Oracle® Hospitality Nor1 Cloud Services

OXI Installation and Configuration Guide

ORACLE®

Oracle Hospitality Nor1 Cloud Services OXI Installation and Configuration Guide, Release 23.1

F84887–01

Contents

Preface

This document is intended to help installers with the manual configuration of the Oracle Hospitality OPERA Exchange Interface (OXI).

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 1   Revision History

Date	Description of Change
August 2023	Initial publication

1

Manual Configuration

Introduction

This document is intended to help Oracle Hospitality OPERA Exchange Interface (OXI) installers with manual configuration of the Nor1 OXI interface in cases where script installation is not possible. Additionally, it can serve as a guide to confirm configuration success when using the Nor1 OXI install script.

Prerequisites

The following prerequisites are required for the installation of the Nor1 OXI:

- The Nor1 OXI license code (OPX_NOR1).

- OXI schema user login credentials.

- Nor1 requires the public-facing IP address of the OXI server:

  – Open a web browser and navigate to whatismyip.com.

  – In the upper left-hand corner of the browser window, provide the value for "My Public IPv4: XXX.XXX.XXX.XXX."

- Windows Administrator login credentials to the OPERA Application Server or OXI server where the Nor1 interface will be installed.

- Web access to the property if the OXI machine is firewall controlled and traffic is open and ready for Nor1.

- Confirmed web access for NOR1 by pointing to the following URLs in Internet Explorer on the OPERA Application Server or where the OXI services will be installed:

  – https://integration.nor1solutions.com/opera/get&propertyName=ABCDEF

  – https://oxi.integration.nor1.com/opera/get&propertyName=ABCDEF

  > **✎ Note:**
  >
  > Replace ABCDEF with the actual property code. The property code is not necessarily the default OPERA Resort Code. Nor1 has a specialized naming structure for the property code. Contact Nor1 and provide the default OPERA Resort Code, and Nor1 will provide the unique Nor1 property code.

- If the script cannot run, reference the project email containing the installation script for the External System Property Code and the User Defined Fields (UDF) conversion information.

Manual Installation Steps

The following are the manual installation steps:

1. Run the OXI Processor Shell located at D:\MICROS\opera\Tools\OXI\INTERFACE (make sure to select the Run Interface Initialization script).

2. Verify that the OXI Interface for Nor1 services is installed and set to Automatic startup type (starting the services is one of the last steps).

3. Log into OXI and insert and activate the OPX_NOR1 license code.

4. Select **No** when prompted by the Activate External System Nor1 now? message. If you are executing the configuration from the Nor1 OXI Install script, select **Yes** as the script will be 100 percent successful due to the active Nor1 external system being required for the script to configure the Business Events and Publisher/Subscriber. For manual configuration of Nor1 OXI, you would select **No** to avoid unnecessary business event (BE) message generation.

5. Manually configure all of the following indicated areas:

   a. Activate the external system.

   b. Start the Nor1 OXI service.

   c. Confirm that the outbound message flow is successful; the reservation Ready to Proceed message from External to Nor1 status should appear. No message is sent to OPERA until Nor1 activates the integration once the interface is confirmed installed.

Installation Confirmation

To confirm the installation, send a zip file to nor1-integrations_grp@oracle.com with the following items:

1. The Message Status screen captures the "Message to External Systems" with message traffic filter search criteria only with OPERA Property = Property and Interface ID = Nor1.

2. Send the NOR1 OXI log. A copy of the log can be found at C:\Program Files\Micros-Fidelio\OXChange\OXA\Logs. Log Naming Convention: NOR1YYYYMMDD.log.xml.

3. A screen capture of the configured ATS (Automatic Transmission Schedule).

4. A screen capture of the external systems and the Nor1 subscription to all external systems.

5. A screen capture of the Nor1 OXI processors with the processors running.

6. A screen capture of any conversion codes entered into OXI (conversion codes will be determined on a property by property basis as needed).

7. A screen capture of the OXI XML version for Reservations.

8. A screen capture of the OXI registry setting to use UTF8 for NLS_LANG.

Upon receipt of the above items, Nor1 will confirm by email whether all settings are correct.

