



RAINBOW CRM BRIDGE – SALESFORCE CRM DEPLOYMENT GUIDE

Rainbow CRM Bridge - Salesforce Deployment Guide



Rainbow™

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1 Document History

Edition	Date	Changes / Comments / Details
01	06/12/2021	Initial Deployment Guide
02	11/03/2022	License statement has been updated. Section 4.7.1 Rainbow connector class code has been updated.
03	22/03/2022	Section 7 New section has been added. Remaining sections have been renumbered. Section 9 New section has been added.
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07	02/06/2022	Section 8 Details about international prefix has been added. Screenshots have been added.
08	01/07/2022	Section 10 New section has been added.
09	02/08/2022	Section 4.7.1 Code for RainbowConnector apex class has been removed. Section 8 Note with details for displaying cases in salesforce app has been added. Section 10 New limitation has been added.
10	18/08/2022	Section 4.1 Code for configuring lightning mode has been removed. Section 6 Screenshot for connector has been updated. Section 9 A note about pop up blocker has been added. Section 10 New section has been added and remaining sections have been renumbered.
11	02/09/2022	Section 9 New section has been added and remaining sections have been renumbered.
12	20/09/2022	Legal notice has been updated. Section 3

Edition	Date	Changes / Comments / Details
		<p>New section has been added and remaining sections have been renumbered.</p> <p>Section 10 Title of section has been updated. Details about click to call feature has been added. New screenshots have been added.</p>
13	20/10/2022	<p>Section 13 Limit # 3 has been updated.</p>
14	24/11/2022	<p>Section 10 Details about new default call parameter has been added.</p>
15	05/07/2023	<p>Legal notice has been updated.</p> <p>Section 5.1 Details about bot user option has been added.</p> <p>Section 5.7.2 Details about a text file has been added. Code snippet has been removed.</p> <p>Section 12 New section about Bot User has been added. Remaining sections have been renumbered.</p>
16	11/10/2023	<p>Screenshots have been updated.</p> <p>Section 10 New section about configuring objects has been added. Remaining sections have been renumbered.</p> <p>Section 11 New section about configuration to bypass validation rules has been added. Remaining sections have been renumbered.</p> <p>Section 12 New default parameters have been added with information about their configuration.</p> <p>Section 16 New limitation related to CCD agent has been added.</p> <p>Section 17 New section about troubleshooting has been added.</p>
17	11/12/2023	<p>Section 12 New default parameter has been added with information about their configuration.</p>
18	21/02/2024	<p>Section 12 New default parameter has been added with information about their configuration.</p>
19	20/03/2024	<p>Section 5.3 Section has been removed due to redundancy. Remaining sections have been renumbered.</p> <p>Section 5.4 Section has been removed due to redundancy. Remaining sections have been renumbered. New section about global call id field has been added.</p> <p>Section 5.6 Section has been removed due to redundancy. Remaining sections have been renumbered.</p>
20	23/07/2024	<p>Section 9 Details about calling options & softphone dimensions have been added.</p>

Edition	Date	Changes / Comments / Details
21	25/11/2024	Section 5.5 New section about phone number in call logs has been added. Section 12 New default parameter has been added with information about their configuration. Section 15 Title of the section has been updated. New subsections have been added.
22	11/12/2024	Section 8 Title of the section has been updated. Screenshots have been updated. Section 14 New section about Session Settings has been added and rest of the sections have been renumbered.
23	27/03/2025	Legal notice has been updated. Section 15 New section about Enable Apex Class for User Profile has been added and rest of the sections have been renumbered.

2 Introduction

Rainbow CRM Bridge acts as a middleware that connects third party CRMs e.g. ServiceNow, MS Dynamics 365, Zoho etc. with ALE Rainbow. Rainbow CRM Bridge is hosted in ALE Cloud and works inside third-party CRMs as an integrated component.

The integrated version of Rainbow powered by Rainbow CPaaS APIs, eliminates the need of a separate desktop application and brings the power of Rainbow inside the everyday business applications like ServiceNow.

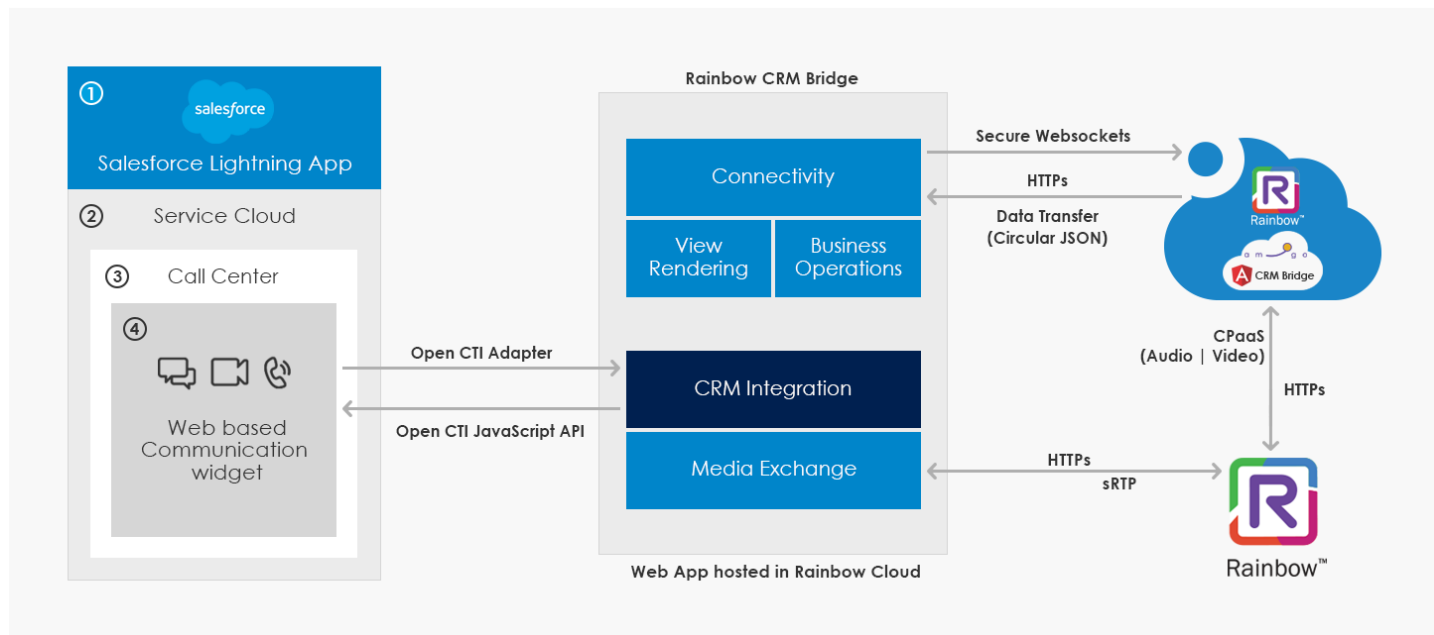
Rainbow CRM Bridge uses the CPaaS platform to pull Rainbow user details e.g. Contacts, Conversations and Bubbles. This enables the logged in user to receive Rainbow Calls, Office PBX calls and perform variety of actions including Audio and Video calls.

For more details on Rainbow CRM Bridge, please refer to the datasheet.

3 Architecture

The below diagram outlines a functional flow where Rainbow CRM Bridge application is acting as a central hub. One end is communicating with Rainbow Cloud using Rainbow WebSDK for different business operations like Rainbow user login, session handling, contacts management, conversations, Audio and Video calls etc. and the other end is bridging with Salesforce CRM, using Open CTI JavaScript API for 'Click To Dial' functionality and to retrieve customers/contacts information

Rainbow CRM Bridge - Technical Architecture Diagram



4 Rainbow Subscription & PBX Configuration

Before integrating Rainbow CRM Bridge with Salesforce, you must ensure that following configuration requirements related to telephone system are fulfilled. Integration with Salesforce CRM can be achieved without these configurations but they are vital for provisioning of telephony capabilities in Rainbow CRM Bridge.

4.1 Equipment Configuration

Rainbow CRM Bridge supports all available “Server Type” options such as OmniPCX Office (OXO) Connect, OmniPCX Enterprise (OXE) and 3rd Party PBXs. All supported telephone systems along with their supported versions are listed in the below table:

Telephone Systems	Supported Versions
OmniPCX Enterprise (OXE)	v12 or higher
OmniPCX Office (OXO) Connect	R3.x or higher
CISCO Unified Communication Manager (CUCM)	v9.x, 10.x, 11.x, 12.x
Mitel MiVoice	MiVoice 250
NEC	iS3000, iS4000
Asterisk	v11.21.1, v11.21.2, v11.21.3, v16.x, v17.x
OpenScape	OpenScape 4000

'Activate webRTC Gateway' option must be enabled if you intend to use Rainbow CRM Bridge application for VOIP calls. For more information on this, please refer to the following links:

<https://support.openrainbow.com/hc/en-us/articles/360017561039-Manage-a-PBX-Equipment-Associated-to-a-Company>

<https://support.openrainbow.com/hc/en-us/articles/360019337180-WebRTC-gateway-installation-and-configuration-for-third-party-PBX>

For OmniPCX Enterprise and OmniPCX Office Connect, CCCAgent application must be setup. However, for other telephone systems (CUCM, Mitel MiVoice, NEC and Asterisk), Rainbow CTI & Media Bridge application must be setup.

TAPI, CSTA, SIP Trunk and other PBX specific licenses are essential pre-requisite for setting up CCCAgent and Rainbow CTI & Media Bridge application. Please check with your telephone system vendor for licenses status and their activation.

5 Setting Up Integration with Salesforce CRM

5.1 Configuration file for Lightning mode

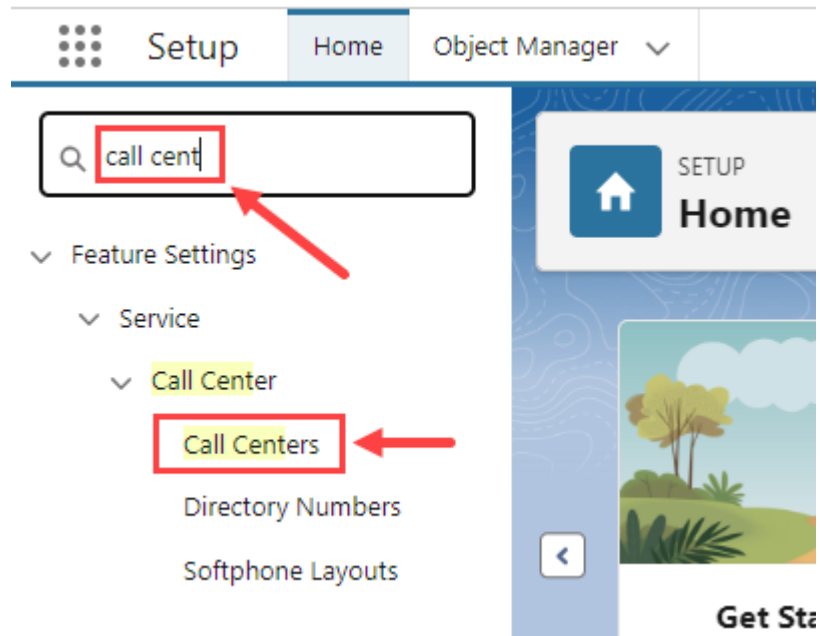
The code required to configure Lightning mode is available separately in the txt file titled LightModeConfiguration. Copy the code from that txt file and save it as "callCenterRainbow.xml". Please make the following updates in the code:

- Specify in the options "**CTI AdapterURL**" and "**CTI standby AdapterURL**", the url of the connector provided by ALE.
- Specify in the option "**Salesforce Search Object**", the Salesforce object used for the search. The possible values are:
 - Contact,Account,Lead
- Specify in the option "**Salesforce Create Object**", the Salesforce object used for create record if record is found. The possible values are:
 - Account
 - Contact
- Specify in the option "**Salesforce Search by using CorrelatorData**", if the search uses the correlator. If the result is empty, the phone number is used.
- Specify in the option "**Outside Prefix**", the prefix used to make the call from the click-to-call.
- Specify in the option "**Number of digits for internal call**", the maximal number of digits for internal call.
- Specify in the option "**Number of results to display search link**", the number of found objects with the calling /called number.
- Specify in the option "**Allow user to modify parameters**", if the user can modify the RainbowConnector properties
- Specify in the option "**Default parameters**", the default parameters for the user if the user doesn't have value in RainbowConnectorProfile field.
- Specify in the option "**Allow user to answer call by clicking in the notification**", if the user can answer call by clicking on the web notification
- Specify in the option "**Timeout in seconds for web notification**", the duration to display the web notification. 0 means that the web notification is not displayed
- Specify in the option "**Activate SSO mode**" the authentication mode to be used. Set to true if Single Sign On is used. Default value is false.
- Specify in the option "**Display automatically the search dialog**", if the Salesforce Search is displayed for 0 and multiple results.
- Specify a valid email address of BOT user in the option "**BOT Email**"

5.2 Customize Call Centers Object

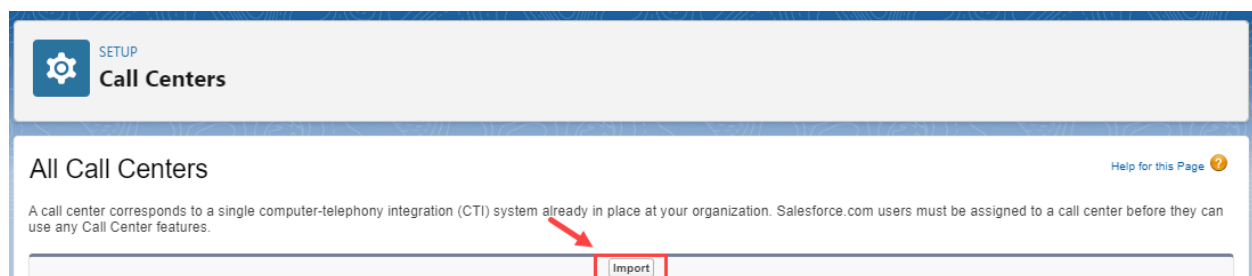
This configuration of Salesforce is an example, and must be adapted according to the customer configuration.

From Salesforce / Setup page, search Call Centers.



5.2.1 Import Configuration File

Once selected, click import on the right frame and select XML file created in section [Configuration File](#).



Result should look like:

SETUP
Call Centers

Call Center
RainbowConnector
All Call Centers » RainbowConnector

Call Center Detail [Edit] [Delete] [Clone]

General Information

InternalName	RainbowConnector
Display Name	RainbowConnector
CTI AdapterURL	https://sfdc.openrainbow.io/
CTI standby AdapterURL	https://sfdc.openrainbow.io/
Use CTI API	true
Timeout	10000
Softphone Height	500
Softphone Width	500
Salesforce Compatibility Mode	Lightning
Salesforce Search Object	Contact,Account,Case,Lead
Salesforce Create Object	Contact,Account,Case,Lead
Salesforce Search by using CorrelatorData	true

Dialing Options

Outside Prefix

5.2.2 Call Centers Users

In the Call Centers Users section, add the Salesforce users for whom the connector must be available.

5.3 Customize Task with fields Call Duration / Call Result / Call Type for task / Call Object Identifier for call log activity

From Salesforce / Setup page, search **Object Manager/Task**

Drag and drop the fields Call Duration, Call Result, Call Type, Call Object Identifier from the task layout to the task information.

Save Quick Save Preview As... Cancel Undo Redo Layout Properties

Quick Find Field Name *

Fields

- Buttons
- Quick Actions
- Mobile & Lightning Actions
- Expanded Lookups
- Related Lists
- Report Charts

Section Call Object Ident... Created By Last Modified By Recurrence Interval Status unique field

Blank Space Call Result Create Recurring ... Name Subject

Assigned To Call Type Due Date Phone Reminder Set Task Subtype

Call Duration Comments Email Priority Repeat This Task Type

Change Record Type Printable View Edit Delete Delete Series View Series Create Follow-Up Task Create Follow-Up Event

Task Information (Header visible on edit only)

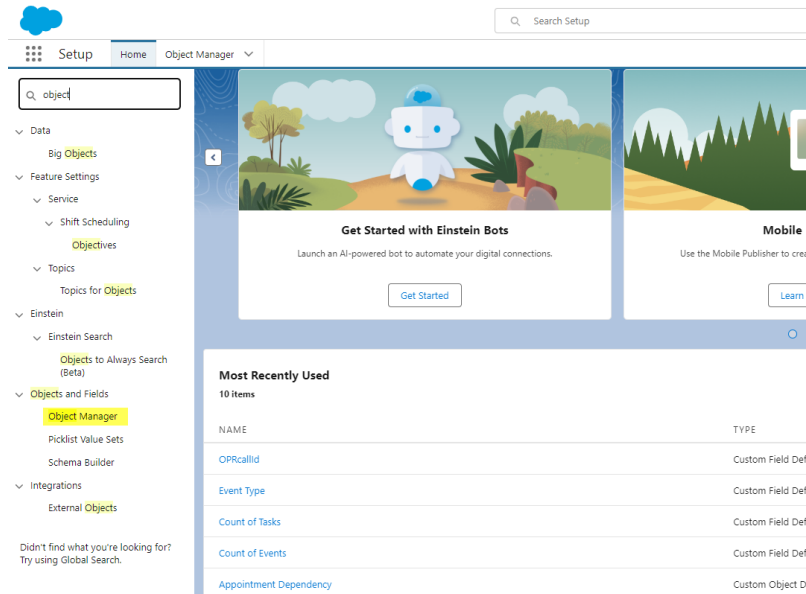
- Assigned To Sample Text
- Subject Sample Text
- Due Date 25/06/2020 15:05
- Phone 1-415-555-1212
- Call Duration 26 321
- Priority Sample Text
- Type Sample Text
- unique field Sample Text
- Status Sample Text
- Name Sample Text
- Related To Sample Text
- Email sarah.sample@company.com
- Call Result Sample Text
- Task Subtype Sample Text
- Call Type Sample Text

Other Information (Header visible on edit only)

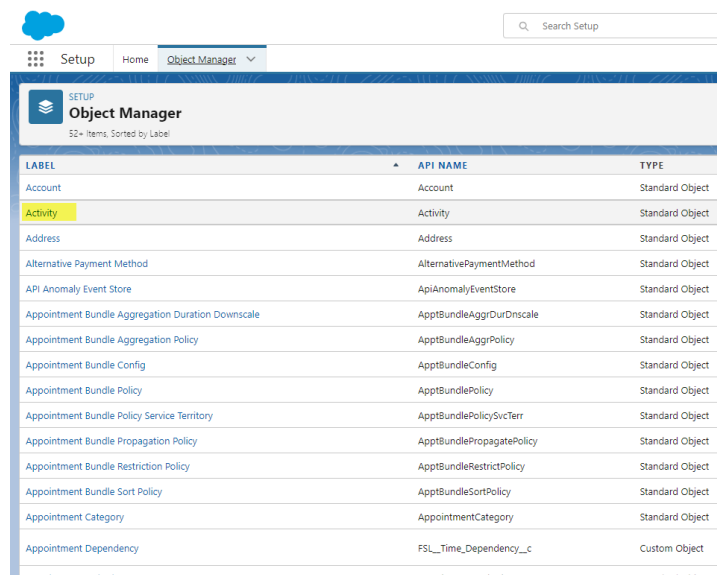
5.4 Customize object with a field GlobalCallID to save the Global Call ID

IMPORTANT!! Below mentioned configuration changes are optional and should only be followed if you want to see Global Call ID information in call logs.

