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Chatbot Configuration Guide

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Preface

About This Document

This document provides an overview for the **Chatbot** feature. It helps you to understand how to configure Chatbot in the Oracle Revenue Management and Billing On-Premise Solution and Oracle Revenue Management and Billing Cloud Service.

Intended Audience

This document is intended for the following audience:

- End-Users
- System Administrators
- Consulting Team
- Implementation Team

Organization of the Document

The information in this document is organized into the following sections:

Section No.	Section Name	Description
Section 1	Chatbot Overview	Provides an overview for the **Chatbot** feature.
Section 2	Chatbot Configuration in ODA	Lists and describes the steps that you need to perform in Oracle Digital Assistant (ODA) to configure Chatbot for ORMB using ODA.
Section 3	Chatbot Configuration in ORMB	Lists and describes the steps that you need to perform in Oracle Revenue Management and Billing (ORMB) to configure Chatbot for ORMB using ODA.
Section 4	Using Chatbot in ORMB	Explains how to use the Chatbot feature in ORMB.

Acronyms

The following acronyms are used in this document:

Acronym	Meaning
ORMB	Oracle Revenue Management and Billing
ODA	Oracle Digital Assistant
IDCS	Oracle Identity Cloud Service
AMS	Application Management System

Related Documents

You can refer to the following documents for more information:

Document Name	Description
Oracle Revenue Management and Billing Banking User Guide	Describes various features which are available for the financial services business. For example, customer registration, customer 360° view, invoicing group, pricing management, multi-currency accounts, currency conversion, construct based billing and settlement, trial billing, product lifecycle management, subscription billing, mass pricing update, accrual, foreign exchange gain loss, transaction feed management, upload validated payment and adjustment data, freeze payments on notification, payment request, offset request, funding request, hold request, refund/write off request, dispute request, upload request, earnings credit rate, payment agreement request, invoice request, deal management, etc.
	It describes all screens related to these features and explains how to perform various tasks related to the feature in the application.
Oracle Revenue Management and Billing Chatbot User Guide	Explains how to use the Menu Based Chatbot introduced in Oracle Revenue Management and Billing.

Conventions

The following conventions are used across the document:

Convention	Meaning
boldface	Boldface indicates graphical user interface elements associated with an action, or terms defined in the text.
italic	Italic indicates a document or book title.
monospace	Monospace indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or information that an end-user needs to enter in the application.

Contents

1.   Chatbot Overview

Oracle Revenue Management and Billing provides digital assistance to end-users using Oracle Digital Assistant (ODA). You can use the digital assistant, also known as detective Chatbot, to have conversational experiences with ORMB through text, chat, and voice interfaces.

We have introduced a **Menu Based Chatbot** in Oracle Revenue Management and Billing. The **Menu Based Chatbot** facilitates the user to choose from several options, presented in the form of menus and sub menus. For more information about the Chatbot feature, refer to *Oracle Revenue Management and Billing Banking User Guide* and *Oracle Revenue Management and Billing Chatbot User Guide*.

Note: At present, the **Chatbot** feature is tested and certified only for the financial services domain. As a result, the Chatbot feature is only available in the Oracle Financial Services Revenue Management and Billing Cloud Services.

To implement and use the **Chatbot** feature in the Oracle Financial Services Revenue Management and Billing On-Premise Solution, you need to do the following:

1. Procure the license for Oracle Digital Assistant (ODA) (in case you do not have the ODA license)
2. Integrate ODA with ORMB (by following the instructions given in this document)

However, if you want to use the **Chatbot** feature in the Oracle Financial Services Revenue Management and Billing Cloud Services, you can opt for either of the following approach:

- You can simply use Oracle Digital Assistant (ODA) which is embedded in the Oracle Financial Services Revenue Management and Billing Cloud Service. Here, the Chatbot configuration in Oracle Digital Assistant (ODA) and Oracle Financial Services Revenue Management and Billing Cloud Service will be managed by the respective Application Management System (AMS) team.

