Oracle® Hospitality Hotel Mobile
Installation and Configuration Guide
Release 1.4.0.0 (1.40)
F17752-03

December 2019
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Preface

This document explains how to install and configure Oracle Hospitality OPERA 5 Hotel Property and Oracle Hospitality Suite8 for Oracle Hospitality Hotel Mobile. The document also explains how to install the Oracle Hospitality Hotel Mobile application.

Audience

This document is intended for system administrators, support personnel, and users familiar with the Suite8 and OPERA 5 Hotel Property modules.

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:
https://support.oracle.com

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- 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>
<thead>
<tr>
<th>Date</th>
<th>Description of Change</th>
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<tbody>
<tr>
<td>May 2017</td>
<td>• Initial publication</td>
</tr>
<tr>
<td>September 2018</td>
<td>• Update Release 1.2</td>
</tr>
<tr>
<td>September 2018 (02)</td>
<td>• Updated Hotel Mobile REST API to version 1.2</td>
</tr>
<tr>
<td>September 2018 (03)</td>
<td>• Updated Chapter 5 Prerequisites Microsoft .NET Framework version from 4.6.3 to 4.7.2.</td>
</tr>
<tr>
<td>October 2018</td>
<td>• Updated RestAPI pg. 33 to reflect separate file download from Suite8.13.0.0 onward.</td>
</tr>
<tr>
<td>December 2018</td>
<td>• Update Release 1.30</td>
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<tr>
<td>April 2019</td>
<td>• Update Release 1.4.0.0 (1.40)</td>
</tr>
<tr>
<td>August 2019</td>
<td>• Installation of RestAPI monitoring tool for version 1.4.1.0 (1.41) and higher</td>
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November, 2019

- Added RestApi automatic installation instructions for version 1.4.2.0 (1.42)
1 Prerequisites

Verify that the environment meets the following requirements:

- **Suite8 Version 8.10.2.20** and higher or **OPERA 5 Hotel Property** and higher
- **Hotel Mobile REST API version 1.42**
- OPERA 5 Hotel Property installation with an active PMS license:
  - Premise-based SKU (Controlled Availability)
  - Oracle Hospitality OPERA Hotel Mobile license and support agreement
  - OPERA 5 Hotel Property (5.4.2.26+ - 5.5.0.21+ - 5.5.1.7+ or 5.6.1+) OPERA Web Service-based
- Suite8 installation with an active PMS license
  - XML Interface installed
  - Kiosk Interface
- OPERA 5 Hotel Property and Suite8 on-premises recommended settings: Hotels would consider to activate and configure the following applications to take full advantage of the Hotel Mobile application:
  - Housekeeping Task Assignment
  - Housekeeping Attendants
  - Maintenance
- OPERA Web Services server
  - Operating system: Microsoft Windows 2008 R2 or Microsoft Windows 2012 R2 purchased by the client
  - Microsoft .NET Framework:
    - Microsoft Windows 2008 R2: 2.0, 4.5 and 4.6.3 - Available for free from the Microsoft web site
    - Microsoft Windows 2012 R2: 3.5 (include .Net 2.0), 4.5, and 4.6.3 - Available for free from the Microsoft web site
  - Microsoft IIS 7 or Microsoft IIS 8 - Available with the Microsoft Windows operating system
  - TLS 1.2 enabled
  - SSL – SHA2 certificate supporting TLS 1.2 for the OPERA Web Services server – to be purchased separately by the client
  - Oracle client installed
  - Install OPERA Web Services (PMS mode in OEDS) interfaces:
    - REST API
      - An external SSL Certificate from a trusted certification authority with FQDN needs to be installed on the RestApi server
      - Microsoft .NET Framework 4.7.2 is required by the REST API
    - EFT chip and pin interface with IFC8 – EMV credit card interface is to perform check-ins, check-outs and process payments with credit cards.
    - Key card interface with IFC8 – required to cut key cards.
    - Microsoft Windows devices:
- Operating system - Microsoft Windows 8.1 or Windows 10
- Microsoft .NET Framework 4.7.2 - Available for free from the Microsoft web site

- iOS-based devices:
  - iOS 11 or higher

- Android devices:
  - Android 7 or later

- Network printer installed on the device for printing documents using Hotel Mobile devices.

- OPERA functions:
  - Like in OPERA 5 certain functionality depends on functions.
  - Below find a list of function that may be activated in order to use a feature in OPERA 5 and Hotel Mobile:

  | CASHIERING       | ROUTING         |
  | CASHIERING       | ARTICLES        |
  | PROFILES         | Future & Past Stays |
  | PROFILES         | HISTORY         |
  | PROFILES         | VIP             |
  | RESERVATIONS     | ACCOMPANYING GUEST |
  | RESERVATIONS     | ALERTS          |
  | RESERVATIONS     | DO NOT MOVE ROOM |
  | RESERVATIONS     | SHARES          |
  | ROOMS MANAGEMENT | ATTENDANT POINTS |
  | ROOMS MANAGEMENT | DISCREPANT ROOMS |
  | ROOMS MANAGEMENT | MAINTENANCE     |
  | ROOMS MANAGEMENT | QUEUE ROOMS     |
  | ROOMS MANAGEMENT | SIMPLE TASK ASSIGNMENT |
  | ROOMS MANAGEMENT | TASK ASSIGNMENT |
  | ROOMS MANAGEMENT | TASK ASSIGNMENT WORKFLOW |
  | ROOMS MANAGEMENT | TURNDOWN        |
  | ROOMS MANAGEMENT | INSPECTED_STATUS |
  | ROOMS MANAGEMENT | OUT_OF_ORDER    |
  | ROOMS MANAGEMENT | OUT_OF_SERVICE  |
  | ROOMS MANAGEMENT | PICKUP_STATUS   |
2 Configuring OPERA Web Services

OPERA Web Services Server Prerequisites
The OPERA online Help provides more information on OPERA Web Services server prerequisites.

Installing the Oracle Client
You need the Oracle Client (11g) to connect to the OPERA database.

1. Download the installer from: https://www.oracle.com/technetwork/database/enterprise-edition/downloads/112010-win64soft-094461.html and save it to D:\Upgrade\Media\Oracle Client.
2. Run the Oracle 64-bit Client as administrator.
3. Select Administrator, and then click Next.
4. Select Yes on the following message:
5. Select **English**, and then click **Next**.