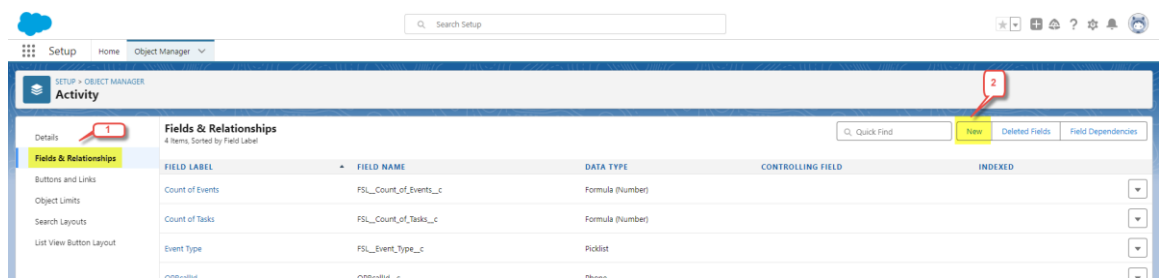
1. From Salesforce / Setup page, search **Object Manager** as shown below:



2. On the **Object Manager** screen, select **Activity** option as shown below:



3. On the **Activity** screen, select **Fields & Relationships** option from the left-hand menu and then click on **New** tab as shown below:



4. Select **Text** option and click on **Next** button as shown below:

1

2

Next Cancel

5. On the **New Custom Field** page enter following values in respective fields:

Field Label: Global Call ID

Length: 150

Field Name: Global_Call_ID

Once done, click on the **Next** tab.

Search Setup

Manager

Activity

New Custom Field

Step 2 of 4

Field Label: Global Call ID

Length: 150

Field Name: Global_Call_ID

Description:

Help Text:

Required: ☐ Always require a value in this field in order to save a record

Unique: ☐ Do not allow duplicate values

External ID: ☐ Set this field as the unique record identifier from an external system

Auto add to custom report type: ☒ Add this field to existing custom report types that contain this entity

Default Value: Show Formula Editor

Previous Next Cancel

6. On the next page click on the **Next** button as shown below:

Search Setup

ager

Activity

New Custom Field

Help for this Page

Step 3. Establish field level security

Step 3 of 4

PreviousNextCancel

Field LabelGlobal Call ID

Data TypeText

Field NameGlobal_Call_ID

Description

Select the profiles to which you want to grant edit access to this field via field-level security. The field will be hidden from all profiles if you do not add it to field-level security.

Field-Level Security for Profile	Visible	Read-Only
Analytics Cloud Integration User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Analytics Cloud Security User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Authenticated Website	<input type="checkbox"/>	<input type="checkbox"/>
Authenticated Website	<input type="checkbox"/>	<input type="checkbox"/>
B2B Reordering Portal Buyer Profile	<input type="checkbox"/>	<input type="checkbox"/>
Contract Manager	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cross Org Data Proxy User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Custom: Marketing Profile	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Custom: Sales Profile	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Custom: Support Profile	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Customer Community Login User	<input type="checkbox"/>	<input type="checkbox"/>
Customer Community Plus Login User	<input type="checkbox"/>	<input type="checkbox"/>
Customer Community Plus User	<input type="checkbox"/>	<input type="checkbox"/>
Customer Community User	<input type="checkbox"/>	<input type="checkbox"/>
Customer Portal Manager Custom	<input type="checkbox"/>	<input type="checkbox"/>

7. On the next page, click on **Save** button as shown below:

Search Setup

Setup

Home

Object Manager

Activity

New Custom Field

Help for this Page

Step 4. Add to page layouts

Step 4 of 4

PreviousSave & NewSaveCancel

Field LabelGlobal Call ID

Data TypeText

Field NameGlobal_Call_ID

Description

Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Event Layout
<input checked="" type="checkbox"/>	Task Layout

When finished, click Save & New to create more custom fields, or click Save if you are done.

PreviousSave & NewSaveCancel

After the above configuration changes have been made, Global Call ID will be available in call logs as highlighted below:

Incoming Call - 19/03/2024, 15:19:33

Name: CCD 2

Related To:

Details

Assigned To	Omar Tariq	Status	Completed
Subject	Incoming Call - 19/03/2024, 15:19:33	Name	CCD 2
Due Date	19/03/2024	Related To	
Priority	Normal		
OPRcallid			
Global Call ID	123456789abcdefghijklmnopqrstuvwxyz		
Call Result	Answered		
Call Type	Inbound		
Call Duration	9		
Created By	Omar Tariq, 19/03/2024, 10:19	Last Modified By	Omar Tariq, 20/03/2024, 06:41
Comments			

5.5 Customize object to save Phone number in call logs

IMPORTANT!! Below mentioned configuration changes are optional and should only be followed if you want to enter phone number in the call logs.

- From Salesforce / Setup page, search **Object Manager** as shown below:

Setup Home Object Manager

Search Setup

Q object

- Data
 - Big Objects
- Feature Settings
- Service
 - Shift Scheduling
 - Objectives
- Topics
 - Topics for Objects
- Einstein
 - Einstein Search
 - Objects to Always Search (Beta)
 - Objects and Fields
 - Object Manager**
 - Picklist Value Sets
 - Schema Builder
- Integrations
 - External Objects

Didn't find what you're looking for? Try using Global Search.

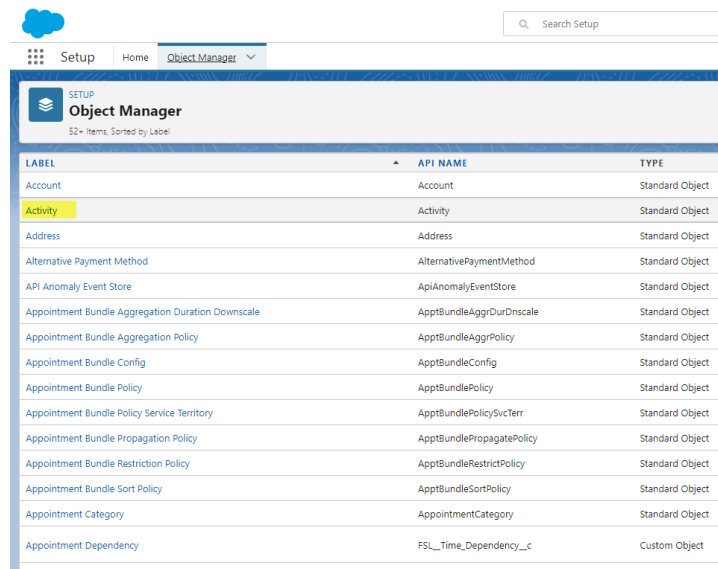
Get Started with Einstein Bots
Launch an AI-powered bot to automate your digital connections.
[Get Started](#)

Mobile P
Use the Mobile Publisher to create
[Learn More](#)

Most Recently Used
10 Items

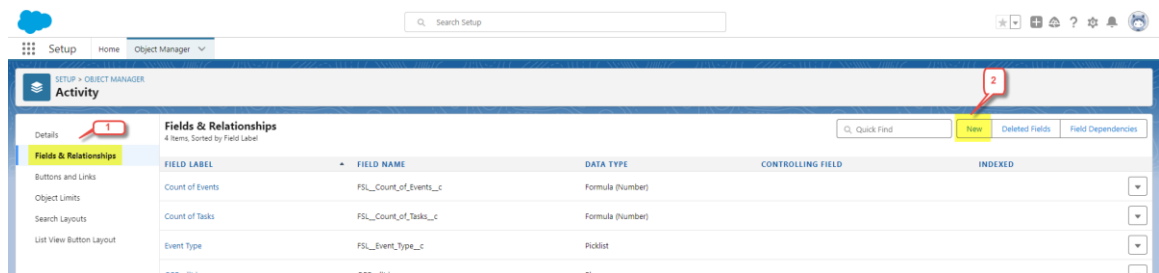
NAME	TYPE
OPRcallid	Custom Field Defir
Event Type	Custom Field Defir
Count of Tasks	Custom Field Defir
Count of Events	Custom Field Defir
Appointment Dependency	Custom Object De

- On the **Object Manager** screen, select **Activity** option as shown below:



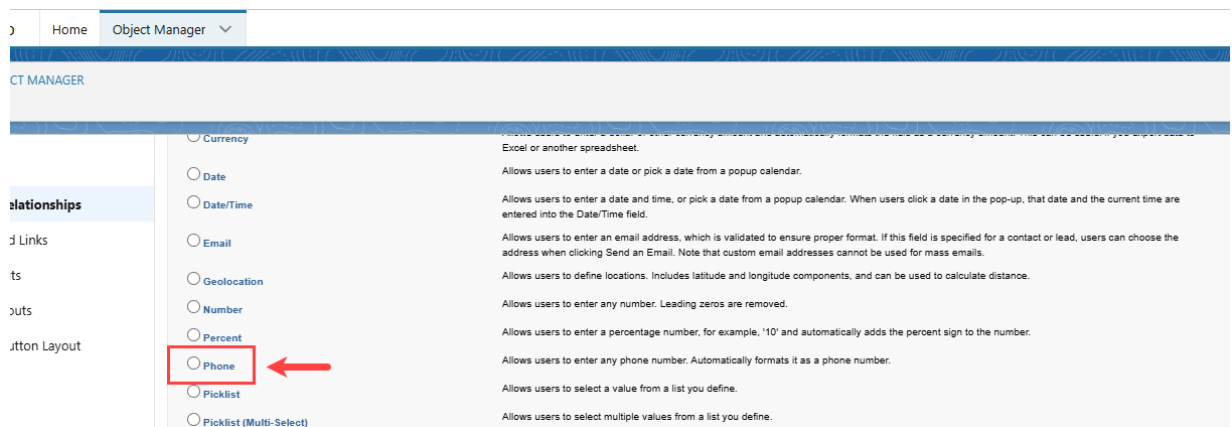
LABEL	API NAME	TYPE
Account	Account	Standard Object
Activity	Activity	Standard Object
Address	Address	Standard Object
Alternative Payment Method	AlternativePaymentMethod	Standard Object
API Anomaly Event Store	ApiAnomalyEventStore	Standard Object
Appointment Bundle Aggregation Duration Downscale	ApptBundleAggrDurDnscale	Standard Object
Appointment Bundle Aggregation Policy	ApptBundleAggrPolicy	Standard Object
Appointment Bundle Config	ApptBundleConfig	Standard Object
Appointment Bundle Policy	ApptBundlePolicy	Standard Object
Appointment Bundle Policy Service Territory	ApptBundlePolicySvcTerr	Standard Object
Appointment Bundle Propagation Policy	ApptBundlePropagationPolicy	Standard Object
Appointment Bundle Restriction Policy	ApptBundleRestrictPolicy	Standard Object
Appointment Bundle Sort Policy	ApptBundleSortPolicy	Standard Object
Appointment Category	AppointmentCategory	Standard Object
Appointment Dependency	FSL_Time_Dependency__c	Custom Object

3. On the **Activity** screen, select **Fields & Relationships** option from the left-hand menu and then click on **New** tab as shown below:



FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Count of Events	FSL_Count_of_Events__c	Formula (Number)		
Count of Tasks	FSL_Count_of_Tasks__c	Formula (Number)		
Event Type	FSL_Event_Type__c	Picklist		
Phone	Phone	Phone		

4. Select **Phone** option and click on **Next** button as shown below:



Relationships

Phone

Next

5. On the **New Custom Field** page enter following values in respective fields:

Field Label: numbertask

Field Name: numbertask

Once done, click on the **Next** tab.

Activity
New Custom Field

Help for this Page ?

Step 2. Enter the details Step 2 of 4

Previous Next Cancel

Field Label ⓘ

Field Name ⓘ

Description

Help Text ⓘ

Required ☐ Always require a value in this field in order to save a record

Auto add to custom report type ☒ Add this field to existing custom report types that contain this entity ⓘ

Default Value

6. On the next page, click on the **Next** button as shown below:

Activity
New Custom Field

Help for this Page ?

Step 3. Establish field-level security Step 3 of 4

Previous Next Cancel

Field Label

Data Type

Field Name

Description

Select the profiles to which you want to grant edit access to this field via field-level security. The field will be hidden from all profiles if you do not add it to field-level security.

Field-Level Security for Profile	<input type="checkbox"/> Visible	<input type="checkbox"/> Read-Only
Analytics Cloud Integration User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Analytics Cloud Security User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Authenticated Website	<input type="checkbox"/>	<input type="checkbox"/>
Authenticated Website	<input type="checkbox"/>	<input type="checkbox"/>
B2B Reordering Portal Buyer Profile	<input type="checkbox"/>	<input type="checkbox"/>

7. On the next page, click on **Save** button as shown below:

Activity
New Custom Field

Help for this Page ?

Step 4. Add to page layouts Step 4 of 4

Previous Save & New Save Cancel

Field Label

Data Type

Field Name

Description

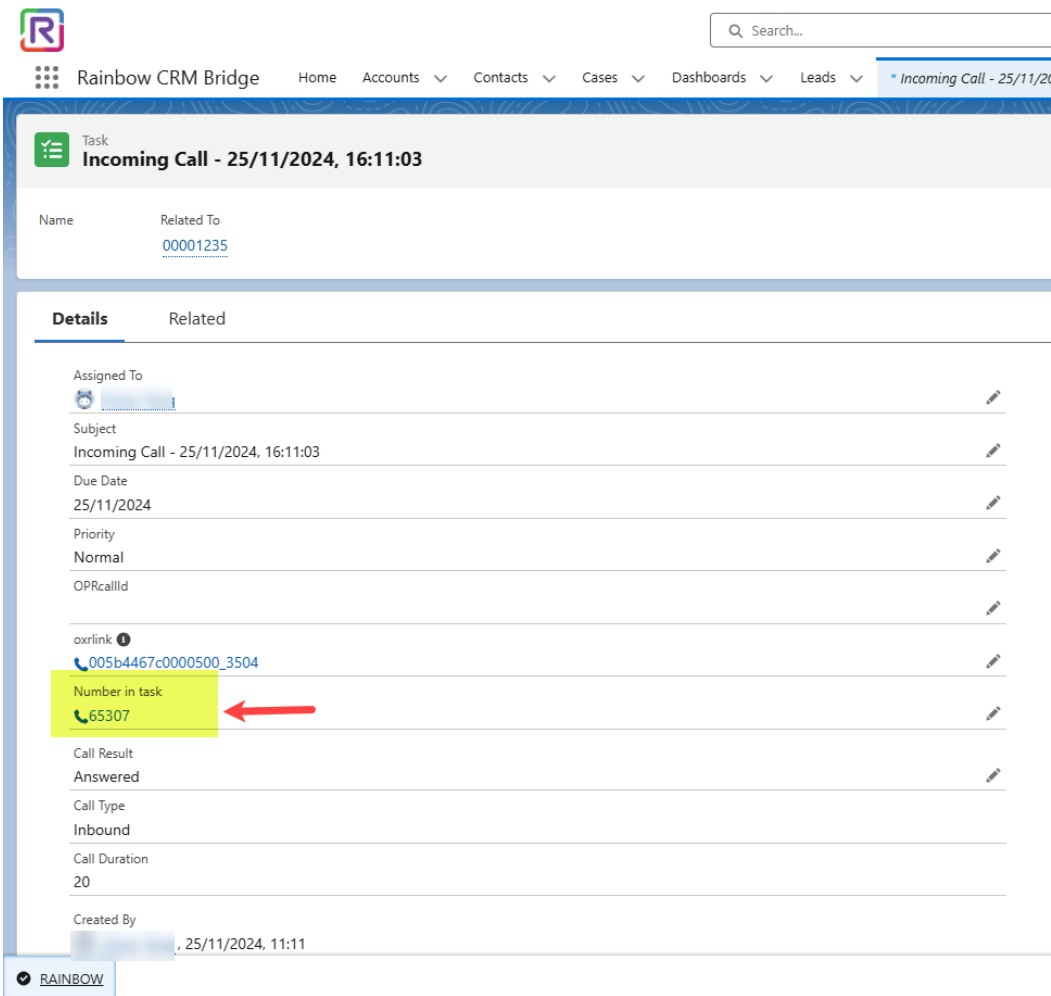
Select the page layouts that should include this field. The field will be added as the last field in the first 2-column section of these page layouts. The field will not appear on any pages if you do not select a layout.

To change the location of this field on the page, you will need to customize the page layout.

<input checked="" type="checkbox"/> Add Field	Page Layout Name
<input checked="" type="checkbox"/>	Event Layout
<input checked="" type="checkbox"/>	Task Layout

When finished, click Save & New to create more custom fields, or click Save if you are done.

After the above configuration changes have been made, phone number will be available in call logs as highlighted below:

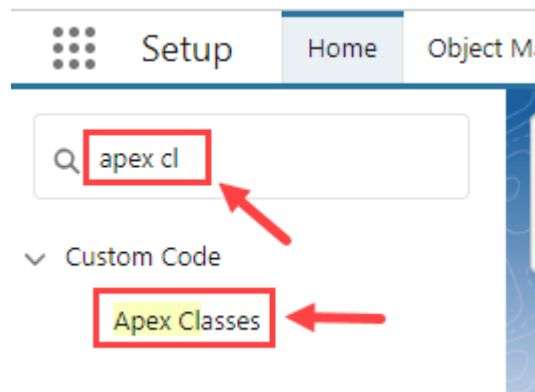


5.6 Apex Classes

The connector requires some functions to perform the search in the Salesforce objects. Declaring Apex Classes as below is mandatory.

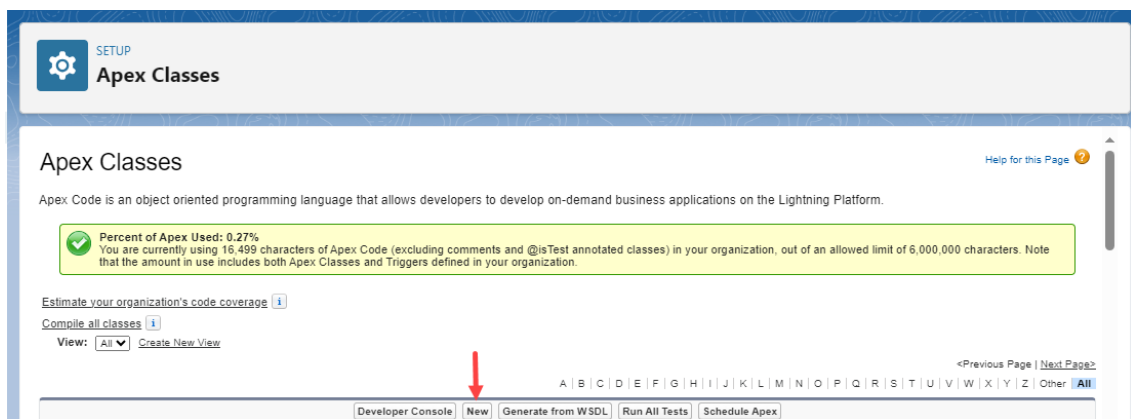
IMPORTANT!! The users that will use the connector should have their profiles allowed to use the APEX classes.

From Salesforce / Setup page, search **Apex Classes**.



5.6.1 RainbowConnector Class

Click on the **New** button as highlighted below and insert the RainbowConnector class below:



The code for Apex class is available separately in the txt file titled RainbowConnectorApexClass.

