

Oracle Hospitality Nor1 Cloud Services Implementation Guide



Release 26.1

G55312-03

July 2026

ORACLE®

Copyright © 2016, 2026, 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, MySQL, and NetSuite 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.

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Oracle customer access to and use of Oracle support services will be pursuant to the terms and conditions specified in their Oracle order for the applicable services.

Contents

1 Introduction

About this Guide	1
------------------	---

2 Implementation Summary

Introduction	1
Pre-Installation Process	1
Implementation Call	1
Integration Call	2
Go Live	2
Pre-onsite Visit Preparation (if applicable)	3
On Site (if applicable)	3
Verification Onsite	4
Post Implementation	5

3 Nor1 eStandby Upgrade and Nor1 eXpress Upgrade

Introduction	1
Nor1 eStandby Upgrade Process	1
IM Property Implementation Call	1
Property Activation	2
Property Transition to Account Support	2
Nor1 eXpress Upgrade Process	2
How It Works	2
What's Needed from the Hotel	2
Nor1 eXpress API Implementation Guide	3
Scope	3
Purpose	3
Audience	3
Prerequisites	4
References	5
End-to-End Flow	5
Base URL and Resource Paths	6
Path Parameters	6

Authentication and Headers	6
Retrieve Offers	8
Offer Response	8
Fulfill an Offer	9
Idempotency, Retries, and Timing	10
Testing and Certification	10
Troubleshooting	11
Production Readiness Checklist	11
Support Escalation Package	12
Appendix A Environment Variable Template	12

4 Learn More about Nor1 Connectivity

Introduction	1
Implementation	2
LMI Web Service URLs	3
Request Data	3
Booking Data for GET / POST	3
POST Implementation	4
POST Request Example	5
Post Response JSON Fields	6
GET Implementation	6
GET Request URLs	7
GET Request Anchor Tag Example	7

5 Connectivity to Nor1 using the Extract

Introduction	1
How it Works	1
Nor1 Database Parameters	3
Exchanges using SFTP	4
On Premise SFTP Setup for OPERA Simple Reports (OSRs)	5

6 Technical Assumptions

Introduction	1
--------------	---

7 Appendix A – Troubleshooting

Notification Icons	1
Get Implementation	2

8 Appendix B – Generating SSH Keys

Preface

This document is intended to help users prepare for and implement Oracle Hospitality Nor1 Cloud Services.

Purpose

This document provides information for implementing Oracle Hospitality Nor1 Cloud Services products.

Customer Support

The following support options are available:

- Live Chat is provided for Nor1 CheckIn Merchandising customers directly in the application.
- Nor1 eStandby Upgrade support is provided on the Customer Support Portal at the following URL: <https://iccp.custhelp.com>.
- Customers can contact their Account Relationship team or Account Revenue Manager directly.

When contacting Customer Support, please provide the following:

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

Documentation

Oracle Hospitality product documentation is available on the Oracle Help Center at <http://docs.oracle.com/en/industries/hospitality/>.

Revision History

Table Revision History

Date	Description of Change
July 2026	Initial Publication

1

Introduction

About this Guide

This guide outlines the key implementation considerations you should review when planning a Nor1 CheckIn Merchandising, Nor1 eStandby Upgrade, and Nor1 eXpress implementation. It is designed to help you configure the solution to best meet your business process needs and maximize benefits of the solution.

The guide provides information on the following:

- Nor1 CheckIn Merchandising Pre-Installation Process
- Verification
- Post-Implementation Process
- Nor1 eStandby Upgrade and Nor1 eXpress

For information on integration with the OPERA Xchange Interface (OXI), see the Oracle® Hospitality Nor1 OXI Manual Configuration Guide.

2

Implementation Summary

Introduction

This chapter describes a sample process of engaging customers and preparing them for implementation of Nor1 solutions. It outlines readiness actions, training, verification, and post implementation follow-up. While the chapter describes a generic full-service engagement, it is meant for reference purposes. Not all activities apply to all customers, and any specific engagement is mutually determined by all parties as part of an engagement.

Pre-Installation Process

The implementation process starts with a call between the Nor1 team and the property team, which typically includes the revenue manager and front office manager. The Nor1 representative introduces the solution and reviews the key processes and scope of the project:

1. After the call, the Nor1 representative emails a list of items/documents needed from the hotel and provides the following documents to the hotel:
 - Basic Data Form
2. Ensure Connectivity: The Nor1 representative requests the addition of the Nor1 IP Address and URLs to the hotel's priority list.
3. Collect Property Information: The Nor1 representative gathers and reviews the following property information with the hotel:
 - Posting codes.
 - OXI access.
 - Commission structure for the receptionists if any.
 - Currency. The Nor1 representative requests the hotel's currency exchange rate if the hotel charges guests for using currency that differs from the currency in the property management system (PMS). It is recommended the property use the same currency in its Nor1 setup that is in use for the property management system (PMS).

Implementation Call

The Implementation team configures the property with the items provided in the pre-installation step. The Nor1 representative schedules an implementation call with the hotel to review the hotel configuration for all applicable products.

Nor1 reviews the following items during the Implementation call:

- Confirm the room offers and discuss ancillary offers.
- Goal information and distribution/users.
- Review the Max offer set and room movement for the upsells.
- Validate data for the configuration.

- Property exclusions if applicable.
- Training expectations: number of leaders and agents, full participation of the team.
- Confirm transaction codes to be used in the configuration and posting.
- Set the **Go Live** date.

Integration Call

The Implementation Manager schedules a call with the property program manager 10 days prior to launch to review the following:

1. Review setup.
2. Set up OPERA Simple Reports (OSR) report scheduler in OPERA.
3. Test and confirm receipt in mailbox.
4. Verify/update OPERA OXI settings.
5. Verify OSR setup with Integration.
6. Confirm that both the 5 a.m. and the 10 p.m. OPERA Simple Report (OSR) reports are configured and scheduled with transaction codes unique to Nor1 CheckIn Merchandising.
7. Confirm Recovery Report is configured with transaction codes unique to Nor1 CheckIn Merchandising.

Transaction Codes:

Transaction code(s) must be unique to Nor1 Check-In Merchandising (No exceptions. You cannot share them with any other party or eStandby/eXpress/eReach).

Verify that correct transaction codes are added to all OSR Reports.

If the hotel currency code is different from the currency code in use in the Property Management System (PMS), then you must use package codes for the currency conversion.

CheckIn Merchandiser Portal Test:

The Implementation Manager schedules a call with the property to check functionality. Perform the following tests:

1. While on the call, award an In House and a future reservation.
2. Five minutes (processing time) after the award, verify that the property can see the fixed charge in OPERA, which confirms that the award is working.
3. Reverse the upgrade by denying it. After five minutes (processing time), verify that the property can see that the charge was removed from OPERA.

Go Live

A Nor1 Training team member will hold **Go Live** training sessions remotely with the hotel. The sessions include the following:

- Confirm the training schedule.
- Review the User list and confirm hotel's access to Nor1.
- Program Manager **Go Live** training.
- Agent **Go Live** training.

- Confirm Nor1 onsite visit (if applicable).

Pre-onsite Visit Preparation (if applicable)

The Training Manager/Training Specialist schedules a pre on-site call (one week prior to launch). Required attendees are: Director of Revenue and Front Office Leadership. They will discuss and complete the following tasks:

1. Confirm Executive Leadership Meeting (General Manager, Director of Revenue, Director of Finance, Director of Rooms, Front Office Leadership to attend), Program Manager and Agent training sessions, 1:1's and Real-Time Coaching at the Front Desk, and so on. Obtain and attendee list for each session.
2. Send out Training Plan for the customer's review and signature.
3. Confirm Program Manager (liaison between Nor1 and Hotel).
4. Confirm Program Manager meeting on the day of arrival.
5. Request front desk check-in standards for use during training.
6. Confirm commission structure for the Front Office team, additional exclusions, and so on.
7. Confirm the live date (after first training or final training).
8. Send a post-launch report to the hotel; review criteria used to determine whether the hotel is set up to be successful.

On Site (if applicable)

On the day of arrival at the property, the Training Manager/Training Specialist will need access and disposition to check the following:

- Front Desk Terminal(s) Application Link: If the hotel has not already loaded the desktop link/icon, verify the website on the front desk PCs (If the hotel has loaded the link, make sure Nor1 can successfully log in). You might need to work with the property to verify the Nor1 IP Address.
- Nor1 CheckIn Merchandising Users: Create and/or update the property users for Nor1 CheckIn Merchandising access before training users. If possible, have users log in right after the training to ensure they have access and can start using Nor1 CheckIn Merchandising immediately.

