Points.MDM02515Please en	MDM02467	Max Percent Allowed Percent must be between 1 and 100.
MDM02481 Award Based On cannot be empty. MDM02483 Rule Code {0} already exists for profile type {1}. MDM02484 Application setting input is incomplete MDM02487 Daily Currency Limit should be between 0 and 99999999999999999999999999999999999	MDM02470	Start LOS cannot be empty for Level 1.
MDM02483Rule Code {0} already exists for profile type {1}.MDM02484Application setting input is incompleteMDM02487Daily Currency Limit should be between 0 and 99999999999999999999999999999999999	MDM02471	End LOS cannot be empty for Level 1.
MDM02484 Application setting input is incomplete MDM02487 Daily Currency Limit should be between 0 and 99999999999999999999999999999999999	MDM02481	Award Based On cannot be empty.
MDM02487 Daily Currency Limit should be between 0 and 99999999999999999999999999999999999	MDM02483	Rule Code {0} already exists for profile type {1}.
MDM02488 Monthly Currency Limit should be between 0 and 99999999999999999999999999999999999	MDM02484	Application setting input is incomplete
MDM02489 Local/Foreign Daily Currency Limit should be less than Local/Foreign Monthly Currency Limit. MDM02492 Currency rounding is only available for the properties with zero currency decimals. MDM02497 Property code and reservation ID are required MDM02498 Exception generating report: {0} MDM02500 Unable to open URL to report MDM02501 No report servers specified in global parameter REPORT_SERVERS MDM02502 Unable to create file path for registration card MDM02503 Image code is required. MDM02505 Link ID is required. MDM02506 Folio Type has been used. Cannot delete this Folio Type. MDM02507 Room Maintenance does not exist. MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty.	MDM02487	
Foreign Monthly Currency Limit. MDM02492 Currency rounding is only available for the properties with zero currency decimals. MDM02497 Property code and reservation ID are required MDM02498 Exception generating report: {0} MDM02500 Unable to open URL to report MDM02501 No report servers specified in global parameter REPORT_SERVERS MDM02502 Unable to create file path for registration card MDM02503 Image code is required. MDM02505 Link ID is required. MDM02506 Folio Type has been used. Cannot delete this Folio Type. MDM02507 Room Maintenance does not exist. MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Revenue Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date must be less than or equal to today.	MDM02488	
currency decimals. MDM02497 Property code and reservation ID are required MDM02498 Exception generating report: {0} MDM02500 Unable to open URL to report MDM02501 No report servers specified in global parameter REPORT_SERVERS MDM02502 Unable to create file path for registration card MDM02503 Image code is required. MDM02505 Link ID is required. MDM02506 Folio Type has been used. Cannot delete this Folio Type. MDM02507 Room Maintenance does not exist. MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02489	
MDM02500 Unable to open URL to report MDM02501 No report servers specified in global parameter REPORT_SERVERS MDM02502 Unable to create file path for registration card MDM02503 Image code is required. MDM02505 Link ID is required. MDM02506 Folio Type has been used. Cannot delete this Folio Type. MDM02507 Room Maintenance does not exist. MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date must be less than or equal to today.	MDM02492	
MDM02500 Unable to open URL to report MDM02501 No report servers specified in global parameter REPORT_SERVERS MDM02502 Unable to create file path for registration card MDM02503 Image code is required. MDM02505 Link ID is required. MDM02506 Folio Type has been used. Cannot delete this Folio Type. MDM02507 Room Maintenance does not exist. MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date must be less than or equal to today.	MDM02497	Property code and reservation ID are required
MDM02501 No report servers specified in global parameter REPORT_SERVERS MDM02502 Unable to create file path for registration card MDM02503 Image code is required. MDM02505 Link ID is required. MDM02506 Folio Type has been used. Cannot delete this Folio Type. MDM02507 Room Maintenance does not exist. MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date must be less than or equal to today.	MDM02498	Exception generating report: {0}
MDM02502 Unable to create file path for registration card MDM02503 Image code is required. MDM02505 Link ID is required. MDM02506 Folio Type has been used. Cannot delete this Folio Type. MDM02507 Room Maintenance does not exist. MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty.	MDM02500	Unable to open URL to report
MDM02505 Link ID is required. MDM02506 Folio Type has been used. Cannot delete this Folio Type. MDM02507 Room Maintenance does not exist. MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be less than or equal to today.	MDM02501	No report servers specified in global parameter REPORT_SERVERS
MDM02505 Link ID is required. MDM02506 Folio Type has been used. Cannot delete this Folio Type. MDM02507 Room Maintenance does not exist. MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be less than or equal to today.	MDM02502	Unable to create file path for registration card
MDM02506 Folio Type has been used. Cannot delete this Folio Type. MDM02507 Room Maintenance does not exist. MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02523 Evaluation Date must be less than or equal to today.	MDM02503	Image code is required.
MDM02507 Room Maintenance does not exist. MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02523 Evaluation Date must be less than or equal to today.	MDM02505	Link ID is required.
MDM02508 Image code and image set are required. MDM02509 Invalid image set. MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02523 Evaluation Date must be less than or equal to today.	MDM02506	Folio Type has been used. Cannot delete this Folio Type.
MDM02510 Invalid image set. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date must be less than or equal to today.	MDM02507	Room Maintenance does not exist.
MDM02510 Invalid room maintenance ID. MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be less than or equal to today.	MDM02508	Image code and image set are required.
MDM02511 Total Membership Level Rank should be between 1 and 5. MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02509	Invalid image set.
MDM02512 Value must be in the range of 1 to 365 MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02510	Invalid room maintenance ID.
MDM02513 Please enter an integer value for Stay Points. MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02511	Total Membership Level Rank should be between 1 and 5.
MDM02514 Please enter an integer value for Night Points. MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02512	Value must be in the range of 1 to 365
MDM02515 Please enter an integer value for Revenue Points. MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02513	Please enter an integer value for Stay Points.
MDM02516 Invalid Rule Type specified. MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02514	Please enter an integer value for Night Points.
MDM02517 Rule Type cannot be empty. MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02515	Please enter an integer value for Revenue Points.
MDM02518 Target Level cannot be empty. MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02516	Invalid Rule Type specified.
MDM02519 Membership Level cannot be empty. MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02517	Rule Type cannot be empty.
MDM02521 Active process found {0}. Please check in Scheduler. MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02518	Target Level cannot be empty.
MDM02522 Evaluation Date cannot be empty. MDM02523 Evaluation Date must be less than or equal to today.	MDM02519	Membership Level cannot be empty.
MDM02523 Evaluation Date must be less than or equal to today.	MDM02521	Active process found {0}. Please check in Scheduler.
	MDM02522	Evaluation Date cannot be empty.
MDM02524 At least one of Upgrade/Downgrade/Renewal must be selected.	MDM02523	Evaluation Date must be less than or equal to today.
	MDM02524	At least one of Upgrade/Downgrade/Renewal must be selected.



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM02525	Report ID cannot be empty.
MDM02526	Membership ID cannot be empty.
MDM02528	Record does not exist for Membership ID {0} and Report ID {1}.
MDM02579	At least one Back Office Export failed to generate. No data found.
MDM02583	Export procedure validation had failed. Please ensure export procedure white list is defined. Please verify it is valid and has no SQL injection: {0}
MDM02586	Formula field validation had failed. Please verify it is valid and has no SQL injection: {0}
MDM02587	Formula field validation had failed. Please verify it is valid and has no SQL select: {0}
MDM02589	Filter condition validation had failed. Please verify it is valid and has no SQL injection: {0}
MDM02636	All the Data are converted already. No more data exists for conversion of Property {0}
MDM02646	Application Parameter {0} is not ON
MDM02656	User Action Module is required.
MDM02657	User Action Type is required.
MDM02658	Unique ID is required.
MDM02659	User domain does not found , Please check middleware configuration and try again
MDM02660	Unable to process the request. Please see server logs for more details.
MDM02688	Fiscal Folio Parameter {0} for property {1} does not exist
MDM02689	Application setting was not found.
MDM02697	Vault function on the interface setup is not configured.
MDM02705	Reservation Type cannot be greater than 8 characters.
MDM10011	Record already exists for Property {0} and {1} {2}
MDM10014	Hotel Code cannot be empty
MDM10015	There was a problem decoding the card being requested
MDM10016	Policy Code cannot be empty
MDM10017	The schedule already exists
MDM10018	The schedule overlaps with another existing schedule
MDM10019	The policy schedule ID is required to modify existing schedule
MDM10020	The policy schedule does not exists
MDM10021	The policy schedule ID is required to delete a schedule
MDM10022	{0} does not exist for property {1} Schedule {2} is not copied
MDM10023	Schedule {0} is not a valid schedule
MDM10024	Not able to copy schedule {0} for property {1}



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM10025	Please specify the policy schedules to be copied
MDM10026	Reservations exist for market code {0}
MDM10027	Blocks exist for market code {0}
MDM10028	Rate code exist for market code {0}
MDM10029	A View Object has not been defined for the Image LOV
MDM10030	No attribute was defined in the LOV's View Object to hold the Image URL values
MDM10031	Invalid Image Code
MDM10032	Required Image Set parameters could not be mapped with the Image LOV's View Object attributes
MDM10033	Error activating the reports
MDM10034	Room type {0} is active and has associated rooms Currently it is not possible to delete the room type
MDM10035	Room type $\{0\}$ is occupied or reserved Currently it is not possible to delete the room type
MDM10036	Sales Allowance records exist Cannot inactivate room type
MDM10037	Business Block exists with inventory taken from room type {0} Please release the inventory prior to deleting the room type
MDM10038	Room type {0} is attached to rate code {1} Currently it is not possible to delete the room type
MDM10039	Room type {0} is attached to a rate category Currently it is not possible to delete the room type
MDM10040	Room type {0} is attached to an active rate set Currently it is not possible to delete the room type
MDM10041	Room type {0} is a component of component room type {1} Currently it is not possible to delete the room type
MDM10042	Dependency exists for Room type $\{0\}$ Currently it is not possible to delete the template room type
MDM10043	Credit Card ID is required
MDM10044	Credit Card information not found
MDM10045	Level Code is required for fetching Profile Protection Configurations
MDM10046	An error occurred while updating the Profile Protection Configurations
MDM10047	Profile Protection Level Type is not valid
MDM10049	Nothing to update, Profile Protection Configurations is empty
MDM10050	Level Code is required for updating Profile Protection Configurations
MDM10051	Change to Generic flag is not allowed for Room Type {0}
MDM10052	Room type {0} is active and has associated rooms Currently it is not possible to inactivate the room type
MDM10053	Room type {0} is occupied or reserved Currently it is not possible to inactivate the room type