6. Specify the installation location, and then click **Next**.
   - **Oracle Database:** D:\Oracle\Software
   - **Software Location:** D:\Oracle\11.2.0Client

7. Click **Next**, and then wait for the process to finish.

9. Select **Close** to complete.
Configuring Oracle Net

1. Copy `tnsnames.ora` from the OPERA application server to the following location on the OPERA Web Services server:
   D:\Oracle\11.2.0\client\network\admin
2. Go to Windows Start Button, select Run, then type `command` or `cmd` to open a DOS prompt. Type `tnsping opera` for OPERA to make sure the Oracle Client has been installed correctly and it is communicating with the database. The following figure shows an example:

Updating Language Settings

1. Go to Windows Start Button, select Run, type `regedit`, then press CTRL+F and search for `NLS_LANG`
2. Update the value of `NLS_LANG` to `AMERICAN_AMERICA.UTF8`.
3 Installing OPERA Electronic Distribution Suite with OPERA Web Services

Introduction
OPERA Electronic Distribution Suite (OEDS) distributes and exchanges OPERA data over the internet. OPERA Web Services is a collection of Microsoft Windows services that provide access to OPERA functionality. They provide an interface between OPERA and external applications, such as a web booking engine.

Prerequisites
Installers should be familiar with the following:
- OPERA Web Services configuration
- Setting OPERA Web Services in debug mode
- Tools to verify OPERA Web Services is SoapUI

Installing OEDS
1. From the OPERA server: copy D:\Micros\Opera\Tools\OEDS\oeds.zip to the OPERA Web Services Server under: D:\Upgrade\OEDS\ (or any other location convenient to you).
2. Unzip the file.
3. Run D:\Upgrade\OEDS\setup.exe as an administrator.
4. Click Next.
5. Select **Custom**, and then click **Next**.

6. Select **Opera Access Point** > **This feature will be installed on local hard drive**, and then scroll down.

7. Select **OWS-WS Version 5.1** > **This feature will be installed on local hard drive**.

8. Click **Next**.
9. Click **Install**.

10. Click **Not Connected**.
11. Once showing **Connected**, click **Next**.

12. Enter the field **Login Property / CRO Name**, **Hotel/Inn code**, and select **PMS** from the **Running Application** drop-down list.
   The Login Property must have an active license code and the running application must be **PMS**.

13. Click **Next**.
   The OEDS Installation Guide in the OPERA Help provides more information on the settings and their values.
Specify settings as shown in the following example. Use the default values for the other settings.

**Report Remote Path**: Schema in the webtemp directory on the OPERA application server. The value is an HTTP URL. In most cases, the URL is: http://OperaAppServer/webtemp/opera

**Report Server**: Name of the report server installed on the OPERA application server for the schema installed. In most cases, the value is: repMACHINENAMEschema

**Report Gateway**: URL for the rwservlets installed on the OPERA application server. In most cases, the URL is: http://OperaAppServer/reports/rwservlent/

15. Click **Next** in OAP Utility Parameters.

16. Click **Next**.
17. Click Next.

18. If necessary, change Log Directory and Request Log Directory.
   Log Directory: Enter the storage location for the logs. The following figure shows the default location. Change the path to the D drive if the C and D drives are used.
   Request Log Directory: Enter the directory path to the RequestLog.xml file. The following figure shows the default location. Change the path to the D drive if the C and D drives are used.

19. Click Next.
   Command windows appear as the installer completes the installation.
20. Click Finish.

21. Go to IIS Manager and start Administrative tool > Internet Information Services (IIs) Manager.

22. Click on application pool, right-click OEDS, and then select Advanced settings.

23. For Windows 2012 server, change .NET Application Pool for OEDS to v4.0.

24. Click Close.
4 Installing the Suite8 XML Interface

If your environment uses Suite8, complete the procedures in this section to install the Suite8 XML interface on Microsoft Windows 7 and Microsoft Windows 8.x versions.

Installing the Suite8 Client
The Oracle Hospitality Suite8 InstallShield Guide on http://docs.oracle.com contains more information about the Client installation of Suite8.

XML Interface and OTA XML Interface
If you need to do extra programming based on the XML Interface or OTA XML Interface, the local office needs to complete the NDA (Non-disclosure agreement) Info sheet. Each company needs to sign the Non-disclosure Agreement. The NDA forms are located on the Micros-Fidelio FTP Server and Share Point in the directory Confidentially Agreements under Internal Documentation.

Turning Microsoft Windows 7 Features On or Off
1. Open the Microsoft Windows Control Panel.
2. Select Large icons for the option View by.
3. Click Programs and Features.
4. Click Turn Windows features on or off.
5. Open **Internet Information Services** and select the following options:

- IIS Management Console
- IIS Management Script and Tools
- IIS Management Service
6. Open **Application Development Features** and select the following options:
   - .NET Extensibility
   - ASP
   - ASP.NET
   - ISAPI Extensions
   - ISAPI Filters

7. Open **Common HTTP Features** and select the following options:
   - Default Document
   - Directory Browsing
   - HTTP Errors
   - HTTP Redirection
   - Static Content
Installing the Suite8 XML Interface
Turning Microsoft Windows 8.x Features On or Off

1. Go to the Start screen from Windows 8.x and search for Programs and Features.
2. Go to Programs and Features and open the utility.

3. Click Turn Windows features on or off.
8. Select options as shown in the following figure:
Configuring the Suite8 XML Interface

1. Create a new folder: C:\fidelio\programs\webpublished.
2. Copy FidelioIISWrapper.dll to this folder.
3. Go to C:\fidelio\programs\FidelioWebAppSetup.exe.
4. Right-click FidelioWebAppSetup.exe, and then select Run as administrator.

The User Account Control dialog appears.

5. Select Yes.

7. Click New.
8. Enter the object name as FidelioXMLInterface.DataHandler.
9. Select Options > DB Setup.
10. Enter the Oracle11 **Username** and **password**.
   The user name and password are case sensitive.
12. Select the location of the dll path. Example: `c:\fidelio\programs`.
13. Select **Options > Traffic Logging**.

Since Suite8 Version 8.9.0.0, traffic logging can be activated for the XML Interface. If you are using traffic logging, select **Enable Logging**, enter a Log file name, and define the number of messages after which a log entry is generated.

**Configuring IIS for Running the XML Interface**
1. Select computer and then select **Manage** from the right mouse shortcut menu.
2. Go to **Default Web Site**.
3. Select **Add virtual Directory** from the right mouse shortcut menu.
4. Create a virtual directory with the name V8, and then click OK.

5. Right-click V8 and select Convert to Application.
6. Double-click on **Handler Mapping** in the IIS section, and then select **ISAPI.dll**.
7. Select **Edit Feature Permissions** on the Actions menu and select **Execute**.

8. Click **Root computer name** in the **Connections** dialog box.
9. Double-click **ISAPI and CGI Restrictions**, click add to select the path to FidelioIISWrapper.DLL, and then select **Allow extension path to execute**.