Property Tour

At the first meeting on the day of arrival:

1. Verify any last-minute business rules with the Program Manager.
2. Make sure the meeting room is ready with all requirements (view Training Plan's Learning Environment).
3. Verify Matrix (Blockings) for the next 7-10 days: Check the availability for the next few days and whether the hotel pre-blocks rooms to balance their inventory.

Nor1 CheckIn Merchandising Users:

Create or update the property users for Nor1 CheckIn Merchandising access before each training session. If possible, have them log in right after the training using your computer to make certain they can start using Nor1 CheckIn Merchandising immediately.

Day 1 Meetings and Materials:

1. Executive Leadership Meeting.
2. The Art of Nor1 CheckIn Merchandising Executive Team.
3. The Art of Nor1 CheckIn Merchandising - Front Desk Agent Workshop.
4. Application Training: Live training of CM portal.
5. The Art of Nor1 CheckIn Merchandising Agent Manual.
6. The Art of Leadership Program Managers.
7. The Art of Nor1 CheckIn Merchandising Program Manager Manual.
8. Nor1 CheckIn Merchandising Hotel Implementation Worksheet.
9. Hotel Implementation Worksheet - Review with Program Manager what is completed and what is missing.
10. Introduction to the Intercom Help Center and Chat.
11. 1:1's and Real-Time Coaching at the Front Desk.

Day 2 - Meetings and Materials:

1. The Art of Nor1 CheckIn Merchandising - Front Desk Agent Workshop.
2. The Art of Nor1 CheckIn Merchandising Agent Manual.
3. Application Training: Live training of Nor1 CheckIn Merchandising portal.
4. 1:1's and Real-Time Coaching at the Front Desk.

Day 3 - Meetings and Materials:

1. The Art of Nor1 CheckIn Merchandising - Front Desk Agent Workshop.
2. The Art of Nor1 CheckIn Merchandising Agent Manual.
3. Application Training: Live training of CheckIn Merchandising portal.
4. 1:1's and Real-Time Coaching at the Front Desk.

Other important tasks:

1. Program Manager Responsibilities - Post Launch Report.
2. Review Post Launch responsibilities with Program Manager using the Program Manager Reference Guide.
3. Schedule and agree on weekly to monthly progress calls.

Verification Onsite

Post OXI Configuration Verification:

The Training Manager/Training Specialist verifies each awarded transaction from the previous day(s). Do this each day while on the property. Posted Nor1 CheckIn Merchandising transactions should be posting in OPERA. If not, make sure the correct transaction codes are in use:

- OSR reports.
- Nor1 CheckIn Merchandising.
- Nor1 CheckIn Merchandising Activation Form.

- Check traces on the reservation for error messages. You will not have access to the OPERA billing screen, therefore, the Program Manager will need to assist.

Error Verification:

- Review error notifications and troubleshoot any issues. Refer to [Appendix A – Notification Icons](#).

Post Implementation

The Nor1 Account Revenue Manager performs the following tasks:

Weekly for Weeks 1-5 (15 Minute Performance and Engagement Call):

(FOM, Program Manager, Nor1 Account Manager)

1. Review performance.
2. Answer questions.
3. Make sure that goals are entered for at least a year.

Monthly (After 5th week):

1. (DR, FOM, Program Manager, Nor1 Account Manager).
2. Review performance.
3. Variation to goals.
4. Quarterly.
5. Additional training, as needed.
6. Program Manager Support.

3

Nor1 eStandby Upgrade and Nor1 eXpress Upgrade

Introduction

This chapter discusses the activation of Nor1 eStandby Upgrade and Nor1 eXpress Upgrade such as: gathering pricing information, setting go-live dates, transitioning to Nor1 Revenue Support and the OPERA Xchange Interface (OXI).

Nor1 eStandby Upgrade Process

Once the Implementation Manager (IM) is assigned to the implementation at a property, the IM sends an introductory email to start gathering the necessary information.

The email includes a link for online data completion and implementation process detailed instructions. See the following email example:

From: (IM Name)

Sent: (Date/Time)

To: (Recipient Name)

Subject: The Revenue Hotel - Let's get your property LIVE on eStandby!

Importance: High

Dear (Property Name) team,

I am very happy to begin working with you to implement your property on Nor1 eStandby Upgrade. To see and complete the initial steps to take your property live on the solution, please complete the attached Basic Data Form or provide Accelerator details.

Please reach out to me with any questions and complete the information by (Date).

I'm looking forward to hearing from you,

(IM signature)

IM Property Implementation Call

After the required information is completed, the Implementation Specialist works to schedule a pricing/testing call with the hotel to explain the eStandby Upgrade product and finalize the offer set and price points. As part of the call, the Implementation Manager secures a go-live date convenient to the customer. Once setup and testing are complete and the hotel is ready to go live, the IM will send a handoff email with the required training links. The handoff is sent to Nor1-art-team_us@oracle.com.

Property Activation

Property activation must be discussed with the hotel as part of the Implementation call. Once all the implementation steps are completed and the property has approved going live with the program, the Nor1 Implementation Manager sends the hotel a notification email to the implementation main contact.

Property Transition to Account Support

After Nor1 eStandby Upgrade is implemented, the property is transitioned to the Account Support Team.

Nor1 eXpress Upgrade Process

How It Works

To use Nor1 eXpress Upgrade with the OPERA Xchange Interface (OXI), OXI must already be configured with Nor1.

1. You must determine a time window for switching offers from Nor1 eStandby Upgrade to confirmed in Nor1 eXpress Upgrade.
2. For bookings arriving within the pre-determined number of hours, a Nor1 eXpress Upgrade offer email is sent to the guest. Guests will not receive both a Nor1 eStandby Upgrade and Nor1 eXpress Upgrade email if the guest has already made an eStandby request.
3. Bookings made inside the cutoff time will receive confirmed Nor1 eXpress Upgrade offers.
4. The guest selects a room upgrade offer and confirms selection.
5. OPERA PMS is updated with a fixed charge and the new room.

What's Needed from the Hotel

To successfully implement the solution, the Nor1 Implementation Specialist needs to discuss and secure the following information from the hotel:

1. **Pricing Structure:** You must discuss the pricing structure and get the hotel's approval of the offer set.
2. **Email Offers:** Offers are typically sent 48 or 72 hours prior the day of arrival. This will be discussed and approved by the hotel subject to each property and chain.
3. **Transaction Code:** A unique OPERA transaction code needs to be secured from the hotel. This is crucial for the process since automatic posting is done through the OXI interface.

Note

Nor1 eXpress Upgrades support room, packages, and add-on upgrades. Activation, adjustment, and support of eXpress Upgrades can be managed by Oracle Hospitality Support or your Nor1 Revenue Support team.

The following is an Implementation Specialist Email communication example:

Dear (Name),

I'm very excited to assist with your Nor1 eXpress Upgrade implementation. Please see the following summary of necessary steps to go live with the solution, as well as some important notes to read at the end of this email.

Pricing Review: Attached you will find the pricing structure we currently have in place for eStandby as a reference, and then beside it starting in column G, you will find the pricing structure for Nor1 eXpress upgrades. The intention is to choose the pricing ranges you want to display (columns I and J), please feel free to modify if needed.

Pricing can remain the same as Nor1 eStandby Upgrade. They do not have to be different between products.

Room Categories and Codes: Please advise should we be missing any room codes that you have in the OPERA PMS. We will mirror your PMS system based on codes to make sure we provide you with maximum exposure. Again, we will only offer available rooms.

Important notes:

- eXpress Upgrade can present room upgrades and non-room add-ons along with packages. Non-room upgrades must be items that can be honored at any time.
- We recommend emails be sent in a period of 72 hours prior to the day of arrival.
- You need to create a unique transaction code for the room upgrade and each non-room add-on.
- Your special constraints for pricing or blackout dates will reflect accordingly.

I am looking forward to hearing from you,

Thank you for your partnership!

Nor1 eXpress API Implementation Guide

Scope

This guide provides information on the retrieval and fulfillment of eXpress API Upgrade Application Programming Interface (API) offers exposed through the Oracle Hospitality Integration Platform (OHIP). It does not cover eStandby, Check-in Merchandising UI behavior, retargeting email delivery, or the administration of legacy eXpress API rules.