Click on the **Security** button and select the appropriated profiles for instance:
(This configuration is an example, and must be adapted with the customer configuration)

Enable Profile Access for Apex Class

RainbowConnector

Available Profiles

- Analytics Cloud Integration User
- Analytics Cloud Security User
- Authenticated Website
- Contract Manager
- Cross Org Data Proxy User
- Custom: Marketing Profile
- Custom: Sales Profile
- Custom: Support Profile
- Customer Community Login User
- Customer Community Plus Login User
- Customer Community Plus User
- Customer Community User
- Customer Portal Manager Custom
- Customer Portal Manager Standard

Enabled Profiles

- Standard Platform User
- Standard User
- System Admin ALE
- System Administrator

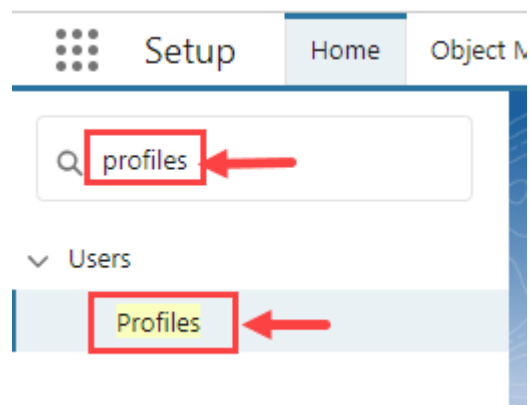
Add

Remove

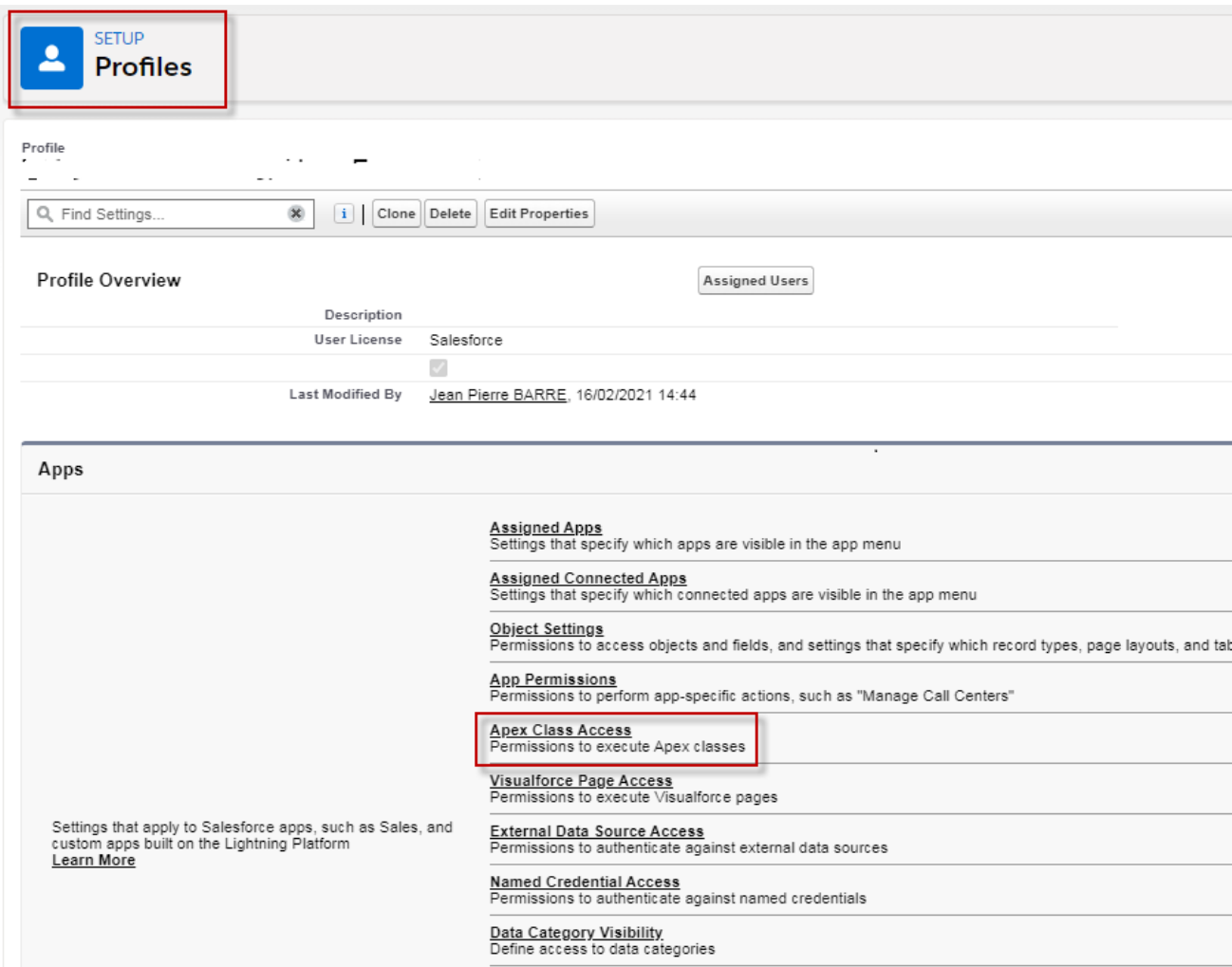
Save Cancel

NB: Starting from Salesforce Spring21 edition, the menu to change the profile access for Apex classes has changed:

From Salesforce / Setup page, search **Profiles** as shown below:



Click on **Apex Class Access**



SETUP Profiles

Profile

Find Settings... Clone Delete Edit Properties

Profile Overview Assigned Users

Description

User License Salesforce

Last Modified By [Jean Pierre BARRE](#), 16/02/2021 14:44

Apps

Assigned Apps
Settings that specify which apps are visible in the app menu

Assigned Connected Apps
Settings that specify which connected apps are visible in the app menu

Object Settings
Permissions to access objects and fields, and settings that specify which record types, page layouts, and tabs

App Permissions
Permissions to perform app-specific actions, such as "Manage Call Centers"

Apex Class Access
Permissions to execute Apex classes

Visualforce Page Access
Permissions to execute Visualforce pages

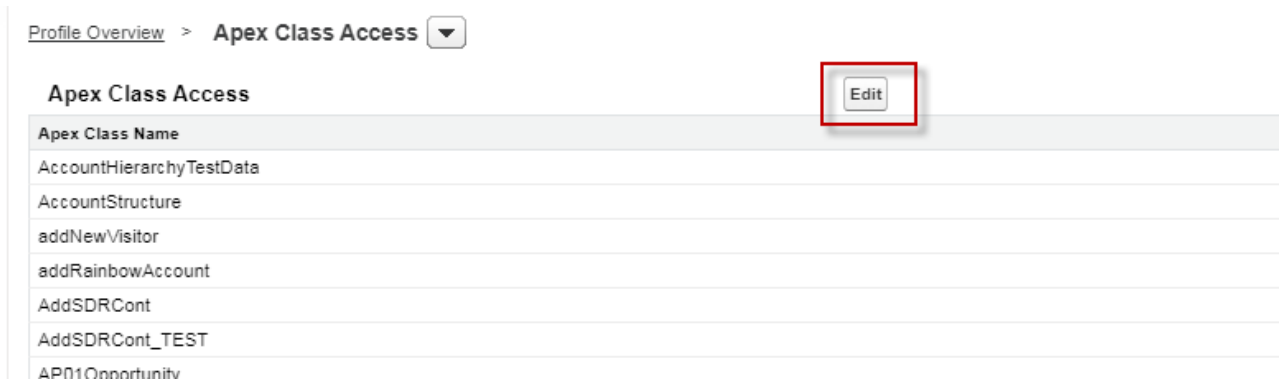
External Data Source Access
Permissions to authenticate against external data sources

Named Credential Access
Permissions to authenticate against named credentials

Data Category Visibility
Define access to data categories

Settings that apply to Salesforce apps, such as Sales, and custom apps built on the Lightning Platform
[Learn More](#)

Then click **Edit**



Profile Overview > **Apex Class Access**

Apex Class Access Edit

Apex Class Name
AccountHierarchyTestData
AccountStructure
addNewVisitor
addRainbowAccount
AddSDRCont
AddSDRCont_TEST
AP01Opportunity

5.6.2 RainbowConnector Test Class

The code for Test class is available separately in the txt file titled RainbowConnectorTestClass. Click on the **New** Button and insert the code from the above-mentioned txt file into it.

Click on **Save** to apply your modifications.

Result should look like:

Apex Class
RainbowConnectorTest

[← Back to List Apex Classes](#)

Apex Class Detail Edit Delete Download Run Test Security Show Dependencies

Name	RainbowConnectorTest	Status	Active
Namespace Prefix		Created By	Emmanuel Gillon , 17/01/2020 16:01
Last Modified By	Emmanuel Gillon , 21/01/2020 09:10		

Class Body **Class Summary** **Version Settings** **Trace Flags**

```

1  @isTest
2  private class RainbowConnectorTest{
3      static testMethod void testGetAccountsByPhoneNumber() {
4          // phone number to search on
5          String phoneNumber = '0298100000';
6
7          // Create Account
8          Account accountTest = new Account(Name='AccountTest');
9          accountTest.Phone = phoneNumber;
10         insert accountTest;
11
12         try {
13             // Test getAccountsByPhoneNumber query method
14             String result = RainbowConnector.getAccountsByPhoneNumber('298100000');
15             System.debug('RainbowConnector.getAccount: ====> ' + result );
16
17             System.assert(RainbowConnector.getAccountsByPhoneNumber('298100000').contains('298100000'), 'Result should contain at least one account with 0298100000');
18         } finally {
19             // Delete Account
20             delete accountTest;
21         }
22     }
23
24     static testMethod void testGetAccountsByFirstName() {
25         // name to search on
26         String firstname = 'testAccount First LastName';
27
28         // Create Account
29         Account accountTest = new Account();
30         accountTest.Name = firstname;
31         accountTest.Phone = '+33298100000';
32
33         insert accountTest;
34
35         try {
36             // Test getAccountsByFirstName query method
37             System.assert(RainbowConnector.getAccountsByFirstName(firstname).contains(firstname), 'Result should contain at least one contact with firstname');
38         } finally {
39             // Delete Account
40             delete accountTest;
41         }
42     }
43
44 }
  
```

Click on the **Run Test** button:

Apex Test Execution

Click Select Tests to choose one or more Apex unit tests and run them. To see the current code coverage for an individual class or your organization, go to the [Apex Classes](#) page

Select Tests... Developer Console Options... [View Test History](#)

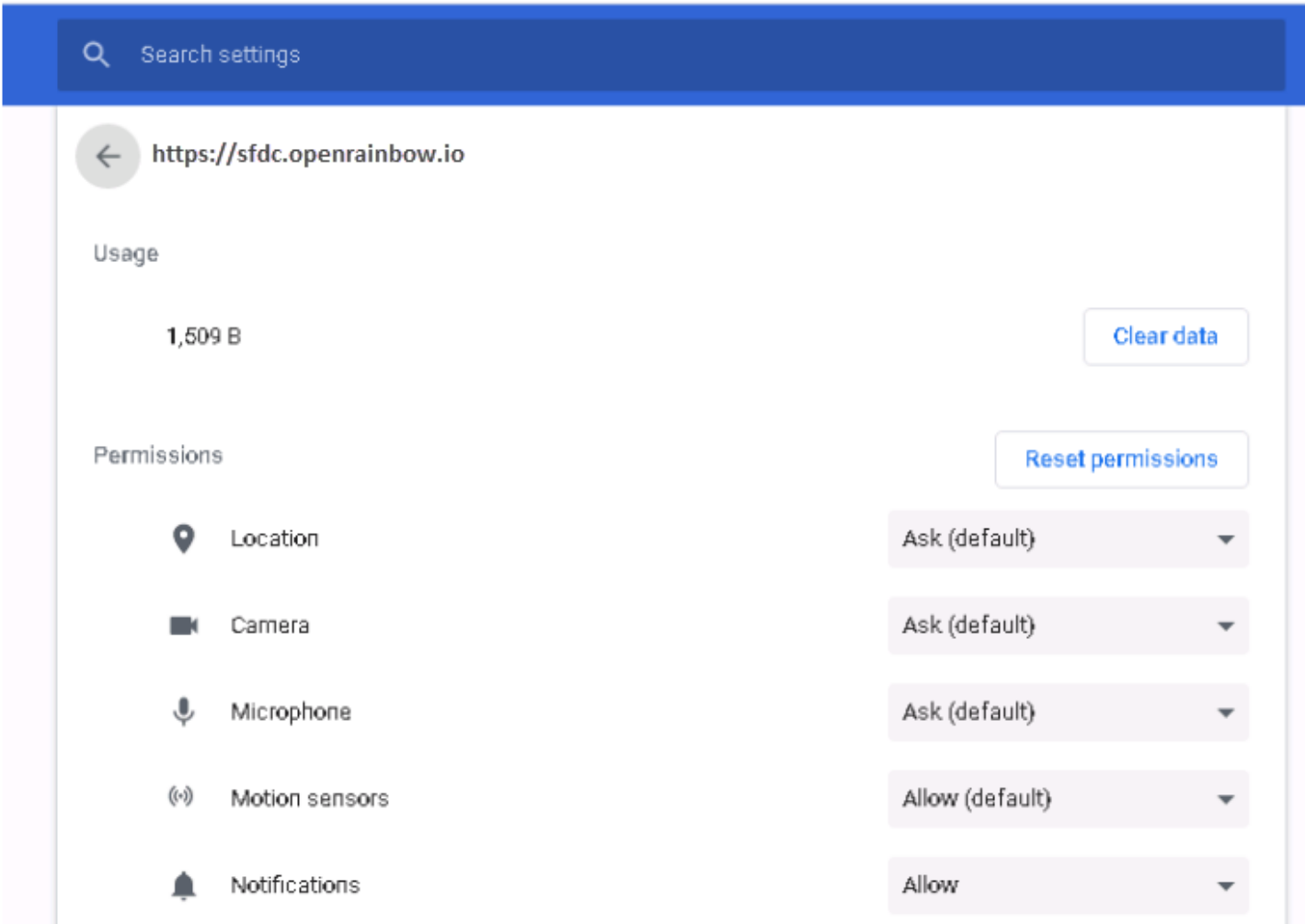
Abort		
<input type="checkbox"/> Status	Class	Result
Test Run: 2020-02-13 14:51:28, emmanuel.gillon@ale.com, (1 test class run)		
<input checked="" type="checkbox"/>	[View] RainbowConnectorTest	(8/8) Test Methods Passed

6 Chrome Configuration for web notification

Depending on your actual security settings, it could be necessary to allow notifications for both Salesforce and the connector itself.

To do it, open Chrome settings, search for “notifications”
In the “Allow” add:

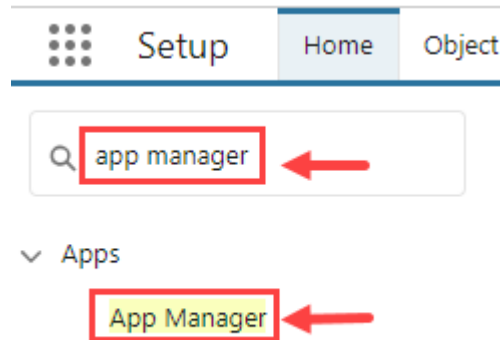
- the URL of the connector provided by ALE and used in Configuration file
- the URL of Salesforce.



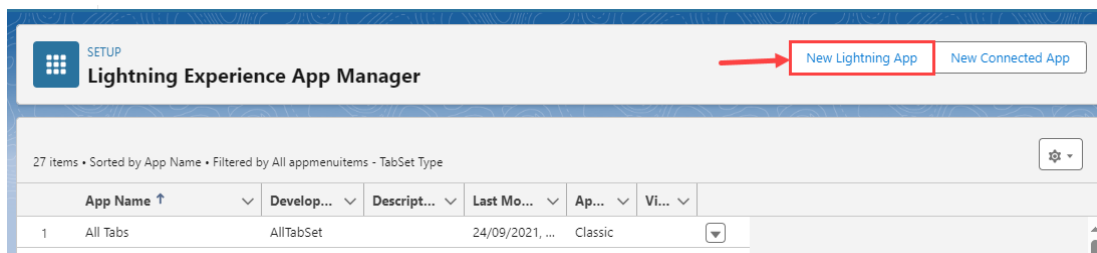
7 Salesforce App

This section is applicable for Lightning platform only and is necessary only if you want to deploy the Rainbow Connector in a dedicated Salesforce application:

1. From Salesforce / Setup page, search **App Manager**



2. Select "New Lightning App" as shown below:



Following screen is displayed:

A screenshot of the 'New Lightning App' configuration screen. The screen is divided into two main sections: 'App Details' and 'App Branding'. In the 'App Details' section, there are three input fields: 'App Name' (with a red asterisk), 'Developer Name' (with a red asterisk), and 'Description'. In the 'App Branding' section, there is an 'Image' upload button, a 'Primary Color Hex Value' dropdown menu (set to '#0070D2'), and a checkbox for 'Org Theme Options' (labeled 'Use the app's image and color instead of the org's custom theme'). At the bottom right, there is a 'Next' button. A progress bar at the bottom shows the current step is 1 of 4.

3. Add an "App Name" and an optional logo.

New Lightning App

App Details & Branding

Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.

App Details

* App Name ⓘ

RainbowApp

* Developer Name ⓘ


ALE International

Description ⓘ

Enter a description...

App Branding

Image ⓘ



Clear

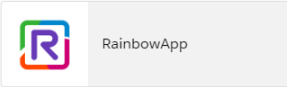
Primary Color Hex Value ⓘ

#0070D2

Org Theme Options

☐ Use the app's image and color instead of the org's custom theme

App Launcher Preview



4. In App options, select “Standard navigation” or “Console navigation”

New Lightning App

App Options

Navigation and Form Factor ⓘ

* Navigation Style

☒ Standard navigation

☐ Console navigation

* Supported Form Factors

☒ Desktop and phone

☐ Desktop

☐ Phone

Setup and Personalization ⓘ

Setup Experience

☒ Setup (full set of Setup options)

☐ Service Setup

App Personalization Settings

☐ Disable end user personalization of nav items in this app

☐ Disable temporary tabs for items outside of this app

5. In Utility items, add Utility item
6. Select Open CTI Softphone

Utility Items (Desktop Only)

Give your users quick access to productivity tools and add background utility items to your app.

Add Utility Item

Utility Bar Alignment ⓘ Default ▾

×

Rainbow

PROPERTIES

Open CTI Softphone

↑ ↓ Remove

▼ Utility Item Properties

* Label ⓘ

Rainbow

Icon ⓘ

clear X

Panel Width ⓘ

340

Panel Height ⓘ

480

☒ Start automatically ⓘ

7. In Navigation Items, add items you need.
- Contacts** is mandatory for the connector to perform search on contacts.
- Accounts** is mandatory for the connector to perform search on accounts.

New Lightning App

Navigation Items

When they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.

Available Items

Create ▾

Type to filter list...

Email Templates

Enhanced Letterheads

Files

Forecasts

Groups

Images

Individuals

Leads

Lightning Bolt Solutions

Lightning Usage

▶

◀

Selected Items

Home

Contacts

Accounts

▶

◀

8. In User Profiles section, choose the user profiles that can access this app

New Lightning App

User Profiles

Choose the user profiles that can access this app.

Available Profiles

Type to filter list...