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description	
MDM10054	Business Block exists with inventory taken from room type {0} Please release the inventory prior to inactivate the room type	
MDM10055	Room type {0} is attached to rate code {1} Currently it is not possible to inactivate the room type	
MDM10056	Room type {0} is attached to a rate category Currently it is not possible to inactivate the room type	
MDM10057	Room type {0} is attached to an active rate set Currently it is not possible to inactivate the room type	
MDM10058	Room type {0} is a component of component room type {1} Currently it is not possible to inactivate the room type	
MDM10059	Room type {0} is occupied or reserved Currently it is not possible to add or remove component room types	
MDM10060	Room type {0} has sales allowance records. Currently it is not possible to add or remove component room types.	
MDM10061	Room type {0} has business blocks with inventory taken from this room type. Currently it is not possible to add or remove component room types.	
MDM10062	Room type {0} is active and has associated rooms Currently it is not possible to add or remove component room types	
MDM10063	Available	
MDM10064	Not Available	
MDM10065	Alert should have at least one condition.	
MDM10066	The reservation is not valid	
MDM10067	The selected component room configuration is incorrect for the component room type	
MDM10068	Room with non-suite room type cannot have room component(s)	
MDM10069	Room with pseudo room type cannot have room component(s)	
MDM10070	Room with suite room type cannot have connecting room(s)	
MDM10071	Floor(s) is invalid	
MDM10072	Rate code(s) is invalid	
MDM10073	Room type(s) is invalid	
MDM10074	Room class(s) is invalid	
MDM10075	Reservation is occupied or reserved	
MDM10076	Room is out of order	
MDM10077	Room is out of service	
MDM10078	Room is assigned to general {0}	
MDM10079	Room is assigned to housekeeping	
MDM10080	Room is in a future task assignment sheet that is marked as pending	
MDM10081	Room is a component of a suite that has current or future reservations existing	
MDM10082	Room is assigned to room maintenance	



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM10083	Room has financial posting
MDM10084	Room is already attached to a component suite
MDM10085	{0} does not support Room Class
MDM10086	Room {0} is already attached as room component.
MDM10087	Source room {0} does not exist for property {1}.
MDM10088	Room cannot be empty.
MDM10089	Number of Rooms is required.
MDM10090	License Code is invalid
MDM10091	License information is not valid or is incomplete Resort, License Code, Expiration Date and Number Of Rooms are required
MDM10092	License is not active
MDM10093	The rooms configured does not match the Licensed rooms
MDM10094	License has expired
MDM10095	Your License Code will expire in {0} days Please apply for a new License Code
MDM10096	A valid OPERA PMS or OPERA ORS license is required
MDM10097	The Property is not valid
MDM10099	The Product Code is not a valid OPERA 9 product
MDM10100	Cannot delete system required data
MDM10101	Membership type is required
MDM10102	An error occurred while fetching block status codes
MDM10103	An error occurred while trying to create new block status code
MDM10104	An error occurred while trying to update block status code
MDM10105	An error occurred while trying to remove block status code
MDM10106	Alert code is not uppercase
MDM10107	Resort code is not uppercase
MDM10108	Alert code is required
MDM10109	Alert code {0} for property {1} is not uppercase
MDM10110	Resort code {0} is not uppercase
MDM10111	Resort is required
MDM10112	Device Type is required
MDM10113	Device Code is required
MDM10114	Device details are required
MDM10115	Device is currently not supported
MDM10116	A required parameter is not specified
MDM10117	Specified parameter is not supported
MDM10118	Specified mapping is not supported
MDM10119	Device is currently not supported by the property
MDM10120	Schedule {0} is copied for property {1} successfully



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM10121	The description of {0} cannot be greater than {1} characters
MDM10122	Reservation Type Schedule with reservation type $\{0\}$ from $\{1\}$ to $\{2\}$ already exists in Property $\{3\}$
MDM10123	Please Enter Mandatory Fields
MDM10124	Attraction code is required
MDM10125	Attraction code {0} does not exist
MDM10126	Attraction {0} cannot be deleted It has dependent records
MDM10127	Transportation code is required
MDM10128	Transportation code {0} does not exist
MDM10129	Transportation label already exists
MDM10130	Transportation code {0} cannot be deleted It has dependent records
MDM10131	Department code {0} has been successfully copied to property {1
MDM10132	Transportation code {0} for property {1} already exists
MDM10133	Transportation label already exists for property {0}
MDM10134	Transportation code {0} for property {1} does not exist
MDM10135	Trace Text {0} has been successfully copied to property {1}
MDM10136	An error occurred while copying Trace Text {0} to property {1}
MDM10137	Trace Text {0} already exists in property {1}
MDM10138	Cannot set currency exchange without specifying exchange type
MDM10139	An error occurred while attempting to update existing exchange rate
MDM10140	Cannot set currency exchange without specifying exchange type
MDM10141	Exchange rate cannot be set without specifying a currency code
MDM10142	Exchange rate cannot be set without specifying a numeric exchange buy rate
MDM10143	Exchange rate cannot be set without specifying at least one exchange type
MDM10144	Cannot delete past exchange rate
MDM10145	An error occurred while deleting an exchange rate
MDM10146	Copy Template Code(s) was successful
MDM10147	Record already exists for Property {0} and Department {1}
MDM10148	Foreign Currency Code {0} already exists
MDM10149	Foreign Currency Description cannot exceed 40 characters
MDM10150	Foreign Currency Code cannot exceed 8 characters
MDM10151	For eign Currency decimals has to be an integer value between $\boldsymbol{0}$ and $\boldsymbol{3}$
MDM10153	Foreign Currency Code {0} does not exist
MDM10154	Cannot delete Foreign Currency Code that is in use
MDM10155	Cannot edit Foreign Currency Code that has dependencies



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Housekeeping section {0} for property {1} does not exist
monsekeehing section for for broberry (1) does not exist
Unsuccessful copy: Housekeeping Section {0} for Property {1} already exists
Successfully copied Housekeeping section code {0} to Property {1}
Successfully copied Track-It Action code {0} to Property {1}
Successfully copied Track-It Type code {0} to Property {1}
Successfully copied Track-It Location code {0} to Property {1}
Cancel Penalty Schedule with Rule {0} from {1} to {2} already exists in Property {3}
Deposit Rules Schedule with Rule {0} from {1} to {2} already exists in Property {3}
Yield Category {0} cannot be found to copy to Property {1}
Unsuccessful copy to Property {0} : Yield Category Code {1} already exists
Yield Category {0} copied to property {1} successfully
Copy operation was successful
Room Maintenance code {0} for property {1} already exists
Room Maintenance Code {0} for property {1} does not exist
Room Maintenance Code {0} does not exist
Cannot delete a room maintenance code that is being used
You must specify a property to create a room maintenance
Description cannot exceed 40 characters
Code length cannot exceed 8 characters
Room Maintenance code is required
Description cannot be empty
Copy Schedule(s) was successful
No Record exists
Successfully copied code {0} to property {1}
Successfully copied Location code {0} to Property {1}
Unsuccessful copy: Location code {0} for Property {1} already exists
Shell is being created
Processed
Processing
Failed
From Room Type or From Room Class is required
To Room Type or To Room Class is required
Upgrade By is required
Formula is required



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM11022	Amount is required when upgrading by amount
MDM11023	Currency Code is required if Formula is Flat Amount Added To Original Rate
MDM11024	Either Rate Codes or Rate Categories are allowed but not both
MDM11025	Invalid occupancy levels Please check that the number of occupancy levels and occupancy level ids exist for resort {0}
MDM11026	Occupancy levels are required
MDM11027	Upsell Rule Type is empty
MDM11028	Global Definitions were successfully copied
MDM11031	In Progress
MDM11032	Complete
MDM11033	Started
MDM11034	Copy Instructions cannot be empty
MDM11036	Migration Data Exists for the given date range Market/Source/Rate Code Statistics will be skipped
MDM11037	PMS License for this property is inactive
MDM11038	PMS License for this property is active
MDM11039	Parameter RESTRICT VIEWERSHIP in Group SFA will be set to N
MDM11040	Existing authorizations will be removed for cards currently marked as chip and pin
MDM11041	All the restrictions will be deleted
MDM11042	All the restrictions at {0} level will be reset
MDM11043	All existing Restrictions and Strategies for the deleted Restriction Types will be removed
MDM11045	All the Overbooking will be deleted
MDM11046	Please verify that the Overbooking functionality is enabled in the CRS
MDM11047	This will set the following value(s): {0}
MDM11048	Please define an Early Departure Penalty Posting Transaction Code under settings
MDM11049	Calculation rule for the Early Departure Penalty Amount is not defined
MDM11050	Please define an Early Departure Penalty Flat Amount under settings
MDM11051	All current and future AR fixed charges will be deleted
MDM11052	All current and future fixed charges will be deleted
MDM11053	Default No Show Posting Transaction Code is not defined
MDM11054	The link for tax types information will be removed from all transaction code generates
MDM11055	GENERATE ZERO BILL parameter will be automatically turned off
MDM11056	You will be unable to close any invoices from this point forward



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM11057	Disabling this parameter will also disable and hide Reservation Upsell for this property
MDM11058	Disabling this parameter will also
	disable **LAUNCH
	CONFIRMATION FROM
	CLOSING SCRIPT parameter of
MDN/44050	Reservations group
MDM11059	The existing rate codes selected for Best Available Rate consideration will be removed
MDM11060	All Day Types will be removed
MDM11061	All Rate Details for Tiered Rates will be removed
MDM11062	All links between transaction codes associated with rates will be deleted
MDM11063	All existing rate floors for the property will be deleted
MDM11064	All existing hurdles for the property will be deleted
MDM11065	Current task sheets will be deleted.
MDM11066	Inactivating this function would remove all queue room statistics for today
MDM11067	Activating Income Audit will effect Interim Reports, please review Interim Report Setup
MDM11068	Service Request code {0} has been successfully copied to property {1}
MDM11069	From Date
MDM11070	To Date
MDM11071	Property code changed from {0} to {1}
MDM11072	Change property code from {0} to {1} has been scheduled to start in {2} minute(s).
MDM11075	In order to use this functionality Room Classes must be configured and then associated to Room Types
MDM11079	Warning
MDM11082	Application Parameter {0} is not set!
MDM11083	Default Posting Room - {0} is not Checked-In
MDM11091	There is no Credit Card attached to process the Reservation
MDM11097	Property is not valid
MDM11098	Unsupported type in custom database API call.
MDM11100	Please enter a queue name
MDM11101	Telephone Category Sequence is required
MDM11102	Room Number cannot be negative.
MDM11103	A valid Property is required.
MDM11104	A Property is required.
MDM11105	Number of Rooms is required.