Purpose

Use this guide to onboard an OHIP customer or partner integration that presents Oracle Hospitality Nor1 eXpress Upgrade Application Programming Interface (API) offers to guests and submits their selected offers. This guide is intended for external implementation teams and assumes access to the Oracle Hospitality Developer Portal and the applicable OHIP environment.

Audience

1. Customer and partner developers

integrating eXpress API Upgrade Application Programming Interface (API) offers into booking, mobile, kiosk, messaging, CRS/PMS, or other guest-facing applications.

2. **Oracle Hospitality and Nor1 implementation teams** validating property configuration, identifiers, and certification evidence.
3. **Support teams** troubleshooting authentication, no-offer, and offer fulfillment issues.

Prerequisites

Table 3-1 Prerequisites

Area	Prerequisites for Development
OHIP access	Developer Portal application, API plan subscription, gateway URL, client ID, client secret, OAuth scope, and x-app-key for the target environment.
Hotel details	Production or non-production environment, region, tenant or chain code, hotel ID, and any required SSD or enterprise identifier.
Nor1 setup	Hotel enabled in Nor1 Control Panel for the approved eXpress API room upgrade and/or non-room offer flow.
Identifiers	Property/hotel ID, enterprise ID or SSD context, providerId when assigned, and any Oracle/Nor1-confirmed property mapping.
Test data	Eligible reservations, ineligible/no-offer reservations, and at least one reservation suitable for successful fulfillment testing.
Commercial readiness	The sales process is complete, and the customer has the required Nor1 subscription.
Exposure timing	The third-party API exposure date aligns with the Nor1 eXpress exposure window, such as 72, 48, or 24 hours before arrival, and written confirmation is provided.
OHIP credential association	The partner must associate OAuth token credentials with the Oracle Hospitality Integration Platform (OHIP) connection used by Nor1. Refer to the Authenticating to Oracle Hospitality Property APIs guide and, where applicable, the Oracle Hospitality Property APIs with Client Credentials Authentication (OCIM) guide.
OCIM and certificate readiness	Oracle/Nor1 implementation teams must confirm whether the hotel uses Oracle Cloud Identity Management (OCIM) and whether the required public key or certificate configuration is complete for the target environment.

References

Table 3-2 References

Reference	Use
OHIP Implementation Guides	Use as the published Oracle guide index for OHIP implementation patterns. See OHIP Implementation Guides for more details.
Oracle Hospitality Nor1 Integrated Upsell APIs	Use as the OHIP parent topic for Nor1 upsell authentication and related topics. See Oracle Hospitality Nor1 Integrated Upsell APIs for more details.
Authenticating to Oracle Hospitality Property APIs	Use for OAuth, Developer Portal credentials, integration user, application key, token renewal guidance, and OCIM authentication setup. See Authenticating to Oracle Hospitality Property APIs for more details.
Calling Oracle Hospitality Property APIs	Use for OHIP gateway header conventions, including Authorization, x-app-key, x-hotelid, and request ID guidance.
OHIP Limits	Use for header-size, body-size, OAuth token renewal, and platform throttling expectations.
Oracle Hospitality Property APIs with Client Credentials Authentication (OCIM)	Use for OCIM client credentials authentication, OAuth token credential association, and public key or certificate setup expectations where applicable. See Oracle Hospitality Property APIs with Client Credentials Authentication (OCIM) for more details.
Using the Oracle Hospitality APIs	Use as the general Oracle Hospitality API calling guide for gateway URL setup, authentication, and API request flow. See Using the Oracle Hospitality APIs for more details.
Oracle Hospitality Property APIs with Resource Owner Group Authentication (SSD)	Use as background for SSD/resource-owner authentication contexts and Oracle/OHIP onboarding configuration when applicable. See Oracle Hospitality Property APIs with Resource Owner Group Authentication (SSD) for more details.

End-to-End Flow

1. Confirm that the hotel, environment, enterprise or SSD context, providerId, and Nor1 eXpress API offer configuration are ready.
2. Obtain an OAuth access token for the target OHIP environment.
3. Call GET upsellOffers for the guest reservation and arrival date.
4. If the response is 200, present eligible offer groups to the guest. If the response is 204, treat the reservation as having no eligible offers.
5. When the guest selects an offer, call POST upsellOffers with the returned offerId.
6. Confirm the selected offer response and complete any integration-specific guest confirmation, receipt, or downstream handling.

Base URL and Resource Paths

Use the OHIP gateway URL assigned for the environment as the base URL. Append one of the resource paths below.

Table 3-3 Base URL and Resource Paths

Operation	Method	Path
Retrieve eXpress API upsell offers	GET	/ohcgep/v0/hotels/{hotelId}/reservations/{reservationId}/arrivalDate/{arrivalDate}/upsellOffers
Fulfill or select an offer	POST	/ohcgep/v0/hotels/{hotelId}/reservations/{reservationId}/arrivalDate/{arrivalDate}/upsellOffers
Retrieve offers with enterprise ID in path	GET	/[{enterpriseId}]/ohcgep/v0/hotels/{hotelId}/reservations/{reservationId}/arrivalDate/{arrivalDate}/upsellOffers
Fulfill offer with enterprise ID in path	POST	/[{enterpriseId}]/ohcgep/v0/hotels/{hotelId}/reservations/{reservationId}/arrivalDate/{arrivalDate}/upsellOffers

Path Parameters

Table 3-4 Path Parameters

Parameter	Required	Validation	Description
enterpriseId	Conditional	Present in enterprise path variant.	Enterprise identifier for OCIM-style authentication. When used in the path, separate SSD identity-provider context is not required by the eXpress API service.
hotelId	Yes	2-50 characters; letters, numbers, underscore.	OPERA hotel/property ID for the reservation.
reservationID	Yes	2-50 digits.	OPERA reservation ID.
Fulfill offer with enterprise ID in path	Yes	YYYY-MM-DD.	Arrival date for the reservation. Must match the reservation arrival date.

Authentication and Headers

Nor1 eXpress APIs are exposed through OHIP. As a result, both OHIP gateway requirements and Nor1 eXpress request-context requirements apply. During onboarding, confirm the authentication model and the required request values for each customer environment.

Oracle Hospitality Property APIs support multiple authentication models. In this guide, SSD refers to the Resource Owner Group Authentication model used by some OHIP implementations.

Authentication model reference: Use the Resource Owner Group Authentication (SSD) documentation when the implementation uses the resource-owner group authentication model. Use the Oracle Hospitality Property APIs with Client Credentials Authentication (OCIM) documentation when the implementation uses client credentials with Oracle Cloud Identity Management. Confirm the applicable authentication model during onboarding, as it determines the required credentials and gateway configuration.

Before testing, confirm that the partner's OAuth token credentials are associated with the same OHIP connection used by Nor1 for the target hotel and environment. For hotels that use Oracle Cloud Identity Management (OCIM), follow the Oracle Hospitality Property APIs with Client Credentials Authentication (OCIM) guide and confirm that the required public key or certificate configuration is complete before certification. Use the Resource Owner Group Authentication (SSD) reference when the implementation uses the resource-owner group authentication model. Use the OCIM reference when the implementation uses client credentials with Oracle Cloud Identity Management.

Table 3-5 Authentication and Headers

Header	Required	Source	Notes
Authorization	Yes	OHIP / eXpress API.	Bearer OAuth access token for the target OHIP environment.
x-app-key	Yes for OHIP gateway	OHIP	Developer Portal application key. Required by OHIP Property API conventions.
x-hotelid	Often required by OHIP gateway	OHIP	Hotel ID header used by OHIP Property API calls. Keep aligned with path hotelId when required.
providerId	Optional	Nor1 eXpress API	Provider ID. Defaults to UPS when omitted or blank.
Accept-Language	Optional for GET	Nor1 eXpress API	Language code used when requesting offers.
x-requestid	Optional but recommended	OHIP / eXpress API	Correlation ID for troubleshooting. Responses echo x-requestid and include x-operationid.
Content-Type	Required for POST	HTTP	Use application/json for POST fulfillment.
Accept	Recommended	HTTP	Use application/json.
Security: Do not log or send client secrets, passwords, access tokens, or unnecessary guest personal data in support requests. Renew OAuth tokens before expiry and store credentials securely.			