High Volume Customer Portal

High Volume Customer Portal User

Identity User

Marketing User

Partner App Subscription User

Partner Community Login User

Partner Community User

Read Only

Silver Partner User

Solution Manager

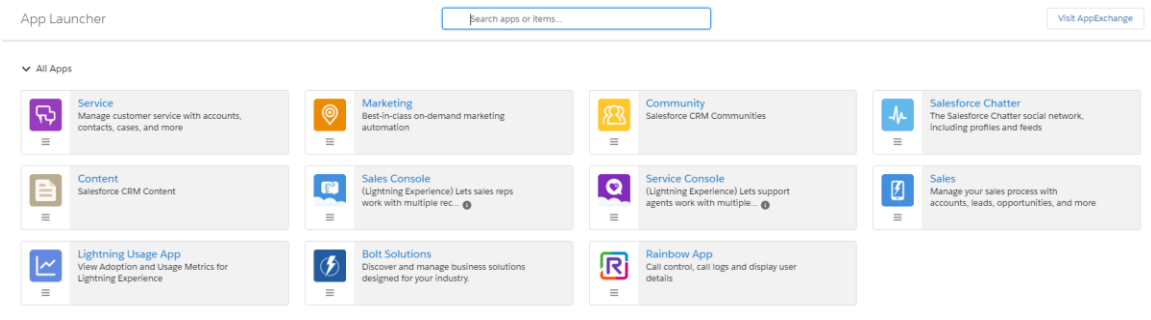
Selected Profiles

Standard Platform User

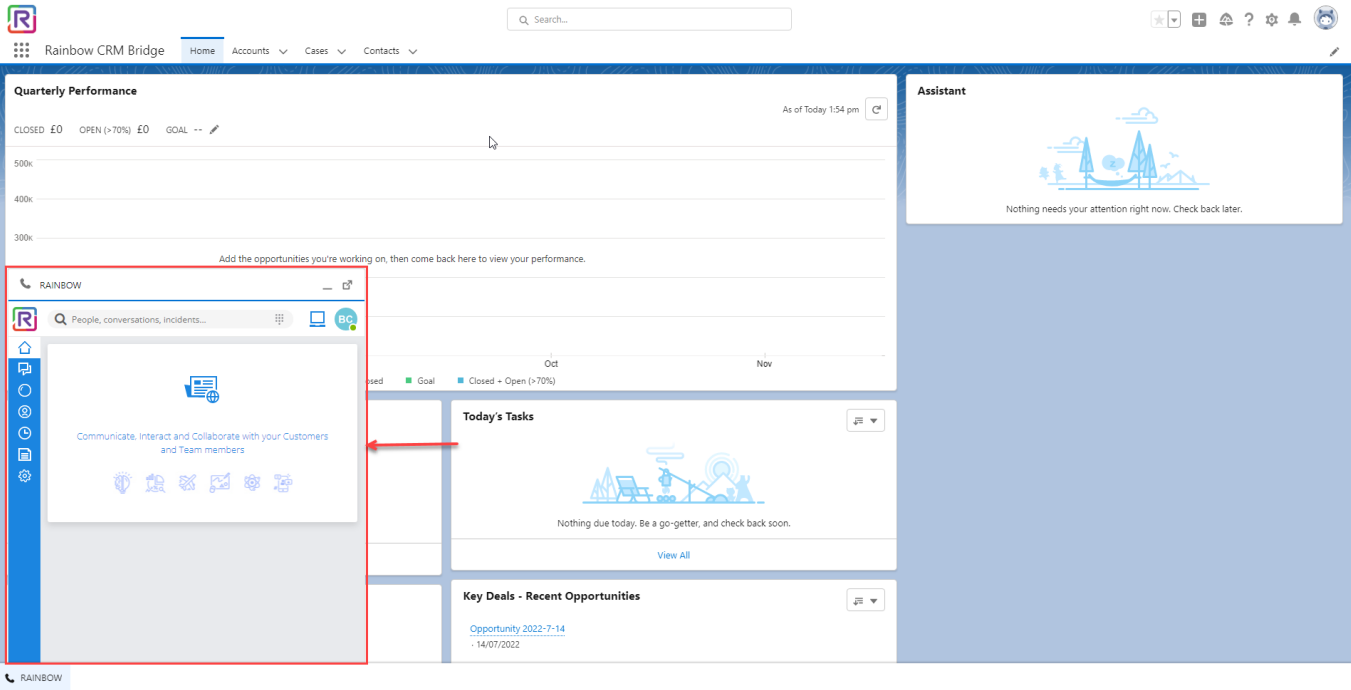
Standard User

System Administrator

9. When done, your new app will be displayed in the App Launcher

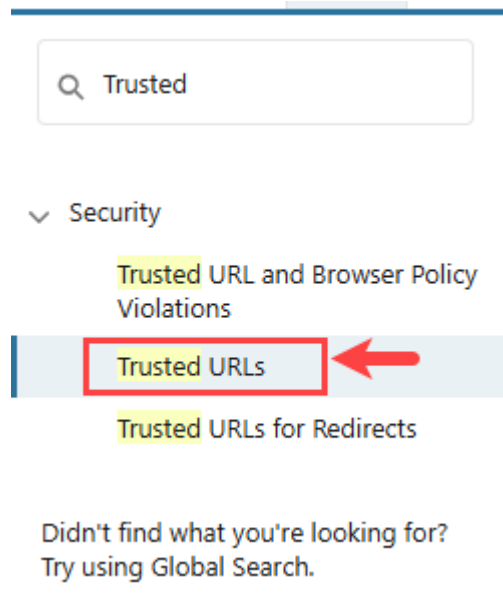


The connector is displayed like this:



8 Create Trusted URLs

In order to create a trusted URL in Salesforce CRM for Rainbow Connector, please Search Trusted URLs in the **Quick Find** as shown below



Once you click on Trusted URLs, following screen is displayed:

Trusted URLs

Specify the URLs that you trust to interact with your users and network. You can use Content Security Policy (CSP) directives to control the types of resources that Lightning components, third-party APIs, and WebSocket connections can load from each trusted URL. If you enabled the Permissions-Policy HTTP header in Session Settings, you can control which URLs can access browser features from Salesforce.

Related Policies

Content Security Policy (CSP). Use CSP directives to specify whether Lightning components, your CSP-secured [Aura](#) or [LWR](#) sites, third-party APIs, and WebSockets connections can load scripts, fonts, images, media, or stylesheets from each trusted URL. The main objective of CSP is to help prevent cross-site scripting (XSS) and other code injection attacks.

Permissions Policy. Control access to browser features such as cameras and microphones. To use this policy, enable the Permissions-Policy HTTP header under Browser Feature Permissions in [Session Settings](#).

Trusted URLs

View: **All** [Create New View](#)

[New Trusted URL](#)

Action	API Name	URL	Active	CSP Context	Created By	Created Date	Last Modified By	Last Modified Date
--------	----------	-----	--------	-------------	------------	--------------	------------------	--------------------

Click on **New Trusted URL** button as highlighted below:

Specify the URLs that you trust to interact with your users and network. You can use Content Security Policy (CSP) directives to control the types of resources that Lightning components, third-party APIs, and WebSocket connections can load from each trusted URL. If you enabled the Permissions-Policy HTTP header in Session Settings, you can control which URLs can access browser features from Salesforce.

Related Policies

Content Security Policy (CSP). Use CSP directives to specify whether Lightning components, your CSP-secured [Aura or LWR sites](#), third-party APIs, and WebSockets connections can load scripts, fonts, images, media, or stylesheets from each trusted URL. The main objective of CSP is to help prevent cross-site scripting (XSS) and other code injection attacks.

Permissions Policy. Control access to browser features such as cameras and microphones. To use this policy, enable the Permissions-Policy HTTP header under Browser Feature Permissions in [Session Settings](#).

Trusted URLs

View: All [Create New View](#)

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All								
New Trusted URL								
Action	API Name ↑	URL	Active	CSP Context	Created By	Created Date	Last Modified By	Last Modified Date

Following screen will be displayed:

SETUP

Trusted URLs

Trusted URL

Specify the trusted URL information, and select at least one directive.

The trusted URL must include a domain name and can include a port. For example, <https://example.com> or <https://example.com:8080>. To reduce repetition, you can use the wildcard character * (asterisk). For example, https://*.example.com. For a third-party API, the URL must begin with <https://>. For example, <https://example.com>. For a WebSocket connection, the URL must begin with <wss://>. For example, <wss://example.com>.

Trusted URL Edit

Save Save & New Cancel

Trusted URL Information

Required Information

API Name

URL

Description

Active ☒

Content Security Policy (CSP) Settings

To help prevent cross-site scripting (XSS) and other code injection attacks, the Lightning component framework uses CSP to impose restrictions on content. To control which pages can load content from this trusted URL, select the CSP context.

CSP Context All

CSP Directives

Select the directives that Lightning components, third-party APIs, and WebSocket connections can load from this trusted URL. Each CSP directive controls access to a resource type. Lightning components can load the resources within Lightning or within your CSP-secured [Aura or LWR sites](#).

To use the [Salesforce Console Integration Toolkit](#) from within this trusted URL, select the connect-src (scripts) directive. Then add the trusted URL in the Security settings of Experience Builder for your [Visualforce sites](#). When you select that directive, connections from Lightning to this trusted URL can use the Javascript methods in the toolkit. Otherwise, you can't load JavaScript resources from a third-party, even if it's a trusted URL. To use a JavaScript library from a third-party, add the third-party URL to a static resource, and then add the static resource to your component.

connect-src (scripts) ☐

font-src (fonts) ☐

frame-src (iframe content) ☐

img-src (images) ☒

media-src (audio and video) ☐

style-src (stylesheets) ☐

Permissions Policy Directives

To control access to these browser features, enable the Permissions-Policy HTTP header under Browser Feature Permissions in [Session Settings](#). Then, to allow access at the Trusted URL level, select Trusted URLs Only for the corresponding browser feature.

camera ☐

microphone ☐

Save Save & New Cancel

Please enter RainbowConnectorSite as API Name, <https://sfdc.openrainbow.io> as URL and make sure to check the box next to frame-src and media-src as highlighted below:

Trusted URL Edit [Save] [Save & New] [Cancel]

Trusted URL Information ! Required Information

API Name

URL

Description

Active ☒

Content Security Policy (CSP) Settings

To help prevent cross-site scripting (XSS) and other code injection attacks, the Lightning component framework uses CSP to impose restrictions on content. To control which pages can load content from this trusted URL, select the CSP context.

CSP Context

CSP Directives

Select the directives that Lightning components, third-party APIs, and WebSocket connections can load from this trusted URL. Each CSP directive controls access to a resource type. Lightning components can load the resources within Lightning or within your CSP-secured [Aura or LWR sites](#).

To use the [Salesforce Console Integration Toolkit](#) from within this trusted URL, select the connect-src (scripts) directive. Then add the trusted URL in the Security settings of Experience Builder for your [Visualforce sites](#). When you select that directive, connections from Lightning to this trusted URL can use the Javascript methods in the toolkit. Otherwise, you can't load JavaScript resources from a third-party, even if it's a trusted URL. To use a JavaScript library from a third-party, add the third-party URL to a static resource, and then add the static resource to your component.

connect-src (scripts) ☐

font-src (fonts) ☐

frame-src (iframe content) ☒

img-src (images) ☒

media-src (audio and video) ☒

style-src (stylesheets) ☐

Permissions Policy Directives

To control access to these browser features, enable the Permissions-Policy HTTP header under Browser Feature Permissions in [Session Settings](#). Then, to allow access at the Trusted URL level, select Trusted URLs Only for the corresponding browser feature.

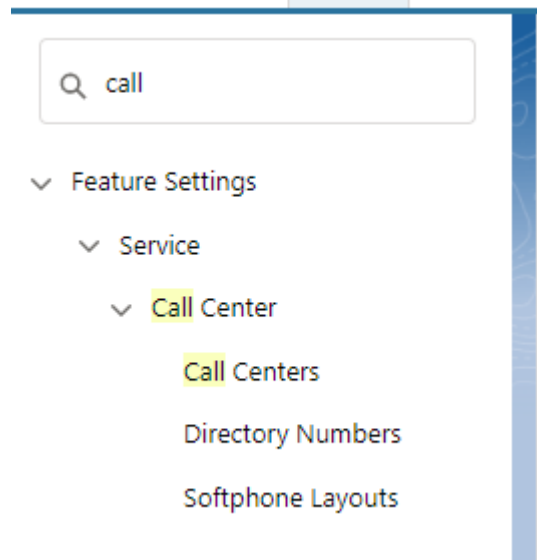
camera ☐

Once you have made the necessary configuration according to above screenshot, please press Save button.

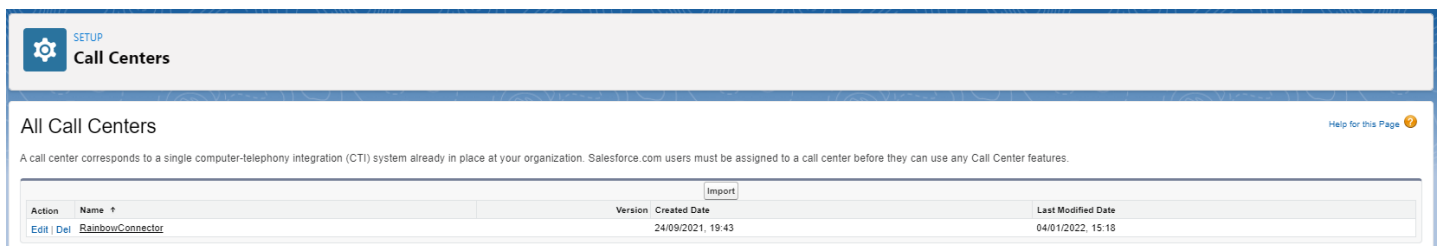
9 Migration Process

In order to migrate the Rainbow CRM Bridge application from an older version to new version follow the steps listed below:

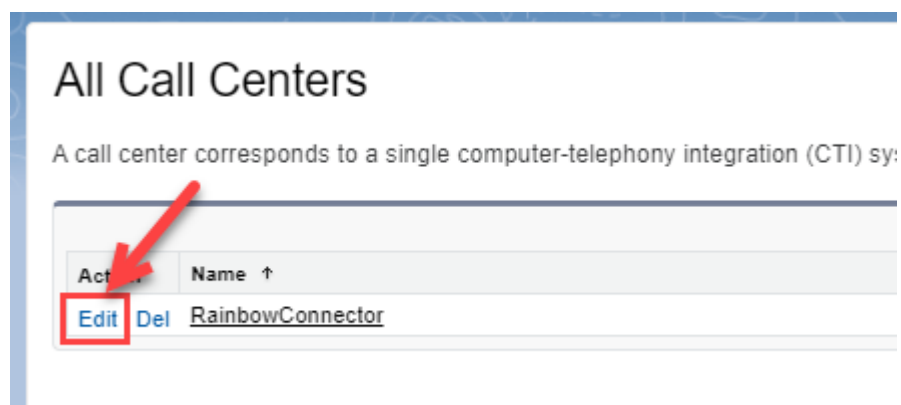
1. Login to Salesforce / Setup page and search Call Centers in the **Quick Find** field as shown below:



Once you click on Call Centers, following screen is displayed:



2. Click on **Edit** as highlighted below:



3. Please update the URL addresses in the following 2 fields as highlighted in the below screenshot:

- CTI AdapterURL
- CTI standby AdapterURL

4. Enter following URL in these 2 fields:

<https://sfdc.openrainbow.io/>

5. Go to **Dialing Options** section and please add your country code in the following 2 fields as highlighted in the below screenshot:

- International Prefix
- Incoming Prefix

Please make sure that “+” sign is written before the country code e.g. in the below screenshot country code for France (33) is written as +33

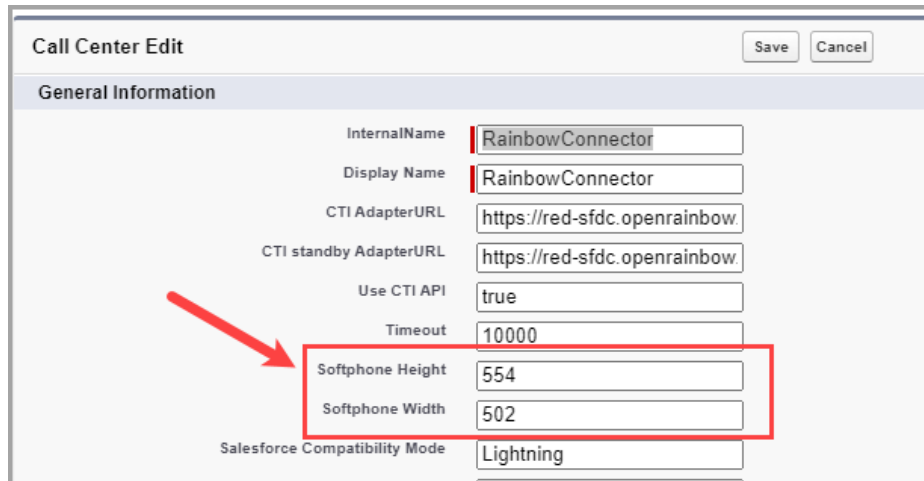
6. Go to **Calling Options** section and please add the fields that must be displayed for each object's popup:

- Popup fields for Account
- Popup fields for Contact
- Popup fields for Lead
- Popup fields for Case

Each field should be comma separated, with a maximum of 4 fields displayed for each object. Custom fields can be displayed in the pop-up of an object but, accurate field name should be provided.

Note: Field names can be provided via a database query in apex file as well. Please contact ALE L3 Support for further assistance if you want to display custom fields in the pop-up of an object.

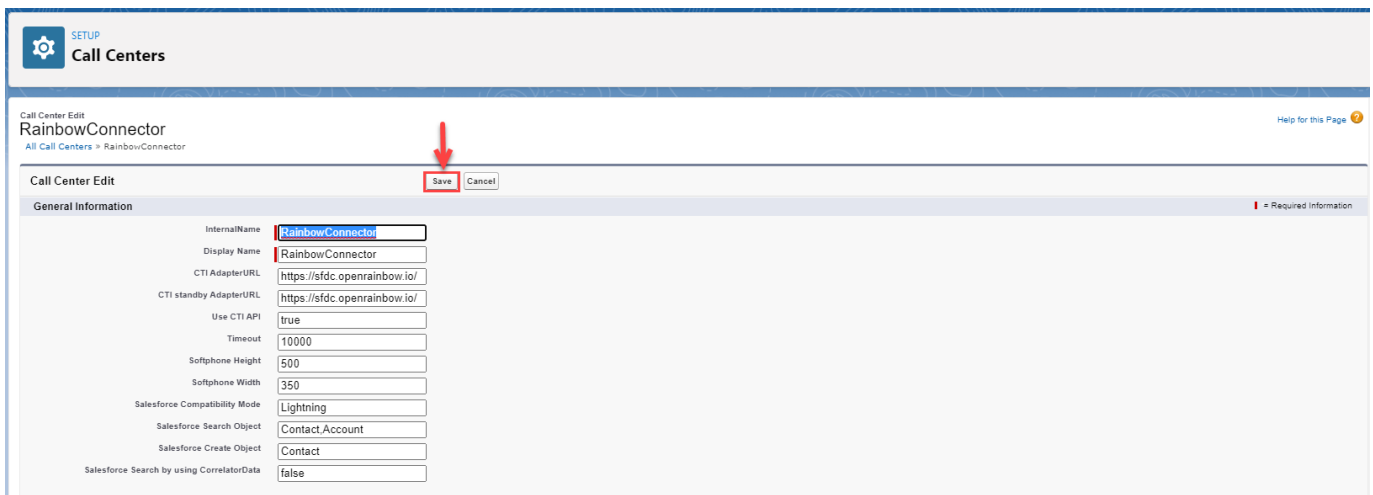
7. Provide softphone widget size by providing values in Softphone Height and Softphone Width fields as shown below:



Call Center Edit	
General Information	
InternalName	RainbowConnector
Display Name	RainbowConnector
CTI AdapterURL	https://red-sfdc.openrainbow
CTI standby AdapterURL	https://red-sfdc.openrainbow
Use CTI API	true
Timeout	10000
Softphone Height	554
Softphone Width	502
Salesforce Compatibility Mode	Lightning

The minimum acceptable dimensions for the Softphone are 554 pixels in height and 502 pixels in width. Any values below these thresholds will automatically revert to the default minimum values.