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description	
MDM11106	Deposit Posting Transaction code cannot be marked as a Paid ou	
MDM11107	Transaction Code used in application setting Transaction Code cannot be marked for Deposit Posting	
MDM11108	CC Surcharge Transaction Code is not marked as generates inclusive or has generates	
MDM11109	An application parameter determines the check transaction code Payment Type configuration cannot be changed	
MDM11110	Multiple check transaction codes cannot exist	
MDM11111	Transaction Code associated to the application setting AR SETTLEMENT TRN	
	CODE cannot be configured as Cash, Check or Credit Card	
MDM11112	Transaction Code payment type does not match cashier payment flag	
MDM11113	Transaction Code has been used Subgroup cannot be changed	
MDM11114	Transaction code display should not be set	
MDM11115	Multiple transaction code display cannot exist	
MDM11116	Transaction code has postings Associated AR Account cannot be modified	
MDM11117	Marketing City {0} in Region {1} already exists for the Property {2}	
MDM11118	Template Marketing City $\{0\}$ in Region $\{1\}$ cannot be found to delete	
MDM11119	Template Marketing City {0} in Region {1} cannot be found to copy to Property {2}	
MDM11120	Marketing City {0} in Region {1} was copied to Property {2} successfully	
MDM11121	Housekeeping attendant {0} for property {1} does not exist	
MDM11122	Marketing city copy operation was successful	
MDM11123	Cannot delete the attendant, dependent records exist	
MDM11124	Airport Code {0} for the Property {1} cannot be found to delete	
MDM11125	Template Airport Code {0} cannot be found to delete	
MDM11126	Airport Code {0} for the Property {1} cannot be found to update	
MDM11127	Template Airport Code {0} cannot be found to copy to Property {	
MDM11128	Reason Code {0} for the Property {1} cannot be found to update	
MDM11129	Template Reason Code {0} cannot be found to update	
MDM11130	Reason Code {0} for the Property {1} cannot be found to delete	
MDM11131	Template Reason Code {0} cannot be found to delete	
MDM11132	Currency Format is required	
MDM11133	The length of the street of the property should be no more than 320	
MDM11134	Country Code is required	
MDM11135	Postal code is not in the valid range	



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description	
MDM11136	Property Name is required	
MDM11137	Restaurant Code {0} for the Property {1} cannot be found to update	
MDM11138	Restaurant Code {0} for the Property {1} cannot be found to delete	
MDM11139	Rate Range with Start Date {0} and End Date {1} for the Property {2} cannot be found to update	
MDM11140	Rate Range with Start Date {0} and End Date {1} for the Property {2} cannot be found to delete	
MDM11141	Time span {0} and {1} overlap an existing rate range	
MDM11142	Invalid currency code for property {0}	
MDM11143	The selected dates for season code {0} and property {1} overlap an existing season	
MDM11144	Rate code {0} does not exist for property {1}	
MDM11145	Season code {0} for property {1} cannot be found to update	
MDM11146	Season code {0} for property {1} cannot be found to delete	
MDM11147	Season code {0} cannot be found to update	
MDM11148	Alternate Hotel {0} for the Property {1} cannot be found to upda	
MDM11149	Range To field cannot be empty	
MDM11150	Card range already exist	
MDM11151	More than 3 card ranges are not allowed	
MDM11152	Contact with Name {0} for the Property {1} cannot be found to update	
MDM11154	Country Code {0} for the Property {1} cannot be found to update	
MDM11155	Template Country Code {0} cannot be found to update	
MDM11156	Template Country Code {0} cannot be found to delete	
MDM11157	Country Code {0} cannot be found in the Template	
MDM11158	Template Country {0} cannot be deleted It has dependent records	
MDM11160	Please enter at least one folio Text	
MDM11161	Inventory Item with ID {0} for Resort {1} cannot be found to delete	
MDM11162	Item {0} in Property {1} is attached to Events The revenue type cannot be changed	
MDM11163	Sequence Number is missing	
MDM11164	Unable to create business event condition due to {0}	
MDM11165	Unable to update business event condition due to {0}	
MDM11168	Cannot delete default departure housekeeping task	
MDM11169	Cannot delete housekeeping code that is being used	
MDM11170	Report ID [{0}] is not found in the DB	
MDM11171	Deposit Posting Transaction Code should be marked as Non- Revenue Transaction or Tax Type	



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM11172	Adjustment Transaction Code should also be marked as a Deposit Posting Transaction
MDM11173	Transaction Code cannot have non-numeric characters
MDM11174	Transaction Code cannot be same as the routing code
MDM11175	Transaction Code is used as Credit Card Transaction Code application parameter Manual posting is not allowed
MDM11176	Adjustment Transaction Code cannot be a Deposit Posting Transaction
MDM11177	Deposit Posting flag of the generates does not match the main Transaction Code
MDM11178	Cashier {0} cannot be configured as LDAP Template Cashier is associated with parameters
MDM11179	Cashier {0} cannot be configured as LDAP Template Cashier is attached to user(s)
MDM11180	Another Details record currently exists for wash code {0} under property {1} with the same number of days prior to arrival
MDM11184	From: {0} To: {1} Export Bucket Transactions codes {2} to be copied, are not valid
MDM11185	{0} does not exist.
MDM11186	Chain code is required.
MDM11187	Description is required.
MDM11192	Changes are not saved
MDM11205	{1} must be unique. {1} [{0}] is already existing.
MDM11210	{0} must not be empty and has to be either Waitlist/Cancel/Actual/Inquiry/Non
	Deduct Inventory/Deduct Inventory
MDM11211	If {0} is {2}, {1} must be {2}.
MDM11212	If Room Status Type is Cancel, Reason must not be empty.
MDM11213	If Room Status Type is $\{0\}$, $\{1\}$ should be true and $\{2\}$ should be false.
MDM11214	If Room Status Type is {0}, {1} and {2} should be both false.
MDM11215	If Room Status Type is {0}, {1} should be true.
MDM11216	{0} should not be null.
MDM11217	Length of {0} must not be more than {1}.
MDM11218	Number of block status codes exceeds the maximum number [{0}].
MDM11219	Block Status Code [{0}] is not existing.
MDM11220	{0} and {1} cannot both be selected.
MDM11221	There was a problem while validating default reservation type.
MDM11222	{0} is invalid.
MDM11223	{0} [{1}] is being used in {2}.



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM11224	There was a problem while trying to remove block status code [{0}].
MDM11225	There was a problem while validating sequence.
MDM11226	Invalid sequence for Status code [{0}] which has been configured as next status of
	[{1}].
MDM11227	Invalid sequence for Status code [{0}] which has next statuses [{1}].
MDM11228	Status code [{0}] is already used in FIT.
MDM11254	File name
MDM11255	Zip file name
MDM11256	File extension
MDM11258	Unable to generate export file. Please check server logs.
MDM11596	Start Date is required
MDM11597	Chain Name is required
MDM11598	Chain Description is required
MDM11599	Chain Code is required
MDM20000	Hotel Code is required
MDM20001	Hotel Code and Country Code are required
MDM20002	QAS Setup record not found for property = {0} and country = {1}
MDM20003	QAS Setup already exists for {0}
MDM20004	Successfully copied code {0} to Property {1}
MDM20005	Parameter value should not be empty
MDM20006	Unsuccessful copy to Property {0}: {1}
MDM20007	Cashier {0} already exists
MDM20008	Cashier {0} cannot be found to update
MDM20009	LDAP Template already configured for cashier {0} Only one cashier can be used as LDAP Template
MDM20012	Cashier {0} cannot be marked as inactive It is attached to an active user
MDM20013	Exchange rate not found
MDM20014	Cashier Name exceeds 40 characters
MDM20015	Attachment cannot be saved
MDM20016	Payment Method already exists
MDM20017	Transaction Code is already attached to Payment Method {0}
MDM20018	Transactions exist for the Payment Method Changing Calculation Points will cause incorrect membership points calculation
MDM20019	Percentage must be between 0 and 100
MDM20020	CP Payment Method is used internally Please use another Payment Method



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM20021	Duplicate Card Range exists
MDM20022	Payment Method has dependent record(s) and cannot be deleted
MDM20023	Active transactions exist
MDM20024	Property is required
MDM20025	Article ID is required
MDM20026	Article Code is required
MDM20027	Description is required
MDM20028	Transaction Code is required
MDM20029	Article Code must be at least two characters in length
MDM20030	Article Code cannot have non-numeric characters
MDM20031	Article Code already exists
MDM20032	Article Code cannot be updated
MDM20033	Post It and Post It Color cannot be updated when Article is marked as inactive
MDM20034	Post It and Post It Color cannot be updated when Post It functionality is unavailable
MDM20035	File Type cannot be deleted as data is already generated
MDM20036	Unable to create columns {0}
MDM20037	Missing export file ID
MDM20038	Missing definition code
MDM20039	Definition code is already in use for the export
MDM20040	Unsuccessful copy to Property {0}: Tax Type {1} already exists
MDM20041	Tax Type {0} for property {1} already exists
MDM20042	Room type {0} already exist
MDM20043	{ReasonCode} already exist
MDM20044	{code} already exist
MDM20045	Assign reason is required
MDM20046	Assign Reason cannot be greater than 20 characters
MDM20048	Assign type is required
MDM20049	Assign type cannot be greater than 20 characters
MDM20050	Comments cannot be greater than 2000 characters
MDM20055	Dependencies exist, Region Code {0} cannot be deleted
MDM20056	Region Code {0} already exists
MDM20057	Region Code {0} cannot be found to update
MDM20058	Region Code {0} cannot be found to delete
MDM20059	There are no deposits to process for the Reservation
MDM20060	{0} out of {1} deposits were processed for the Reservation
MDM20061	Successfully processed {0} deposits for the Reservation
MDM20062	Pseudo room type cannot be greater than 20 characters



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM20063	Replaces category cannot be greater than 20 characters
MDM20064	Rate category cannot be greater than 20 characters
MDM20065	Room type is required
MDM20066	Room type cannot be greater than 20 characters
MDM20067	Yield category cannot be greater than 10 characters
MDM20068	Room info URL cannot be greater than 2000 characters
MDM20069	Bed type is required
MDM20070	Bed type cannot be greater than 20 characters
MDM20071	CRS description cannot be greater than 20 characters
MDM20072	Reason code is required
MDM20073	Reason code cannot be greater than 8 characters
MDM20074	Description cannot be greater than 40 characters
MDM20075	{AttractionCode} already exist
MDM20076	Attraction code cannot be greater than 20 characters
MDM20077	Attraction class cannot be greater than 60 characters
MDM20078	Attraction type cannot be greater than 60 characters
MDM20080	Directions cannot be greater than 2000 characters
MDM20081	General directions cannot be greater than 2000 characters
MDM20082	Direction cannot be greater than 20 characters
MDM20083	Price range cannot be greater than 20 characters
MDM20084	Distance type cannot be greater than 20 characters
MDM20085	Driving time cannot be greater than 20 characters
MDM20086	Region cannot be greater than 20 characters
MDM20087	Address1 cannot be greater than 80 characters
MDM20088	Address2 cannot be greater than 80 characters
MDM20089	Address3 cannot be greater than 80 characters
MDM20090	Address4 cannot be greater than 80 characters
MDM20091	City cannot be greater than 80 characters
MDM20092	State cannot be greater than 80 characters
MDM20093	Zip code cannot be greater than 20 characters
MDM20094	Hours of operation cannot be greater than 20 characters
MDM20095	Latitude decimal value must be between -900 and 900
MDM20096	Longitude decimal value must be between -1800 and 1800
MDM20097	Coordinate supplier cannot be greater than 80 characters
MDM20098	Website cannot be greater than 2000 characters
MDM20099	{airportCode} already exist
MDM20101	Airport code cannot be greater than 3 characters
MDM20102	Description cannot be greater than 2000 characters