Retrieve Offers

Call GET upsellOffers after identifying the reservation and arrival date.

Table 3-6 Retrieve Offers

Status	Meeting	Integrator action
200 OK	Eligible offer groups returned.	Present offers to the guest and persist the returned offerId only as needed for the current selection flow.
204 No Content	No eligible offers for the reservation, date, room count, or current Nor1 configuration.	Do not show an offer. Continue the guest journey without eXpress API upsell.
400 Bad Request	Missing or invalid path values, date format, or environment setup.	Correct request path values and confirm the OHIP connection and onboarding configuration.
401 Unauthorized	Token expired or invalid.	Refresh OAuth token and confirm application/environment context.
404 Not Found	Booking or offer context not found, including arrival-date mismatch.	Confirm hotelId, reservationId, arrivalDate, and test data.
429 Too Many Requests	OHIP platform throttling may apply.	Back off, reduce request rate, and retry according to integration policy.
500 Internal Server Error	Internal, OPERA/OHIP, or Nor1 processing failure.	Capture sanitized request/response and x-requestid for support.

Offer Response

Successful GET and POST responses use a GenericResponse envelope. The offer groups are returned under items[].upsellOffers[].

```
{
  "items": [
    {
      "upsellOffers": [
        {
          "offerType": "room_upgrade",
          "selectionType": "zero_to_one",
          "offers": [
            {
              "offerId": "generated-offer-id",
              "name": "Bay View Suite
King Bed",
              "description": "Offer description",
              "images": {"small":
"https://...", "big": "https://..."},
              "price": {"amount":
```

```

        227.40, "currency": "USD"},
        "savings": 151.60,
        "chargeFrequency": "per_unit_per_night",
        "fixedCharge": 101.82,
        "roomTypeCode": ["7KN"]
      }
    ]
  }
},
"totalResults": 1,
"offset": 0,
"count": 1,
"hasMore": false,
"limit": 0
}

```

Table 3-7 Offer Response

Field	Description
offerType	Offer family such as room_upgrade, early_checkin, late_checkout, food_beverage, or spa_services.
seelctionType	zero_to_one means selecting one offer expires peer offers in that offer type; zero_to_many supports multiple selections in the group.
offerId	Generated eXpress API offer identifier. Submit this value in POST fulfillment.
price.amount / price.currency	Guest-facing offer price and currency.
chargeFrequency	Charging cadence such as per_unit_per_night or per_unit_per_stay.
fixedCharge	Fixed charge value when supplied by the offer.
roomTypeCode	Room type code list, primarily relevant for room upgrade offers.

Fulfill an Offer

Call POST upsellOffers only after the guest selects an offer returned by GET. The request body contains the offerId.

Table 3-8 Fulfill an Ofer

Fulfillment Rule	Behavior
Offer ID lookup	The service looks up offerId in persisted eXpress API offers. Missing offers return not found behavior.
Reservation match	The offer must match the current property, reservation, and arrival date.
Expired/selected offers	Previously selected or expired offers are rejected as no longer available.

Table 3-8 (Cont.) Fulfill an Offer

Fulfillment Rule	Behavior
Room type selection	When a room-upgrade offer has multiple room types, the service selects the room type with highest availability.
OPERA/OHIP update	Fulfillment writes the selected offer to OPERA/OHIP as part of the operating model.
Nor1 update	The Nor1 fulfillment update is sent asynchronously after the selected offer is persisted.
zero_to_one groups	Peer offers in the same offer type are expired after a successful selection.

Idempotency, Retries, and Timing

- The current eXpress API does not expose a separate idempotency key for POST fulfillment.
- Do not automatically retry POST fulfillment without checking the result of the first attempt. A second POST with the same offerId can be rejected after the offer is selected or expired.
- If a client times out after POST, use the x-requestid and sanitized request details for support investigation before attempting a guest-visible duplicate action.
- Offer IDs should be treated as short-lived values tied to the reservation, arrival date, and current availability state.

Testing and Certification

Table 3-9 Testing and Certification

Scenario	Expected Result
Valid eligible reservation	GET returns 200 and at least one offer group.
No eligible offers	GET returns 204 No Content.
Past arrival date or multi-room reservation	GET returns no eligible offers according to service behavior.
Arrival date mismatch	GET returns booking-not-found behavior.
Invalid or expired token	API returns 401 Unauthorized.
Successful fulfillment	POST returns 200 with selected offer details.
POST wrong reservation/date for offerId	API rejects the offer as invalid/not found.
Repeat POST for selected/expired offer	API rejects the offer as no longer available.
Required Nor1 subscription	The required Nor1 subscription is confirmed before certification testing starts.
Exposure window alignment	Partner API exposure timing matches the Nor1 eXpress exposure window, such as 72, 48, or 24 hours before arrival, and written confirmation is available.

Table 3-9 (Cont.) Testing and Certification

Scenario	Expected Result
OHIP, OCIM, and certificate readiness	OHIP connection, partner OAuth token credentials, OCIM status, and required public key or certificate configuration are validated before certification.

Troubleshooting

Table 3-10 Troubleshooting

Symptom	Check First	Evidence to collect
Cannot reach gateway	Gateway URL, DNS, TLS, proxy/ firewall, allowlisting.	Gateway URL, timestamp, network error, source IP if relevant.
401 or 403	OAuth token, client credentials, scope, x-app-key, API plan subscription, environment mismatch.	Sanitized headers, token issue time/expiry, response code, x-requestid.
400	Path values, mapped OHIP context, onboarding setup, and date format.	Sanitized request path, non-sensitive headers, environment details, and x-requestid.
204 no offers	Nor1 Control Panel setup, reservation eligibility, offer configuration, providerId or property mapping, and arrival window.	Reservation ID, hotel ID, arrival date, providerId, expected eligibility.
404	Reservation exists in target hotel/environment and arrival date matches.	Reservation test data and response body.
POST fails after GET success	OfferId is current, reservation/ date match, offer not already selected/expired.	GET response offerId, POST request body, x-requestid.

Production Readiness Checklist

- Production Developer Portal application is registered and subscribed to the correct Nor1/ OHIP API plan.
- Production gateway URL, OAuth credentials, scope, x-app-key, hotel ID, and enterprise/SSD context are configured.
- Nor1 Control Panel setup is complete for each hotel and approved offer flow.
- Property, chain, enterprise, providerId, and Oracle/Nor1-confirmed property mapping values are confirmed.
- Eligible and ineligible test reservations pass certification scenarios.
- Guest-facing UI handles 204 no-offer responses without showing an error.
- POST fulfillment has duplicate-click protection and timeout handling.

- Monitoring captures status code, operation, hotel ID, providerId, timestamp, and x-requestid without secrets or guest personal data.
- Support contacts and launch monitoring ownership are agreed.
- Required Nor1 subscription is confirmed.
- Written confirmation is received for third-party API exposure timing.
- Partner OAuth token credentials are associated with the OHIP connection used by Nor1.
- OCIM and public key or certificate readiness are confirmed where applicable.

Support Escalation Package

Table 3-11 Support Escalation Package

Information	Include
Environment	Sandbox, UAT, staging, or production; gateway URL used.
Operation	GET offers or POST fulfillment; full path without secrets.
Time	Timestamp with timezone.
Correlation	x-requestid and any OHIP correlation ID returned.
Identifiers	Enterprise ID, chain code, hotel ID, reservation ID, arrival date, and providerId or property mapping if applicable.
Response	HTTP status and sanitized response body.
Request	Sanitized request headers and body. Never include secrets, passwords, or tokens.
Nor1 setup	Confirmation that Control Panel setup and reservation eligibility were checked.