8. Once all configurations are made, Press on Save Button as highlighted below:



Call Center Edit	
General Information	
InternalName	RainbowConnector
Display Name	RainbowConnector
CTI AdapterURL	https://sfdc.openrainbow.io/
CTI standby AdapterURL	https://sfdc.openrainbow.io/
Use CTI API	true
Timeout	10000
Softphone Height	500
Softphone Width	350
Salesforce Compatibility Mode	Lightning
Salesforce Search Object	Contact,Account
Salesforce Create Object	Contact
Salesforce Search by using CorrelatorData	false

Note: If you want to search a case object in the Salesforce app then please write **Contact, Account, Case** in the Salesforce Search Object field as highlighted below:

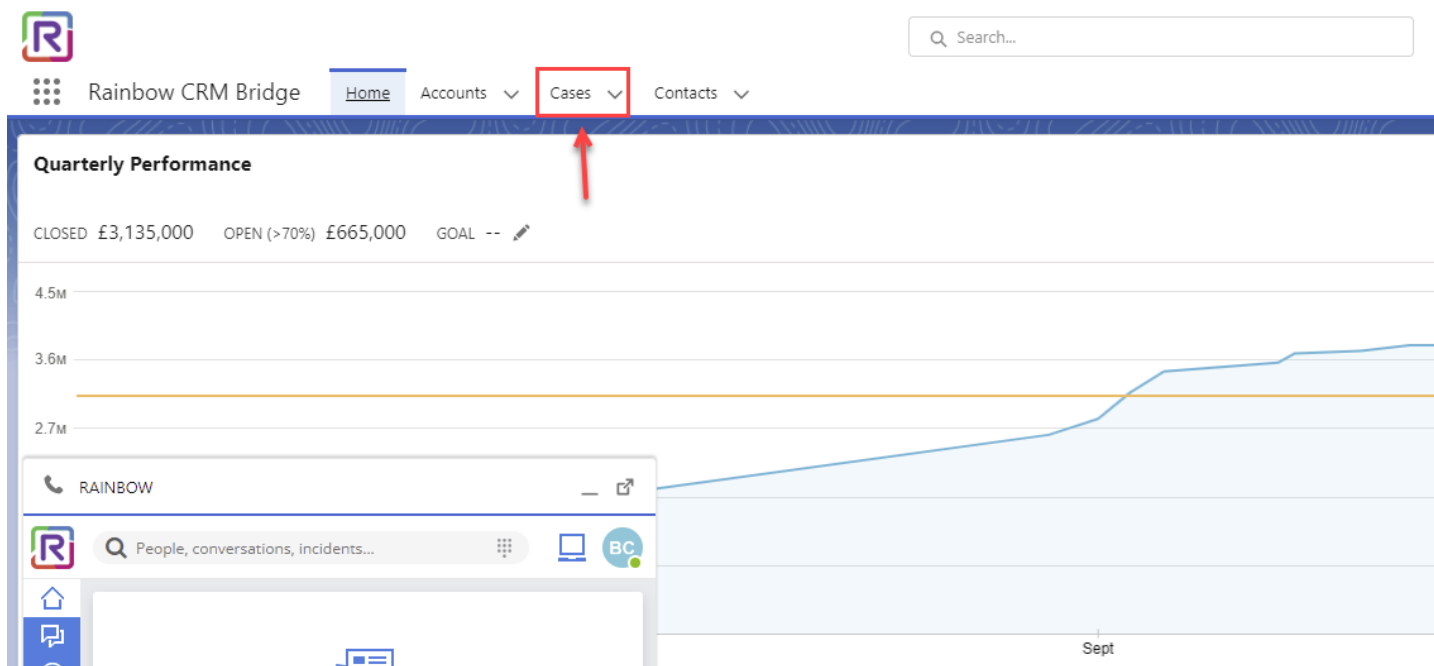
The screenshot shows the 'Call Center Edit' form for 'RainbowConnector'. The 'General Information' section contains the following fields:

- InternalName: RainbowConnector
- Display Name: RainbowConnector
- CTI AdapterURL: https://amigo.rainbow-classr
- CTI standby AdapterURL: https://amigo.rainbow-classr
- Use CTI API: true
- Timeout: 10000
- Softphone Height: 500
- Softphone Width: 500
- Salesforce Compatibility Mode: Lightning
- Salesforce Search Object: **Contact Account,Case** (highlighted with a red box and an arrow)
- Salesforce Create Object: Contact
- Salesforce Search by using CorrelatorData: true

The 'Dialing Options' section contains:


- Outside Prefix:
- Long Distance Prefix:
- International Prefix: +33

Click on Save button and an additional drop-down option of **Cases** will be displayed to search case objects in the salesforce app as shown below:



Note: If you don't want to create a contact by default and want to use the functionality of case then write Case in this field as shown below:

ect Manager ▾

 **SETUP**
Call Centers

Call Center Edit

RainbowConnector

[All Call Centers](#) » RainbowConnector

Call Center Edit

Save Cancel

General Information

InternalName	RainbowConnector
Display Name	RainbowConnector
CTI AdapterURL	https://amigo.rainbow-classr
CTI standby AdapterURL	https://amigo.rainbow-classr
Use CTI API	true
Timeout	10000
Softphone Height	500
Softphone Width	500
Salesforce Compatibility Mode	Lightning
Salesforce Search Object	Contact,Account,Case
Salesforce Create Object	Case
Salesforce Search by using CorrelatorData	true

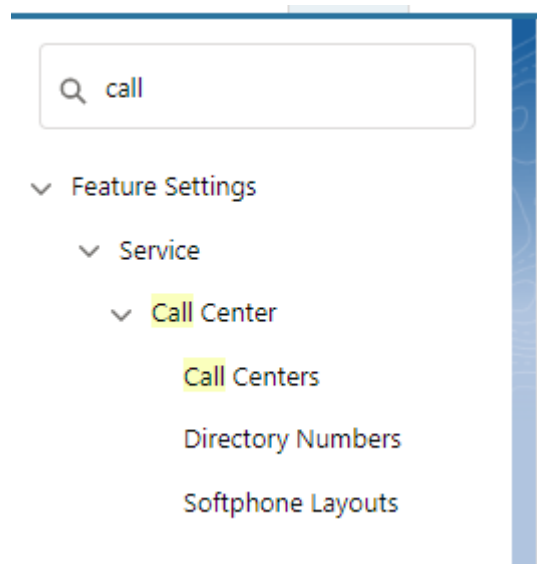
Dialing Options

10 Configuring Salesforce Create Objects for unknown contacts

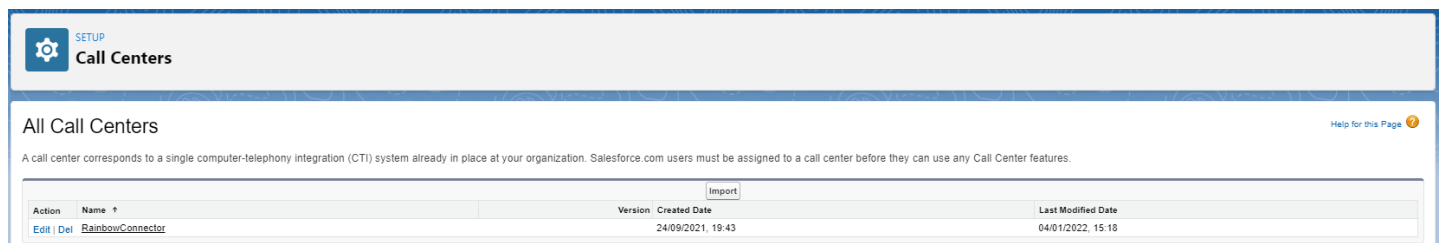
Salesforce provides the feature of objects to categorize records for incoming calls e.g. contacts, account, case and lead. Whenever an incoming call is received by a Rainbow CRM user from an unknown contact/account etc. then a pop up can be displayed to create entry for that particular object (contact, account, case or lead).

In order to configure searching and creating records in relevant object/category, follow the steps listed below:

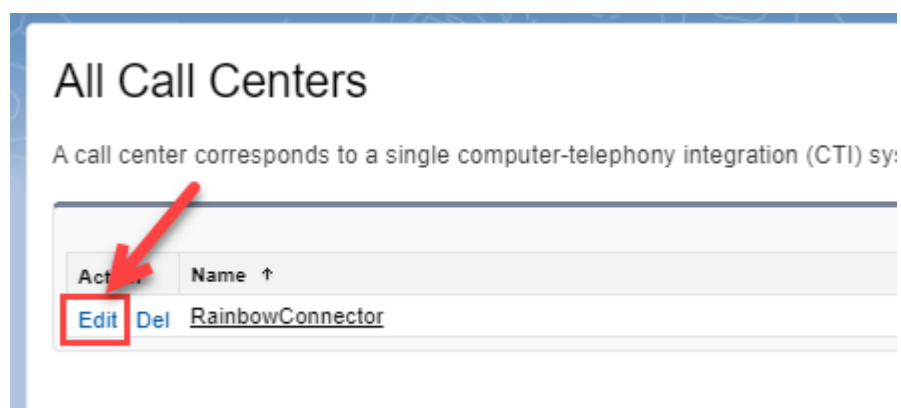
1. Login to Salesforce / Setup page and search Call Centers in the **Quick Find** field as shown below:



Once you click on Call Centers, following screen is displayed:



2. Click on Edit as highlighted below:



Following screen will be displayed:

Call Center Edit
RainbowConnector
All Call Centers > RainbowConnector

Call Center Edit [Save] [Cancel]

General Information

Internal Name: RainbowConnector

Display Name: RainbowConnector

CTI Adapter URL: https://sfdc-connector-lightnli

CTI Standby Adapter URL: https://sfdc-connector-lightnli

Use CTI API: true

Timeout: 10000

Softphone Height: 500

Softphone Width: 350

Salesforce Compatibility Mode: Lightning

Salesforce Search Object: Contact, Account

Salesforce Create Object: Contact

Salesforce Search by using CorrelatorData: false

3. In the General Information section following two fields are related to objects configuration:

Salesforce Search Object - List down all the objects that you want the application to search for record of an incoming call.

Salesforce Create Object – List down all the object that you want to display to Rainbow CRM user for creating a new record for the incoming call.

In the below screenshot, all the available objects are mentioned in the relevant fields

Timeout	10000
Softphone Height	500
Softphone Width	500
Salesforce Compatibility Mode	Lightning
Salesforce Search Object	Contact, Account, Case, Lead
Salesforce Create Object	Contact, Account, Case, Lead
Salesforce Search by using CorrelatorData	true

Note: It is not mandatory to mention all the objects in the above highlighted fields but please ensure that objects entered in **Salesforce Create Object** field are subset of **Salesforce Search Object** field.

Note: Objects in both the fields should be in comma separated format.

If Rainbow CRM Bridge application cannot find an entry for an incoming caller in existing objects then following pop up is displayed. It allows the agent to create record of unknown call in their preferred object. In the below mentioned scenario, all four objects are mentioned in Salesforce Create Object field:

Please select object to create record

☐ Contact

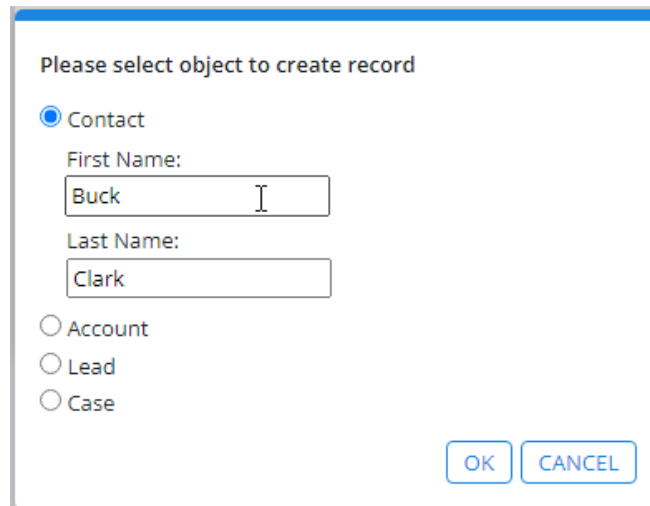
☐ Account

☐ Lead

☐ Case

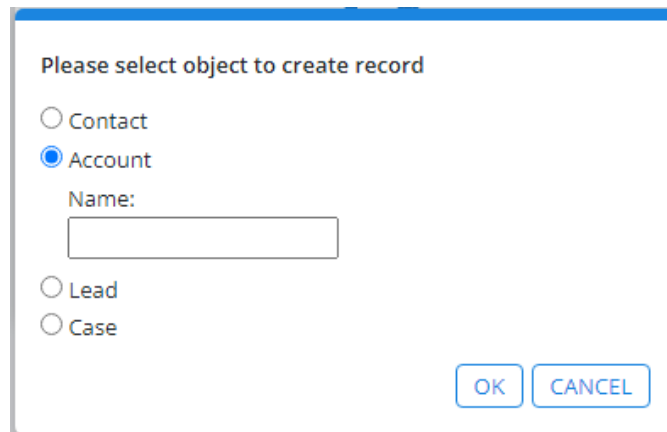
[OK] [CANCEL]

If the user selects to create a record in Contact object for unknown contact, then they have to provide first name and last name as shown below:



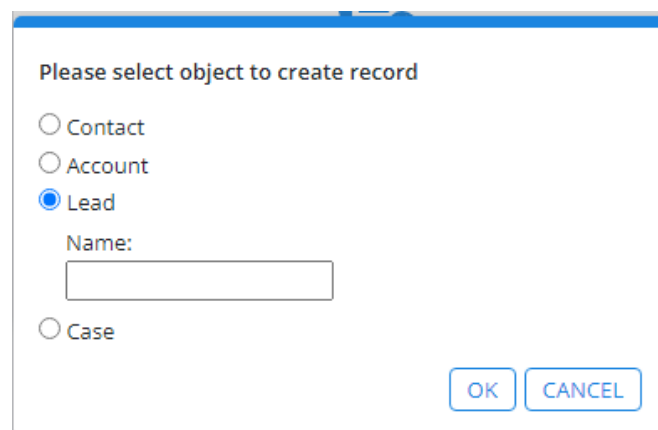
The dialog box titled "Please select object to create record" contains four radio buttons: Contact (selected), Account, Lead, and Case. Below the radio buttons, there are two text input fields. The first field is labeled "First Name:" and contains the text "Buck". The second field is labeled "Last Name:" and contains the text "Clark". At the bottom right of the dialog box are two buttons: "OK" and "CANCEL".

If the user selects to create a record in Account object for unknown account, then they have to provide the name of the account as shown below:



The dialog box titled "Please select object to create record" contains four radio buttons: Contact, Account (selected), Lead, and Case. Below the radio buttons, there is a single text input field labeled "Name:". At the bottom right of the dialog box are two buttons: "OK" and "CANCEL".

If the user selects to create a record in Lead object for an unknown lead, then they have to provide the name of the lead as shown below:



The dialog box titled "Please select object to create record" contains four radio buttons: Contact, Account, Lead (selected), and Case. Below the radio buttons, there is a single text input field labeled "Name:". At the bottom right of the dialog box are two buttons: "OK" and "CANCEL".

If the user selects to create a record in Case object for an unknown case, then they have to provide the name of the case as shown below:

Please select object to create record

☐ Contact

☐ Account

☐ Lead

☒ Case

Name:

OKCANCEL

Once the user has provided the name for the record, Click on OK button.

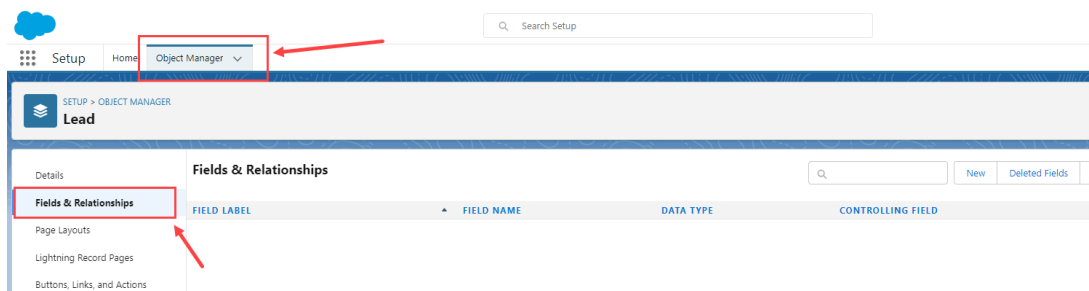
Note!! If an object is not provided in Salesforce Search Object field but if it is provided in Salesforce Create Object field then multiple records will be created for an incoming call that is received from that particular user/entity.

11 Configuration to bypass validation rules

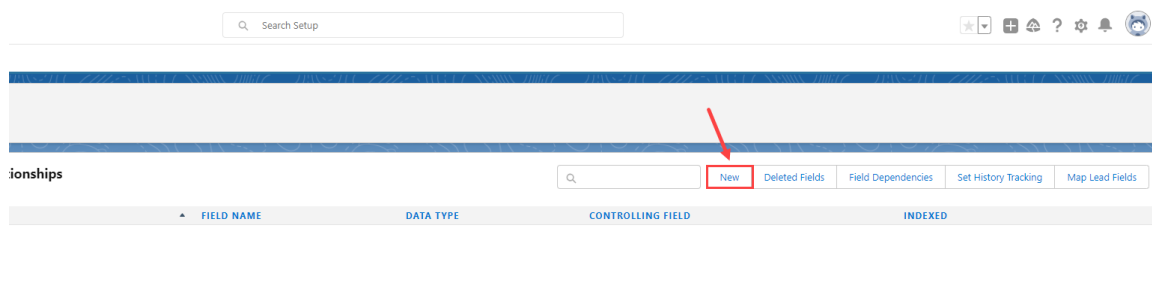
Several organisations might have configured custom validation rules in Salesforce CRM that might conflict with the proper functioning of Rainbow CRM Bridge. In order to bypass these custom validation rules, a new field has to be created in relevant Salesforce object.

Note: This field should be created only in that object category in which custom validation rules have to be bypassed. Below is an example to bypass validation rules in case of a Lead.

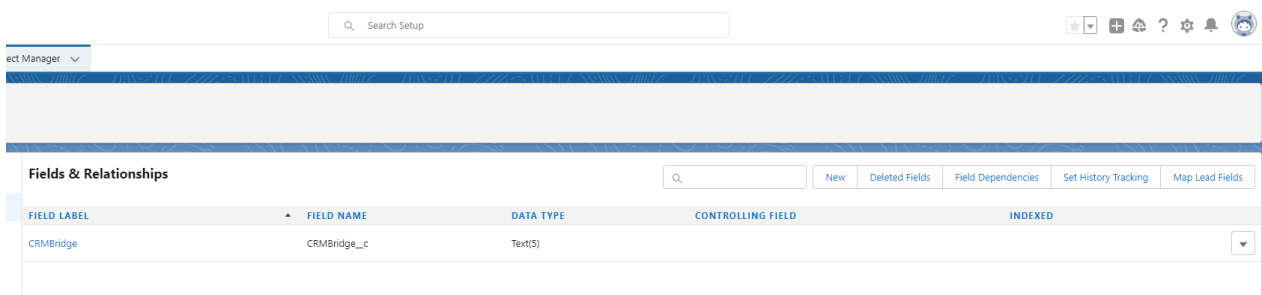
1. Access Object Manager in Salesforce CRM for Leads and go to the Fields & Relationships section as highlighted below:



2. Click on New button as highlighted below to create a new field:



3. Enter Field Label as CRMBridge and data type should be selected as Text(5). Once created, the Field is displayed as follow in Fields & Relationships section:



4. Now when you open the Details tab in Rainbow CRM Bridge for a lead, a new field by the name of CRM Bridge is displayed. The value should be set as YES for this field as highlighted below:


The screenshot displays the Salesforce CRM interface for a lead named John Smith. The lead is currently in the 'Open - Not Contacted' status. The 'Details' tab is selected, showing a list of fields and their values. A red arrow points to the 'CRMBridge' field, which has the value 'yes'.