2

PMS Configuration

NOR1 Department Code

To add Nor1 in the OPERA Property Management System (PMS):

1. In OPERA PMS, select **Configuration**.
2. Select **Setup**.
3. Select **User Configuration**.
4. Select **Departments - Edit**.
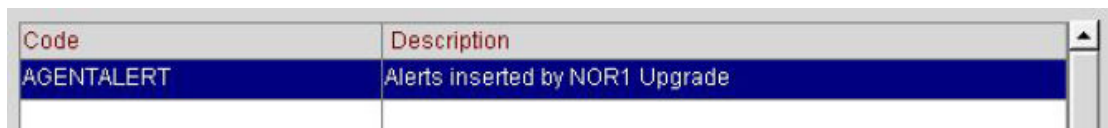
Alerts Configuration

Confirm the application setting for Alerts is active.

1. In OPERA PMS, select **Setup**.
2. Select **Application Settings**.
3. Select **Reservations**.
4. Confirm that the Alerts function is active.

Configuring Alert Messages

Configure alert messages (Reservations > Codes > Alert Definition > Alert Message).

Code	Description
AGENTALERT	Alerts inserted by NOR1 Upgrade

Configuring Business Events

Follow this path to configure the business events: Setup > Business Events > Configuration.

1. Set the External System to Nor1.
2. Add the business events for the following Modules:
   a. **Availability**: Add business event:
      - Summary Totals – add all data elements.

b. **Housekeeping**: Add business events:

- New Out Of Order – add all data elements.

- Room Type Out Of Order – add all data elements.

- Update Out Of Order – add all data elements.

c. **Night Audit**: Add business event:

- Role Business Date – add all data elements.

d. **Profile**: Add business event:

- Update Profile - Add the following data elements: ADDRESS PRIMARY YN, ADDRESS TYPE, ADDRESS1, ADDRESS2, ADDRESS3, ADDRESS4, BUSINESS TITLE, CITY, COMMENTS, COMPANY NUMBER, COMPANY TYPE, COUNTRY, EMAIL, EMAIL LANGUAGE, EMAIL YN, FAX NUMBER, FIRST NAME, GENDER, GUEST PRIVACY YN, IATA NUMBER, IATA TYPE, LANGUAGE, MAILING LIST YN, MARKET RESEARCH YN, MEMBERSHIP EXPIRATION DATE, MEMBERSHIP LEVEL, MEMBERSHIP NUMBER, MEMBERSHIP TYPE, MIDDLE, NAME, NAME TYPE, NATIONALITY, PHONE NUMBER, PHONE PRIMARY YN, PHONE TYPE, POSTAL CODES, PREFERENCE GROUP, PREFERENCE TYPE, STATE, STATUS, THIRD PARTY YN, TITLE, VIP STATUS, WEBPAGE.

- Add the following conditions for Update Profile - EXISTS (SELECT 'X' FROM DATA_ELEMENT_TEMP WHERE ((NVL(UPPER(NEW_VALUE),'@#$%')) = ('D')) AND (ELEMENT = 'NAME TYPE'))

e. **Reservation**: Add business events:

- Cancel – add all data elements.

- Checkin – add all data elements.

- Checkout – add all data elements.

- Delete Reservation – add all data elements from ACCOMPANYING GUEST to TRAVEL AGENT NAME ID and UDF CHAR 38, VIDEO CHECKOUT, YIELD MARKET TYPE, YIELD STATUS.

- Delete Trace – add all data elements.

- Join Guest – add all data elements.

- New Reservation – add all data elements from ACCOMPANYING GUEST to TRAVEL AGENT NAME ID and UDF CHAR 38, VIDEO CHECKOUT, WAITLIST PRIORITY, WAITLIST REASON CODE, WAITLIST REASON DESCRIPTION, WALK IN, YIELD MARKET TYPE, YIELD STATUS.

- New Trace – add all data elements.

- No Show – add all data elements.

- Reactivate No Show – add all data elements.

- Reactivate Waitlist – add all data elements.

- Reverse Check In – add all data elements.

- Reverse Check Out – add all data elements.

- Rollback Cancel – add all data elements.

- Separate Guest From Share – add all data elements.

- Turnaways – add all data elements.

- Update Reservation - add all data elements from ACCOMPANYING GUEST to TRAVEL AGENT NAME ID and UDF CHAR 38, VIDEO CHECKOUT, WAITLIST PRIORITY. WAITLIST REASON CODE, WAITLIST REASON DESCRIPTION, YIELD MARKET TYPE, YIELD STATUS.