![Add ISAPI or CGI Restriction](image)

**Configuring the XML Interface on a 64-bit platform**

If you configure the XML interface to run on a 64-bit platform (Microsoft Windows 7 or Microsoft Server 2008), complete the following steps:

1. Create an application pool.

![Application Pools](image)
2. Right-click the application pool, and then click **Advanced Settings**.

![Application Pools](image)

This page lets you view and manage the list of application pools on the server. Application pools are associated with worker processes, contain one or more applications, and provide isolation among different applications.

<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>.NET Framework Version</th>
<th>Managed Pipeline Mode</th>
<th>Identity</th>
<th>AppPoolID</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASP.NET v4.0</td>
<td>Started</td>
<td>v4.0</td>
<td>Integrated</td>
<td>NetworkService</td>
<td>0</td>
</tr>
<tr>
<td>ASP.NET v4.0 CI...</td>
<td>Started</td>
<td>v4.0</td>
<td>Classic</td>
<td>NetworkService</td>
<td>0</td>
</tr>
<tr>
<td>Client .NET App...</td>
<td>Started</td>
<td>v2.0</td>
<td>Integrated</td>
<td>NetworkService</td>
<td>0</td>
</tr>
<tr>
<td>DefaultAppPool</td>
<td>Started</td>
<td>v2.0</td>
<td>Integrated</td>
<td>NetworkService</td>
<td>1</td>
</tr>
<tr>
<td>V8_XmIF</td>
<td>Started</td>
<td>No Manager</td>
<td>Integrated</td>
<td>ApplicationPoolID</td>
<td>1</td>
</tr>
</tbody>
</table>

3. Change the settings as shown in the following figure:

![Advanced Settings](image)

- .NET Framework Version: No Managed Code
- Enable 32-Bit Applications: True
- Managed Pipeline Mode: Integrated
- Name: V8_XmIF

4. Change the **Basic Settings** of the Virtual Directory V8, and then select an application pool that has been configured for this purpose.
Testing the XML Interface

Test the XML IFC using the following URL:
http://localhost/v8/fidelioIISWrapper.dll/FidelioXMLInterface.DataHandler

If it is installed with the instance name, the following URL is used:

http://localhost/v8/fidelioIISWrapper.dll/FidelioXMLInterface.DataHandler?ic=<INSTANCENAME>

The following response message appears:

```
<?xml version="1.0" encoding="utf-8" ?>
<response Version="1.0.0">
  <response ID="" Status="UR" Message="Internal error. Cannot process request" />
</fidelio>
```

If you cannot start IIS, the program Skype could be the cause. If Skype is installed before IIS, Skype is listening by default to the port 80, so IIS cannot start. Change the Skype configuration by opening Skype, selecting Tools->Options->Set connection parameters and proxies and removing the selection for the option: Use port 80 and 443 as alternative for incoming connections.
5 Installing the Hotel Mobile REST API

Introduction

The Hotel Mobile REST API interface communicates with OPERA Web Services and the Suite8 XML Interface.

Prerequisites

- Suite8 Version 8.10.2.10 and higher
- OPERA Version 5
- Internet Information Service 7 or higher
- Microsoft .NET Framework 4.7.2
- Install RESTAPI by the new Installshield wizard (1.42 or higher)
- Application pool for RestAPI
- Externally Signed SSL Certificate with FQDN needs to be installed on the RestAPI server
- Download the latest software for Opera and Suite8 installations from: https://edelivery.oracle.com/.

RestAPI 1.4.2.0 (1.42) (distributed with Oracle Hospitality Suite8 Property Management 8.14.0.0)

Please note that from Suite8.13.0.0 onwards the RestAPI is a separate file called xxx_3of3.zip.

Please note that from Opera release 5.5.0.20 and 5.6.0.0 onwards the RestAPI files will be part of the OEDS bundle and can be downloaded with that bundle.
Install RESTAPI by the new installshield wizard. Version 1.4.2.0 (1.42) or higher

1. Unzip and extract the downloaded file to view the three archived file.

2. Run the HM_PMSAPI_SETUP.exe file as Administrator.

   **Note:** If required, the setup will automatically install the .NET 4.7.2 Framework. Restart the Computer and begin the Installation again.

3. By default, all components are installed. This includes two web services RESTAPI and MONITORING. You can individually select if just Monitoring web application needs to be installed.
4. Messages are displayed during the installation relating to backing up existing configuration files or setting file permissions on configuration files. For any issues, you may need to install RESTAPI manually using the Manual Install files.

5. After successful installation an Internet Explorer web browser appears and you can begin to set up RESTAPI through a graphical web interface.

6. An application pool is created for Hotel Mobile RESTAPI and MONITORING features with the same name. No further application pool configuration is needed.

Configure RESTAPI through the graphical interface

Oracle Data Source Configuration

1. With the introduction of RESTAPI 1.4.2.0 (1.42) it is not a prerequisite to install an Oracle Database Client on the RESTAPI Server. RESTAPI handling alone it’s Database connection drivers and can be configured through the RESTAPI Graphical User Interface for Setup.

2. Press The “Add New Oracle Data Source” Button.
3. A new entry will be created. Click on the new entry.

4. Enter the TNS Name of the Database Connection (like V8). Enter the address of the Oracle server. Enter the port, usually 1521. Also enter the SID Service identifier of the Oracle DB
Service. Press the changes.

Oracle Hotel Mobile PMS API Service

Oracle Data Source Configuration

Add New Oracle Data Source

Connection: new connection

<table>
<thead>
<tr>
<th>alias</th>
<th>V8</th>
</tr>
</thead>
<tbody>
<tr>
<td>host</td>
<td>llg00ejg.uk.oracle.com</td>
</tr>
<tr>
<td>port</td>
<td>1521</td>
</tr>
<tr>
<td>serviceName</td>
<td>V8</td>
</tr>
</tbody>
</table>

Save Delete

Persistence >>

The usage of the REST interface is for Oracle Internal use only.

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Persistence Configuration

1. Press Persistence Configuration. Here you have to enter the oracle database user credentials which will be used by RESTAPI to store persistence data.

   Oracle Hotel Mobile PMS API Service

2. Enter the Database Alias you set up previously, enter the database user credentials and press Save in order to save the settings.

3. Press Test Connection

4. You should see a message: **Connection to Database is successful**

5. Press Log Configuration
Log Configuration

1. You can set the logging verbosity and the log file locations for the RESTAPI service.

   Oracle Hotel Mobile PMS API Service

Log Configuration

XML Log Settings

Log Level: WARNING
Logfile Path: c:\temp

Message Log Settings

Log Level: WARNING
Logfile Path: c:\temp

Save

<< Persistence Hotels >>

The usage of the REST interface is for Oracle Internal use only.