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM20103	Distance units cannot be greater than 20 characters
MDM20104	Direction from airport cannot be greater than 2000 characters
MDM20105	Room category is required
MDM20106	Rate code cannot be greater than 20 characters
MDM20107	Room category cannot be greater than 20 characters
MDM20108	Room class is required
MDM20109	Room class cannot be greater than 20 characters
MDM20110	Number of rooms is required
MDM20111	Short description cannot be greater than 2000 characters
MDM20112	Long description cannot be greater than 2000 characters
MDM20113	{transportCode} already exists
MDM20114	Transport code is required
MDM20115	Transport code cannot be greater than 40 characters
MDM20116	Phone cannot be greater than 100 characters
MDM20117	Description cannot be greater than 1000 characters
MDM20118	Price range cannot be greater than 40 characters
MDM20119	{amenityCode} already exist
MDM20120	Feature code cannot be greater than 20 characters
MDM20121	Feature code is required
MDM20122	Feature type cannot be greater than 2 characters
MDM20123	Type cannot be greater than 2000 characters
MDM20124	Hours cannot be greater than 1000 characters
MDM20125	{rateCategory} already exist
MDM20126	Rate category is required
MDM20127	Rate class is required
MDM20128	Rate class cannot be greater than 20 characters
MDM20129	Begin date is required
MDM20130	Display set cannot be greater than 20 characters
MDM20131	Rate tier cannot be greater than 20 characters
MDM20132	Export bucket code cannot be greater than 20 characters
MDM20133	Tax Type {0} for property {1} does not exist
MDM20134	{seasonCode} already exist
MDM20135	Season code is required
MDM20136	Season code cannot be greater than 8 characters
MDM20137	End date is required
MDM20138	Multiplier cannot be greater than 10 digits
MDM20139	Adder cannot be greater than 10 digits
MDM20140	Display color cannot be greater than 100 characters



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM20141	{ruleCode} already exists
MDM20142	Rule code is required
MDM20143	Rule code cannot be greater than 20 characters
MDM20144	Rule type is required
MDM20145	Rule type cannot be greater than 10 characters
MDM20146	Rule description cannot be greater than 100 characters
MDM20147	Deposit amount type cannot be greater than 20 characters
MDM20148	Cancelation amount type cannot be greater than 20 characters
MDM20149	Reservation type cannot be greater than 20 characters
MDM20150	{guaranteeCode} already exists
MDM20151	Guarantee code is required
MDM20152	Closing probability cannot be greater than 3 digits
MDM20153	Short description is required
MDM20154	Short description cannot be greater than 30 characters
MDM20155	GDS short description cannot be greater than 50 characters
MDM20156	Order by cannot be greater than 5 characters
MDM20157	Booking status cannot be greater than 10 characters
MDM20158	Booking status order cannot be greater than 2 characters
MDM20159	{alertCode} already exists
MDM20160	Alert code cannot be greater than 20 characters
MDM20161	Description cannot be greater than 500 characters
MDM20162	{marketCode} already exists
MDM20163	Market code is required
MDM20164	Group code is required
MDM20165	Group code cannot be greater than 10 characters
MDM20166	Description cannot be greater than 50 characters
MDM20167	Sequence is required
MDM20168	Sequence cannot be greater than 10 digits
MDM20169	Display color is required
MDM20170	Display color cannot be greater than 20 characters
MDM20171	Print group cannot be greater than 3 characters
MDM20172	{marketGroup} already exists
MDM20173	Market group is required
MDM20174	Sell sequence cannot be greater than 5 digits
MDM20175	{sourceCode} already exist
MDM20176	Source Code {SourceCode} should be less than or equal to {MaxLength} characters
MDM20177	Source code is required



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM20179	Sell sequence is required
MDM20180	{marketingCity} in {regionCode} already exists
MDM20181	Marketing city is required
MDM20182	Marketing city cannot be greater than 40 characters
MDM20183	Region code is required
MDM20184	Region code cannot be greater than 20 characters
MDM20185	City description cannot be greater than 2000 characters
MDM20186	Distance cannot be greater than 10 digits
MDM20187	Driving time cannot be greater than 100 characters
MDM20188	{rateClass} already exist
MDM20189	Code is Required
MDM20190	Revenue Bucket Type {0} for property {1} already exists
MDM20191	Profile Type and Name already exists
MDM20192	Profile Type and Name does not exists
MDM20193	Name must be less than or equal to 40 characters
MDM20194	Name cannot be empty
MDM20195	Request cannot be empty
MDM20196	Code cannot exceed 8 characters
MDM20197	{0} in {1} already exists
MDM20198	{transportCode} in {resort} already exists
MDM20199	Label cannot be greater than 1 character
MDM20200	Sell sequence cannot be greater than 5 digits
MDM20201	{roomClass} in {resort} already exists
MDM20202	Employee ID is required
MDM20203	Employee name is required
MDM20204	Employee ID cannot be greater than 20 characters
MDM20205	HK section code cannot be greater than 20 characters
MDM20206	Floor cannot be greater than 20 characters
MDM20207	Job code cannot be greater than 20 characters
MDM20208	Phone number cannot be greater than 40 characters
MDM20209	{empId} in {resort} already exists
MDM20210	{code} in {resort} already exists
MDM20211	Section code cannot be greater than 8 characters
MDM20212	Section code is required
MDM20213	Facility code is required
MDM20214	Facility code cannot be greater than 8 characters
MDMOOOLE	{facilityCode} in {resort} already exists
MDM20215	(identificate) in (resort) direday exists



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM20217	{taskCode} in {resort} already exists
MDM20218	Task code cannot be greater than 8 characters
MDM20219	Description cannot be greater than 80 characters
MDM20220	Unit of frequency cannot be greater than 20 characters
MDM20221	Color cannot be greater than 20 characters
MDM20222	Minute(s) value must be between 1 and 1440 Please try again
MDM20223	Resort cannot be greater than 8 characters
MDM20224	Room maintenance code cannot be greater than 8 characters
MDM20225	Rate code is required
MDM20226	Transaction reason code is required
MDM20227	Transaction reason code cannot be greater than 20 characters
MDM20228	Transaction reason description cannot be greater than 2000 characters
MDM20229	Transaction code type is required
MDM20230	Transaction code type cannot be greater than 5 characters
MDM20231	Currency code is required
MDM20232	Format mask cannot be greater than 80 characters
MDM20233	Decimal positions is required
MDM20234	Currency symbol cannot be greater than 10 characters
MDM20235	Code cannot be greater than 20 characters
MDM20236	Hotel code cannot be greater than 20 characters
MDM20237	Collection agent is required
MDM20238	Region code cannot be greater than 3 characters
MDM20239	Description cannot be greater than 40 characters
MDM20240	Display order cannot be greater than 5 characters
MDM20241	State ID is required
MDM20242	Alternate resort is required
MDM20243	Alternate resort cannot be greater than 20 characters
MDM20244	Transaction code is required
MDM20245	Start date is required
MDM20246	Tax type is required
MDM20247	Transaction code cannot be greater than 20 characters
MDM20248	Tax type cannot be greater than 20 characters
MDM20249	Currency cannot be greater than 20 characters
MDM20250	TC group is required
MDM20251	TC group cannot be greater than 20 characters
MDM20252	TC sub group is required
MDM20253	TC sub group cannot be greater than 20 characters



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM20254	UDF function cannot be greater than 2000 characters
MDM20255	Name ID is required.
MDM20256	Contact type is required
MDM20257	Min rate is required
MDM20258	Currency code cannot be greater than 20 characters
MDM20259	Restaurant code is required
MDM20260	Restaurant name is required
MDM20261	Restaurant type is required
MDM20262	Category cannot be greater than 20 characters
MDM20263	Allow restrict is required
MDM20264	Award code is required
MDM20265	Award code cannot be greater than 20 characters
MDM20266	MP code cannot be greater than 20 characters
MDM20267	Number required type cannot be greater than 20 characters
MDM20268	Ispackage is required
MDM20269	IsUpgrade is required
MDM20270	Hotel category cannot be greater than 20 characters
MDM20271	Preference type is required
MDM20272	Format code is required
MDM20273	Description cannot be greater than 200 characters
MDM20274	Format code cannot be greater than 20 characters
MDM20275	Format definition is required
MDM20276	Format definition cannot be greater than 2000 characters
MDM20277	Format type is required
MDM20278	Format type cannot be greater than 40 characters
MDM20279	State code is required
MDM20280	Market Group {MarketGroup} should be less than or equal to {MaxLength} characters
MDM20281	Preference type cannot be greater than 8 characters
MDM20282	Max quantity cannot be greater than 20 characters
MDM20283	Display sequence cannot be greater than 5 characters
MDM20284	Resort cannot be greater than 20 characters
MDM20285	{attractionCode} in {resort} already exists
MDM20286	Name cannot be greater than 80 characters
MDM20287	Distance from airport cannot be greater than 10 digits
MDM20288	Successfully processed
MDM20289	Successfully processed with warning
MDM20291	Room Charges have already been posted for the requested dates



Table 16-4 (Cont.) Master Data Management Services – Error Codes

Error Code	Error Description
MDM20292	Resort or Reservation ID was not supplied
MDM20293	Reservation is currently not In-House
MDM20294	Advance Room Charges Posting was not completed successfully as there was an Error during posting
MDM20295	Date range requested is not valid
MDM20296	Advance Room Charges could not be completed {0}
MDM20297	Error while processing advance folio
MDM20298	Please configure Flexible Benefit Awards Transaction Code
MDM20299	Unsuccessful copy to Property {0}: {1}
MDM20303	Successfully copied Revenue Bucket code {0} to Property {1}
MDM20304	Invalid Cashier
MDM20305	Copy Code(s) was successful
MDM20306	Folio Arrangement
MDM20307	Group Arrangement
MDM20308	Expense Arrangement
MDM20309	Package Arrangement
MDM20310	Email delivery method configuration $\{0\}$ for property $\{1\}$ does not exist
MDM20311	Fax delivery method configuration {0} for property {1} does not exist
MDM20312	{0} delivery method configuration {1} for property {2} does not exist
MDM20313	Text message delivery method configuration {0} for property {1} does not exist
MDM20314	Email delivery method configuration {0} already exists for property {1}
MDM20315	Fax delivery method configuration $\{0\}$ already exists for property $\{1\}$
MDM20316	Text message delivery method configuration $\{0\}$ already exists for property $\{1\}$
MDM20317	Delivery method cannot be empty
MDM20318	The type value of delivery method cannot be empty

Price, Availability, and Revenue Services (PAR)

Table 16-5 Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR00001	Invalid Comparison Type
PAR00002	Invalid number of Children 0 Children is used
PAR00004	Unable to determine data action for key {0}