- Update Trace – add all data elements.

f. **Stay Records**: Add business events (If the Stay Records module does not exist in the customer's OPERA version, skip this setup):

- Insert Stay Records – add data element GUEST_NAME_ID

- Update Stay Records – add date element GUEST_NAME_ID

External System Cross-subscriptions

Make sure Nor1 is cross-subscribed to other external systems from Setup > Business Events > External Systems.

1. Select and then deselect the **Show Inactive** check box.

2. Highlight **Nor1**.

3. Click **Publisher**.

Make sure Nor1 is subscribed to all external systems.

3

OXI Configuration

Interface Setup

Configure the interface with the XML values shown in the table below. The following screen shows an External System Property value example of 8:MOMA, where 8 = VNor1Chain value indicated within the declaration section of the Nor1 install script, and MOMA = the PMS resort code.

OXI XML Versions (Set the XML setting as follows, if not available set to the highest value):

ACTIVITY	V4	NADAILYSTAT	V1
ALLOTMENT	V5	OWNERCONTRACT	V4
BLKSTAT	V1	PACKAGES	V3
CALENDAR	V1	PROFILE	V5
CATERINGREVENUE	V1	RATE	V1
CATEVENT	V4	RATE	V1
COMMENT	V1	RAVL	V1
CONFIGURATION	V3	RAVR	V1
DAILYTARGET	V1	RELATIONSHIP	V3
DATAMART	V1	RESERVATION	V5
ECERTIFICATE	V1	RESERVATIONREGRET	V1
FINDAILYSTAT	V1	RESTRICTION	V4
FINTRX	V4	RESULT	V3

ACTIVITY	V4	NADAILYSTAT	V1
HURDLE	V1	RESVDAILYSTAT	V1
HURDLEC	V3	RESVSUMMARY	V1
INVENTORY	V1	ROOMSNAPSHOT	V1
INVENTORYQUERY	V1	RTAV	V4
INVENTORYSUMMARY	V1	SALESCEILING	V1
ITTEMAVAILABILITY	V1	SCBOOKPROD	V1
LISTRESPONSE	V3	SCHEMAVERSION	V2
MANAGERSREPORT	V1	STAY	V2
MEMBERAWARD	V1	UDF	V1
MEMBERSHIP	V1	UDFDEFINITION	V1
MESSAGEREQUEST	V3		

Conversion Codes

Conversion codes are not required as Nor1 returns reservation codes as received by OPERA PMS. However, there might be a unique circumstance where a property requires a conversion code. In this instance, the conversion codes required will be listed in the project email.

OXI Interface Parameters

OXI_BLOCKS

ALLOW UPDATES TO BLOCKS WITH SELL LIMITS:	N
ALLOW UPDATES TO OPERA PROTECTED BLOCKS:	N
BLOCK CODE SEARCH:	(BLANK)
EXT SYS BLOCK GENERATES INVENTORY:	N
EXTERNAL LOCKED YN:	N
HANDLE BLOCK SOLD:	OPERA->EXT_SYS
HANDLE MASTER BLOCKS:	N
SPECIFIC BLOCK EXCHANGE:	N
SPLIT INV DETAILS:	N
UPL CATERING BLOCKS:	N
UPL DED ONLY:	N
UPL OPEN ONLY:	N
WAIT FOR BLOCK EXT REF:	N

OXI_GENERIC

AUTO RESYNC ON ROLL BUSINESS DATE:	B,R

CREDIT CARD SUPPRESS:	BOTH
DEFAULT PRINTER:	(BLANK)
GENERATE XML:	N
HANDLE PSUEDO ROOMTYPES:	N
LANGUAGE HANDLING:	ALL
MULTI ROOMTYPE CONV:	N
PURGE NO DAYS:	7
SEND COMMENT WITH CONVERSION:	P
SEND IFC CREATED ONLY:	N
WARNINGS AS TRACES:	Y

OXI_INVENTORY

CHANGE TO INVENTORY GENERATES:	RTAV
ENABLE ALLOWANCE:	N
EXTERNAL PHYSICAL ROOMS:	N
INV ROOMCLASS:	N
INV SNAPSHOT BLOCKS:	N
INV SNAPSHOT RES:	n
UPL BLOCK INFO:	N