- Alternatively, if you already have Oracle Digital Assistant (ODA) license, then you need to configure Oracle Digital Assistant (ODA) as mentioned in the [Chatbot Configuration in ODA](#) section. The Chatbot configuration in the Oracle Financial Services Revenue Management and Billing Cloud Service will be managed by the respective Application Management System (AMS) team.

2. Chatbot Configuration in ODA

To configure Chatbot for Oracle Revenue Management and Billing using Oracle Digital Assistant (ODA), you need to perform the following steps in ODA:

1. Download the 34867347 Patch
2. Import the ORMB Chatbot Skill in ODA
3. Activate Insights for ORMB Chatbot Skill
4. Publish the ORMB Chatbot Skill
5. Create a Channel for ORMB Chatbot
6. Set Custom Parameters for the ORMB Chatbot Skill
7. Create an Authentication Service for ORMB Chatbot

2.1 Downloading the 34867347 Patch

Oracle Revenue Management and Billing provides an out-of-box product-specific skills for Oracle Digital Assistant (ODA) which facilitates a natural conversational user interface via chat or speech to text facility. The ORMB V50000 Chatbot skill for ODA is published by ORMB through the **34867347** patch on My Oracle Support.

You must download the **34867347** patch from My Oracle Support. When you unzip the downloaded file, the contents include the **34867347** folder. This folder contains a zip file named **ORMBChatBot(2.1)** and a **readme.txt** file. The **ORMBChatBot(2.1)** zip file has ORMB-specific skills for Oracle Digital Assistant (ODA).

2.2 Importing the ORMB Chatbot Skill in ODA

To import the ORMB Chatbot skill in ODA, you need to:

1. Login to Oracle Digital Assistant (ODA). The **Oracle Digital Assistant** screen appears.
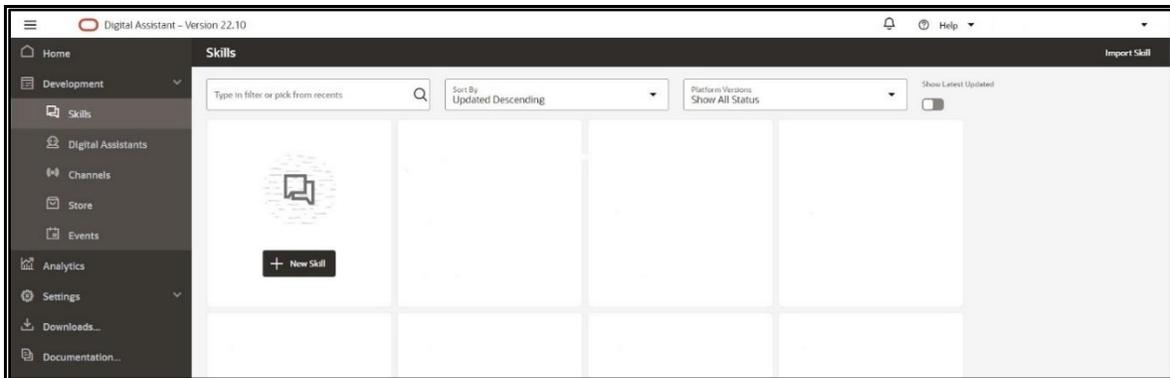
Figure 1: ODA Window

2. From the **Development** menu, select the **Skills** option. The **Skills Catalog** page appears in the right pane of the screen.

3. Click the **Import Skill** option in the upper-right corner of the **Skills Catalog** page. The **Open** dialog box appears.