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR00005	Date span {0} to {1} overlap an existing negotiated rate
PAR00006	The room description type is not supported
PAR00007	Channel rate code {0} exists for property {1}, rate code {2} and channel {3}
PAR00008	The rate tier {0} already exists for property {1}, channel rate code {2} and channel {3}
PAR00009	Short Description cannot be empty for channel AA mappings
PAR00013	Room Type is required.
PAR00037	Base Rate plan amount is not specified
PAR00047	BAR Based Rate plan cannot be set
PAR00048	BAR Based Rate plan amount is not specified
PAR00049	BAR Rate Code cannot based on itself
PAR00050	An error has occurred while fetching alternate dates
PAR00051	Modification of Daily Rates Flag is not allowed for this rate code as schedules are already defined
PAR00052	Advanced Dynamic Base Rate plan code is specified in the request System is not accepting Advanced Dynamic Base Rate configuration
PAR00053	Rate Schedule request contains offset amount System is not accepting Advanced Dynamic Base Rate configuration
PAR00054	The Rate Floor is higher than the rate amount for some of the Rate Plan Schedules
PAR00055	Rate Code Posting Rhythm is specified in the request System is not accepting Rate Code Posting Rhythm
PAR00056	Posting Rhythm Nights should be between 1 and 14
PAR00057	Rate Schedule request contains occupant threshold pricing System is not accepting occupant threshold pricing configuration
PAR00058	Threshold and Amount are both required for occupant threshold pricing method
PAR00059	Rate Schedule request contains offset amount Rate Plan Code is not an Advanced Dynamic Base Rate
PAR00060	Coupon is invalid
PAR00061	Coupon is not available
PAR00062	This promotion is not available for the selected stay dates
PAR00063	This promotion is not available to be booked today
PAR00064	This promotion is not available for this property
PAR00065	An error has occurred while validating the coupon
PAR00066	Promotion {0} requires a coupon
PAR00067	The Rate Code cannot be both Tiered and use Daily Rates
PAR00068	The Rate Code cannot be both Complimentary and for House Use



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR00069	The Rate Code is marked for Day Use, therefore, the Minimum and Maximum Stay Through cannot be set
PAR00070	Rate code {0} does not exist in property {1}
PAR00071	{0} cannot be empty for LOS Range {1}
PAR00072	The first LOS Range must begin with 1
PAR00073	The Start LOS for LOS Range {0} must be exactly 1 more than the End LOS for LOS Range {1}
PAR00074	The End LOS cannot be less than the Start LOS for LOS Range {0}
PAR00101	Invalid Property Initialized Cannot start Mass Rate Update process
PAR00102	Mass Rate Update process is already running for the Property
PAR00103	Mass Rate Update process is running for the Property, cannot clear the process log
PAR00104	Transaction Code {0} does not exist for property {1}
PAR00105	Billing Instruction {0} does not exist for property {1}
PAR00106	The amount for one Person Rate cannot be negative
PAR00107	Package Codes or Package Groups must be supplied to attach to the rate plan
PAR00108	A quantity must be supplied for package code {1}
PAR00109	Package Codes or Package Groups must be supplied to remove from the rate plan
PAR00110	Sequence must be between 1 and 99999
PAR00111	Package Forecast Group {0} for property {1} already exists
PAR00112	Code length cannot exceed 8 characters
PAR00113	Description cannot exceed 40 characters
PAR00114	Package Forecast Group {0} already exists
PAR00115	Cannot delete Record has dependent records
PAR00116	Package Forecast Group {0} for property {1} does not exist
PAR00117	Package Forecast Group {0} does not exist
PAR00118	Package forecast group code cannot be empty
PAR00119	Description cannot be empty
PAR00120	You must specify a property to create a package forecast group
PAR01001	Package is attached to a Rate Code or Reservation and cannot be changed
PAR01002	Description field exceeds maximum number of characters (80)
PAR01005	Transaction Codes must be defined by either Room Types or Roo Classes You cannot define transaction codes for both
PAR01008	Code {0} already exists for channel {1}
PAR01009	System does not allow to delete promotion group with associated awards



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR01010	Rate Schedule cannot be set for date later than {0}
PAR01012	{0} is required
PAR01014	Posting Rhythm {0} already exists for Rate Code {1}
PAR01015	Posting rhythm {0} with begin date {1} and end date {2} overlaps with an existing posting rhythm
PAR01016	{0} {1} cannot be found to change
PAR01017	{0} {1} cannot be found to remove
PAR01019	Channel cannot be empty for Rate Distribution Template
PAR01020	Negotiated Rate unique key (hotel code, rate code, profile ID, stardate and end date) is required
PAR01022	Profile discounts start date is missing
PAR01023	Rate Code cannot be flagged as both Point Redemption and Daily Rate
PAR01030	{0} Rate Code {1} to Channel {2} Rate Code {3} was mapped successfully
PAR01031	{0} Negotiated Rate with Access Code {1} for Channel {2} Rate Code {3} was successfully created
PAR01035	Discount ID {0} is invalid
PAR01036	Default transaction code is empty
PAR01038	End date cannot exceed {0}
PAR01039	Error in processing
PAR01041	Total Pricing Element for Property {0} and Transaction Code {1} does not exist
PAR01042	Transaction Code is required
PAR01043	Transaction code cannot be greater than 20 characters
PAR01044	Tax or Service Fee Code is required
PAR01045	Tax or Service Fee code cannot be greater than 20 characters
PAR01048	Transaction Code {0} already exists for property {1}
PAR01049	Copy operation was successful
PAR01050	Copy Instructions cannot be empty
PAR01054	Channel Card Type {0} already exists for Property {1} and Channel {2} and Card Type {3}
PAR01055	Channel Reservation Type {0} already exists for Property {1} and Channel {2} and Reservation Type {3}
PAR01056	Failed to process instruction {0}
PAR01057	Billing account with profile ID {0} is not found
PAR01058	Channel billing account code cannot be empty
PAR01059	Billing account with account code {0} exists Please select another account code



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR01060	Account Name should not exceed more than 40 characters
PAR01061	Account Name cannot be empty. Please provide a valid value
PAR01065	From {0} To {1}, Transaction Code {2} already exists
PAR01066	From $\{0\}$ To $\{1\}$, Transaction Code $\{2\}$ does not exist or belongs to a different group / sub-group
PAR01067	Rate Plan Code {0} does not exist for {1}
PAR01068	Room Type {0} does not exist for {1}
PAR01071	Billing account with resort {0} exists Please select another resort
PAR01073	From {0} To {1}, Element Code {2} copied successfully
PAR01074	Package Code {0} does not exist under property {1}
PAR01076	Channel billing account ID cannot be empty
PAR01077	Failed to create Billing Account profile for Account code {0}
PAR01079	$\{0\}$ letter does not exists for channel $\{1\}$ and property $\{2\}$ with language $\{3\}$
PAR01080	Source Property is required
PAR01081	Target Property is required
PAR01082	Package Codes to be copied are required
PAR01083	Package Code {0} for Property {1} requires a different code due to same target and source property
PAR01084	Failed to copy {0} to {1} Package Group {2} already exists
PAR01085	Failed to copy {0} to {1} Package {2} already exists under {3}
PAR01086	Failed to copy {0} to {1} Package {2} does not exist
PAR01087	Failed to copy {0} to {1} Transaction Code {2} does not exist or belongs to a different group
PAR01088	Package {0} is successfully copied to {1}
PAR01089	Package {0} is successfully copied to {1} as {2}
PAR01091	Minimum/Maximum Nights and Guests are required
PAR01092	Minimum Nights should be less than or equal to Maximum Nights
PAR01093	Minimum Guests should be less than or equal to Maximum Guests
PAR01094	Minimum/Maximum Nights and Guests should be 0 or greater than 0
PAR01099	Channel account contract $\{0\}$ is not found Please provide a valid contract ID
PAR01100	Channel account contract {0} cannot be deleted as statements were generated
PAR01101	Provide valid begin and end date to create/update the contract {0} with profile ID {1}
PAR01102	Billing account contract with account ID {0}, begin date {1} and end date {2} already exists Please select different contract dates



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR01103	Contract with ID {0} is not found Please provide a valid contract to copy
PAR01113	Contract with ID {0} is not found Please select a valid contract to copy
PAR01114	Please provide a valid profile ID to fetch channel account details
PAR01116	Channel billing statement cannot be created without valid statement date, begin date and end date
PAR01117	Statement begin date {0} cannot be greater than end date {1} Please provide valid details
PAR01118	Channel billing statement {0} is not found Please provide a valid statement ID
PAR01119	Channel billing statement account with statement ID {0} and contract ID {1} is not found Please provide valid details
PAR01120	Channel billing statement detail with statement ID {0}, contract ID " {1}, Sequence {2} and Resort {3} is not found Please provide valid details
PAR01122	Transactions were already generated for channel accounts in the same period.
PAR01123	Failed to generate transactions for statement ID {0}.
PAR01124	Channel {0} does not exist for property {1}
PAR01126	Please provide valid Min and Max Range values.
PAR01127	Invalid rate requested field
PAR01128	Property is not available
PAR01129	Invalid currency code
PAR01130	Invalid corporate ID
PAR01132	The amount for two Person Rate cannot be negative
PAR01133	The amount for extra Person Rate cannot be negative
PAR01134	The amount for extra Child Rate cannot be negative
PAR01135	Account Code cannot be empty. Please provide a valid value.
PAR01136	Account Code should not exceed more than 20 characters
PAR01137	Max Stay Through must be a whole number.
PAR01138	Max Stay Through cannot be more than 999.
PAR01139	Min Stay Through must be a whole number.
PAR01140	Min Stay Through cannot be more than 999.
PAR01141	Max Stay Through cannot be less than 0.
PAR01142	Min Stay Through cannot be less than 0.
PAR01143	Min Advance Booking must be a whole number.
PAR01144	Min Advance Booking cannot be less than 0.
PAR01145	Min Advance Booking cannot be more than 999.
PAR01146	Max Advance Booking must be a whole number.



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR01147	Max Advance Booking cannot be less than 0.
PAR01148	Max Advance Booking cannot be more than 999.
PAR01150	Display Sequence cannot be less than 0.
PAR01151	Display Sequence cannot be more than 999.
PAR01152	Rate Floor cannot be less than 0.
PAR01153	Min Occupancy cannot be less than 0.
PAR01154	Min Occupancy cannot be more than 999.
PAR01155	Max Occupancy cannot be less than 0.
PAR01156	Max Occupancy cannot be more than 999.
PAR01157	Commission % cannot be less than 0.
PAR01158	Display Sequence must be a whole number.
PAR01159	Min Occupancy must be a whole number.
PAR01160	Max Occupancy must be a whole number.
PAR01161	Description cannot exceed 2000 characters.
PAR01162	Folio Text cannot exceed 80 characters.
PAR01163	Location Type cannot exceed 1 character.
PAR01164	Description cannot exceed 47 characters.
PAR01165	Type cannot exceed 40 characters.
PAR01175	Required Paid Nights must be between {0} and {1}.
PAR01176	Eligible Free Nights must be between {0} and {1}.
PAR01177	The Line 1 can contain maximum of 30 characters.
PAR01178	The Line 2 can contain maximum of 45 characters.
PAR01179	The Line 3 can contain maximum of 45 characters.
PAR01182	Channel is required.
PAR01183	Language is required.
PAR01184	Letter Type is required.
PAR01185	Letter Name is required.
PAR01186	Rate Code is required.
PAR01187	Begin Sell Date is required.
PAR01188	End Sell Date is required.
PAR01189	Required Paid Nights is required.
PAR01190	Eligible Free Nights is required.
PAR01191	Promotion Code must be specified.
PAR01192	Hotel Code must be specified.
PAR01193	Promotion Group must be specified.
PAR01194	Booking Date must be specified.
PAR01195	Booking Start Date must be specified.