Field	Value
Lead Owner	Bilal Chaffar
Name	John Smith
Company	
Title	
Lead Source	
Industry	
Annual Revenue	
CRMBridge	yes
Address	
Product Interest	
SIC Code	
Number of Locations	
Phone	33545
Mobile	
Fax	
Email	
Website	
Lead Status	Open - Not Contacted
Rating	
No. of Employees	
Current Generator(s)	
Primary	

After the above steps are performed, custom validation rules will be bypassed for a Lead when it is being processed by Rainbow CRM Bridge

12 Default Parameters for Calls

Rainbow CRM user has following default parameters for initiating a call:

1. **Outgoing Screen pop up** – If this feature is enabled then outgoing call to an existing contact in salesforce CRM can be displayed in the form of a screen popup. This feature is disabled by default.
2. **Click to Call** – If this feature is enabled then a call with a contact in salesforce CRM can be initiated by simply clicking on the  icon as highlighted below:

<input type="checkbox"/>	Name	Account Name	Account Site	Phone	Email	Contact Owner Alias
1	<input type="checkbox"/>			 3887		
2	<input type="checkbox"/>			 5307		
3	<input type="checkbox"/>			 +923234457955		
4	<input type="checkbox"/>			 3889		
5	<input type="checkbox"/>			 3888		
6	<input type="checkbox"/>			 3888		

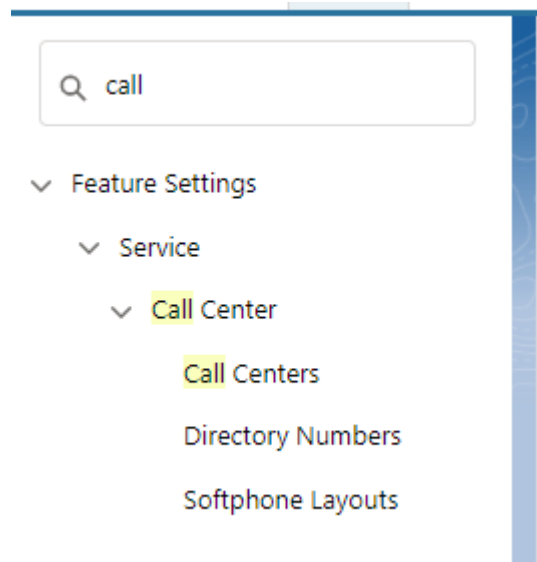
Click to Call feature is enabled by default.

3. **Create Record for Unknown** – If this feature is enabled then a pop up will be displayed when a call is received from unknown. On this pop-up, a user will choose whether to create a record (account/contact/case) for the unknown or not. This feature will be enabled by default.
4. **Company Requirement for Lead Creation** – If this feature is enabled then a lead is created only if company information is available. This feature is disabled by default.
5. **Extension Length** – This parameter specifies the extension length that must be ignored while taking an action for an incoming call. By default, the value is 0. The value for this field has to be a positive numeric value or 0.
6. **Open Contact Before Answer** – If this feature is disabled then contact page in Salesforce CRM for incoming caller is not opened until the call is answered. This feature is enabled by default i.e. contact page for incoming caller is displayed before their call is answered.
7. **Editable Case** – If this feature is enabled then case page in Salesforce CRM for incoming caller is opened in editable form and the agent can make changes in the case page during the call. This feature is disabled by default i.e. case page for incoming caller is not displayed in editable form.

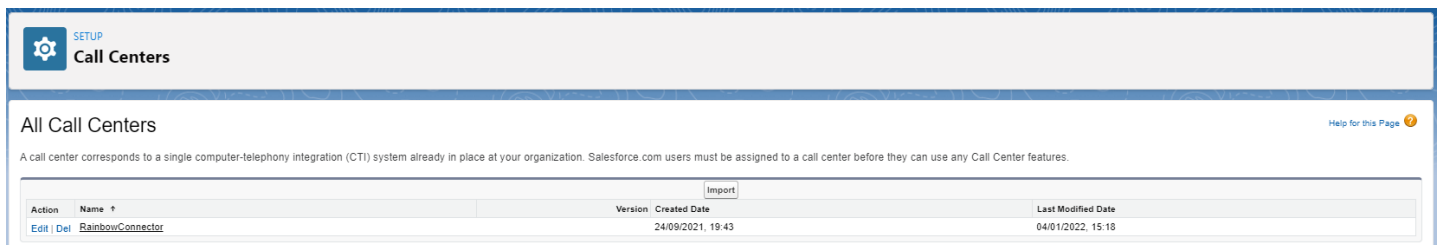
Note: If a user chose not to create a record (account/contact/case) for the unknown from the displayed popup then neither a record (account/contact/case) will be created nor the logs will be entered for this call.

If you want to change the default behavior of above parameters, you will have to perform following configurations:

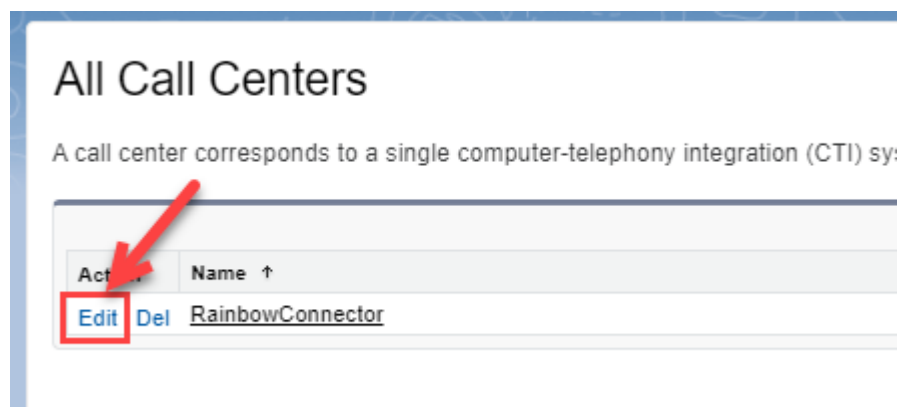
1. Login to Salesforce / Setup page and search Call Centers in the **Quick Find** field as shown below:



Once you click on Call Centers, following screen is displayed:



2. Click on **Edit** as highlighted below:



3. Now you can make changes in the default parameters field as per your choice
 - a. If you want to enable screen pop up for outgoing calls and also want to keep the click to call feature enabled then enter the following command in this field as shown below:

"outgoingscreepop"="true";"c2cenabled"="true";"cruk"="true";

Calling Options	
Number of digits for internal call	8

User Profile	
Number of results to display search link	2
Allow user to modify parameters	false
Default parameters	"outgoingscreepop"="true";"c
Allow user to answer call by clicking in the notification	true
Timeout in seconds for web notification	10
Activate SSO mode	false
Display automatically the search dialog	true

Save Cancel

- b. If you want to enable screen pop up for outgoing calls but you want to disable the click to call feature then enter the following command in this field as shown below:

"c2cenabled"="false";"outgoingscreepop"="true";"cruk"="true";

Calling Options	
Number of digits for internal call	8

User Profile	
Number of results to display search link	2
Allow user to modify parameters	false
Default parameters	"c2cenabled"="false";"outgoi
Allow user to answer call by clicking in the notification	true
Timeout in seconds for web notification	10
Activate SSO mode	false
Display automatically the search dialog	true

- c. If you want to keep the screen pop up for outgoing calls disabled and also want to disable the click to call feature then enter the following command in this field as shown below:

"c2cenabled"="false";"outgoingscreepop"="false";"cruk"="true";

Calling Options	
Number of digits for internal call	8

User Profile	
Number of results to display search link	2
Allow user to modify parameters	false
Default parameters	"c2cenabled"="false";"outgoi
Allow user to answer call by clicking in the notification	true
Timeout in seconds for web notification	10
Activate SSO mode	false
Display automatically the search dialog	true

- d. If you want to disable the pop up that is displayed when a call is received from unknown then replace the corresponding value of **cruk** in the above field from true to false as shown below:

"cruk"="false";

- e. If you want to enable company requirement as lead generation criteria then replace the corresponding value of **isCR** in the above field from false to true as shown below:

"isCR"="true";

- f. If you want to edit the extension length from the default value then simply enter a positive numeric value that you want to set as extension limit e.g. if you want to ignore taking an action for calls received from extensions with less than or equal to 4 digits then enter the following value for **extl** as shown below:

"extl"="4";

- g. If you want to disable the feature of opening contact page before answering a call then replace the corresponding value of **ocba** in the above field from true to false as shown below:

"ocba"="false";

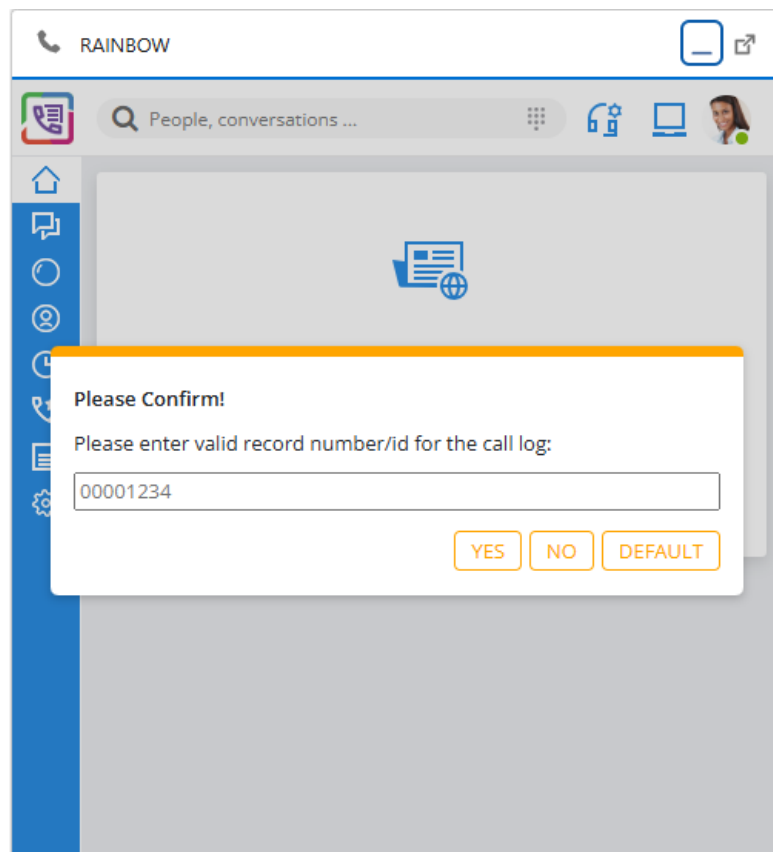
- h. If you want to enable the feature of opening case page in editable form for an incoming caller then replace the corresponding value of **ec** in the above field from false to true as shown below:

"ec"="true";

- i. To configure a popup that prompts agents to select the salesforce object (case, account, contact, lead) for saving call logs after a call ends, specify the desired object as the value for the **afca** in the above field e.g. to save call logs in the Account object, enter the following value for AFCA as shown below:

"afca"="account";

Once configured, following popup is displayed at the end of the call:



Key details about end-of-call popup are mentioned below:

- Clicking Yes, saves the call logs in the specified object (case, contact, account, lead)
- Clicking No, prevents call logs from being saved in any object.
- Clicking Default, saves the call logs in the object associated with the call at its initiation or the object from which the call was received.

- The value of contact, account or lead must be extracted from their respective URLs as highlighted below for a Contact object:



Note: If you set the value for **Cruk** as False then the pop up will not be displayed and record (contact/case/account) will not be created for the unknown. Logs will be not entered for the calls from unknown.

Note: If the value for **outgoingscreepop** is left empty or the value is set false then screen pop up will not be displayed.

Note: If the value for **c2cenabled** is left empty then click to call feature will remain enabled. If the value for **c2cenabled** is set false then click to call feature will be disabled as shown below:

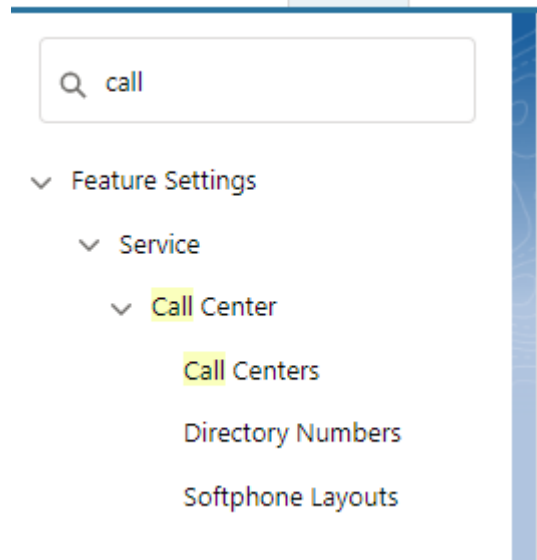
	<input type="checkbox"/> Name	Account Name	Account Site	Phone	Email	Contact Owner Alias
1	<input type="checkbox"/>			3887		
2	<input type="checkbox"/>			5307		
3	<input type="checkbox"/>			923234457955		
4	<input type="checkbox"/>			3889		
5	<input type="checkbox"/>			3888		
6	<input type="checkbox"/>			3888		

Note: If the value for **ocba** is left empty then contact page is displayed before the call is answered.

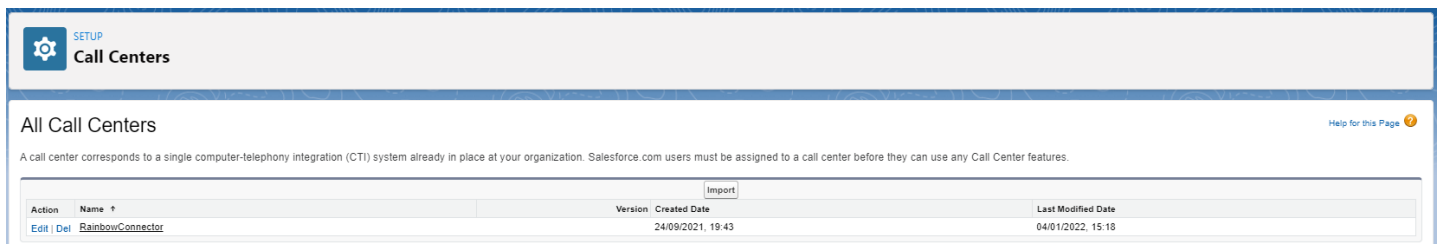
13 SSO Authorization Process

In order to introduce Single Sign on (SSO) feature, follow the steps listed below:

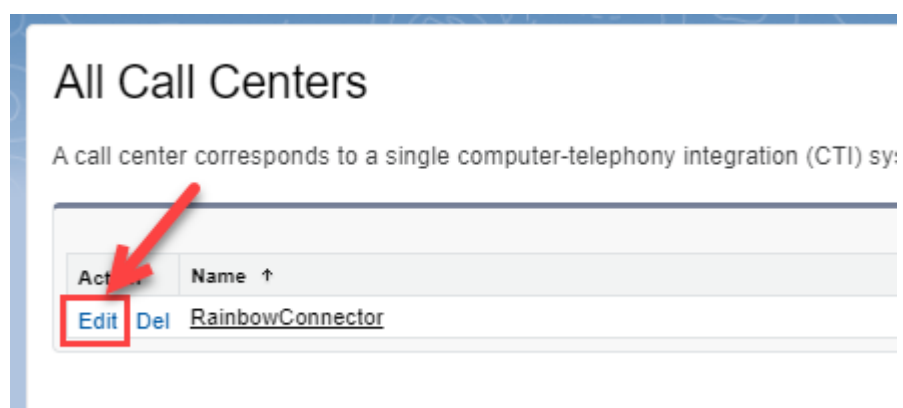
1. Login to Salesforce / Setup page and search Call Centers in the **Quick Find** field as shown below:



Once you click on Call Centers, following screen is displayed:



2. Click on **Edit** as highlighted below:



Following screen will be displayed:

The screenshot shows the 'Call Center Edit' page for 'RainbowConnector'. The 'General Information' section contains the following fields:

Field	Value
InternalName	RainbowConnector
Display Name	RainbowConnector
CTI AdapterURL	https://sfcd-conector-lightnli
CTI standby AdapterURL	https://sfcd-conector-lightnli
Use CTI API	true
Timeout	10000
Softphone Height	500
Softphone Width	350
Salesforce Compatibility Mode	Lightning
Salesforce Search Object	Contact.Account
Salesforce Create Object	Contact
Salesforce Search by using CorrelatorData	false

Go to **Activate SSO mode** option in **User Profile** section and type **True** in that field as shown below:

The screenshot shows the 'User Profile' section. The 'Activate SSO mode' field is highlighted with a red box and a red arrow pointing to it. The value 'true' is entered in this field.

Field	Value
Number of results to display search link	1
Allow user to modify parameters	true
Default parameters	"displayAutomaticObject"="f
Allow user to answer call by clicking in the notification	false
Timeout in seconds for web notification	10
Activate SSO mode	true
Display automatically the search dialing	false

Once done, Press on Save button.

Now, the login screen will be displayed in the form of a pop-up window as shown below:

The screenshot shows the Rainbow CRM Bridge login screen. A pop-up window titled 'Sign in with Rainbow' is displayed over the main login form. The pop-up window contains the Rainbow logo, a login form with fields for 'Email address' and 'Password', and a 'Continue' button. The background shows the main login screen with a 'Connect using Rainbow' button.

Once the user enters the credentials, the pop-up window will disappear and the user will be logged into the Salesforce CRM (Rainbow CRM Bridge).

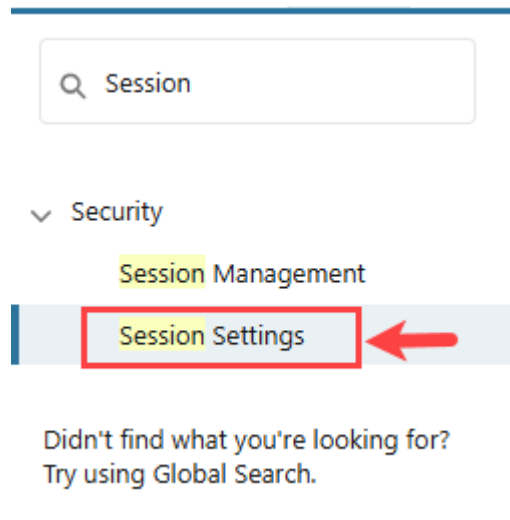
Note: If you have enabled SSO authorization then please make sure that the pop-up blocker on your browser is disabled.

14 Session Settings

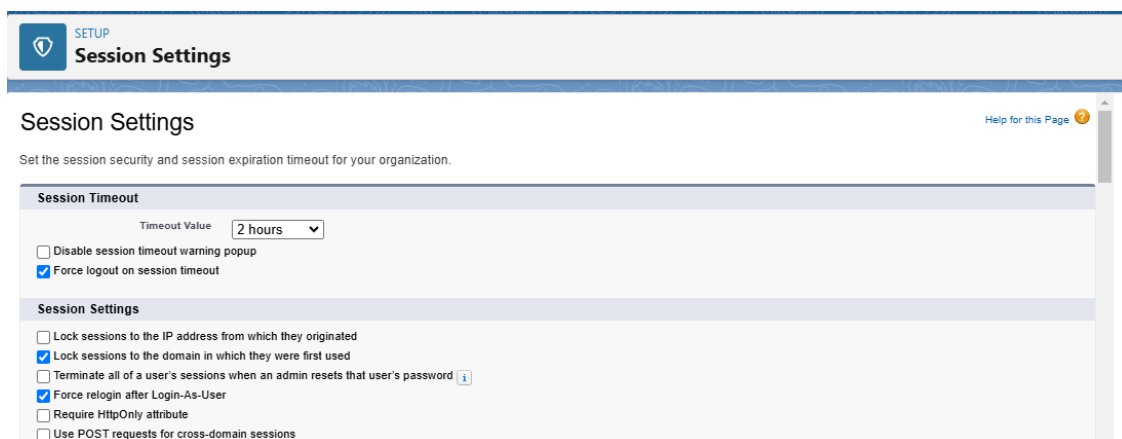
IMPORTANT!! Below mentioned configuration changes are optional and should only be performed if required by the data security protocols followed in an organization.