OXI_MESSAGES

MAX SIZE BLOCKS:	512
MAX SIZE PROFILES:	200
MAX SIZE RATES:	512
MAX SIZE RESERVATIONS:	512

OXI_PROFILES

CHANGE TO PROFILE GENERATES:	RESERVATION
CORP EXT SYS OVER:	N
DISCARD DUPLICATE MEMBERSHIPS:	N
GLOBAL PROFILE:	Y
GROUP EXT SYS OVER:	N
HANDLE RESORT AR NUMBERS:	IGNORE
HANDLE RESORT PAYMENT METHOD:	IGNORE
IND EXT SYS OVER:	N
INTEREST EXT SYS OVER:	N
MAX PROFILE MATCHES:	200
NEGRATES EXT SYS OVER:	N
PHONE/ADDR CRS OVER:	N
PREF CRS OVER:	N

PROF COMMENTS CRS OVER:	N
PROF CREATION:	Y
PROF MATCHING:	Y
SOURCE EXT SYS OVER:	Y
TA EXT SYS OVER:	Y
UPDATE SALUTATION:	Y

OXI_RATES

CONFIDENTIAL RATES:	BLANK
EXT SYS DEPENDENT RATES:	N
HANDLE RATES POSTING RHYTHM:	KEEP
KEEP RATE DETAILS:	BLANK
KEEP RATE HEADER PKG:	Y
NO RATE HEADER UPDATE:	BLANK
RATE HANDLING DELTA:	N
RATE DETAIL MESSAGE HANDLING:	REMOVE
RATE EXTERNAL LOCKED YN:	Y
RESTRICTION CODES:	BLANK
SUPPORTED CHANNELS:	BLANK

OXI_RESERVATIONS

ADDITIONAL REFERENCE EXCHANGE:	BLANK
AUTO POPULATE MEMBERSHIP YN:	N
EXT SYS MARKET/SOURCE CONTROL:	EBRD
EXT SYS PRICE CONTROL:	YC
EXT SYS RESERVATION GENERATES INV:	N
EXT SYS HANDLES DAY USE:	Y
EXT SYS PACKAGE PRICE CONTROL:	Y
FULL OPERA SHARES:	NU
IGNORE RES FOR UPDATE OLDER THAN:	BLANK
INHERIT CONFIRMATION NUMBER:	N
ITEM INVENTORY EXT SYS OVER:	N
PACKAGE EXT SYS OVER:	A
PROMOTION EXT SYS OVER:	N
REMOVE EXT REF ON REINSTATE:	BLANK
RESCOMMENTS EXT SYS OVER:	N
SHARER REMOVAL MODE:	NEITHER
SHARER RATE CALC METHOD:	INACTIVE
SPECIALS EXT SYS OVER:	N
STAY UPLOAD PROFILE TYPES:	D
TRACE DEPT FOR NON REVIEWED:	BLANK
TRACE DEPT FOR FAILURE IN EXT SYS:	BLANK

TRACE DEPT FOR DELIVERY FAILURE:	BLANK
TRACE ROOM ASSIGNMENT:	ALWAYS
UPDATE ACCOMPANY GUEST:	N
UPDATE FEATURES:	N
UPDATE FIXED CHARGES:	A
UPDATE INHOUSE RES:	Y
UPDATE PAYMENT TYPES PER WINDOW:	N
UPDATE ROUTING TO ROOM:	N
UPDATE ROUTING TO WINDOW:	N
UPDATE SHARE RES:	Y
UPL DED RES ONLY:	N

Additionally, you must update the following three parameters in OPERA SQL:

> **Note:**
>
> Update xxxxxxx to OPERA PMS resort code.

1. OXI Profiles: RELATIONSHIPS INCOMING -> NONE.

    Update oxi.int_parameters set parameter_value='NONE' where parameter_name='RELATIONSHIPS_INCOMING' and resort='XXXXXX' and interface_id='NOR1'

2. OXI Profiles: RELATIONSHIPS OUTGOING -> NONE.

    Update oxi.int_parameters set parameter_value='NONE' where parameter_name='RELATIONSHIPS_OUTGOING' and resort='XXXXXX' and interface_id='NOR1'

3. OXI Reservations: ITINERARY FUNCTIONALITY -> Y.

    Update oxi.int_parameters set parameter_value='Y' where parameter_name='ITINERARY_FUNCTIONALITY' and resort='XXXXXX' and interface_id='NOR1'

OXI Interface Defaults

You must configure defaults on **Others** tab as reservations are returned using the same codes as received from OPERA PMS.

Set the following:

- Max Availability Type: Day.
- Max Availability in Advance: 180.
- Trace Warning: Nor1.