Appendix A Environment Variable Template

GatewayURL=<OHIP gateway URL>
 ClientId=<Developer Portal client ID>
 ClientSecret=<Developer Portal client secret>
 Scope=<OAuth scope>
 AppKey=<x-app-key>
 HotelId=<hotelId>
 EnterpriseId=<enterpriseId, if using enterprise path variant>
 ProviderId=<providerId, optional; defaults to UPS if omitted>
 RequestId=<client-generated correlation ID>

4

Learn More about Nor1 Connectivity

Introduction

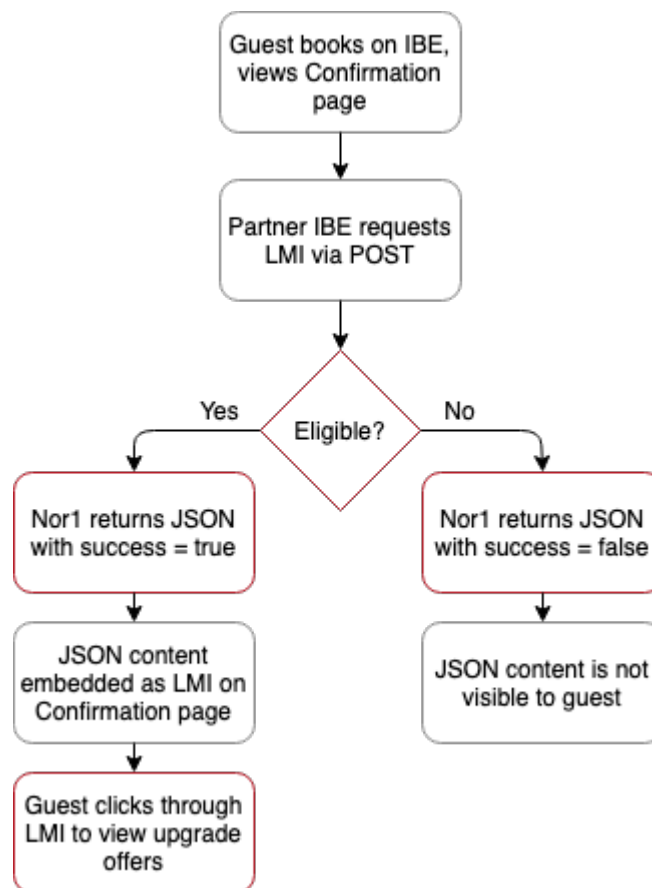
This chapter addresses the GET and POST data needed to dynamically create upgrade offers based on the booking data of each unique reservation provided to Nor1.

The Oracle Hospitality Nor1 Cloud Services solutions provide hotels with the opportunity to create additional revenue from post-booking, standby, and confirmed upgrades. Nor1 receives the booking data from the Learn More Image (LMI) web service. The LMI is a call-to-action for a guest to click through and view the dynamic upgrade offers.

The Nor1 integration partner passes the booking data to Nor1 in the LMI request. Nor1 returns an image or JSON to embed the LMI on the partner's Internet Booking Engine (IBE) and transaction emails, such as, the confirmation or pre-arrival email.

Nor1 manages the guest eligibility for standby or confirmed upgrades in the LMI web service. Eligibility is determined by business rule filters and upgrade availability. If a guest who is represented by the booking data in the LMI request is ineligible, then the response is a 1x1 transparent pixel image, or success is a false flag in the JSON payload.

The following is an example of embedding the LMI on the IBE confirmation page:



Implementation

The Learn More Image (LMI) web service is implemented as a REST API. The web service supports the following HTTP methods:

- GET – response is an image
- POST – response is JSON

The GET use case is for quickly embedding the Nor1 dynamically generated image on a web page or in an email body. The POST use case is for an integration partner to take the content response from Nor1 to customize the look and feel of the LMI on a web page or in an email body.

The URL for the LMI web service is the same for the GET and POST methods. Nor1 provides a Staging and Production URL. The Staging URL should be used for implementation and integration QA. The Staging environment contains the latest hotel content. Nor1 can set up a test hotel upon request. Switch to the Production URL when you are ready to go live.

The LMI web service supports http and https. Nor1 highly recommends using secure https for the LMI request.

LMI Web Service URLs

URL Name	URL
Staging URL	https://www.oci.nor1uat.com/dynLink/
Production URL	https://www.nor1upgrades.com/dynLink/

Note

The URLs in the table provide a presentation only if valid parameters are passed into them.

Request Data

The booking data provided in the LMI request is the same for GET and POST. Mandatory parameters are required to generate upgrade offers. Recommended parameters improve the likelihood of offer conversion. Optional parameters either replace static content or link to other data sources. The booking parameters are defined in the following table.

Booking Data for GET / POST

Field	Description	Priority	Example	Type (Limit)
PCD	Hotel / Property Code	Mandatory	SJCHOTEL	char(20)
EBC	Booking Code / Reservation number	Mandatory	MYP12346A	char(40)
RCC	Room Category Code	Mandatory	KIRRC	char(20)
GAD	Arrival Date	Mandatory	YYYYMMDD	date
NMN	Number of Nights	Mandatory	2	int(2)
TBP	Total booking price	Recommended	256.43	float(10,2)
GEM	Guest email	Mandatory	guest@gmail.com	char(100)
GLN	Guest last name	Mandatory	Doe	char(100)
GFN	Guest first name	Mandatory	John	char(100)
PID	Provider ID	Mandatory	Nor1 to provide	char (4)
PET	Provider Entry Type	Mandatory	IBE = WEB, Confirmation email = CONF, Pre-arrival email = PREA	char(5)
PRL	Rate Level (if applicable)	Recommended	LV1	char(12)
PRC	Rate Code	Recommended	BAR	char(12)
SRP	Group Code	Recommended	G1234	char(12)
NOA	Number of adults	Recommended	1 (default)	int(2)
NOC	Number of children	Recommended	0 (default)	int(2)
GNR	Number of Rooms	Mandatory	1 (default)	int(3)

Field	Description	Priority	Example	Type (Limit)
LNG	Language (ISO 639-1 compliant)	Recommended	EN (default)	char(2)
PCH	Property Chain Code	Recommended	Nor1 to Provide	char(3)
PLC	Loyalty Code	Recommended	D	char(3)
GPC	Guest Postal Code	Recommended	95054	char(50)
GAR	Guest Address	Recommended	1 Upgrade Drive	char(125)
GCT	Guest City	Recommended	Santa Clara	char(150)
GST	Guest State	Recommended	California	char(100)
GCC	Guest Country Code (ISO 3166-1-alpha-2 code)	Recommended	US	char(2)
GPN	Guest Phone Number	Recommended	14088509937	char(50)
PTS	Timestamp of Booking	Recommended	YYYY-MM-DD H:MM:SS	date and time
PRT	Rate Tier*	Recommended	TIER	char(12)
PSC	Market Segment Code*	Recommended	AAA	char(12)
PCC	Channel Code*	Recommended	VOICE	char(12)
PCN	Room Name	Optional	King Std	char(255)
CUR	Currency Code	Optional	USD	char(3)
GEN	Guest gender ('M', 'F')	Recommended	F	enum('M','F')
GSL	Guest salutation	Recommended	Mr	char(50)
RTP	Record Type (N = New, M=Modify, or C=Cancel)	Optional	N	enum('N','M','C')
GDD	Departure Date	Optional	YYYYMMDD	date
PLN	Loyalty Program Number (member id)	Optional	NH0004	char(16)

Note

* Only two of the three fields marked with asterisks can be used; advise which will be used.

POST Implementation

The booking parameters, defined above, are structured as JSON objects in the body of the POST request. The LMI response will be JSON. The following is an example request. Note this is not a real hotel and the response will not be eligible for upgrade offers:

POST Request Example

POST Request Header	Content-Type = application/JSON
POST Request Body	<pre>{ "PID" : "NOR1", "PCD" : "SCWA", "EBC" : "123456789", "RCC" : "STDK", "GAD" : "20150317", "NMN" : 3, "NOA" : 1, "NOC" : 0, "LNG" : "EN", "TBP" : 500, "GEM" : "guest@gmail.com", "GEN" : "M", "GSL" : "Mr", "GLN" : "Doe", "GFN" : "John", "GCC" : "US", "GST" : "California", "GCT" : "Santa Clara", "GPC" : "95054", "GAR" : "3945 Freedom Circle", "GPN" : "14089237", "PLC" : "D", "GNR" : 1, "PET" : "WEB", "PRC" : "BAR", "PRT" : "TIER1", "PCC" : "VOICE", "PCH" : "NOR1" }</pre>

The POST response informs the partner if the guest is eligible for an upgrade offer. If the success field in the response is true, then the guest is eligible and an LMI can be rendered on the web page or in the email body. The call-to-action of the LMI is a click through URL to view the upgrade offers. The Offer Link field in the response contains the click through URL.