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR01196	Booking End Date must be specified.
PAR01197	Stay Date must be specified.
PAR01198	Stay Start Date must be specified.
PAR01199	Stay End Date must be specified.
PAR01200	Yield Category cannot be empty
PAR01201	Hurdle Date cannot be empty
PAR01202	Length of Stay cannot be empty
PAR01203	Hurdle date must be greater than or equal to business date
PAR01211	Daily rate date must be later than or equal to business date.
PAR01212	Rate date is required.
PAR01213	One Person Rate is required.
PAR01214	Rate Code is not a daily rate.
PAR10001	Invalid number of adults 1 Adult is used
PAR10002	Invalid number of nights 1 Night is used
PAR10003	Invalid number of children 0 children is used
PAR10004	Carrier {0} is defined at the Channel level Carrier code is ignored for the mapping
PAR10005	Invalid room types({0}) are ignored for rate distribution
PAR10006	Room types({0}) not configured for the rate code are ignored for rate distribution
PAR10007	Room types({0}) not configured for the channel are ignored for rate distribution
PAR10009	Channel Room Type {0} is not valid for Booking Channel Code {1
PAR10010	Channel Rate Code {0} has exceeded the maximum number of character allowed ({1})
PAR10011	User does not have access to one the properties in the Property filter
PAR10012	Channel Rate Code was not provided for record: {0}
PAR10013	Rate Detail has overlapping dates
PAR10014	User does not have access to any of the properties
PAR10015	Hotel Code is required
PAR10016	Package Code or Package Group is required
PAR10017	Package Code description is required
PAR10018	Transaction Code is required
PAR10019	Transaction code for profit is required for packages having an allowance
PAR10020	Transaction code for loss is required for packages having an allowance
PAR10021	Only package(s) with allowance allow post next day



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR10022	Package(s) with allowance cannot have print separate line
PAR10023	Package code requested to be created already exists
PAR10024	Posting rhythm "Every X nights Starting on Night Y" should have "Every X Nights" and "start on Night Y" greater than 1
PAR10025	Posting rhythm "Certain Nights Of The Week" should at least have one week day selected
PAR10026	Posting rhythm "Custom Schedule" should at least have one day selected
PAR10027	Time span {0} and {1} overlap an existing price schedule
PAR10028	Promotion Code must be specified.
PAR10029	{0} must not be later than {1}
PAR10030	Promotion code details must exists
PAR10031	The Rate/Room Type has no Rate defined
PAR10032	The Rate/Room Type requires a Minimum Occupancy of {0}
PAR10033	The Rate/Room Type exceeds the Maximum Occupancy of {0}
PAR10034	The Rate/Room Type is Closed for Arrival on this date
PAR10035	The Rate/Room Type is Closed for this date
PAR10036	The Rate/Room Type requires a Minimum Length of Stay of {0} nights to Arrive on this date
PAR10037	The Rate/Room Type exceeds the Maximum Length of Stay of {0} nights to Arrive on this date
PAR10038	This Rate/Room Type can only be booked {0} nights prior to Arrival
PAR10039	This Rate/Room Type can be booked no more than {0} nights prior to Arrival
PAR10040	The Rate/Room Type requires a Minimum Length of Stay of {0} nights
PAR10041	The Rate/Room Type exceeds the Maximum Length of Stay of {0} nights
PAR10042	The Rate/Room Type is Closed for Departure on this date
PAR10043	The Rate/Room Type is Closed for this date
PAR10044	The Rate/Room Type is Closed for this date as insufficient inventory items are available
PAR10045	The Rate/Room Type is Closed due to Rank Restrictions
PAR10046	The Rate/Room Type is Closed for this date due to Yield Restrictions
PAR10047	The Rate/Room Type is Closed for this date due Max Authorization
PAR10048	The Rate/Room Type is Open
PAR10049	The Rate/Room Type is Open for Arrival
PAR10050	The Rate/Room Type is Open for Departure



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description	
PAR10051	The Rate/Room Type exceeds the Maximum Adults Occupancy of {0}	
PAR10052	The Rate/Room Type exceeds the Maximum Children Occupancy of $\{0\}$	
PAR10053	There are not enough rooms available at house level	
PAR10054	Cannot create/update more than one price schedule	
PAR10055	No number of rooms found using {0} room(s)	
PAR10056	Invalid Room Type(s) {0} passed.	
PAR10057	One Person Rate	
PAR10058	Either Room Class or Room Types should be supplied	
PAR10059	Only Daily rates can use schedule range operation	
PAR10060	There are not enough rooms available at room class level	
PAR10061	There are not enough rooms available at room type level	
PAR10062	Rate Detail can be either based on Amount or on offset amount o percentage	
PAR10063	Increments can be set for a maximum of 90 days	
PAR10065	The rate amount 1 has to be at least $\{1\}$ in order to meet the Rate Floor of $\{0\}$	
PAR10066	The rate amount 2 has to be at least $\{1\}$ in order to meet the Rate Floor of $\{0\}$	
PAR10067	Rate Plan Schedule ID	
PAR10068	Hotel Code is not provided for Promotion Groups to be copied	
PAR10069	Promotion Groups to be copied are not provided for Hotel Code {0}	
PAR10070	Promotion Group to be copied is not provided for Hotel Code $\{0\}$	
PAR10071	Copy Target details are missing for Promotion Group {0}	
PAR10072	Target Hotel Code is missing for Promotion Group {0}	
PAR10073	Copy As Details are missing for Promotion Group {0}	
PAR10074	Copy As is missing for Hotel Code {0} and Promotion Group {1}	
PAR10075	Promotion Group {1} already exists in property {0}	
PAR10076	Property {0} or {1} is invalid	
PAR10077	Promotion Group {1} of Property {0} being copied does not exist	
PAR10078	Restriction Start date cannot be greater than Restriction end date	
PAR10079	Restriction Start Date is empty	
PAR10080	Control Start date cannot be greater than Control end date	
PAR10081	Days In advance from cannot be greater than Days in advance to	
PAR10082	Request has Invalid Room type	
PAR10083	Request has Invalid Room class	
PAR10084	Request has Invalid Rate code	



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Codo	Error Description
Error Code	Error Description
PAR10085	Request has Invalid Rate category
PAR10086	Strategy Condition Type is empty
PAR10087	Valid values for Strategy Condition Threshold type are F and P
PAR10088	Strategy Condition Threshold is empty
PAR10089	Strategy Restriction type is empty
PAR10090	Strategy Restriction type is not valid
PAR10091	At least one of hotel code and booking channel code must be provided for search
PAR10092	Hotel code cannot be empty
PAR10093	Channel cannot be empty
PAR10094	Channel hotel code cannot be empty
PAR10095	Chain code cannot be empty
PAR10096	Begin date cannot be empty
PAR10097	City cannot be empty
PAR10098	Hotel chain ID cannot be empty
PAR10099	Add-on license cannot be empty
PAR10100	Channel hotel mapping bucket cannot be empty
PAR10101	Rate code low revenue threshold cannot be empty
PAR10102	Rate code low revenue threshold cannot be greater than high revenue threshold
PAR10103	First rate code revenue threshold cannot be greater than or equal second low revenue threshold
PAR10104	Second rate code revenue threshold cannot be greater or equal than third low revenue threshold
PAR10105	Begin date cannot be less than hotel begin date
PAR10106	Begin date must be between hotel begin and end date
PAR10107	End date must be between hotel begin and end date
PAR10108	High Revenue Threshold for Bucket 1 required before having Bucket 2
PAR10109	High Revenue Threshold for Bucket 2 required before having Bucket 3
PAR10110	Default rate code required to save buckets
PAR10111	Default rate code required to save low and high rate code revenue threshold
PAR10112	Rate strategy with restriction date {0} and rate code {1} was not saved due to negative condition value
PAR10113	Rate strategy with restriction date {0} and rate category {1} was not saved due to negative condition value
PAR10114	Rate strategy with restriction date $\{0\}$ and room type $\{1\}$ was not saved due to negative condition value



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR10115	There should be exactly one rate category search criteria to fetch rate code level
PAR10116	There should be exactly one rate code search criteria to fetch room type level
PAR10117	There should be exactly one room class search criteria to fetch room type level
PAR10118	Only Occupancy Reaches and Occupancy is Less are allowed for house level strategy
PAR10119	Only Times Sold Reaches and Times Sold is Less are allowed for rate and room level strategy
PAR10120	Restriction unit cannot be empty
PAR10121	Record overlaps with another record
PAR10122	Rate Tier cannot be empty
PAR10123	The Rate Code is not defined as tiered Rate Schedule cannot be tiered
PAR10124	The Tier cannot be changed on an existing rate schedule
PAR10125	Rate schedule tier ID is set to 1
PAR10126	One or more parameters is null
PAR10127	Reservation does not exist
PAR10128	Upgrade offers are not available
PAR10129	The reservation is under hotel control
PAR10130	Blackout dates touches stay dates
PAR10131	Upgrade rules does not match criteria
PAR10132	Upgrade amount is not viable
PAR10133	There are no rooms available
PAR10134	Resort, Arrival Date, Rate Code, Room Type, and RTC cannot be null
PAR10135	Upgrade function is disabled
PAR10136	No Upgrade permission
PAR10137	Room Type is not the same with RTC
PAR10138	No of nights exceeds maximum allowable nights
PAR10139	Reservation has shares
PAR10140	Reservation uses block
PAR10141	Reservation uses discount
PAR10142	Reservation is multi rate
PAR10143	Error retrieving available Upgrades
PAR10144	System search type required for fetch channel operation
PAR10145	Channel {0} does not exist
PAR10146	Cannot setup as Channel SGA code exists



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR10147	Channel FIDELIO is read-only
PAR10148	Channel Room Type {0} for Channel Type GDS accepts up to 3 characters only
PAR10149	Guarantee Code {0} is invalid
PAR10150	Requirement Code {0} is invalid
PAR10151	Currency Code {0} already exists for channel {1}
PAR10152	Channel Currency Code {0} already exists for channel {1}
PAR10153	Channel {0} cannot be deleted Sub-channel exists
PAR10154	Add-on License is already in use by channel {0}
PAR10155	Transaction code for profit and loss are required for packages having an allowance
PAR10156	Price cannot be greater than Allowance
PAR10157	At least one of the days of the week should be selected
PAR10158	Posting start and interval cannot be empty for the selected posting rhythm
PAR10159	Posting start and interval should be greater than or equal to 1
PAR10160	At least one posting schedule should be selected
PAR10161	Copy promotion group(s) was successful
PAR10162	Promotion Group {1} successfully copied to property {0}
PAR10163	Room Type {1} of Channel {0} cannot be deleted Channel-resort room type mapping exists
PAR10164	Rates cannot be less than 0
PAR10165	Age cannot be less than 0
PAR10166	The Room Type exceeds a Sell Limit of {0}
PAR10167	Package Price cannot be empty
PAR10168	Season Code $\{0\}$ could not be found to copy start and end dates from
PAR10170	The Channel Parameter is not available for the channel {0}
PAR10171	Please enter a valid numeric value for the parameter {0}
PAR10172	Please enter a valid Date for the parameter {0}
PAR10173	Please enter a valid Boolean value for the parameter {0}
PAR10174	DB Error Update_Gds_Hosts parameters
PAR10175	DB Error Update_Gds_Resorts parameters
PAR10176	DB Error updating parameters
PAR10177	DB Error Get_Hosts_Parameter parameters
PAR10178	DB Error Get_Resort_Channel_Parameter parameters
PAR10179	Failed chnl_cnv_param_apiset_parameter
PAR10180	Invalid channel code
PAR10181	DB Error getting parameters