4. Browse and select the **ORMBChatBot(2.1).zip** file and then click **Open**. The ORMB Chatbot skill is imported in ODA and its details appear in the **Skills Catalog** page.
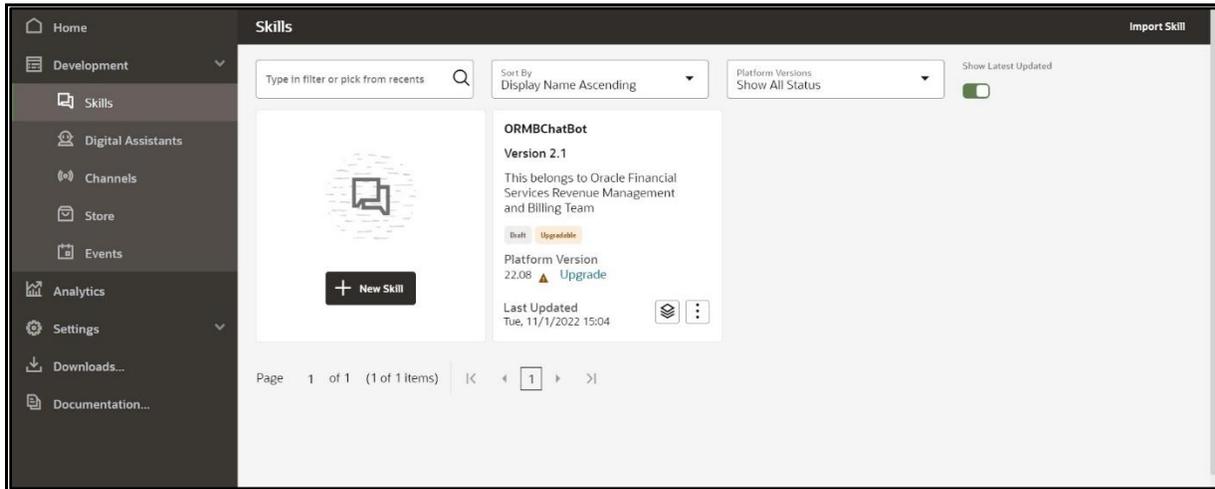
Figure 2: ORMB Chatbot Skill

2.3 Activating Insights for ORMB Chatbot Skill

By default, the Insights reporting is disabled for the imported skills. To activate the Insights reporting for the imported skill:

1. Click the ORMB Chatbot skill (which we have imported) in the **Skills Catalog** page. The ORMB Chatbot Skill details appear in the right pane.

2. Click the **Settings** (⚙) icon. The **Settings** page appears in the right pane of the screen.
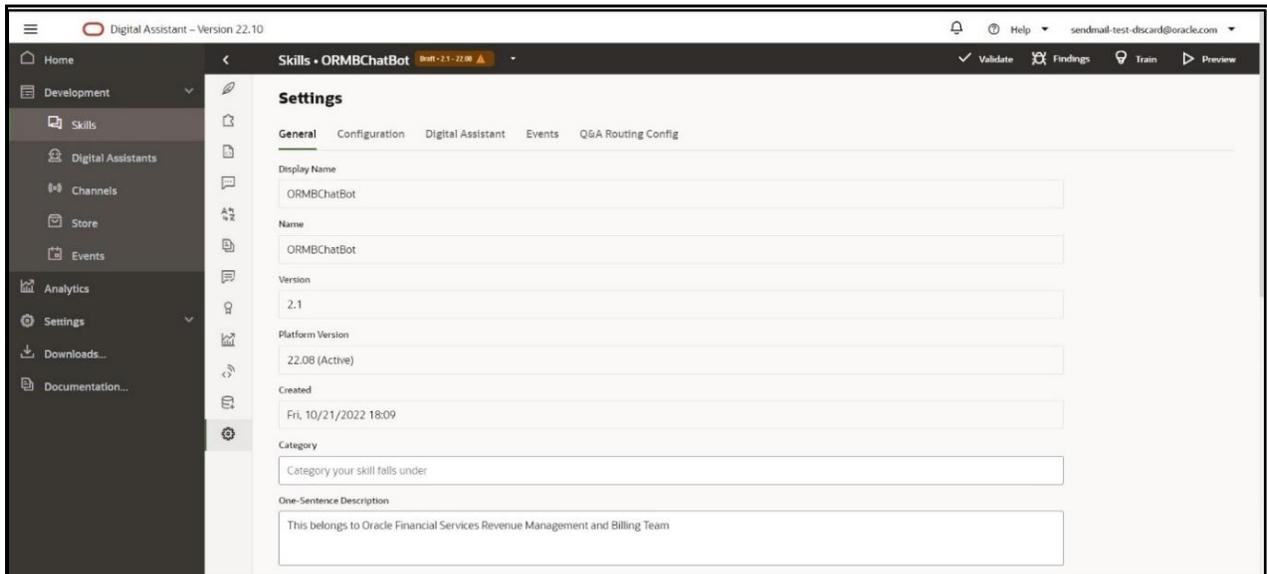
Figure 3: Settings Page