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2. Press Save.

3. Press Hotels.
Hotels Configuration

1. You can add, edit, delete Hotel configuration details through the web setup interface.
2. Select a Hotel entry in the list and click on it.
4. Set all important details of the hotel and press Save.

5. Now you finished with the configuration of Hotel Mobile RESTAPI service through the graphical user interface.

We still let the manual installation instructions in the documentation for reference and for manual installation, troubleshooting.
Manual Installation of RESTAPI

Creating an application pool

1. In the OWS Server, go to IIS Manager and start Administrative Tool -> Internet Information Services (IIS) Manager.

2. Click the machine name.
3. On the **Actions** tab, click **View Application Pools**.

![View Application Pools](image1.png)

4. Click **Add Application Pool**.

![Add Application Pool](image2.png)

5. Specify settings as shown in the following figure, and then click **OK**.

![Add Application Pool Settings](image3.png)

- **Name**: RestAPI
- **.Net Framework version**: v4.0. (Assuming that .net 4.5 and 4.6.1 were already installed on the machine)
Managed pipeline mode = integrated
Start application pool Immediately = Ticked

6. Make sure the application pool is created, and then close the screen.

Creating the RestAPI Directory

1. Create a new folder under C:\Inetpub\wwwroot and name it RestAPI.

2. Go to the Media Folder that contains the restapi.zip file, and then unzip the file to the new path: C:\inetpub\wwwroot\RestAPI.
3. Verify that the following items are copied to the destination folder:

Creating the RestAPI Application

6. On the OPERA Web Services Server, go to IIS Manager and then start Administrative tool -> Internet Information Services (IIS) Manager.
7. **Expand Machine Name** and expand **Sites**.

8. **Click Default Web Site**.
9. Click **View Application**.

10. Click **Add Application**.

11. Create an application with the RestAPI directory path, and then specify the application pool settings shown in the following figure:
Installing the Hotel Mobile REST API

Alias: RestAPI

Application Pool: Select the application pool from the list.

Physical Path: C:\inetpub\wwwroot\restApi

12. Click OK.

Creating the Cache DB Oracle schema

For OPERA, perform the steps in this section on the OPERA DB Server. For Suite8, use the existing Suite8 Schema. The table WPER already exists in Suite8 schema.

Perform the following steps on the Database Server.

The RESTAPI schema, also called Cache DB is not related or linked to OPERA/Suite8 schema and must not be granted any role to access any other Oracle schema in the database (especially OPERA or OXI schema). RESTAPI schema can be created in the OPERA/Suite8 Oracle database or in a separate dedicated Oracle database.

The data in the Cache DB is dynamic and normally currently require approximately 1 record per active user session. When the sessions become inactive or logged out, associated DB records will be removed.
When the delta API will be implemented, the amount of data stored in the Cache DB will increase. It is then estimated to have about 100 records per active user session.

Follow these steps to create the cache DB Oracle schema:

1. Log in to the OPERA PMS or Suite8 Database server or single server.
2. Log in to **SQL Plus** by typing `SQLPLUS` in a command prompt and then pressing enter.

   ![SQL Plus Command Prompt - sqlplus](image)

3. For username, type in `sys as sysdba`, then press Enter. For password, type in the SYS password that was set Login to the OPERA PMS Server (ask Property to enter Password).

   ![Connected to: Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production With the Partitioning, OLAP, Data Mining and Real Application Testing options](image)
4. Run the following script to create a Cache DB Oracle schema.

Before applying the script, change the schema password and save it because you use it later. If logdata table space already exists, change it to a different one.

```
CREATE USER restapi
    IDENTIFIED BY PLACE_HERE_YOUR_PASSWORD
DEFAULT TABLESPACE logdata
-- QUOTA UNLIMITED ON SYSTEM
QUOTA UNLIMITED ON logindx
QUOTA UNLIMITED ON logdata
;

GRANT connect to restapi;

GRANT create table, create procedure, create type, create view, create trigger, create sequence to restapi;

create table restapi.wper (  
    wper_id number(30,0) not null  
  ,wper_user_identifier varchar2(500) not null  
  ,wper_data clob  
  ,wper_timestamp date  
  ,wper_expired date  
  ,constraint wper_pk primary key (wper_id) using index tablespace logindx  
  ,constraint wper_identifier unique (wper_user_identifier) using index tablespace logindx  
) tablespace logdata;

create sequence restapi.seq_wper increment by 1 start with 1000 nomaxvalue nocycle nocache noorder;

COMMENT ON TABLE restapi.WPER IS 'Persistent storage';
```

5. Copy the amended script, paste it in the command prompt, and then press Enter.
Adjusting Data access Client Configuration Files

Perform the following steps on the Database Server.

1. Locate the Web.config File at: C:\inetpub\wwwroot\RestAPI.

2. Right-click and then open the file in a text editor (for example, Notepad).

3. Find the following string: oracle.manageddataaccess.client

   
   <oracle.manageddataaccess.client>
   <version number="1">  
   <settings>  
   <setting name="TNS_ADMIN" value="c:\ORACLE\11.2.0\CLIENT\network\admin"/>
   </settings>
   </version>
   </oracle.manageddataaccess.client>

4. Configure TNS_ADMIN value to path where tnsnames.ora is stored according to oracle client settings.

5. To define proxy settings to connect to, add:

   
   <defaultProxy>
   <defaultProxy>
   <proxy bypassonlocal="false" usesystemdefault="true" proxyaddress="http://127.0.0.1:8888" />
   </defaultProxy>
   

Adjusting PmsApiXMLConfig file.

1. Locate the PmsApiXMLConfig.config File and open it with a text editor (for example, Notepad).

2. Scroll down until you see the following string:
3. Replace with the following values:

**Request Code**: no specifications, but no space, no special character  
**Property Code**: Resort Property Code  
**PmsType**: OPERA5 for OPERA and Suite8 for Suite8  
**Interface URL**: URL of OWS  
**Channel**: O2G

### Multi-property

Multi-property functionality is not given within the app. For multi-property connections, configure a request code in PmsApiXMLConfig.config for each property. The same OPERA or Suite8 Web Service could be used. Within the app, configure two endpoints with the correct request code. To switch between the properties, the user logs out of property 1 and logs in to property 2.