> 📝 **Note:**
>
> You might need to create Nor1 as a Department from Setup > User Configuration > Departments within the OPERA PMS.

COMM Methods

Nor1 supports two separate domains for the comm methods. The reason for this is to maintain backwards compatibility for servers that cannot support TLS 1.2 and higher. The domains are:

- https://integration.nor1solutions.com – a legacy domain that supports less secure TLS protocols.
- https://oxi.integration.nor1.com – a strict domain that only supports TLS 1.2 and 1.3 protocols with secure ciphers.

Nor1 recommends you use the strict domain for the comm methods. Each domain has two endpoints, one for each comm method.

The legacy endpoints are:

- External System to OPERA: https://integration.nor1solutions.com/opera/get.
- OPERA to External System: https://integration.nor1solutions.com/opera/post.

The strict endpoints are:

- External System to OPERA: https://oxi.integration.nor1.com/opera/get.

- OPERA to External System: https://oxi.integration.nor1.com/opera/post.

You can see the details for configuring the comm methods on the following two screen captures:

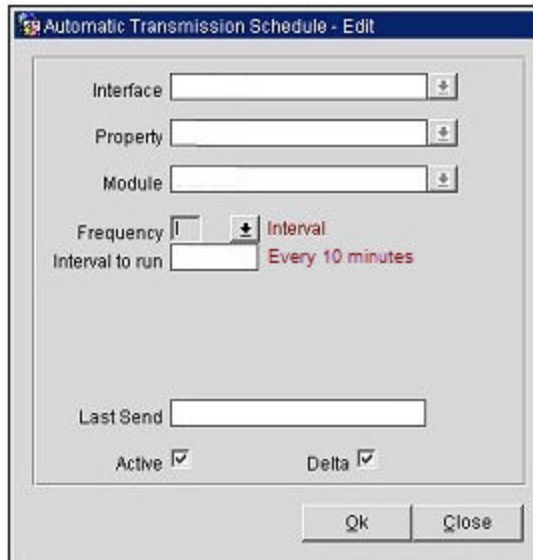**External System to OPERA:**
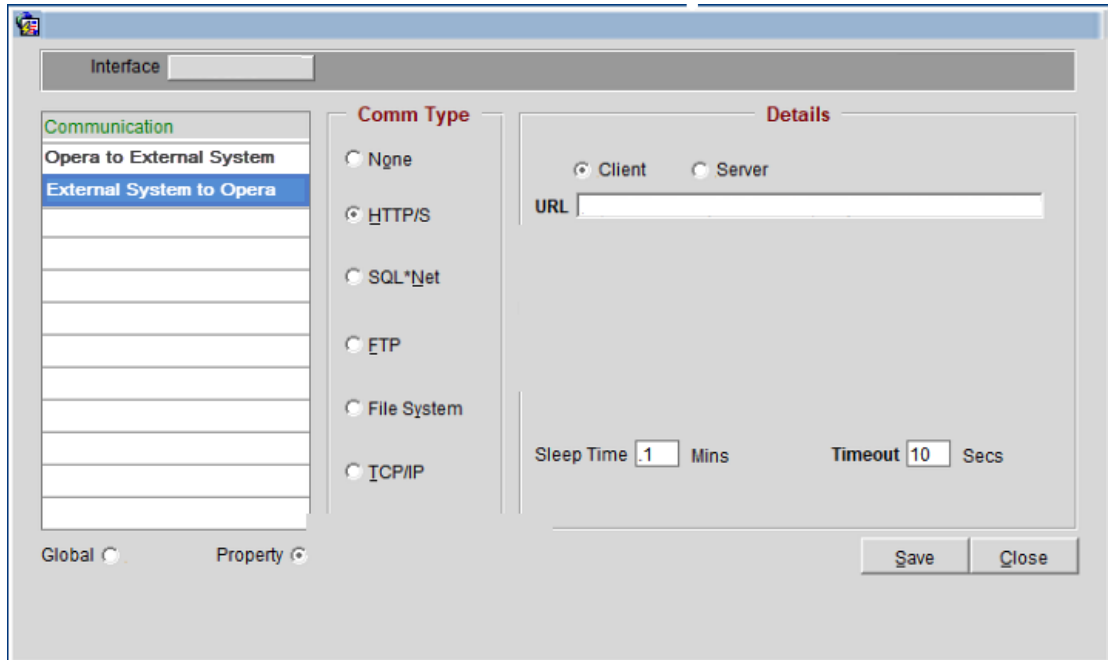
OPERA to External System:
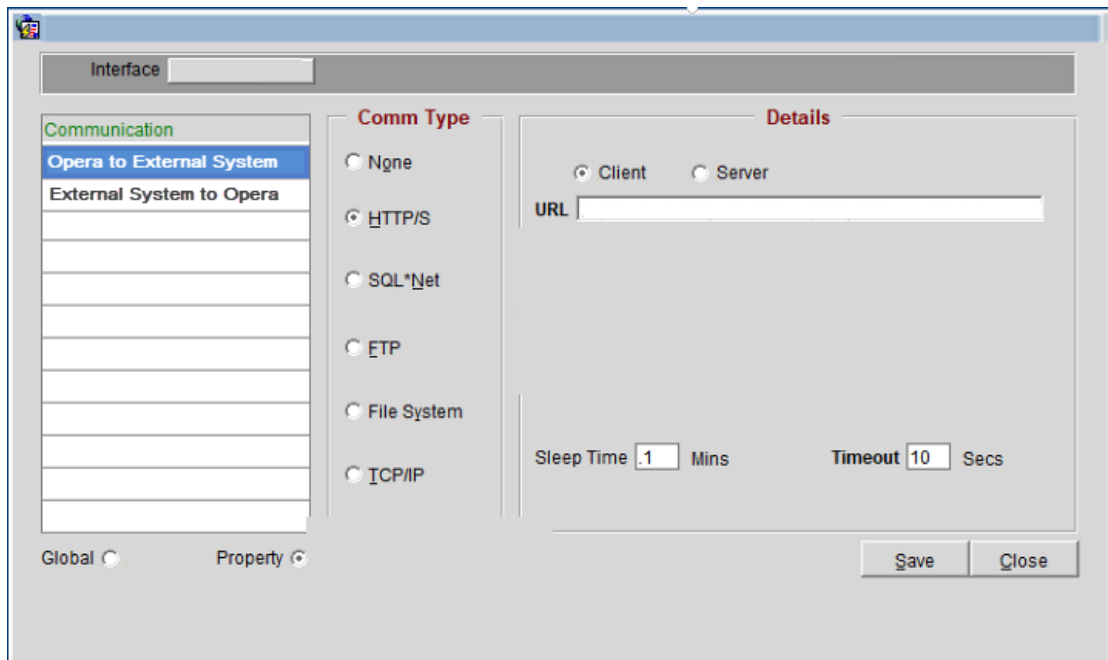
Automatic Transmission Schedule (ATS)