3. Turn on the **Enable Insights** toggle button in the **Settings** page.

2.4 Publishing the ORMB Chatbot Skill

To publish the ORMB Chatbot skill:

1. Click the **Options** (⋮) icon corresponding to the ORMB Chatbot skill in the **Skills Catalog** page. A menu appears.

2. Click **Publish**. The ORMB Chatbot skill now has a lock icon which indicates that it is published.

2.5 Creating a Channel for ORMB Chatbot

To expose your digital assistants and standalone skills to users, you need to create a channel in Digital Assistant. Channels carry the chat back and forth from users on various messaging platforms to the digital assistant and its various skills.

To create a channel for ORMB Chatbot:

1. From the **Development** menu, select the **Channels** option. The **Channels** page appears in the right pane of the screen.

2. Click **Add Channel**. The **Create Channel** window appears.

Figure 4: Create Channel Window

3. Enter **ORMBWebChannel** in the **Name** field.

4. Enter **Channel for Oracle Revenue Management and Billing Chatbot** in the **Description** field.

5. Select the **Oracle Web** option from the **Channel Type** list.

6. If you want to enable the client-side authentication, turn on the **Client Authentication Enabled** toggle button.

7. Specify the Oracle domain name in the **Allowed Domains** field.

8. Click **Create**. The **ORMBWebChannel** page appears in the right pane of the screen.

Figure 5: ORMBWebChannel Page

9. Ensure that you note down the Channel ID and Secret Key of the ORMB Chatbot channel for future reference.

10. Select the **ORMBChatBot(2.1)** skill from the **Route To** list.

11. Turn on the **Channel Enabled** toggle button. The **ORMBWebChannel** page appears as shown below:

Figure 6: ORMB Chatbot Channel

2.6 Setting Custom Parameters for the ORMB Chatbot Skill

To set the custom parameters for the ORMB Chatbot skill:

1. From the **Development** menu, select the **Skills** option. The **Skills Catalog** page appears in the right pane of the screen.

2. Click the ORMB Chatbot skill (which we have imported) in the **Skills Catalog** page. The ORMB Chatbot Skill details appear in the right pane.

3. Click the **Settings** (⚙) icon. The **Settings** page appears in the right pane of the screen.
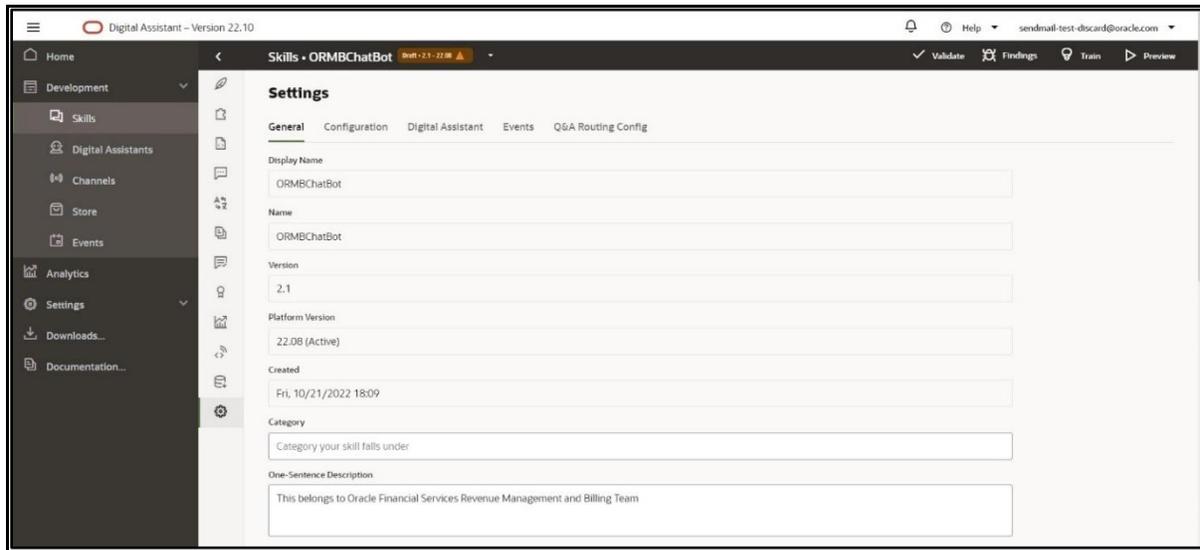
Figure 7: Settings Page