Here an example for two properties:

```xml
<Hotel>
  <RequestCode>Property1</RequestCode>
  <PropertyCode>CASINO</PropertyCode>
  <PmsType>OPERA5</PmsType>
  <InterfaceURL>http://server_IP_address/OWS_WS_51/</InterfaceURL>
  <HotelData>
    <Channel>O2G</Channel>
    <ConnectorSpecific/>
  </HotelData>
  .......
</Hotel>

<Hotel>
  <RequestCode>Property2</RequestCode>
  <PropertyCode>TEJALQA</PropertyCode>
  <PmsType>OPERA5</PmsType>
</Hotel>
```
<InterfaceURL>http://server_IP_address/OWS_WS_51/</InterfaceURL>

<HotelData>
  <Channel>O2G</Channel>
  <ConnectorSpecific/>
</HotelData>

......

**Persistence**

4. Scroll down to Locate the following DB String and change setting pointing to the Cache DB instance.

<DB>
  <Service>Oracle Alias</Service>
  <UserName>Oracle User</UserName>
  <Password>encrypted password</Password>
</DB>

Change the values as follows for your environment:

- **Service:** TNS Alias to connect to Cache DB Oracle schema: OPERA / Suite8
- **UserName:** Restapi schema name: RESTAPI
- **Password:** Encrypted password for the schema. The following steps explain how to encrypt the password.

5. To retrieve the password to write to the password element: open the localhost page where RestAPI is installed with the URL /setup for example:

   http://localhost/RestAPI/setup

   The URL works only if invoked as localhost; otherwise the access will be declined.

   Open the index-cshtml and copy the link: [https://code.jquery.com/jquery](https://code.jquery.com/jquery) to Microsoft Internet Explorer and then add the URL as a trusted site, setting the security level to low.

6. Enter the schema password that was used earlier when creating the DB cache, and then click **Encrypt** to encrypt the password.

   Encrypted Password: ![encrypted password]

13. Copy the encrypted password to the PmsApiXMLConfig file.

   <Password>![encrypted password]</Password>

14. Restart IIS.

   Whenever you change the restapi files, restart IIS as follows:

   1. Open CMD on the OPERA Web Services server Start> Run> CMD
   2. Type iisreset, and then press Enter.
PMS API Service in Opera 5 SaaS Environment

1. Add Security Tag (or edit if exists) and change to SSD value, in order to enable SSD SAML authorization method.

2. Add the property's Domain Code to the hotel parameters. SSD Service cannot populate domain information of the authenticated user but to make proper OWS requests I have to use fully qualified user names in the requests like USER@DOMAINCODE.

```xml
<Hotel>
  <RequestCode>PROP1</RequestCode>
  <PropertyCode>PROP1</PropertyCode>
  <PmsType>Opera5</PmsType>
  <InterfaceURL>HTTPS://OWS_SERVICE_URL/OWS_WS_51/</InterfaceURL>
  <Security>SSD</Security>

  <HotelData>
    <Channel>O2G</Channel>
    <DomainCode>SFIRST</DomainCode>
  </HotelData>

  <RequestTimeOut>60000</RequestTimeOut>
</Hotel>
```

Save the changes to PmsApiXMLConfig.config file. Of course other modules have to be configured properly in order to use in Cloud environments. These are the OPERA OWS service and the IIS Saml Gate modules installed by the OPERA OEDS Wizard.

**Cultures, Languages**

Hotel Mobile is supporting 7 languages.
• British English (en-GB)
• German (de-DE)
• Portuguese (pt-BR)
• Spanish (es-ES)
• French (fr-FR)
• Japanese (ja-JP)
• Simplified Chinese (zn-CH)

The languages configured in the Hotel PMS will most probably differ from the above list and their culture of the language codes can be also different. Therefore it is advised to map the above cultures to the language codes of the PMS system in order to get data translation in a Suite8 hotel.

For example a small Suite8 hotel only supporting English (default), German with Code “G” and Spanish with Code “S” and French with Code “F”.

You should enter following mapping in the PMSAPIXMLConfig.config file to the appropriate Hotel.

```xml
<Mappings>
  <PMSLanguages>
    <!--Global: map languages from PMS-->
    <PMSLanguage RequestedValue="de-DE" PMSValue="G" />
    <PMSLanguage RequestedValue="fr-FR" PMSValue="F" />
    <PMSLanguage RequestedValue="es-ES" PMSValue="S" />
    <PMSLanguage RequestedValue="zh-CN" PMSValue="" />
    <PMSLanguage RequestedValue="pt-BR" PMSValue="" />
    <PMSLanguage RequestedValue="en-GB" PMSValue="" />
    <PMSLanguage RequestedValue="ja-JP" PMSValue="" />
  </PMSLanguages>
</Mappings>
```

If there is no mapping exist, you either don’t enter anything for the given culture or you enter an empty PMSValue="" string. By default there is no data translation configured in the config file. The mappings are empty.

**Parameters used in PmsApiXMLConfig.config file**

```xml
<Feature Name="ViewDashboards" Enabled="false" Group=""/>
<!--Global: Turn view of dashboard on and off -->
<Feature Name="ListMyRooms" Enabled="true"/>
<!--Suite8: show my assigned rooms for maids--> 
<Feature Name="ListAllRooms" Enabled="true"/>
<!--Suite8: show all assigned rooms for maids--> 
<Feature Name="ChangeRoomStatus" Enabled="true"/>
<!--Global: Option to change room status on and off -->
<Feature Name="ModifyHousekeepingStatus" Enabled="true" Group=""/>
<!--Global: Option to change housekeeping occupied status on and off--> 
```
<Feature Name="ViewMaintenance" Enabled="true" Group=""/>
--Global: Option to view maintenance task-->

<Feature Name="AddMaintenance" Enabled="true" Group=""/>
--Global: Option to add maintenance task-->

<Feature Name="ResolveMaintenance" Enabled="true" Group=""/>
--Global: Option to resolve maintenance task-->

<Feature Name="MaintenancePictureSupport" Enabled="true" Group=""/>
--Global: Option to manage pictures in maintenance task-->

<Feature Name="ProtectExistingComment" Enabled="true" Group=""/>
--Global: if true, new comments are added to existing comments-->

<Feature Name="ViewReservation" Enabled="true" Group=""/>
--Global: Option to view reservations-->

<Feature Name="CheckIn" Enabled="true" Group="COMPLEX"/>
--Global: Option to Check In reservations-->

<Feature Name="AddReservationToQueue" Enabled="true" Group=""/>
--Global: Option to add reservations to queue-->

<Feature Name="ChangePaymentTypes" Enabled="true" Group=""/>
--Global: Option to change payment type-->

<Feature Name="ChangeRoomForArrival" Enabled="true" Group=""/>
--Global: Option to assign room to reservations-->

<Feature Name="CancelReservation" Enabled="true" Group=""/>
--Global: Option to cancel reservations-->

