

RAINBOW CRM BRIDGE – SALESFORCE CRM DEPLOYMENT GUIDE

Rainbow CRM Bridge



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.
04	08/04/2022	Section 4.7.2 Code for RainbowConnector Test class has been updated. Section 9 Screenshot has been updated. Details about login pop up window has been added.
05	19/04/2022	Section 4.7.1 Code for RainbowConnector class has been updated.
06	02/05/2022	Section 4.2.1 Screenshot has been updated. Section 4.7.1 Code for RainbowConnector class has been updated. Section 4.7.2 Version number in the code for RainbowConnector Test class has been updated.
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	29/04/2024	<p>Section 5.5</p>

Edition	Date	Changes / Comments / Details
		New section about call playback via OmniPCX RECORD has been added. Remaining 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.

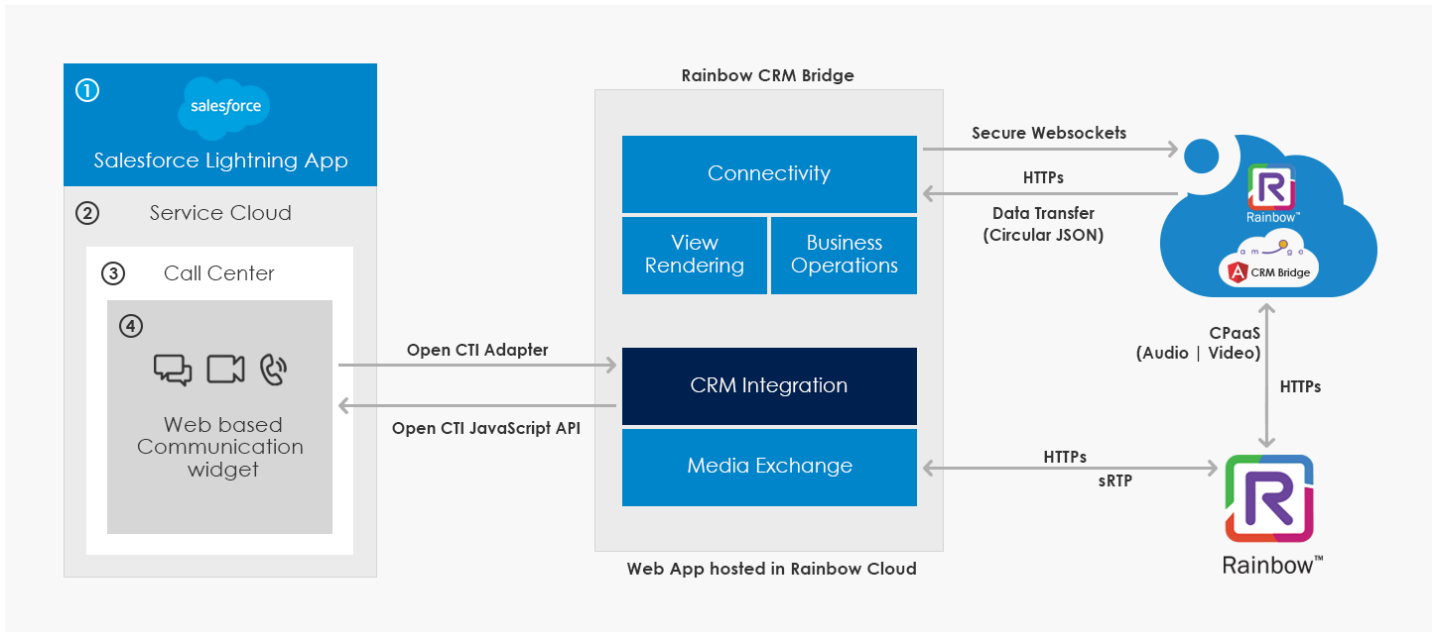
Rainbow CRM Bridge uses the CPaaS platform to pull Rainbow user details e.g. Contacts, Conversations and Bubbles. This enables the logged in user to receive Rainbow Calls, Office PBX calls and perform variety of actions including Audio and Video calls.