4. Click the **Configuration** tab in the **Settings** page. The **Configuration** tab appears.
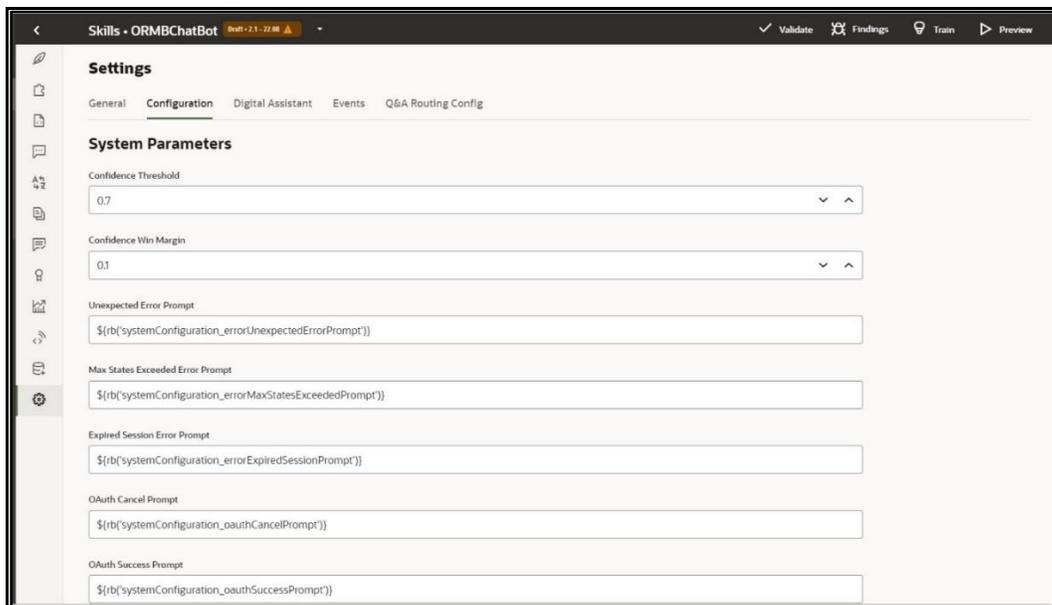
Figure 8: Configuration Tab

5. Specify the ORMB application host name and port number as the **businessServiceUrl** parameter value.

2.7 Creating an Authentication Service for ORMB Chatbot

Once you define the custom parameters for the ORMB Chatbot Skill, you need to create an authentication service named **IDCS_ORMBChatbot** for ORMB Chatbot. Before creating an authentication service for ORMB Chatbot, you need to get the Client ID, secret, and scope of the ORMB application from Oracle Identity Cloud Service (IDCS) directly or with the help of the respective Application Management System (AMS) team.