<Feature Name="CreateDoorKey" Enabled="true" Group=""/>
--Global: Option to create key-->

<Feature Name="ChangeGuestAddress" Enabled="true" Group=""/>
--Global: Option to change address of the guest-->

<Feature Name="PostPayments" Enabled="true" Group="GROUP1"/>
--Global: Option to perform payments-->

<Feature Name="CheckOut" Enabled="true" Group="GROUP1"/>
--Global: Option to perform check out-->

<Feature Name="EarlyCheckOut" Enabled="false" Group="GROUP1"/>
--Global: For future releases-->

<Feature Name="PostRevenue" Enabled="true" Group=""/>
--Global: Option to post revenue-->

<Feature Name="AdjustPostings" Enabled="true" Group=""/>
--Global: For future releases-->

<Feature Name="PreviewRegCard" Enabled="true" Group="RegCard"/>
--Global: Option to preview registration card-->

<Feature Name="SignRegCard" Enabled="true" Group="RegCard"/>
--Global: Option to sign registration card-->

<Feature Name="PrintRegCard" Enabled="true" Group="RegCard"/>
--Global: Option to print registration card-->

<Feature Name="PreviewInvoice" Enabled="true" Group="Invoice"/>
--Global: Option to preview folio-->

<Feature Name="ViewInvoiceDetails" Enabled="true" Group="Invoice"/>
--Global: Option to invoice details-->
<Feature Name="PrintInvoice" Enabled="true" Group="Invoice"/>
<Feature Name="UpdateGuestProfile" Enabled="true" Group=""/>
<Feature Name="CustomEmailForFolioSending" Enabled="true" Group=""/>
<Feature Name="ViewHouseStatusConfig" Enabled="true" Group=""/>
<Feature Name="CreditCardPayOnlyPostings" Enabled="true" Group=""/>
<Feature Name="ChangeProfileDetailsOnBillingWindow" Enabled="true" Group=""/>
<Feature Name="AllowRemoveProfileVip" Enabled="true" Group=""/>
<Feature Name="CreateNewBillingWindow" Enabled="true" Group=""/>
<Feature Name="UnassignCreditCardFromBillingWindow" Enabled="true" Group=""/>
<Feature Name="OfflineCreditCardPayment" Enabled="false" Group=""/>
<Feature Name="SkipCCAuthorization" Enabled="false" Group=""/>
<Feature Name="DoNotMoveRoom" Enabled="true" Group=""/>
<Feature Name="ReleaseRoom" Enabled="true" Group=""/>
<Feature Name="SharingReservations" Enabled="true" Group=""/>
<Feature Name="GuestPreferences" Enabled="true" Group=""/>
<Feature Name="AccompanyingGuests" Enabled="true" Group=""/>
<Feature Name="ChargeIt" Enabled="true" Group=""/>
<Feature Name="ReservationAlerts" Enabled="true" Group=""/>

Parameters for UserDataPrivacy:
<Field Name="dateOfBirth" MaskType="Hidden"/>
<Field Name="Telephone" MaskType="Masked" Mask="1-800-PERFECT"/>
Configuring OPERA 5 Hotel Property

Perform the following procedures on the OPERA DB server.

**Activating the License Code**

1. To activate the OPERA to GO license, go to OPERA > Configuration > Set Up > License Codes > HCO > HCO License.

2. Specify settings as shown in the following figure:

3. Activate the OWS license, go to OPERA > Configuration > Set Up > License Codes > OWS > OWS License (OPW_500)
Configuring O2G

Go to Configuration -> Channels -> Channel set up and verify that Channel = O2G is created).

![Image of channel setup](image1.png)

Kiosk Interface

Go to Setup -> Kiosk Interface -> Channel = O2G and create or configure the Kiosk configuration for channel O2G as configured in the screenshot. Do not forget to include all the Forms of payments available.

![Image of kiosk interface](image2.png)

Do not activate Print only those windows paid by guest if this is hotel agent-facing functionality.

Blob Schema

You need a blob schema to save pictures and other files generated by the Hotel Mobile app.

To install a Blob schema:

1. Go to: D:\MICROS\OPERA\tools.
2. Right-click on OPERA_SMT.exe and run the file as an administrator.
3. Click **Start**.

![Opera Schema Management Tool](image)

4. Click **Schema Maintenance**.

![Export and Schema Maintenance](image)

5. Specify settings as follows. Click **Connect**, and then click **Next**.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schema/User</td>
<td>OPERA</td>
</tr>
<tr>
<td>Password</td>
<td></td>
</tr>
<tr>
<td>Oracle Alias</td>
<td>OPERA</td>
</tr>
<tr>
<td>Create New Schema/User</td>
<td>No</td>
</tr>
<tr>
<td>Run Grant Scripts</td>
<td>No</td>
</tr>
</tbody>
</table>

6. Click **Blob Data Schema**.
7. Follow the steps to create the schema (needs SYS password).

The following figure shows a completed schema:

The attachments / blob schema is already configured for this Opera schema.

Registration Cards

1. Go to Configuration -> Set up -> Report Set up -> Reports Registration Card configuration.
2. Select Registration Card from the Report Group drop-down list.
3. Verify that the registration for Hotel Mobile appears in the list. If necessary, add one by clicking New.

**Kiosk Registration Cards**

1. Go to Configuration -> Set up -> Report Set up -> Reports.
2. Select Kiosk Confirmation from the Report Group drop-down list.
3. Click **Edit** or **New** to update with the registration card to be generated by the Hotel Mobile app.

### Application Settings

If more than one registration card is set up in OPERA, configure application settings as follows:

1. Go to Configuration -> Setup -> Application Settings -> Group: General -> Settings -> **DEFAULT ELECTRONIC REGISTRATION CARD** -> setup with the correct Registration Card with the signature merge code.
2. Activate the **KIOSK Parameter** under Configuration -> Set up -> Application Settings -> Kiosk.

3. Set **USE KIOSK E-SIGNATURE REGISTRATION CARD = Y**.

4. To enable check-ins without a credit card on file, go to Configuration -> Set up -> Application Settings -> Kiosk and set **ALLOW GUEST CHECKIN WO CC = Y**.
5. Go to Configuration -> Set up -> Application Settings -> General and set the parameter ATTACHMENT STORAGE = BLOB.

6. Go to Configuration -> Set up -> Application Settings -> Kiosk and activate the parameter OVERRIDE VIDEO CHECKOUT = Y.
7. Verify that **Report Application Server Name** under Configuration -> Set up -> Application Settings -> General -> Settings matches the report server name in **OApp11g**.