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR10190	Description cannot be empty
PAR10192	Rate code cannot be marked as BAR and Advanced Dynamic Base Rate simultaneously
PAR10193	Rate code cannot be marked as Dynamic Base Rate and Advanced Dynamic Base Rate simultaneously
PAR10194	Rate code cannot be marked as Base Rate and Advanced Dynamic Base Rate simultaneously
PAR10195	Rate code cannot be marked as BAR Based Rate and Dynamic Base Rate simultaneously
PAR10196	Rate code cannot be marked as BAR Based Rate and Advanced Dynamic Base Rate simultaneously
PAR11002	The Rate/Room Type is Closed(On Request) for this date
PAR11004	Rate Distribution was successful
PAR11013	Invalid time span given
PAR11014	Invalid Room Type
PAR11015	Invalid stay detail, cannot process the request
PAR11016	The request should send either profile ID or property and rate code to fetch negotiated rates, cannot process the request
PAR11017	Could not retrieve the business date for property {0}.
PAR11018	Property Code
PAR11019	Rate Plan Code
PAR11020	One Person Rate
PAR11021	At least one day of the week should be true
PAR11022	Rate plan schedule ID is empty
PAR11023	At least one Room Type must be supplied
PAR11024	Transaction code must be supplied
PAR11025	Rate Category must be supplied
PAR11026	Room Type {0} has a rate plan schedule defined and hence is not removed as requested
PAR11027	Description of the rate code must be supplied
PAR11028	The Rate Code's Begin Sell Date and End Sell Date must fall within the Rate Category dates
PAR11029	Package Cannot be Deleted
PAR11030	Package {0} Already Exists for the Rate
PAR11031	Package Group {0} cannot be deleted.
PAR11032	Property information is missing
PAR11033	Rate Code for Analysis is missing
PAR11034	Date for Analysis is missing
PAR11035	Room Type for Analysis is missing



Table 16-5 (Cont.) Price, Availability, and Revenue Services (PAR) – Error Codes

Error Code	Error Description
PAR11036	Base Rate plan code is specified in the request System is not accepting Base Rate configuration
PAR11037	Dynamic Base Rate plan code is specified in the request System is not accepting Dynamic Base Rate configuration
PAR11038	Dynamic Base Rate plan amount is not specified
PAR11039	{0} {1} is not mapped to resort {2}
PAR11040	Booking Channel
PAR11041	Rate Plan Code
PAR11042	Rate Category
PAR11043	Room Class
PAR11044	Room Type
PAR11045	Rate code cannot be marked as Base Rate and Dynamic Base Rate simultaneously
PAR11046	{letterType} letter already exists for channel {channel} and property {resort} with language {language}
PAR11047	Promo code is required
PAR11057	Hotel Code, Rate Code, Room Type, Start Date combination is invalid.

Reservation Services (RSV)

Table 16-6 Reservation Services – Error Codes

Error Code	Error Description
RSV00001	Search Type {0} is not supported
RSV00021	Missing required activity group REP_RESERVATION
RSV00025	Activity type required for reservation group activity log
RSV00050	Cannot update a folio without a payment method
RSV00051	Cannot create a folio without a payment method
RSV00052	Record is not of type new {0}
RSV00053	Record is not of type modify {0}
RSV00054	Record is not of type remove {0}
RSV00055	Record is not of type remove {0}
RSV00056	Could not fetch alerts Resort is missing
RSV00057	Could not fetch alerts Reservation Name ID is missing
RSV00058	Error occurred while saving traces
RSV00059	Error occurred while saving confirmations
RSV00060	Reservation ID was not found
RSV00061	The operation requires call entry



Table 16-6 (Cont.) Reservation Services – Error Codes

Error Code	Error Description
RSV00062	Could not fetch call history Reservation Name ID is missing
RSV00063	There are no more rooms available for this room type
RSV00064	The room being requested is currently booked by $\{0\}$ from $\{1\}$ until $\{2\}$
RSV00065	The room being requested is currently Out-of-Order
RSV00066	The status of the reservation is not valid for reinstatement
RSV00067	Rate code {0} is closed for arrival on {1}
RSV00068	Rate code {0}, room type {1} is closed for stay on {2} date
RSV00069	The rate code $\{0\}$ room type $\{1\}$ combination is closed for arrival on $\{2\}$ date
RSV00070	Rate code $\{0\}$, room type $\{1\}$ does not satisfy arrival min length of stay of $\{2\}$ days
RSV00071	Rate code $\{0\}$, room type $\{1\}$ does not satisfy arrival max length of stay of $\{2\}$ days
RSV00072	Rate code {0} does not satisfy minimum occupancy for {1} persons
RSV00073	Rate code {0} does not satisfy maximum occupancy for {1} persons
RSV00074	Rate code {0}, room type {1} does not satisfy minimum advance booking for {2} days
RSV00075	Rate code {0}, room type {1} does not satisfy maximum advance booking for {2} days
RSV00076	Rate code $\{0\}$, room type $\{1\}$ is closed for departure on $\{2\}$ date
RSV00077	Could not find rate information for selected room type
RSV00078	Failed to copy reservation
RSV00079	Reservation ID is not valid
RSV00080	Confirmation number is not valid
RSV00081	The room being requested is currently occupied by {0} from {1} until {2}
RSV00082	The room being requested is currently Out-of-Service
RSV00083	Rate code $\{0\}$, room type $\{1\}$ does not satisfy max stay through of $\{2\}$ days
RSV00084	Rate code {0}, room type {1} does not satisfy min stay through of {2} days
RSV00085	Could not fetch guest messages Reservation Name ID is missing
RSV00086	The request is missing the new reservation's rate information for destination property
RSV00087	The request is missing the new reservation's room type information for destination property
RSV00088	The request's room type is not supported by the destination property
RSV00089	The request is missing source resort code



Table 16-6 (Cont.) Reservation Services – Error Codes

Error Code	Error Description
RSV00090	The request is missing destination resort code
RSV00091	The request is missing reservation's name ID for the source property
RSV00093	{1} - {2} is not available for {0}
RSV00094	The main reservation doesn't exist
RSV00095	One of the reservation's sharer failed to be moved - {0}
RSV00096	The reservation ({0}) was found to have transaction postings Operation will halt
RSV00097	Pricing is not available
RSV00098	Could not find user ID
RSV00099	Move reason is required to be able to move a reservation to a different property
RSV00100	Unable to lock reservation ({0}) Another user currently holds the lock
RSV00101	Unable to extend reservation lock may have already expired or released
RSV00102	Message ID is missing
RSV00103	Message Details is missing
RSV00104	Message Delivery is missing
RSV00105	The session for this reservation has expired Please reload the reservation
RSV00106	Unable to update Guest message record
RSV00107	Reservation does not exist Unable to process the request
RSV00108	Unable to process the request. Reservation ID is missing.
RSV00109	An error has occurred while processing confirmation letters
RSV00110	Rate Code cannot be null or empty
RSV00111	Rate amount cannot be negative
RSV00113	Could not find rate for some of the dates for the selected room type
RSV00114	Multiple reservations found with confirmation no: {0}
RSV00115	Reservation could not be created due to error: {0}
RSV00116	Unable to fetch Reservation Attachments
RSV00117	Attachment ID and Reservation ID are required in order to delete an attachment
RSV00118	PM reservation cannot be created because the PM room type is not configured for the rate code
RSV00120	Resort/Reservation information is incorrect or missing
RSV00121	Reservation is not valid
RSV00122	The Policy Code is not valid
RSV00123	The Policy information is incomplete or incorrect
RSV00124	A valid Policy ID is required



Table 16-6 (Cont.) Reservation Services – Error Codes

Error Code	Error Description
RSV00125	A valid revenue type is required
RSV00126	A valid amount is required
RSV00127	A valid due date is required
RSV00128	Room Type {0} is closed for arrival on {1} date
RSV00129	Room Type {0} does not satisfy arrival min length of stay of {1} days
RSV00130	Room Type {0} does not satisfy arrival max length of stay of {1} days
RSV00131	Room Type $\{0\}$ does not satisfy minimum advance booking for $\{1\}$ days
RSV00132	Room Type $\{0\}$ does not satisfy maximum advance booking for $\{1\}$ days
RSV00133	Room Type {0} is closed for stay on {1} date
RSV00134	Room Type {0} does not satisfy min stay through of {1} days
RSV00135	Room Type {0} does not satisfy max stay through of {1} days
RSV00136	Room Type {0} is closed for departure on {1} date
RSV00137	Policy cannot be deleted as payments exist
RSV00138	There are not enough rooms available on room type level.
RSV00139	The package does not have posting rhythm which falls in the date range specified
RSV00140	The room $\{0\}$ is out of order for the proposed dates of the reservation
RSV00141	The room $\{0\}$ is out of service for the proposed dates of the reservation
RSV00142	Incorrect credit card information for folio window {0}
RSV00143	Cannot fetch awards without properly specified reservation ID
RSV01001	There are not enough rooms available on house level.
RSV01015	Block does not have any allocated room types Please navigate to LTB
RSV01016	Block cannot be assigned as it is non-elastic and does not have any allocated room types
RSV01017	A valid membership is required to complete this booking
RSV01018	Insufficient points Total points : {0} less than points required : {1}
RSV01019	Availability search criteria cannot be empty
RSV01020	Invalid room type count
RSV01021	Room type count cannot be empty
RSV01022	The room no {0}, is invalid or does not belongs to room type {1}
RSV01023	Share reservation found for room no {0}, which belongs to the reservation {1}
RSV01025	Room number cannot be blank for a checked in guest



Table 16-6 (Cont.) Reservation Services – Error Codes

Error Code	Error Description
RSV01027	Room {0} is being used in another reservation process Please select other room
RSV01028	Total discount cannot exceed the rate amount
RSV01029	Default group rate code is not defined in application parameters (Groups)
RSV01030	Default group rate code does not exist in property {0}
RSV01031	Error has occurred while retrieving package rate amount
RSV01032	Coupon is invalid
RSV01033	Coupon code is not available Status : {0}
RSV01034	Error creating reservation in external system {0}
RSV01039	The reservation was not updated successfully due to {0}
RSV01044	No Reservation ids are passed Hence unable to process the request
RSV01047	Duplicate fixed charge exists
RSV01048	Guest Profile was not successfully created
RSV01049	Guest Profile is required to Create Reservation
RSV01050	Invalid daily elements found Please contact system administrator
RSV01051	Guest Title is invalid
RSV01052	Email Type is invalid
RSV01053	Identification Type is invalid
RSV01054	Reservation {0} could not be created due to error: {1}
RSV01055	There are not enough rooms available on room type and house level.
RSV01057	Departure Date cannot be past the Business Date
RSV01058	Departure Date cannot be earlier than the Arrival Date
RSV01059	Departure Date is required
RSV01060	Arrival Date is required
RSV01065	An error occurred while deleting reservation attachment
RSV01100	The Client ID {0} is not unique, or it cannot be found.
RSV01102	Maximum of {0} nights applicable for this Block Reservation.
RSV01105	Departure comments cannot exceed 2000 characters.
RSV01106	Reservation ID must be numeric
RSV01107	Company ID must be numeric
RSV01108	Agent ID must be numeric
RSV01109	Source ID must be numeric
RSV01110	Group ID must be numeric
RSV01111	Block ID must be numeric
RSV01112	Company Contact ID must be numeric
RSV01113	Agent Contact ID must be numeric