To create an authentication service for ORMB Chatbot, refer to the instructions given in the following URL:

https://docs.oracle.com/en/cloud/paas/digital-assistant/use-chatbot/backend-authentication.html#GUID-3337DC59-0C03-4A0A-8B84-153D4F892839

3. Chatbot Configuration in ORMB

To configure Chatbot for Oracle Revenue Management and Billing using Oracle Digital Assistant (ODA), you need to perform the following steps in ORMB:

1. Configure Chatbot in ORMB
2. Verify the ODA Chatbot Installation in ORMB
3. Refresh the ORMB Environment
4. Invoke the ChatbotCredService Service

> **Note:**
>
> This section is applicable when you want to use the **Chatbot** feature in the Oracle Financial Services Revenue Management and Billing On-Premise Solution. However, if you want to use the Chatbot feature in the Oracle Financial Services Revenue Management and Billing Cloud Service, the Chatbot configuration in the Oracle Financial Services Revenue Management and Billing Cloud Service will be managed by the respective Application Management System (AMS) team.

3.1 Configuring Chatbot in ORMB

To enable Chatbot for ORMB, you need to set the **com.oracle.oda.chatbot.intg.reqd** parameter in the CCB_spl.properties.exit.include file to **Y**. Note that the CCB_spl.properties.exit.include file is available in the $SPLEBASE/templates directory.

Also, if you have enabled the client-side authentication in the ORMB Chatbot channel, you need to set the **com.oracle.oda.channel.auth.enabled** parameter in the CCB_spl.properties.exit.include file to **Y**.

3.2 Verifying the ODA Chatbot Installation in ORMB

To verify the ODA Chatbot installation in ORMB, you need to:

1. Ensure that the ChatbotConfig.jsp file is placed at the $SPLEBASE/splapp/applications/root/c1/extensions location.
2. Ensure that the chatbot folder is available at the $SPLEBASE/splapp/applications/root/c1 location.

3.3 Refreshing the ORMB Environment

To reflect the changes made in the template configuration files on the ORMB environment:

1. Initialize the application environment where you want to reflect the changes using the following command:

   AIX, Linux:

   $SPLEBASE/bin/splenviron.sh -e $SPLENVIRON

   Windows:

   $SPLEBASE\bin\splenviron.cmd -e %SPLENVIRON%

2. Update the application war file with the latest changes by executing the following command:

AIX, Linux:

$SPLEBASE/bin/initialSetup.sh

Windows:

%SPLEBASE%\bin\initialSetup.cmd

3.4 Invoking the ChatbotCredService Service

To establish the connection between Oracle Digital Assistant and Oracle Revenue Management and Billing, you need to provide the ODA channel details in ORMB through a REST based inbound web service named **ChatbotCredService**. You can invoke the **ChatbotCredService** service using the https://hostname:port/ouaf/rest/ouaf/api/iws/ChatbotCredService/chatbot URL through an API client.

Before invoking the **ChatbotCredService** service, you need to ensure that the ODA channel connection request contains the following tags:

Tag Name	Tag Description	Mandatory (Yes or No)
odaChannelId	Used to specify the ORMB Chatbot channel ID. **Note:** Here, you need to specify the channel ID which was generated while creating a channel for ORMB Chatbot.	Yes
odaURI	Used to specify the URI of Oracle Digital Assistant (ODA) (in which you have created the ORMB Chatbot channel).	Yes
odaChannelSecret	Used to specify the secret key of the ORMB Chatbot channel.	Yes

Sample ODA Channel Connection Request in JSON Format

```
{
    "C1-CBLOGIN_SERVICE": {
        "odaChannelSecret": "XXXXXXX",
        "odaURI": "https://idcs-oda-
        ad1a4136a4a748cda8bb72619d893dedt0.data.digitalassistant.oci.oc-test.com/",
        "odaChannelId": " 2819b228-8122-4835-a6a0-725343f27343"
    }
}
```