8. Go to Configuration -> Set up -> Application Settings -> OWS and set the setting **FETCH RESERVATION = ALL**.
Channel Parameters

1. Go to Configuration -> Channels -> Channel Property Parameters -> Search for channel = O2g and uncheck property check box.
2. Set the channel parameter MASK CC FOR WSRESPONSE = Y.

Hotel Mobile and Print Functionality

Registration cards and folios are transferred as PDFs to the application. To print PDFs, install the PDF Reader on the Hotel Mobile device.

When using the Windows App, registration cards and maintenance pictures are stored temporarily on the Windows machine in folder:
c:\Users\%USERNAME%\AppData\Roaming\OracleHotelMobile\data
A network printer should be installed on the application because the Hotel Mobile application cannot use printers.

**Hotel Mobile and Send E-Mail Functionality**

E-Mails are sent out via PMS configuration, No E-Mail is sent out directly from the app. The PMS needs to be configured to be able to send out E-Mails.

1. Go to OPERA 5-> Configuration->Property -> Delivery Method Maintenance Folio -> Billing and specify settings as shown in the following figure:

![](image)

**Report Builder**

To capture signatures on registration cards, use Report Builder to add the `<signature capture component>` field to the registration card RDF file.

1. On the RDF, draw the field in the appropriate section of the file by holding the left key of the mouse and drag the cursor to the desired field size.

![](image)

2. Double-click the field and specify settings as follows:

   - **Name**: Digital Guest signature
   - **Source**: `<guest_signature_placeholder>`
   - **Visible**: Yes
3. Save the file, compile it, and then export it to the runtimes.

### Activating Services

The following OPERA 5 Web Services must be installed and fully functional:

1. Go to **Start > Search > Services**.
2. Click each service below and set the service to Automatic and Start:
   - Opera Access Point Housekeeping
   - Opera Access Point Lov
   - Opera Access Point Name
   - Opera Access Point Reservation
   - Opera Access Point ResvAdvanced
   - Opera Access Point Security
**OPERA V5 on Premise Recommended Settings:**

Hotel would consider to activate and configure the following applications to take full advantage of the Hotel Mobile Application:

- CASHIERING
- ROUTING
- CASHIERING
- ARTICLES
- PROFILES
- Future & Past Stays
- PROFILES
- HISTORY
- PROFILES
- VIP
- RESERVATIONS
- ACCOMPANYING GUEST
- RESERVATIONS
- ALERTS
- RESERVATIONS
- DO NOT MOVE ROOM
- RESERVATIONS
- SHARES
- ROOMS MANAGEMENT
- ATTENDANT POINTS
- ROOMS MANAGEMENT
- DISCREPANT ROOMS
- ROOMS MANAGEMENT
- MAINTENANCE
- ROOMS MANAGEMENT
- QUEUE ROOMS
- ROOMS MANAGEMENT
- SIMPLE TASK ASSIGNMENT
- ROOMS MANAGEMENT
- TASK ASSIGNMENT
- ROOMS MANAGEMENT
- TASK ASSIGNMENT WORKFLOW
- ROOMS MANAGEMENT
- TURNDOWN
- ROOMS MANAGEMENT
- INSPECTED_STATUS
- ROOMS MANAGEMENT
- OUT_OF_ORDER
- ROOMS MANAGEMENT
- OUT_OF_SERVICE
- ROOMS MANAGEMENT
- PICKUP_STATUS
7 Configuring the OPERA 5 Hotel Property Interface

Configure the OPERA 5 Hotel Property interface to support adding and changing payment methods by capturing the card data with a pin entry device.

1. Go to Configuration>Setup -> Property Interfaces -> Interface Configuration and check for an active Interface running with CCW or EFT IFC Type with a Payment Partner that supports EMV.

2. Go to Setup -> Application Settings -> IFC Group ->Parameters ->CHIP AND PIN and verify that the parameter is active.

3. Go to Setup -> Property Interfaces -> Credit Card Interface -> Functionality and Setup -> Card Specific Rules. Configure existing Payment Types as Chip and Pin Types.
4. For Hotel Mobile to allow the selection of a device, you need to receive the LOV for terminals and devices. This needs to be the mobile terminals and devices configured on the **Workstation Setup** tab in the CCW/EFT IFC Configuration.
Configuring Suite8

Most of the Suite8 Property configuration is taken as it is used for a hotel operation. For example, the room types are used as they are used in the Suite8 Property using the FAT client. Functionality such as Maintenance and a correct Housekeeping setup help to use Hotel Mobile as it is designed for. The following Suite Property configuration settings are needed.

**XML Interface**

2. Enter the paths in the Report Cache Folder and Report Export Folder fields where the system stores the temporary registration cards and folios.

<table>
<thead>
<tr>
<th>Report Cache Folder</th>
<th>c:\temp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Export Folder</td>
<td>c:\temp</td>
</tr>
</tbody>
</table>

**Kiosk Interface**

2. Select a default Registration Card.
3. Enter the path in the Report Export Path field where the system stores the reports for the Kiosk Interface.

<table>
<thead>
<tr>
<th>Kiosk Interface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Card</td>
</tr>
<tr>
<td>Report Export Path</td>
</tr>
</tbody>
</table>

The cache folders used by the XML Interface and Kiosk Interface must be on the XML Interface workstation.

**Registration Card**

1. Go to Suite8 Setup -> Global Settings -> Reservation -> Reservation 4 tab to define the registration card used for Hotel Mobile.
2. Select the Registration Card Template to support the signature placeholder.

<table>
<thead>
<tr>
<th>Registration cards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Card Template</td>
</tr>
</tbody>
</table>

**Folio Style**

1. Go to Suite8 Setup -> Global Settings -> Reservation -> Reservation 1 tab to define the folio style used for Hotel Mobile.
2. Select the Default Folio Style for Reservations.
**Maintenance**

Hotel Mobile can manage maintenance tasks. Activate the maintenance module in the Global Settings as follows:

1. Go to Suite8 Setup -> Global Settings -> Generic -> Generic 3.
2. Select **Hotel Maintenance**.

   ![Generic Configuration](image)

3. Configure the Maintenance Module as described in the Suite8 Property Help.
4. Create a user for every maintenance worker who logs in to Hotel Mobile.
5. The minimum configuration is to support **Maintenance Types** under Suite8 Setup -> Miscellaneous -> Maintenance. It offers more functionality that can be configured as described in the document.

**Housekeeping**

The housekeeping component of Hotel Mobile works without additional configuration. Hotel Mobile supports assigning rooms to maids for cleaning and separate logins for maids and housekeeping supervisors. Maids can only see their assigned rooms. Housekeepers can also see rooms assigned to other maids.

At a minimum, configure settings as follows:

**Attendant Group**

1. Go to Suite8 Setup -> Reservations -> Attendants Groups.
2. Define one group with the role **Maid** and one with the role **Housekeepers**.