In some organizations, access to camera and microphone resources may be restricted. To enable special permissions for these resources, follow these steps::

1. Use the **Quick Find** search bar in Salesforce to locate and select **Session Settings** as shown below:



2. Once you click on Sessions Settings, following screen is displayed



3. Scroll down to the Browser Feature Permissions section on this page as shown below:

Browser Feature Permissions

Control whether browser features can be accessed from the pages that Salesforce serves for this org.

☐ Include Permissions-Policy HTTP header [i](#)

Select when to allow access to these browser features.

Camera Trusted URLs Only [i](#)

Microphone Trusted URLs Only [i](#)

Session Security Levels

Standard

- Username Password
- Delegated Authentication
- Activation
- Lightning Login
- Passwordless Login

High Assurance

- Multi-Factor Authentication

Add

4. Check the box next to **Include Permission-Policy HTTP Header**. This action enables the dropdown menus for **Camera** and **Microphone** as shown below:

Browser Feature Permissions

Control whether browser features can be accessed from the pages that Salesforce serves for this org.

☒ Include Permissions-Policy HTTP header [i](#)

Select when to allow access to these browser features.

Camera Trusted URLs Only [i](#)

Microphone Trusted URLs Only [i](#)

5. Use the dropdown menus for **Camera** and **Microphone** to select the **Always** option. A confirmation pop-up will appear; click **OK** to proceed

Manager

Search

Session Settings

☐ Apply CSP directives for less

☐ Adopt updated CSP directives

Browser Feature Permissions

Control whether browser features can be accessed from the pages that Salesforce serves for this org.

☒ Include Permissions-Policy HTTP header [i](#)

Select when to allow access to these browser features.

Camera Always [i](#)

Microphone Trusted URLs Only [i](#)

Browser Feature Permissions

Control whether browser features can be accessed from the pages that Salesforce serves for this org.

☒ Include Permissions-Policy HTTP header [i](#)

Select when to allow access to these browser features.

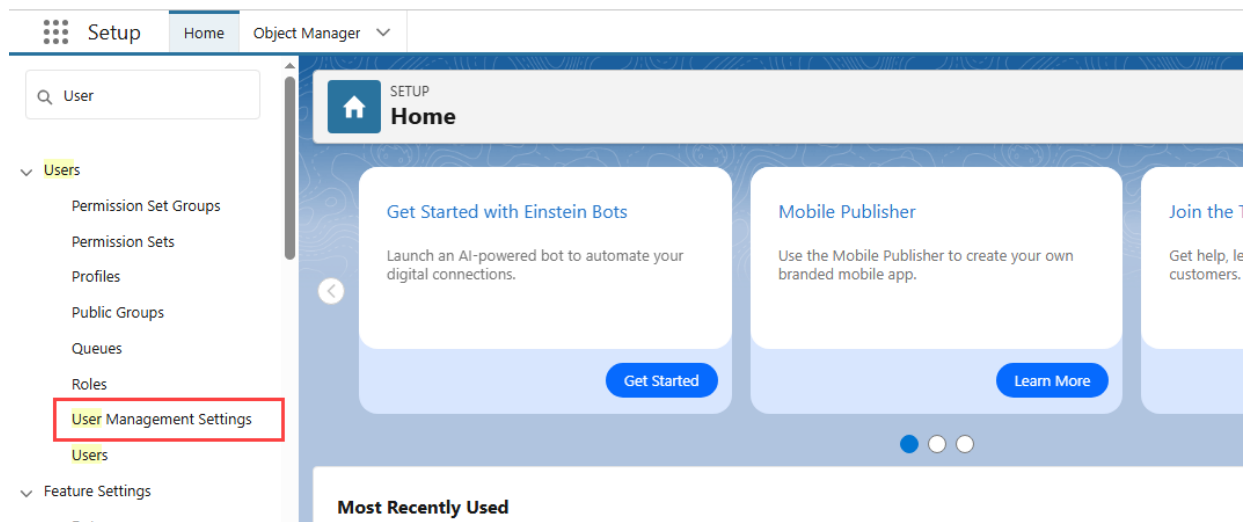
Camera Always [i](#)

Microphone Always [i](#)

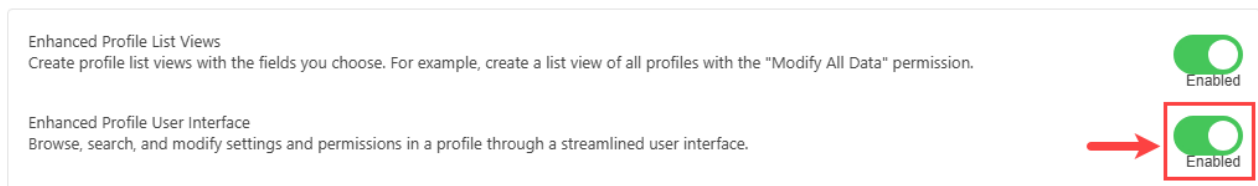
6. Click the Save button at the bottom of the page to apply the updated session settings.

15 Enable Apex Class for User Profile

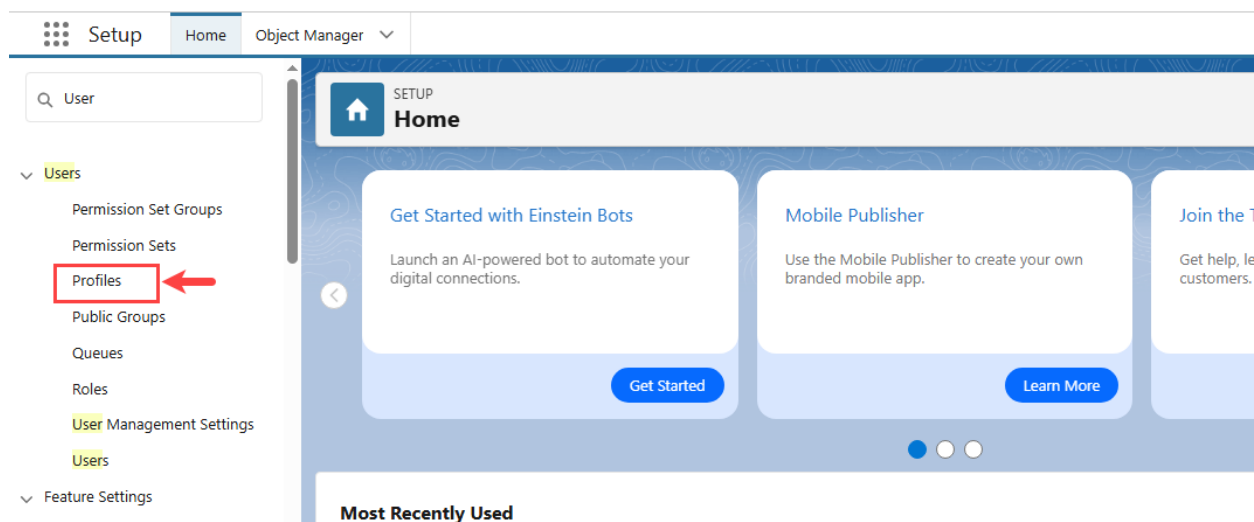
1. From Setup, type User in the Quick Find box and click User Management Settings.



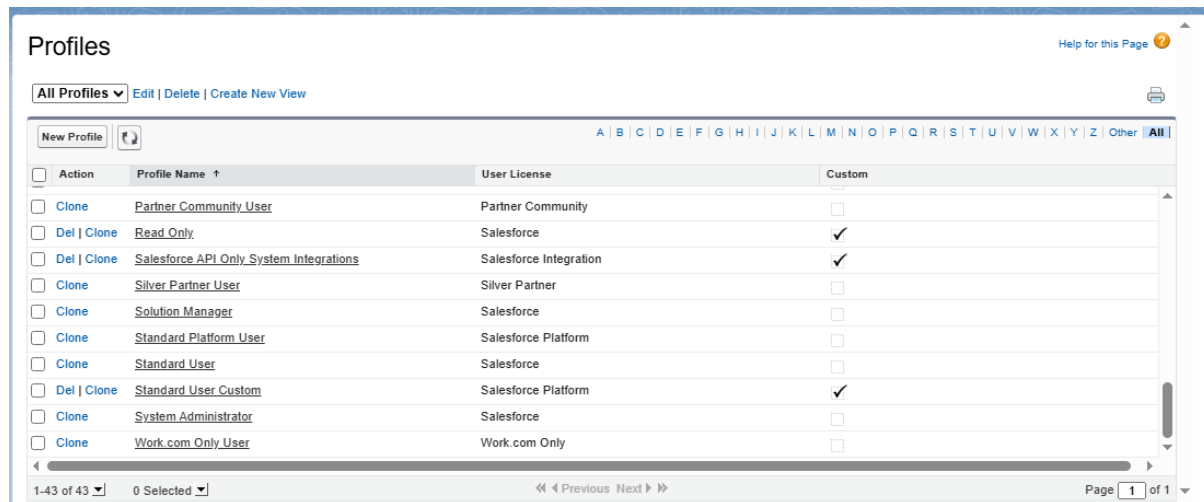
2. Scroll down to **Enhanced Profile User Interface** option and click on the button next to it to Enable this option as shown below:



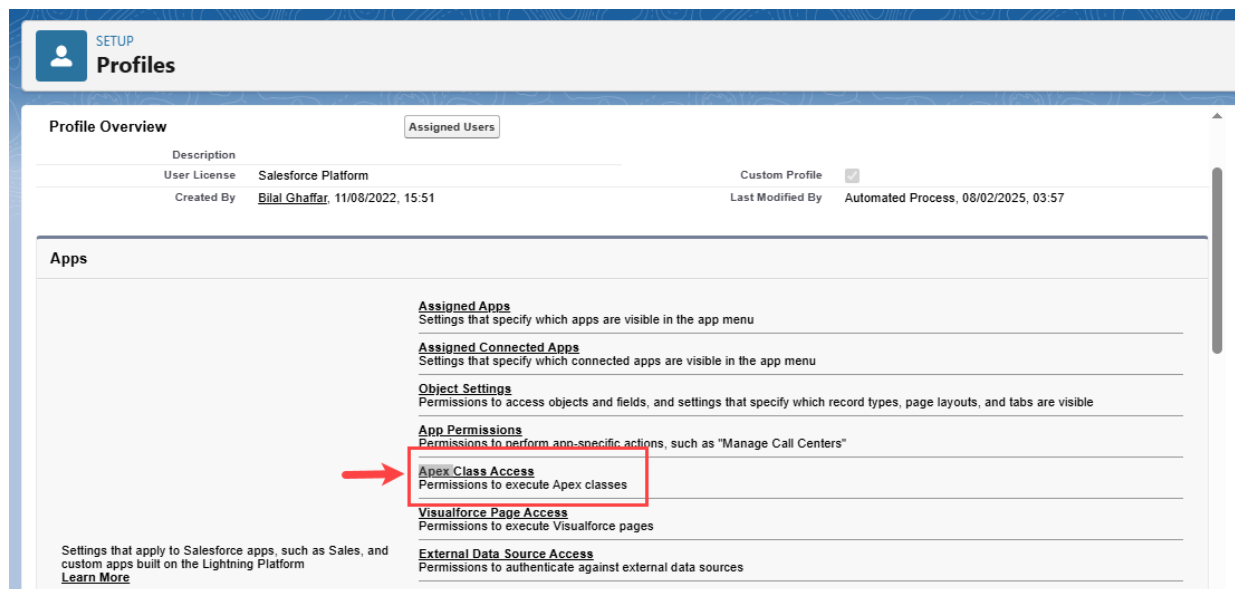
3. From Setup, type Users in the Quick Find box and click Profiles.



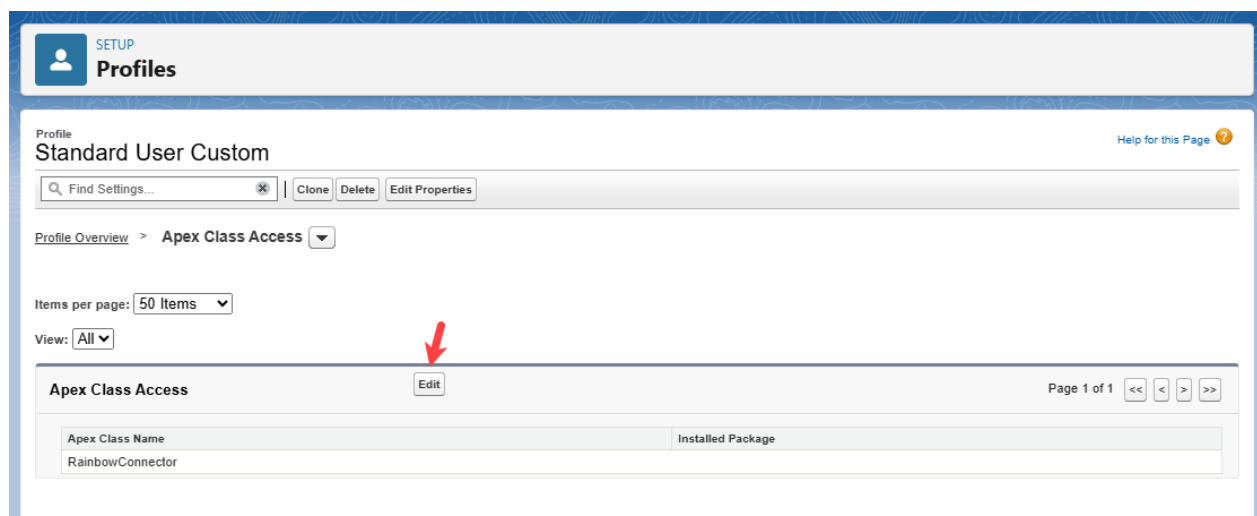
4. Find the profile for the users and click the profile name.



5. From the Profile Overview page, click Apex Class Access as highlighted below:



6. On the next screen, click on the Edit button as highlighted below:



7. Select Rainbow Connector from the list and click Add to add it to the Enabled APEX list as shown below:

Apex Class Access

Save

Close

Available Apex Classes

FSL.ut_dispatchConsoleAvailabilityService

FSL.ut_dispatchConsoleSettings

FSL.ut_dispatchConsoleTerritoriesTree

FSL.ut_featureTracking

FSL.ut_ganttPushService

FSL.ut_generalClasses

FSL.ut_groupOnRuleAndObjectives

FSL.ut_retrieveDataActivityLog

FSL.ut_servicesListService

MyRestResource

RainbowConnectorDevelopment

RainbowConnectorDevelopmentTest

RainbowConnectorTest

RainbowConnectorTestDev

test

Add

Remove

Enabled Apex Classes

RainbowConnector

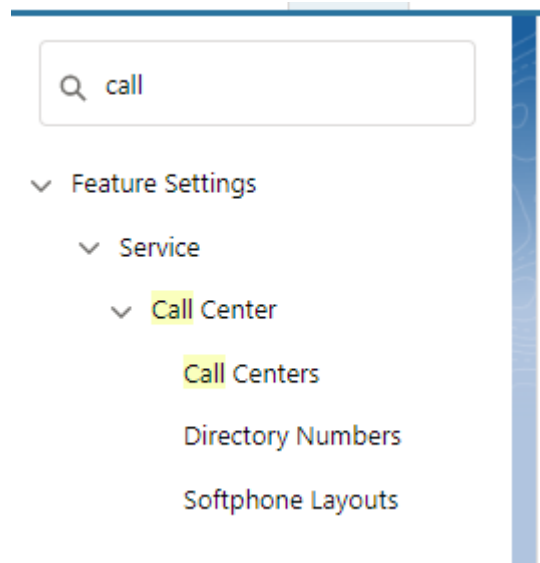
8. Click on Save button.

16 Configuring Bot User

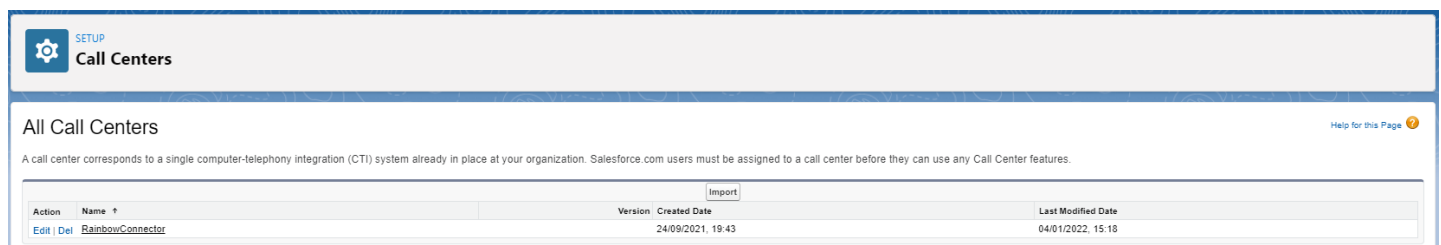
Salesforce provides the ability to configure a BOT user within your call centers. With the help of this BOT user, 3rd party applications (e.g. VNA) can be integrated to interact with Rainbow CRM Bridge application. In order to configure this user, an email address has to be provided. Commands passed by this BOT user can be used to perform automated tasks.

In order to configure email address of Bot user, follow the steps listed below:

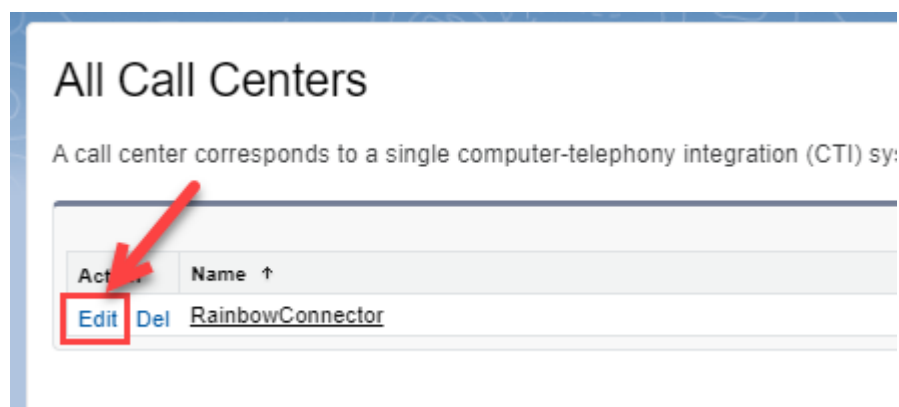
4. Login to Salesforce / Setup page and search Call Centers in the **Quick Find** field as shown below:



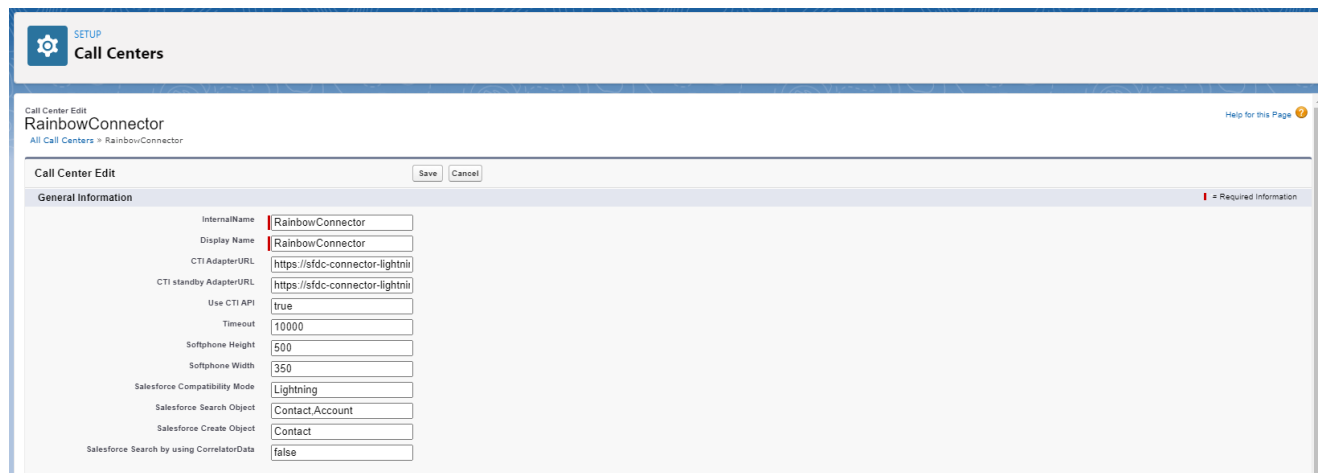
Once you click on Call Centers, following screen is displayed:



5. Click on Edit as highlighted below:



Following screen will be displayed:



- Go to Configurations section available at the bottom of the page and enter the email address in the BOT Email field that is highlighted below:



Once done, Press **Save** button.