If eligible, then the JSON response will be similar to the following:

```

1 - {
2   "success": true,
3   "requested": false,
4   "img_src": "https://www.oci.nor1uat.com/dynLink/?PCD=800&EBC=testnr1485969295&RCC=STD&GAD=2017
              -02-08&NMN=1&TBP=105&GEM=:%40nor1.com&GLN=&GFN=&PID=TEST&PET=WEB&PRL
              =S&PRC=BAR&LNG=EN",
5   "offer_link": "https://ui_cm.nor1upgrades.com
                  /?bd5a4602f3bedae4712c156ecfebc2bb70e3d51414bba7e93651e06dbe9f3bb4181861",
6   "colors": {
7     "title": "000000",
8     "description": "000000"
9   },
10  "content": {
11    "salutation": "",
12    "first_name": " ",
13    "last_name": "",
14    "title": "You are Eligible for a Custom Upgrade",
15    "description": "Premium rooms can be offered at check-in for as little as &#36;0 extra per
                    night!",
16    "button": "Show My Custom Upgrade"
17  }
18 }

```

If ineligible, then the JSON response will be similar to the following:

```

1 - {
2   "success": false,
3   "requested": false,
4   "error": "No upgrades available"
5 }

```

Post Response JSON Fields

Field	Description
success	If true, the guest is eligible for an upgrade; otherwise, false.
requested	If true, guest committed to at least one offer; otherwise, false.
error	Reason for no upgrades.
img_src	Image source URL for the LMI; equivalent to GET request.
offer_link	Click through URL for the guest to view the upgrade offers.
colors	Branded font colors for the title and description body of the LMI. The font colors are typically set by the Brand style guidelines.
content	Recommend content to create the LMI on the web page or in the body of the email if the img_src is not used.

GET Implementation

The booking parameters, defined above, are implemented as a query string in the URL for the GET request. The LMI response is an image. The LMI web service supports the parameters as key-value pairs in the query string.

Two URLs are implemented on the web page or in the email body for the GET request. One URL is the image source to get the LMI. The other is the click through URL to view the upgrade offers. The URLs share the same query string and domain name. The difference is the dynLink path for the LMI request.

GET Request URLs

URL Name	URL
Staging Image Source URL	https://www.oci.nor1uat.com/dynLink/?
Staging Click Through URL	https://ui.oci.nor1uat.com/?
Production Image Source URL	https://www.nor1upgrades.com/dynLink/?
Production Click Through URL	https://ui.nor1upgrades.com/?

The LMI request and click through URL are typically implemented using an HTML anchor tag. The click through URL is the href tag and the LMI request is the image source. The following is an example HTML snippet. Note, the query parameters were truncated to fit the page in the following example and therefore are not valid URLs.

GET Request Anchor Tag Example

```
<a href="https://www.oci.nor1uat.com/?
PID=TEST&PCD=SCWA&EBC=abcde1555376023&RCC=DLXK1&GAD=20150705&NMN=1&
NOA=1&TBP=500&GEM=guest%40gmail.com&GEN=M&GSL=Mr.&GLN=Last&GFN=First&G
NR=1&PET=WEB">



</a>
```

The image source URL returns an LMI as an image if the guest is eligible for an upgrade. A 1x1 pixel is returned if no upgrades are available. The 1x1 pixel avoids the broken image icon on the web page or in the email body. In the event a guest manages to click through the 1x1 pixel, the guest is informed that no offers are available at this time.

5

Connectivity to Nor1 using the Extract

Introduction

This chapter addresses extracting reservation information from the property management systems (PMS). It describes how the extract works, Nor1 database parameters, and customer use of SFTP to transfer information to Nor1.

How it Works

The Nor1 extract for PMS exposes additional hotel guests to Nor1 eStandby Upgrade offers from the Nor1 pre-arrival email. Extracts should contain all the reservation activities that took place during the day (preceding 24 hrs. + x). You can send them to the Nor1 data center by a secure SSL encrypted connection. It contains absolutely no payment information of any kind.

Depending on the typical variance of the time your night audits run, you might want to add the corresponding hours to the update window. If your extract runs consistently on a scheduler basis, you may leave X as the number of minutes the process needs to complete. Nor1's framework excludes bookings that have been previously exposed from being re-submitted for email delivery. If such a time cannot be handled, you can select the option to provide all active reservations on a nightly basis.

Upon completion of the night audit, or on a fixed schedule, you can deliver an extract using an https post (the file content is the payload of the post) or by Secure File Transfer Protocol (SFTP).

The payload of the post contains the content of the file and is described in the next section.

The following data is contained in the extract:

- PROPERTY (code) (mandatory field)
- CONFIRMATION NUMBER (mandatory field)
- BOOKED ROOM CODE (mandatory field)
- ARRIVAL DATE (mandatory field)
- NUMBER OF NIGHTS (mandatory field)
- TOTAL BOOKING PRICE (without taxes) (mandatory field)
- GUEST EMAIL ADDRESS (mandatory field)
- GUEST LAST NAME (mandatory field)
- GUEST FIRST NAME (mandatory field)
- RATE CODE (mandatory field)
- NUMBER OF ADULTS (mandatory field)
- NUMBER OF CHILDREN (mandatory field)
- GUEST LANGUAGE (mandatory field)

- GUEST TITLE
- GUEST COUNTRY OF RESIDENCE
- GUEST ZIP CODE
- GUEST STATE
- DEPARTURE DATE
- NUMBER OF ROOMS
- INSERT DATE
- MEMBERSHIP ID
- ROOM CATEGORY
- MEMBERSHIP LEVEL
- RESERVATION STATUS (mandatory field)
- BLOCK CODE
- GUEST PHONE NUMBER
- EXTERNAL REFERENCE TYPE
- EXTERNAL REFERENCE
- MARKET CODE
- SOURCE CODE (ORIGIN OF BOOKING)
- GUARANTEE CODE

Nor1 merges this data with previously exposed requests and uses this data to determine who should receive an offer email, and what the offer and pricing should be. Nor1 generates a hotel-branded email that is sent to the guest.

 Note

No credit card or payment information is included.

Sample Data/Payload

GSDH	7860420 RESERVED	SK E MICR080112	2012-08-01 Mr US	4 US	250 412-561-1234 AX	elastname@abc.com 2012-08-05 1000	Lastname 1 ITRAN	Eric 2011-12-16 TAD	22430	2 SK
GSDH	7867920 CANCELLED	SK E RATE090112GENARES	2012-09-01 Mr US	4 US	549 412-561-1234 AX	elastname@abc.com 2012-09-05 2196	Lastname 1 ITRAN	Eric 2011-12-16 TAD	BAR	1 SK
GSDH	7865420 RESERVED	SK E MICR080112	2012-08-01 Mr US	2 US	250 412-561-1234 AX	elastname@abc.com 2012-08-03 500	Lastname 1 ITRAN	Eric 2011-12-16 TAD		1 SQ
GSDH	7875420 CANCELLED	SK E RATE090112GENARES	2012-09-01 Mr US	4 US	549 412-561-1234 AX	elastname@abc.com 2012-09-05 2196	Lastname 1 ITRAN	Eric 2011-12-16 TAD	BAR	2 SK
GSDH	7885420 RESERVED	SK E GENARES	2012-09-06 Mr US	4 US	2 412-561-1234 AX	elastname@abc.com 2012-09-10 8	Lastname 1 ITRAN	Eric 2011-12-16 GD	BAR	1 SK
GSDH	7880420 CANCELLED	SK E GENARES	2012-09-06 Mr US	5 US	499 412-561-1234 AX	elastname@abc.com 2012-09-11 2495	Lastname 1 ITRAN	Eric 2011-12-16 GD	BAR	1 SK

Nor1 Database Parameters

This table describes the data fields and values used by Nor1. Contact Nor1 to discuss the exact values that will be used.