Table 16-6 (Cont.) Reservation Services – Error Codes

Error Code	Error Description
RSV01114	Source Contact ID must be numeric
RSV01115	Unable to process the request Criteria is missing
RSV01129	There are not enough rooms in {0} room type for this block.
RSV01155	There are not enough rooms available on {0} level.
RSV01156	There are {0} number of rooms available.
RSV01157	This room category is a pseudo room type.
RSV01159	Reservation Status is invalid.
RSV10001	No Search Type is passed Search type Any is used
RSV10002	Could not retrieve alerts {0} was not supplied
RSV10003	Invalid Alert was supplied {0} was not supplied
RSV10004	One or more alerts could not be created, updated or deleted
RSV10005	An error occurred while saving the alerts
RSV10006	Could not find Alert record to update The record was created instead
RSV10007	Could not find Alert record to delete
RSV10008	Alert record already exists
RSV10009	Trace period is too long It should be at most {0} days
RSV10010	Trace not found Could not delete trace
RSV10011	Department ID is missing.
RSV10012	Trace has no date
RSV10013	From Date is missing
RSV10014	To Date is missing
RSV10015	Trace text is missing
RSV10016	Confirmation letter is Missing
RSV10017	Recipient is Missing
RSV10018	Cannot delete a sent confirmation letter
RSV10019	Cannot add confirmation letter Record already exists
RSV10020	Could not find confirmation letter to change
RSV10021	Could not find record to delete
RSV10022	Cannot modify confirmation letter Record already exists
RSV10023	From Date cannot be before business date
RSV10024	To Date cannot come before business date
RSV10025	To Date cannot come before From Date
RSV10026	Trace Date cannot come before business date
RSV10027	Share information could not be fetched as Reservation ID or Confirmation Number is missing
RSV10028	Cannot update Share Rate Amounts as Rate Amount Type is incorrect Types can be Full, Entire or Split
RSV10029	Reservation information is missing/incorrect



Table 16-6 (Cont.) Reservation Services – Error Codes

Error Code	Error Description
RSV10030	Joining Share information is missing/incorrect
RSV10031	Maximum of {0} nights applicable for this stay.
RSV10032	In-house guest {0} will move to room {1}
RSV10033	In-house guest Cannot Room Move
RSV10034	Update Share Rate Amount information is missing/incorrect
RSV10035	Cannot separate a Checked In share reservation
RSV10036	Cannot separate a {0} share reservation
RSV10037	Cannot create the Share
RSV10038	Incorrect Reservation Status for Combining Shares
RSV10039	Reservation Stay Dates are out of range
RSV10041	Exception Occur while converting date:
RSV10042	Room number must be assigned to create share on this reservation
RSV10043	Only one of the following criteria may be passed: Resort/Chain/CRO
RSV10044	No sell messages found for the current criteria context
RSV10045	No resort(hotel) passed with room category, rate plan or block ID
RSV10046	Invalid Package Code
RSV10047	Package cannot be sold separately
RSV10048	Invalid quantity for Package
RSV10049	Rate Code Packages cannot be deleted
RSV10050	Begin Date cannot be before arrival or after departure
RSV10051	End Date cannot be after departure or before arrival
RSV10052	Begin Date cannot be greater than End Date
RSV10053	End Date cannot be earlier than yesterday for Next Day Packages
RSV10054	Date range overlaps for the same package
RSV10055	This package has been consumed Cannot change or delete the package
RSV10056	Packages in this group have been consumed Cannot change or delete
RSV10057	Price cannot be greater than allowance
RSV10059	Cannot delete package Allowance exists for this next day package, please modify end date in order to prevent future allowance
RSV10060	Incorrect Consumption Date in the package schedule
RSV10061	Advance Bill has been generated for the current date Cannot change packages
RSV10062	Hotel code is required.
RSV10063	At least one profile is required to fetch pre-configured routing instructions



Table 16-6 (Cont.) Reservation Services – Error Codes

Error Code	Error Description
RSV10064	At least one profile is required with rate plan code to fetch pre- configured routing instructions
RSV10065	Pre-configured routing instruction already exists for this reservation, so new instruction couldn't not applied
RSV10066	Either bill to name ID or rate plan code is required to proceed with this operation.
RSV10070	Date must be between {0} and {1}
RSV10071	Guest has consumed all or part of the package(s) Cannot decrease the number of Guests
RSV10072	Advance Bill has been generated for the current date Cannot change the number of Guests
RSV10073	Rate {0} mandates {1} on the reservation
RSV10074	Room {0} is occupied by {1} whose arrival date is {2} and departure date is {3}
RSV10075	Changes cannot be made since Room {0} is already assigned to {1} whose arrival date is {2} and departure date is {3}
RSV10076	Room $\{0\}$ is booked by $\{1\}$ whose arrival date is $\{2\}$ and departure date is $\{3\}$
RSV10077	Reservation ID is required.
RSV10078	The reservation's ({0}) packages has been dropped and has to be recreated in the new property
RSV10079	Ignoring sharing guest ({0},{1}) with confirmation no {2} during the move since we found that it is an imperfect share
RSV10080	While moving this Reservation, the existing Routing Instructions have been removed
RSV10081	Rate for reservation should be $\{0\}$ $\{1\}$ You are charging $\{2\}$ $\{3\}$ To charge $\{0\}$ $\{1\}$, please remove the Fixed Rate flag and refresh
RSV10082	Unable to release reservation lock may have already been released or broken
RSV10083	Reservation profile type is required to complete the pre- configuration of routing instructions in a reservation.
RSV10084	Reservation profile type is currently not supported for pre- configuration of routing instructions in the web service
RSV10085	Unable to break reservation lock may have already been released or broken
RSV10086	Stay Dates have changed Change will only apply to {0}
RSV10087	Rate Code should be passed along with a hotel code/resort
RSV10088	Could not find sell message with the ID
RSV10089	Sell message ID must be passed in the request for this operation
RSV10090	Only one among hotel code, CRO code and Chain code can have a value
RSV10091	Unable to retrieve Linked Reservations
RSV10100	Room details have changed Change will apply to all sharers



Table 16-6 (Cont.) Reservation Services – Error Codes

Error Code	Error Description
RSV10101	Room details have changed {0} will be separated from the other share reservations
RSV10102	Stay Dates have changed Change will apply to all sharers
RSV10103	Promotion existing on the Reservation is not available for the Stay Dates
RSV10104	Start date cannot be null
RSV10105	End date should be greater than or equal to start date
RSV10106	Only one message can be sticky per property
RSV10107	Sticky flag can be set only for property
RSV10108	Reservation type {0} requires a credit card
RSV10109	Rate for reservation should be $\{0\}$ $\{1\}$ You are charging $\{2\}$ $\{3\}$
RSV10110	Promotion {0} is not available
RSV10111	Promotion {0} is not available to be booked today
RSV10112	Promotion {0} requires a coupon code
RSV10113	The request is missing turn away information
RSV10114	The request is missing turn away reason code
RSV10115	The request is missing turn away detailed information
RSV10116	The request is missing turn away reservation hotel code
RSV10117	Invalid Fixed Charge ID {0}
RSV10118	Room Number has been removed as it is already assigned to another Reservation with same stay date(s)
RSV10119	Number of Rooms cannot be more than 1
RSV10120	Number of inventory Items must be greater than 0
RSV10121	Items inherited from Sources cannot be altered or deleted
RSV10122	Items required for booking cannot be deleted
RSV10123	A single resort is required to search by room number
RSV10124	The room {0} is already assigned to another Reservation with same stay date(s)
RSV10125	Users cannot exceed 100
RSV10126	Cannot split a single room
RSV10127	Cannot split the resources of a shared guest
RSV10128	Reservation status must be reserved before you can split the resources
RSV10129	One of the reservations has no link
RSV10130	One of the reservations does not belong to the same link
RSV10131	One of the reservations already has existing link
RSV10133	Advance Bill has been generated for the current date Cannot change the Rate Code
RSV10134	Advance Bill has been generated for the current date Cannot change the Rate Amount



Table 16-6 (Cont.) Reservation Services – Error Codes

Error Description
Advance Bill has been generated for the current date Cannot change the Fixed Rate Indicator
Advance Bill has been generated for the current date Cannot change the RTC
Advance Bill has been generated for the current date Cannot change discount amount
Advance Bill has been generated for the current date Cannot change discount percentage
Advance Bill has been generated for the current date Cannot change discount reason
Cannot add shares to a reservation with missing external references when system sharing is restricted to published reservations only
Cannot create a share with the reservation that does not have an external reference when system sharing is restricted to published reservations only
Reservation cannot be linked to itself
Reservation has an existing overlapping stay
Reservation is already upsold
Duplicate Membership Class is not allowed
Please check items availability
The departure date for the reservation cannot be past {0}
Attaching the certificate to the reservation is failed :[{0}]
The request object is not formed correctly for the Reservation ID {0}
The reservation ID {0}, has status {1}, Hence the upgrade eligibility flag was not updated
Room Type $\{0\}$ does not satisfy arrival min length of stay on $\{1\}$ date
Room Type {0} does not satisfy arrival max length of stay on {1} date
Room Type $\{0\}$ does not satisfy minimum advance booking on $\{1\}$ date
Room Type $\{0\}$ does not satisfy maximum advance booking on $\{1\}$ date
Room Type {0} does not satisfy min stay through on {1} date
Room Type {0} does not satisfy max stay through on {1} date
No rooms available for room category {0} on {1}
Room Routing requires Transaction or Routing Codes
Unable to replicate preferences to profile.
Either Group params or Module params are required



Table 16-6 (Cont.) Reservation Services – Error Codes

Error Code	Error Description
RSV11041	Invalid module or search parameters requested for reservation activity log
RSV11042	Either Group params or Module params are required
RSV11043	Missing required activity group REP_BLOCK
RSV11044	Activity type required for allotment group activity log
RSV11045	Invalid module or search parameters requested for allotment activity log
RSV11046	Cancellation reason cannot be empty
RSV11047	The reservation fetch instruction is not valid
RSV11048	At least one payment method must be included in the request to complete this operation
RSV11049	No guests with rooms checking in today
RSV11071	The selected quantity [{0}] of the inventory item exceeds the maximum allowed for the room type {1}.