Nor1 requires configuration of four different scheduled transmissions, one for blocks and three for inventory.

ATS for Blocks

Interface: Nor1

Property: Resort Code

Module: Block

Frequency: 1

Active and Delta: Checked

ATS for Inventory (at 4 a.m.)

Interface: Nor1

Property: Resort Code

Module: Inventory

Frequency: D

When to Run: 4 (04:00)

Range: 30

Future: 0

Active: Checked

ATS for Inventory (at 6 a.m.)

Interface: Nor1

![ORACLE]

Property: Resort Code

Module: Inventory

Frequency: D

When to Run: 6 (06:00)

Range: 1

Future: 179

Active: Checked

ATS for Inventory (Weekly)

Interface: Nor1

Property: Resort Code

Module: Inventory

Frequency: W

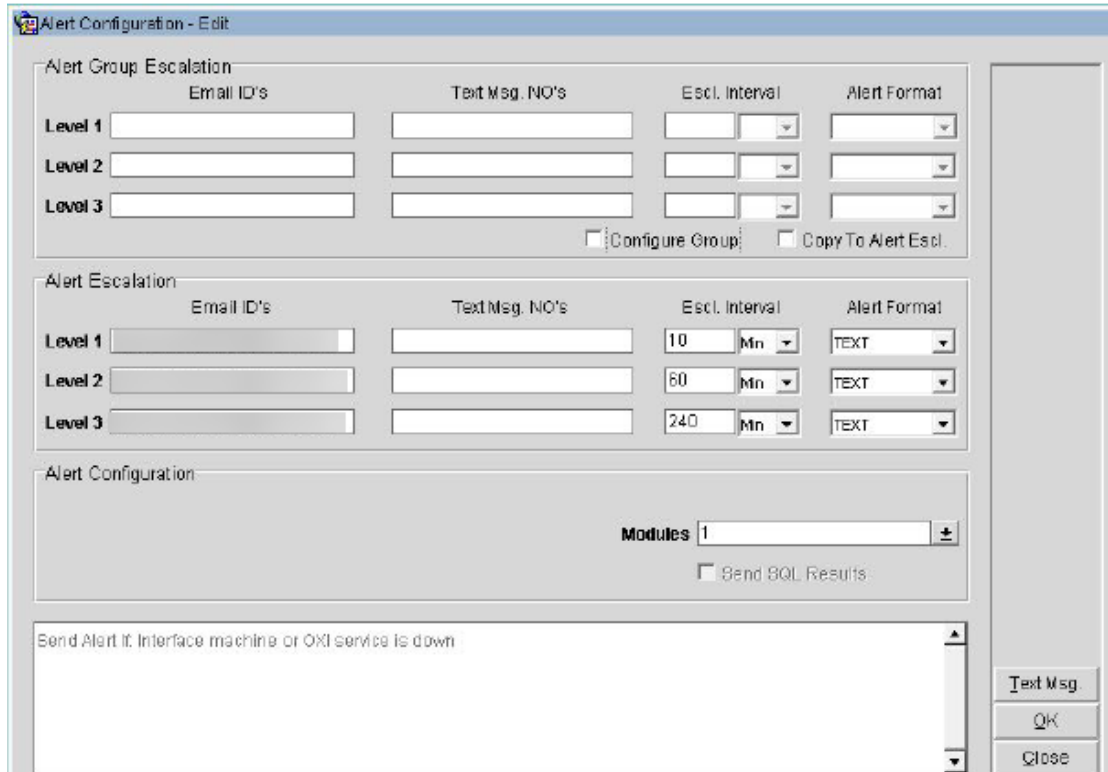When to Run: 1, 5

Range: 150

Future: 30

Active: Checked

OXI Alert Configuration

The following OXI Alert Configuration is necessary only if the customer has email delivery active.

Access OXI > Interface Status > Interface Alerts. Configure two alerts as follows:
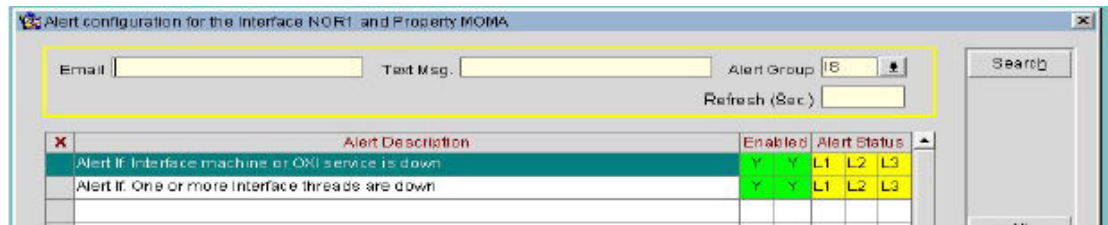
The following shows you the configuration for Alert If: Interface machine or OXI service is down.

The following shows you the configuration for Alert if: One or more Interface threads are down.
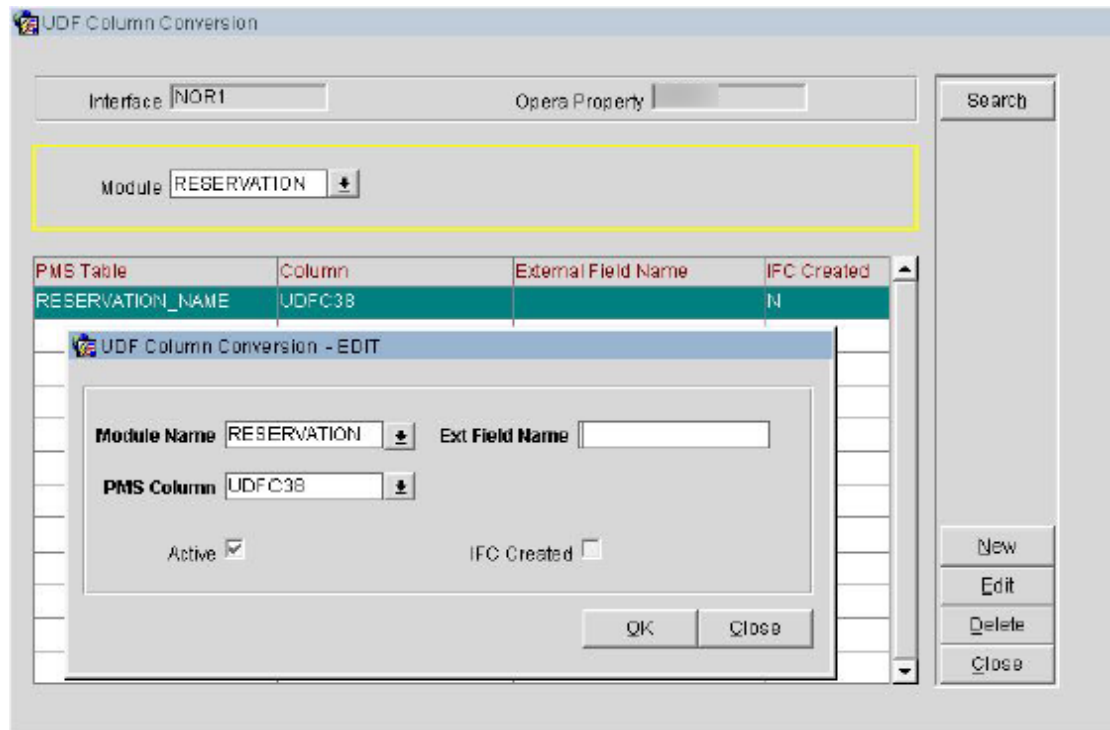
UDF Column Conversion