After a Bot user has been configured, following actions can be performed with the help of it:

16.1 Screen Pop

It can be used to display a screen pop for an incoming call. Phone number of an existing user is provided by the Bot user in following format:

#popup <phoneno>

16.2 Update Call Log

Bot user can be used to store call logs of an incoming call. Information related to logs is provided in following format:

```
#updatecalllog{"calldatetime": "<calldate>","telnumber": "<phoneno>","callduration":  
"<callduration>","calldirection": "<calldirection>","callid": "", "callstate": "<callstate>","callcomments":  
"<callcomments>"}
```

<calldate> = Date of call format should be like yyyy-mm-dd e.g. 2023-06-19

<calldirection> = Call direction should be either incoming or outgoing

<callduration> = duration will be in milliseconds

Note: Call direction is mandatory and should be provided for updating of call logs.

Note: If either screen pop or C2C actions are not performed for a call then call logs can not be updated for that particular call.

16.3 Click-2-Call (C2C)

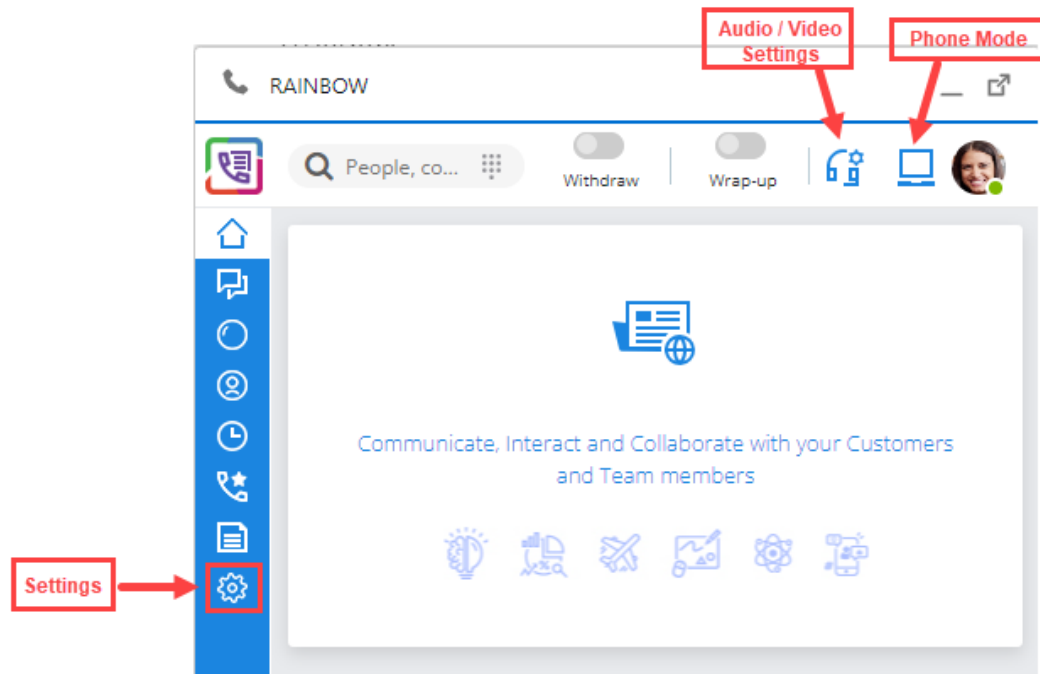
Click-2-Call (C2C) can be used to initiate a call via Bot user. Phone number is sent to bot user in following format:

```
#c2c <phoneno>
```

Calling Options

17 Settings

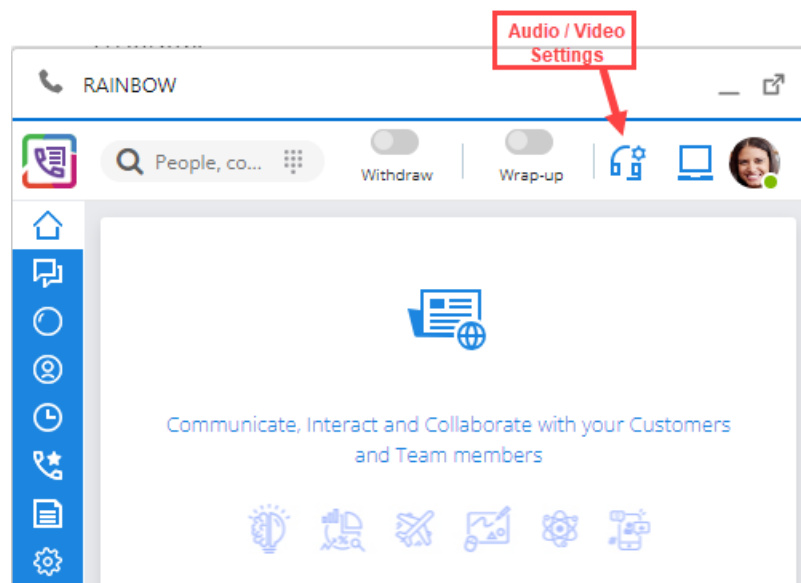
Various settings options are available in Rainbow CRM Bridge to customize the agent's user experience as per their preference as highlighted below:



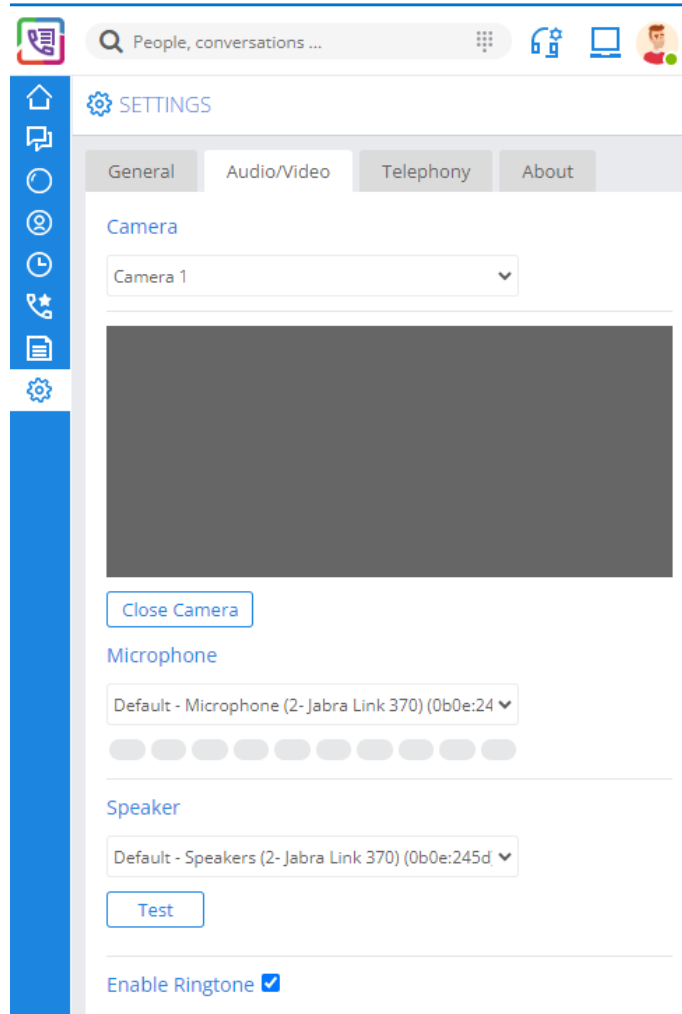
Details are available below:

17.1 Audio/Video Settings

In order to configure audio / video settings, an agent can directly click on the icon available in the Rainbow CRM Bridge as highlighted below:



Following screen is displayed:

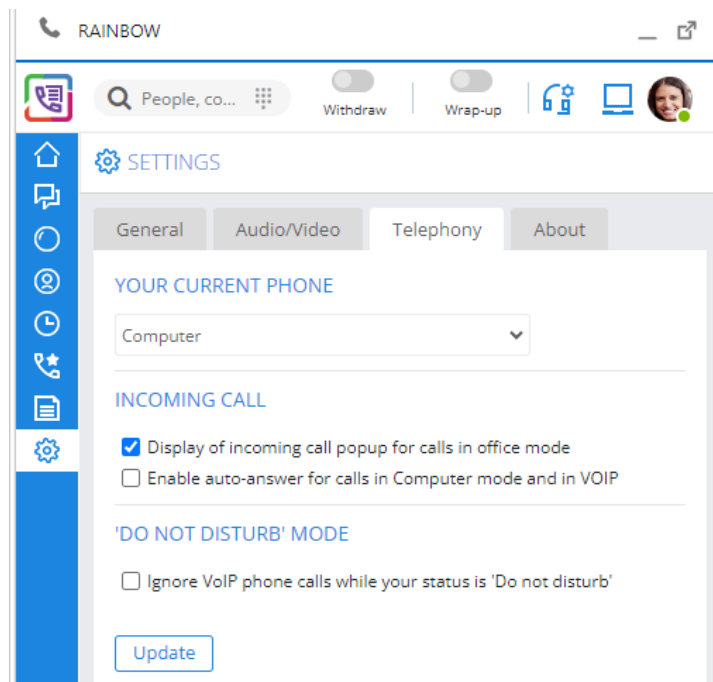


The above screen allows agents to:

- Select preferred camera, microphone, and speaker from the respective dropdown menus.
- View a preview of the selected video and audio feeds.
- Test speaker functionality by clicking the *Test* button.
- Enable or disable the ringtone for incoming calls.

17.2 Telephony Settings

This set of settings determine the behavior of Rainbow CRM Bridge within the salesforce CRM and how calls are handled with the help of this connector application.



Your Current Phone: Use the drop-down menu to select the current phone configuration that you want to use.

- Computer (VoIP) – Enables call operations within the Rainbow CRM Bridge application.
- Office Phone – Enables call operations through a physical handset configured in Salesforce CRM and associated with a particular agent.
- Work Mobile – Enables call operations through the mobile device configured in Salesforce CRM and associated with a particular agent.
- Other Phone – Enables call operations through an alternative device, other than the primary office or mobile phone, configured for the agent.

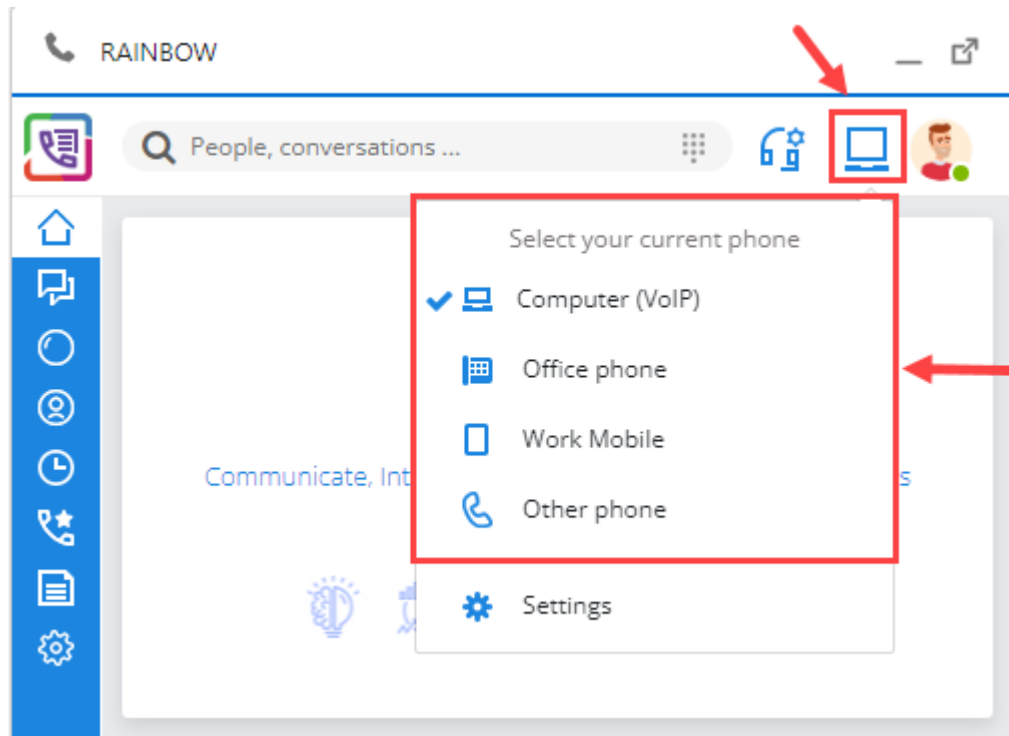
Incoming Call

- The first option should be checked if an agent wants to receive call notification in Rainbow CRM Bridge when an incoming call is received on the office phone.
- The 2nd option should be checked if an agent wants to automatically answer incoming calls when using the Rainbow CRM Bridge for call operations.

Do Not Disturb Mode

- This option should be checked if an agent wants to prevent incoming calls on Rainbow CRM Bridge when the agent's status is set to Do Not Disturb.


Note: Phone mode can be updated directly from the Rainbow CRM Bridge screen instead of going through Settings menu. Simply click on the highlighted icon below and select your desired mode from the drop-down menu:

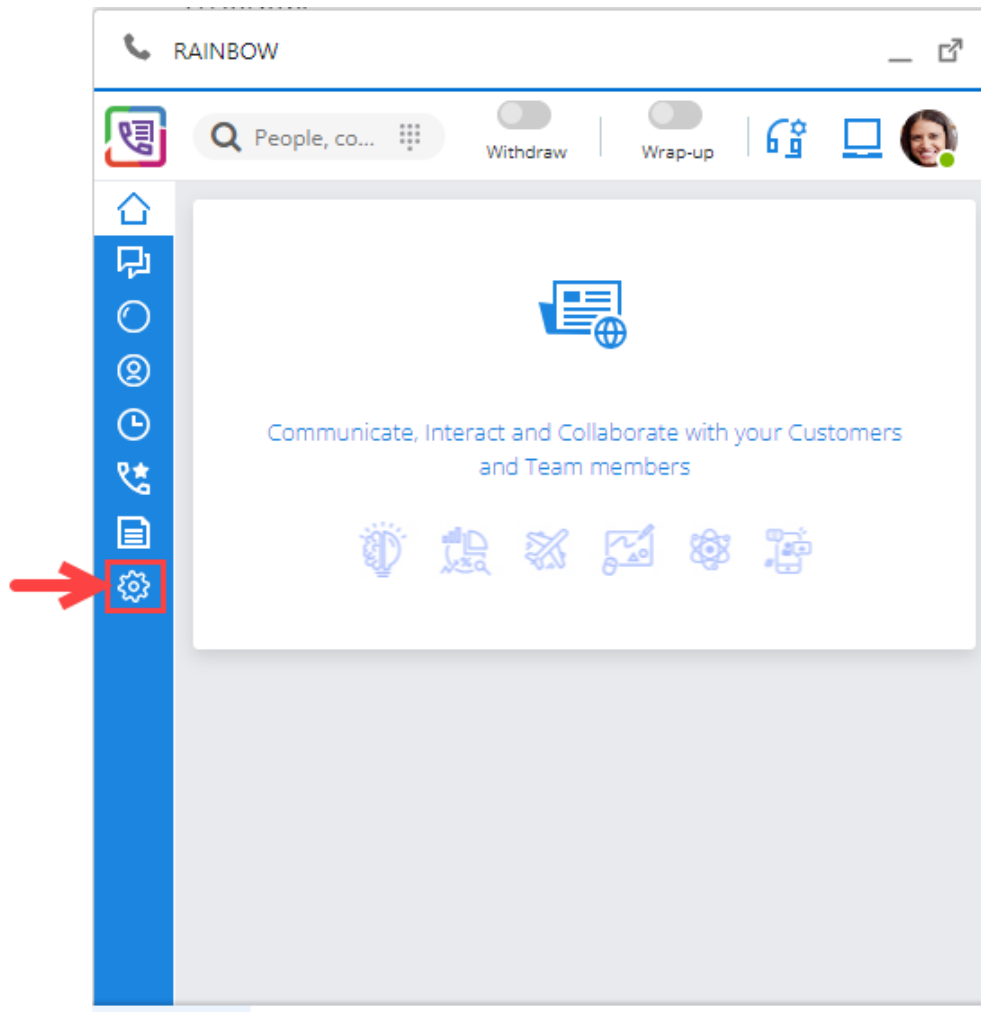


17.3 Language Settings

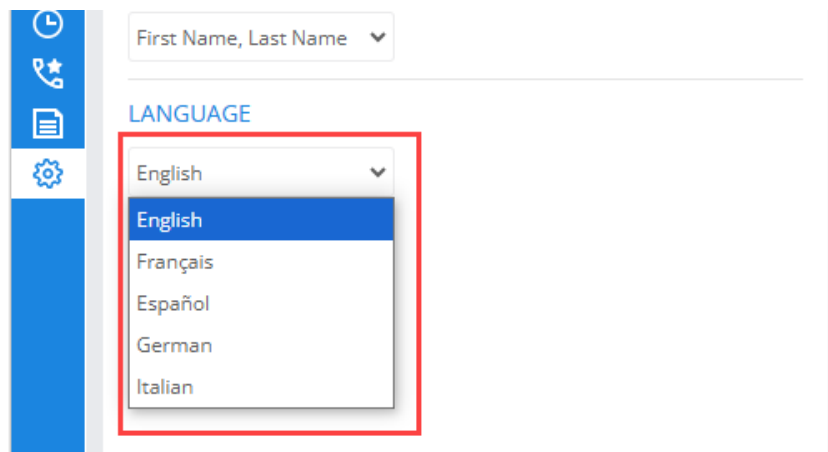
An agent can update the display language on Rainbow CRM Bridge as per their choice. Following options are available:

1. English
2. French
3. Spanish
4. Italian

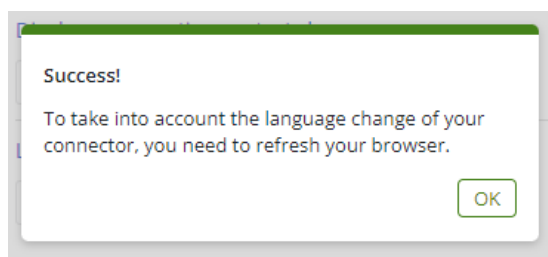
In order to update language settings, go to Settings tab by clicking on the  icon as highlighted below:



On the General tab, click on the drop-down menu under the language section and select your desired language as shown below:



Once you have selected your desired language a pop up will be displayed as shown below:



Press Ok and refresh your browser for these changes to take effect. Your selected display language will be updated.

18 Known Limitations

This section contains all the limitations applicable on Rainbow CRM Bridge when used specifically for Salesforce

1. In case of other phone or work mobile, multiple contact option will not work.
2. If Rainbow contact information is not synced with Salesforce then activity logs will not be available for all the calls received from that particular contact.
3. In case telephonic mode is set as Other Phone then all call controls on Rainbow CRM Bridge will be disabled.

19 Troubleshooting

In order to avoid the “Blocked State” of the CCD agent when the distant caller hangs up, the timer 384 value must be set to 0 (in system/timers) as highlighted below:

```
Review/Modify: Timers
Node Number (reserved) : 1
Instance (reserved) : 1
Timer No. : 384
Timer units : 0
```

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