Number	Priority	Field	Description	Example	Type (Limit)
1	Mandatory	PCD	Hotel / Property Code	SJCHOTEL	char (20)
2	Mandatory	EBC	Booking Code / Reservation number	MYP12346A	char (40)
3	Mandatory	RCC	Room Category Code	KIRRC	char (20)
4	Mandatory	GAD	Arrival Date	YYYYMMDD	date
5	Mandatory	NMN	Number of Nights	2	int (2)
6	Mandatory	TBP	Total booking price	256.43	float (10,2)
7	Mandatory	GEM	Guest email	guestuser@yahoo.com	char(100)
8	Mandatory	GLN	Guest last name	Doe	char(100)
9	Mandatory	GFN	Guest first name	John	char(100)
10	Mandatory	PID	Provider ID (Nor1 to Provide)	NOR1	char (5)
11	Mandatory	PET	Provider Entry Type	WEB	char(5)
12	Mandatory	PRL	Rate Level (if applicable)	LV1	char(12)
13	Mandatory	PRC	Rate Code	BAR	char(12)
14	Mandatory	SRP	Group Code	G1234	char(12)
15	Mandatory	NOA	Number of adults	1	int(2)
16	Mandatory	NOC	Number of children	0	int(2)

Number	Priority	Field	Description	Example	Type (Limit)
17	Mandatory	GNR	Number of Rooms	1	int(3)
18	Mandatory	LNG	Language (ISO 639-1 compliant)	EN (default)	char (2)
19	Mandatory	PCH	Property Chain Code	(Nor1 to Provide)	char(7)
20	Mandatory	PLC	Loyalty Code	D	char(3)
21	Mandatory	GPC	Guest Postal Code	95054	char(50)
22	Mandatory	GST	Guest State	California	char(100)
23	Recommended	PTS	Timestamp of Booking	YYYY-MM-DD H:MM:SS	date and time
24	Recommended	PRT	Rate Tier *	TIER	char(12)
25	Recommended	PSC	Market Segment Code *	AAA	char(12)
26	Recommended	PCC	Channel Code *	VOICE	char(12)
27	Recommended	PCN	Room Name	King Std with View	char(255)
28	Optional	CUR	Currency Code	USD, EUR, GBP	char(3)
29	Optional	GEN	Guest gender ("F", "M")	F	enum('M','F')
30	Optional	GSL	Guest salutation	Mr.	char(50)
31	Optional	GCC	Guest country code (ISO 3166-1-alpha-2 code)	US	char (2)
32	Optional	RTP	Record Type (N = New, M=Mod, or =Cancel)	N	enum('N','M','C')
33	Optional	GDD	Departure Date	YYYYMMDD	date
34	Optional	PLN	Loyalty Program Number (member id)	NH0004	char(16)

 Note

Use only two of the three fields marked with asterisks. Contact Nor1 and advise which fields you are using.

Exchanges using SFTP

To use the Secure File Transfer Protocol (SFTP), customers must provide the following information to Nor1 by email:

- The public IP address of the customer computer that will perform the file transfer. This allows a connection only to the allowed IP address.
- To find public IP addresses, refer to: <http://www.whatismyip.com/>

- Nor1 uses Public key infrastructure (PKI) to further secure the login, so the Secure Shell (SSH) Public Key of the account that will perform the file transfer is required.
- For help with key file generation, refer to **Appendix B**.
- Send the above information to Nor1 by email.

Once Nor1 receives the above information, Nor1 sets up an account for the customer, for example: customer1.

To transfer a file from the computer where the key was generated, do the following:

1. **sftp** <customer1>@extracts2.nor1.com.
You should get the following prompt: sftp>.
If not, refer to the troubleshooting steps in **Appendix A**.
2. Change to the extracts directory using the following command
sftp> cd extracts
3. Enter the file name (for example, file1) with the following command:
sftp> put <file1>
4. List the file, with the following command:
sftp> ls
5. Close the connection:
sftp> quit

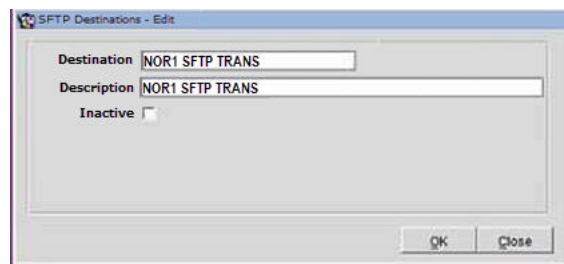
Note

Customers can automate the above steps using scripts or tools to transfer files automatically.

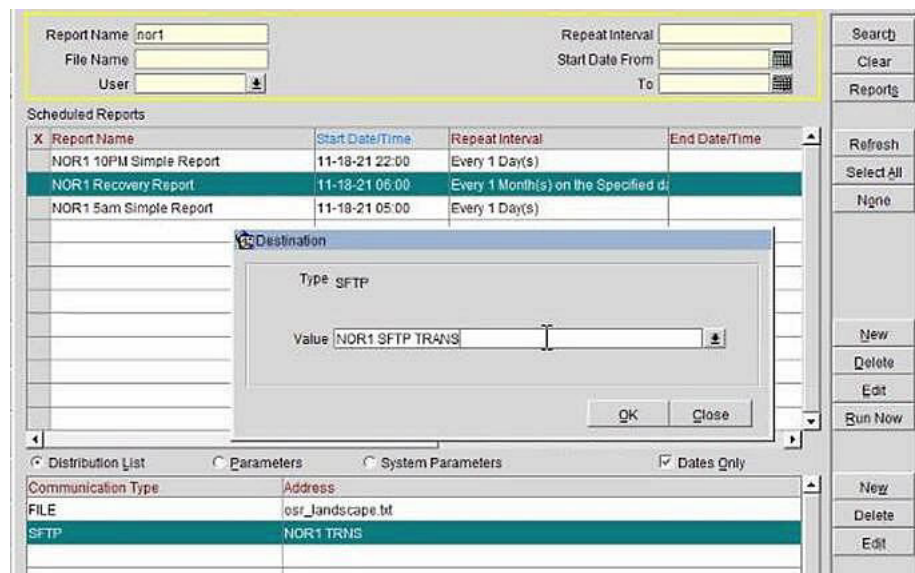
On Premise SFTP Setup for OPERA Simple Reports (OSRs)

Use the following instructions to set up on premise SFTP for your property.

1. Allowlist the following IP address from the property:
 - 147.154.12.24Be sure to enable outbound traffic to that IP addresses over port 22.
2. Provide IP address from the App server.
3. Generate keys from Puttygen.com and provide the public key for allowlisting on the NOR1 side.
4. Once allowlisting is completed on both ends, set up configuration in OPERA as follows:
 - Access OPERA Configuration > Property > Delivery Method > General and click the **SFTP** tab.



5. Import and validate the public key previously generated.
6. The Implementations team will upload the OPERA Simple Reports (adding unique transactions codes provided by the property): 5am, 10pm, and Recovery Report.
7. In the Reports Scheduler section Distribution dialog, select **Type: SFTP** and **Value: NOR1 SFTP TRANS**.



8. Run reports to validate communications.

6

Technical Assumptions

Introduction

This chapter describes some of the technical considerations that may be of interest to customers when utilizing Nor1 Cloud Services.

Global Single Instance

Nor1 Cloud Services are deployed using a global single instance model. This means one deployment serves all worldwide customers. While this model allows Oracle to continually improve the service for everyone, it also means certain customizations cannot be considered.

Data Residency

Data stored in Nor1 Cloud Services, when not being accessed, is located in the United States. Data is secured and maintained according to Oracle's standard security policies. Geographic replication is a component of Oracle policies. The redundant storage is also in the United States. Alternate data storage locations are not available at this time.

Data Processing

Data processed by Nor1 Cloud Services is hosted on servers in the United States. Access for maintenance, support, and operations by Oracle leverages Oracle's global network of technology professionals. Processing of data in alternate, or specific, regions or countries is not available at this time.

Data Transmission

Nor1 Cloud Services send and receive data from around the world as part of the services' regular operation. A property provides data from a number of potential sources including, but not limited to, an on-premise property management system (PMS), a hosted PMS, and/or a third-party integrated partner. The service interacts with various users whether they are members of a property's staff, hotel guests, or Oracle personnel. These users may be located around the world.

Data Retention

When a customer terminates its account, the customer's data is deleted from the production system. A grace period may be provided for customers to retrieve reports, if so desired. Once access is removed, the data is purged. This purge includes all reservation data provided by the customer as well as all configuration and model data entered into or generated by the services. Within 45-60 days, backups will have rotated out and no storage of customer data will exist. For customer-managed integrations (such as from an on-premise PMS), it is the responsibility of the customer to stop sending data to the Nor1 Cloud Services once the account is closed.

PRiME

Nor1 Cloud Services use a proprietary engine, called PRiME, to provide the offers to guests.