The UDF column tracks the offers rendered and requested by the guest. You can configure the UDF column conversion from OXI > Interface Configuration > UDF Conversion.

> ✏ **Note:**
>
> Nor1 uses UDFC38 for tracking the offers. This UDF column might already be in use. Contact nor1-integrations_grp@oracle.com to use another UDF column.

NLS Lang

Set the NLS_LANG registry value to prevent string encoding issues that can break Nor1 parsing of the OXI XML.

1. Start > Run > REGEDIT > (HKEY_LOCAL_MACHINE\SOFTWARE\Micros-Fidelio\OPERA Interface for Nor1.

2. Edit > New > String Value.

3. Value name: = NLS_LANG.

4. Value data: = AMERICAN_AMERICA.UTF8.
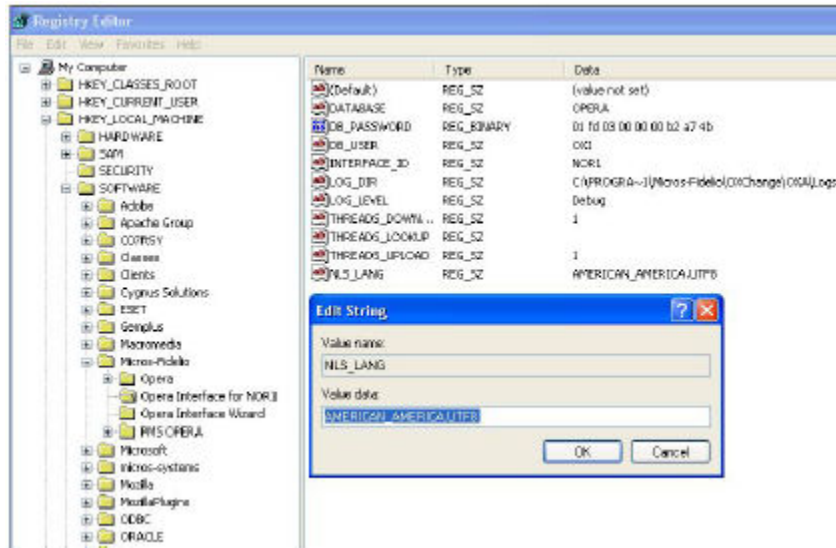
5. Re-start the OXI Services OPERA Interface for Nor1.

6. View the OXI log for Nor1 and confirm MESSAGE = Set NLS_LANG to AMERICAN_AMERICA.UTF8.

Reserved IP Addresses for OXI

Nor1 does not recommend allowlisting IP addresses for outbound OXI communication to Nor1. However, Nor1 recognizes that this policy is often required. If allowlisting is a hard requirement, you should bypass the domain names for outbound OXI traffic instead of allowlisting IP Addresses.

The following table of IP addresses are Nor1's reserved set for OXI communication.

• 50.97.180.50

• 169.61.166.120

• 169.55.63.198

• 23.23.3.9

• 52.23.28.42

• 54.174.117.59

• 169.48.36.254