4.   Using Chatbot in ORMB

Once you connect ODA channel with the ORMB application, you need to login to Oracle Revenue Management and Billing. Note that the **Chatbot** icon appears (as highlighted in the below image) in the lower-right corner of the ORMB screen.
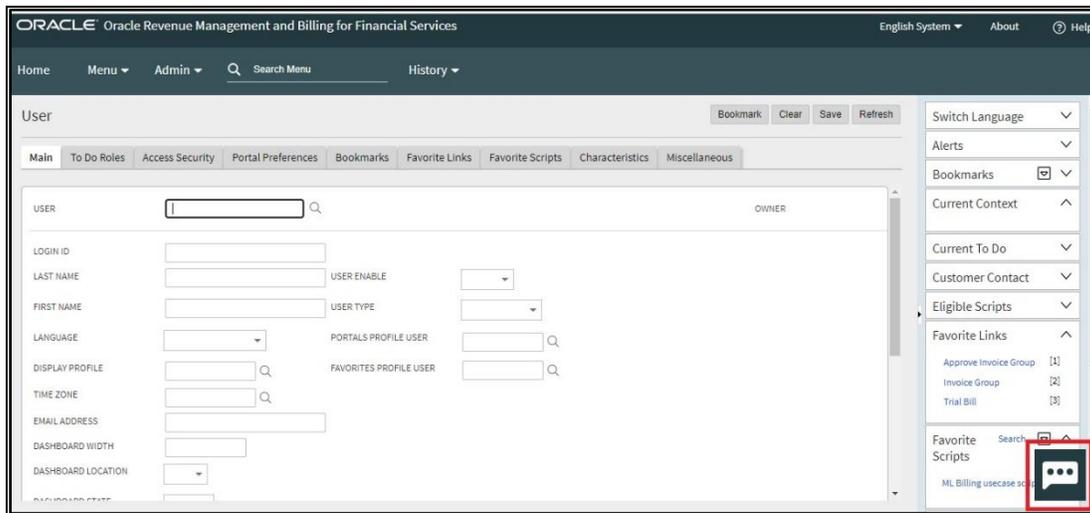
Figure 9: Chatbot Icon

On clicking the **Chatbot** icon, the **Chatbot** window appears with a list of ORMB-specific menu options.
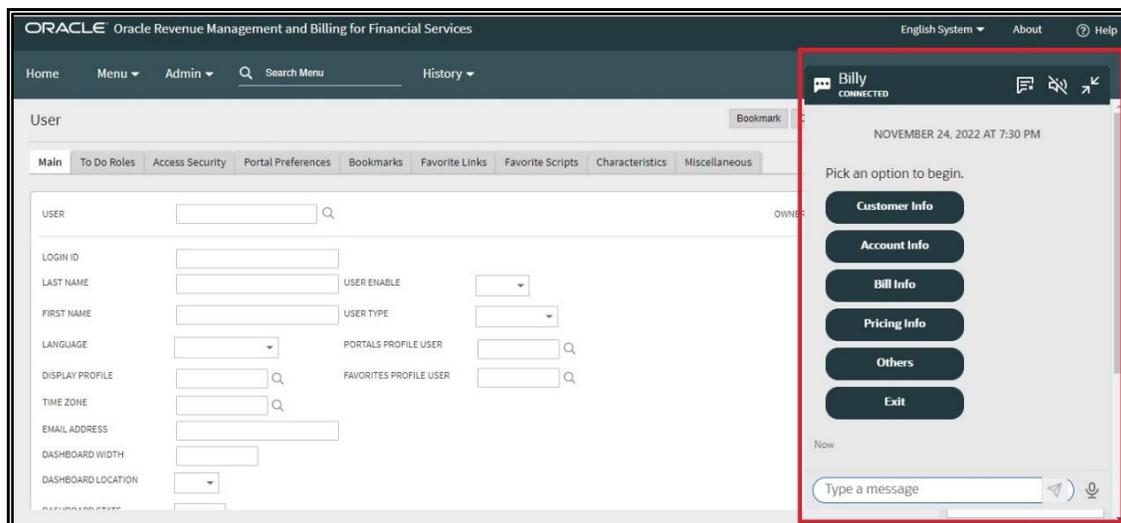
Figure 10: Chatbot Window

For more information about the Chatbot feature, refer to *Oracle Revenue Management and Billing Banking User Guide* and *Oracle Revenue Management and Billing Chatbot User Guide*.