   ![Attendant Group Configuration](image)
Attendants

1. Go to Suite8 Setup -> Reservations -> Attendants.
2. Define as many attendants as needed and assign the role to these attendants.
3. Create a user for every attendant who logs in to Hotel Mobile.
4. Link this user to the attendant by selecting it in the User field.
5. Refer to the Suite8 Property Help File for more information on assigning rooms to maids for cleaning, creating housekeeping tasks, and creating notes.

User Rights

All Suite8 Property users which should be able to log into Hotel Mobile need the according user right.
1. Go to Suite8 Setup -> Users -> User Definition and select the user.
2. Go to Rights -> Miscellaneous and activate the user right Mobile Login.
3. Go to user right **Hotel Maintenance** and activate the corresponding rights.
4. Go to user right **Attendants** and activate the corresponding right.
5. Repeat these steps for all users.
6. Set additional user rights according to hotel requirements.

![User Rights for Manager01 Manager01](image)

- Miscellaneous: Y N Y Y
- Mobile Login: Y N Y Y
- Configuration: Y Y
  - Hotel Maintenance: Y Y
  - Maintenance Edit: Y Y
  - Maintenance Search: Y Y
- Housekeeping: Y Y
  - Attendants: Y Y
9 Installing the Hotel Mobile Application

This section explains how to install the Oracle Hospitality Hotel Mobile application on Microsoft Windows devices.

1. Download the Oracle Hospitality Hotel Mobile 1.4.0.0 (1.40) software for Windows installations from: https://edelivery.oracle.com/. Future patch versions will be available on MOS My Oracle Support.

(Please note that Hotel Mobile for iOS and Android installations need to be downloaded in the corresponding app stores. There is always only the latest release available in those stores, there is no option to download older versions.)

Windows version available on https://edelivery.oracle.com/:

2. Unzip the installation file to a temporary location.

3. Run setup.exe.

4. If prompted to install the Microsoft 4.7.2 .Net Framework, click Yes.

5. Click Finish.

![InstallShield Wizard Completed]

The installation wizard creates a shortcut:

6. Start the application.

7. On the next screen, specify settings as shown in the following example, and then click Done.
Link to RestAPI: No specification (OPERA, Suite8, or Resort Code)

The URL: https://<Localhost (IP address or machine name)>/RESTAPI

The code {} is the request code from PmsApiXMLConfig.config

```
<RequestCode>OPERA</RequestCode>
```

8. Enter the OPERA or Suite8 user name and password, and then click Sign In.
To verify that RestAPI is up and running

- To verify RestAPI availability a standard RestAPI client can be used, i.e. Google Advanced RestAPI Client or Firefox PlugIn RESTClient
- A help file for the RestAPI is installed automatically and can be located at https://SERVERNAME/RestAPI/Help/
- The first call from the app to the RestAPI is always the user validation
- The result from the RestAPI is a combination from user rights (PMS), PmsApiXMLConfig.config (features setting) and connected PMS

```json
{
    "UserName": "USERNAME",
    "Password": "PASSWORD",
    "HotelCode": "OPERA",
    "Language": "en-US"
}
```

RestAPI / first answer from RestAPI:
Error message when calling RestAPI

- In case you call the RestAPI URL and see below error, please follow the instructions after the error message screenshot.

HTTP Error 500.19 - Internal Server Error

The requested page cannot be accessed because the related configuration data for the page is invalid.

Solution

The issue is that Oracle database client is also installed on the Oracle database server, which will put the same config definition from the top into a higher level configuration file, the machine.config. When experiencing this issue you should do following:
Go to oracle database installation and to this subfolder, depending of the installation location:
c:\oracle\12.1.0\client\ODP.NET\managed\x86

Open an administrator prompt and run:
unconfigure.bat

Repeat the command in the following folder:
c:\oracle\12.1.0\client\ODP.NET\managed\x64
unconfigure.bat

This command will remove the oracle.manageddataaccess.client from machine.config configuration
and also remove the .net drivers from the shared assembly cache.

Restapi deploys its own updated version of the oracle drivers during installation.

**Installation of RestAPI Monitoring Tool**

The RestAPI monitoring tool is available from Hotel Mobile patch release 1.4.1.0 (1.41) onwards and is
included in the RestAPI installation zip file available on MOS.

The monitoring tool can be used to perform an analysis of the calls used by the RestAPI from the Hotel
Mobile apps to the connected PMS and to detect any errors in the calls. You can easily see which call
exactly is failing and then perform an error search for this specific call.

1. For the installation, create a folder called **PmsApiMonitoring** in c:\inetpub\wwwroot\ 
2. Extract the files from the installation zip into this folder.

3. Open Internet Information Services (IIS) Manager console.
4. Create a new web site called **PmsAPIMonitoring** and point it to the 
   C:\inetpub\wwwroot\PmsApiMonitoring folder.
5. Assign a valid application pool. You can use the same that is used for the RestAPI.
6. Go to a browser and call the tool URL using the name or IP of the server where you installed the web site: https://SERVER_NAME_OR_IP/PmsAPIMonitoring. The login page for the monitoring page will appear.

7. Enter the required information.
   - **URL**: the URL of the RestAPI, i.e. https://SERVERNAME_OR_IP/RestAPI
   - **Hotel Code**: the hotel code used in the RestAPI
   - **User Name**: a valid RestAPI user name
   - **Password**: a valid password for the user name
   - **Refresh Interval (sec)**: the time in seconds after which the page will refresh automatically. Recommended is 300 seconds.
   - **Optional Reservation Id (resv)**: you can run the monitoring tool for a specific reservation. If you want to do that, enter a valid reservation ID. Otherwise leave the field empty.
   - **Optional Customer Id**: you can run the monitoring tool for a specific customer profile. If you want to do that, enter a valid profile ID. Otherwise leave the field empty.

8. Press the **Execute** button to start the monitoring tool.
9. The tool will start to process and connect to the specified RestAPI and perform a call for every available call method.

10. In the table you can see:
    - **Method**: the call method used.
    - **Status**: green or red, depending if the call was successful or not
    - **Execution time**: how long it took to execute the specific call
    - **Next execution in (sec)**: time in seconds until the call is performed again
    - **Error**: error message in case of an error
    - **Min**: the shortest time it took to perform the call
    - **Max**: the longest time it took to perform the call
    - **Avg**: the average time it took to perform the call
    - **Size**: the size of the call result message
    - **Count**: the number of records in the call result
    - **PMS Method**: the call used to connect to the specified PMS

11. The monitoring tool will run continuously until you click the STOP button or close the web page.