Machine Learning / Modeling

PRiME continuously learns more about the customer's property and how it runs by using advanced learning and modeling algorithms. The PRiME process uses the property's key performance indicators, such as: how likely an offer is to be chosen, how likely it is to be awarded, and the pricing of offers. The PRiME model focuses on the property and the upgrades; it does not model guest personal information.

Decision Making

When an offer list is requested, the engine combines the property's custom model with business rules specified by the customer and the guest's reservation to generate an offer list. The engine then ranks and prices the list. For confirmed upgrade offers, the engine may also leverage inventory data from the property.

Business rules provided to the engine have access to the reservation data and affect decisions based on that data. Customers can use these rules to guide the engine in making a decision. This allows customers the freedom to provide additional loyalty options based on customer status or simply to ensure the presented room types are ideal upgrades. Customers cannot use the rules to affect changes based on a specific guest or protected class of guests.

Bootstrap Modeling

Before the system has enough data to generate a custom property model, it uses a bootstrap model. The bootstrap model is based on the aggregate success of offers at a given price from across the system. It does not account for or include any other key indicators.

Cookies Policy

Oracle might use cookies for authentication, session management, remembering application behavior preferences and performance characteristics, and to provide documentation support.

Also, Oracle might use cookies to remember your log-in details, collect statistics to optimize site functionality, and deliver marketing based on your interests.

Appendix A – Troubleshooting

Notification Icons

The Nor1 implementation team should review notifications icons and troubleshoot any issues while at the property.

Pending PMS Revenue to Reconcile

The Pending PMS Revenue to Reconcile icon appears for upgrades that are manually posted in OPERA PMS. For properties that use the same transaction code for different upsell categories, such as for room upgrades and Late Check-Out, the data sync is sometimes unable to identify which posted upgrades to apply the manual charge. The notification can be cleared by clicking the icon and selecting the respective upgrade category in the drop-down menu. Afterwards, the notification icon changes to “Manually Assigned PMS Revenue.”

Missing Revenue in PMS

The Missing Revenue icon in the PMS notification icon appears for reservations that do not have pms_total_revenue. This means the agent awarded the upgrade in the Nor1 CheckIn Merchandising app, but there was no OPERA PMS transaction revenue received that matched the reservation ID the day after awarding.

Unassigned Agent

The benefit of the data sync is that it reconciles upgrades that were awarded in the Nor1 CheckIn Merchandising app and it helps to reconcile upgrades that were completed outside of the app. This happens when the agent does not use the Nor1 CheckIn Merchandising app to upgrade guests. The Unassigned Agent icon indicates that the reservation was manually upgraded and the credit agent could not be identified automatically.

Assigned Agent Did Not Use the App

After an agent is assigned to an Unassigned Agent upgrade, the upgrade changes to: Assigned agent did not use app. The Assigned Agent did not use app icon appears for upgrades that are not awarded in the Nor1 CheckIn Merchandising app but have already been assigned an agent.

Mismatching Revenue

The data sync helps with auditing the revenue of upgrades that were awarded in the CheckIn Merchandising app by checking if the revenue in OPERA PMS matches the app projected revenue and will notify hotel users if it does not match. In this instance, the Mismatching Revenue icon appears and will update the app revenue to the values in OPERA.

Performance Tracker – Number of Upgrades

The Tracker should only have the number of transactions recorded since the go-live date. If there are more, then the app is pulling previous upsell activates. Confirm that the launch date

is entered in the Control Panel-Integration tab under Nor1 CheckIn Merchandising Configuration Details.

Performance Tracker – Total Revenue

The Tracker should reflect the total of awarded transactions. If there are more, then the app is pulling previous upsell revenue. Confirm the launch date entered in the Control Panel-Integration tab under Nor1 CheckIn Merchandising Configuration Details.

Agent Drop List Does Not Appear

If Agent does not appear, read: Why doesn't my agent appear in the Leaderboard.

Get Implementation

Contact nor1-integrations_grp@oracle.com for assistance during the implementation of the LMI web service.

The following is a list of common issues experienced during the implementation:

- The hotel is not implemented or fully configured in the Nor1 system. Contact Nor1 to finish the implementation.
- Mandatory booking fields are invalid or missing.
- The arrival date (GAD) is in the past or too close to the current date. Try using an arrival date 30 days from today.
- The arrival date (GAD) or departure date (GDD) have the wrong formats. Only YYYYMMDD or YYYY-MM-DD is supported.
- The booked room code (RCC) does not have any available upgrades.
- The query string is not URL encoded.
- The hotel has business rules to filter guest segments from being eligible for an upgrade.

SFTP

If you are unable to get the SFTP prompt, check the following:

1. Ensure you are initiating the SFTP command on the server with the correct public IP address (the one you provided to Nor1).
 2. Ensure you are using the correct Private Key file.
 - Default location of the file is `~<user>/.ssh/id_rsa`.
 - If the Private Key file exists in a different location, you can specify:
 - `sftp -i <key location dir> <customer1>@extracts.nor1.com`
- If the public IP address or the key changes, inform Nor1.

8

Appendix B – Generating SSH Keys

To generate the Secure Shell (SSH) keys, use the following steps according to your operating system:

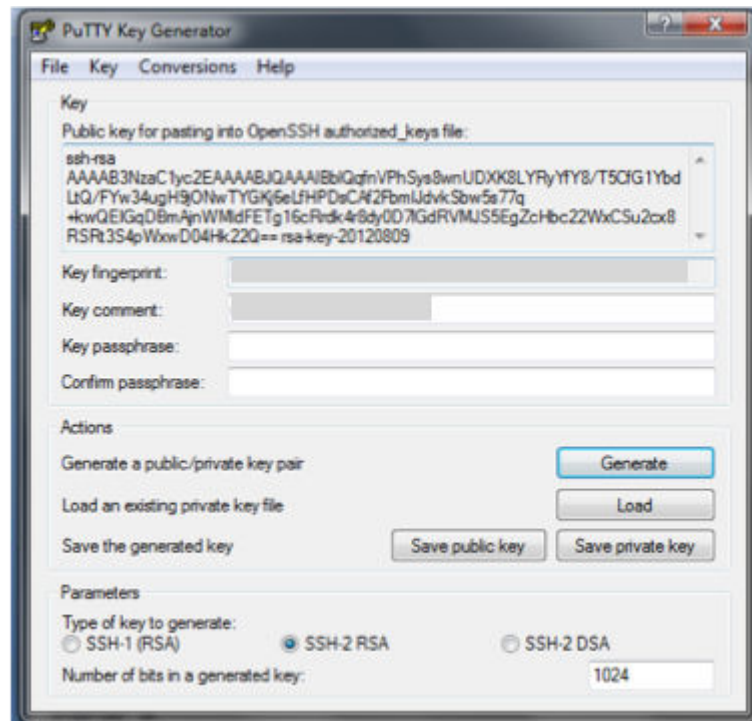
1. On Linux:

- a.** On the user system that will be transferring the file:
`ssh<user>@<ftpclient.customer.com>`.
- b.** Generate the SSH key for the user if one does not already exist:
 - `ssh-keygen-t rsa.`
 - Select the default option for the key filename.
 - You can skip the passphrase or enter a new one if you want increased security. If you enter a passphrase, you are prompted for it every time you log into SFTP.
 - After the process is complete, the following files should generate in the user home directory:
 - `~ <user>/.ssh/id_rsa` Private Key
 - `~ <user>/.ssh/id_rsa.pub` Public Key
- c.** Send only the public key file to Nor1 (`~ <user>/.ssh/id_rsa.pub`).

2. On Windows:

There are many Microsoft Windows-based SFTP clients on the market; some of them are free and some are not. Nor1 does not endorse, recommend, or support any particular Microsoft Windows-based SFTP client. The following example demonstrates a Windows-based SFTP using PuTTY:

- a.** Download PuTTY from [here](#).
- b.** Run the installer.exe on your machine.
- c.** Open PuTTYGen and select Generate (wiggle your cursor around during generation). From this Key Generator, you must copy/paste the OpenSSH key into Notepad and then copy/paste the OpenSSH key from Notepad into an email to Nor1.



3. Select the **Save public key** button and the **Save private key** button to save these to a folder on your computer.
4. In PuTTYGen, select menu option **Conversions -> Export OpenSSH key** and save OpenSSH format of the private key to a folder on your computer. This OpenSSH Format will be used in OPERA configuration. (Save both PuttyGen and OpenSSH formats of Private key).
5. Send the public key file to Nor1.