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

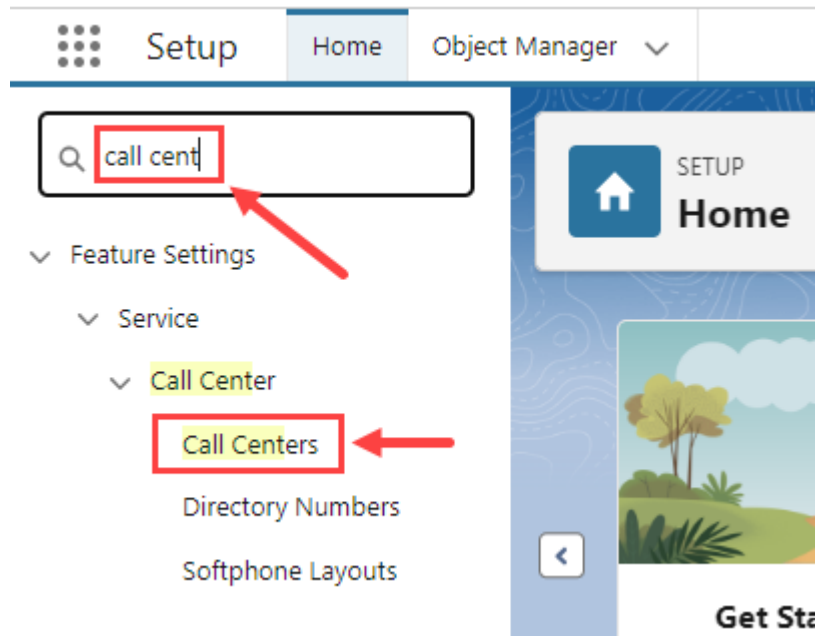
The code required to configure Lightning mode is available separately in the txt file titled LightModeConfiguration. Copy the code from that txt file and save it as “callCenterRainbow.xml”. Please make the following updates in the code:

- 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

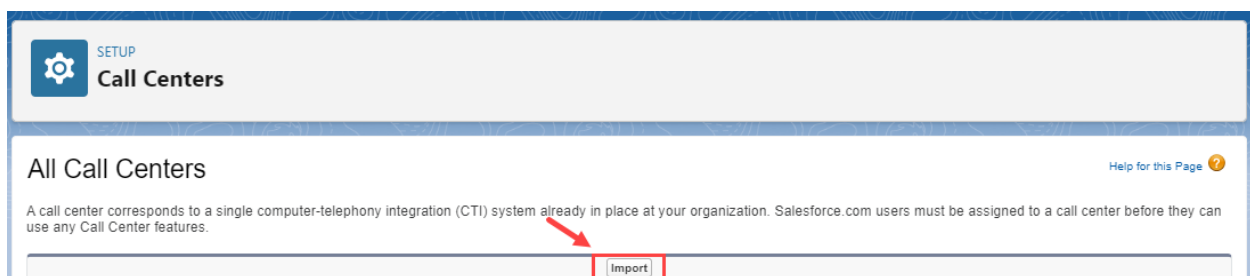
This configuration of Salesforce is an example, and must be adapted according to the customer configuration.

From Salesforce / Setup page, search Call Centers.

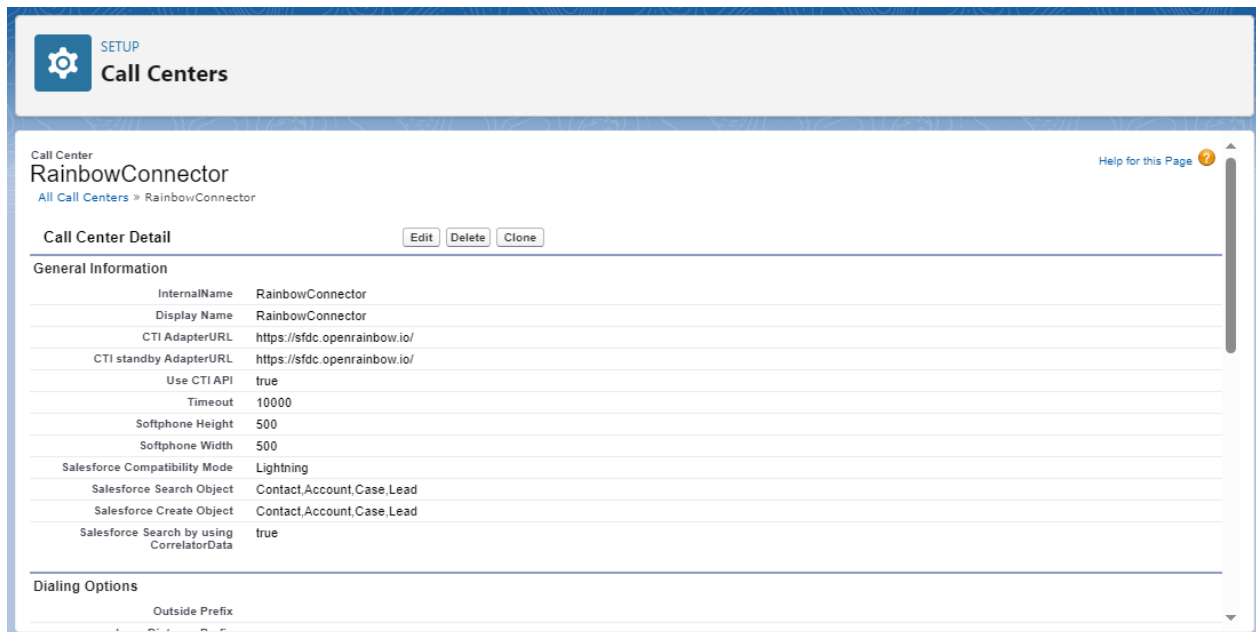


5.2.1 Import Configuration File

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



Result should look like:



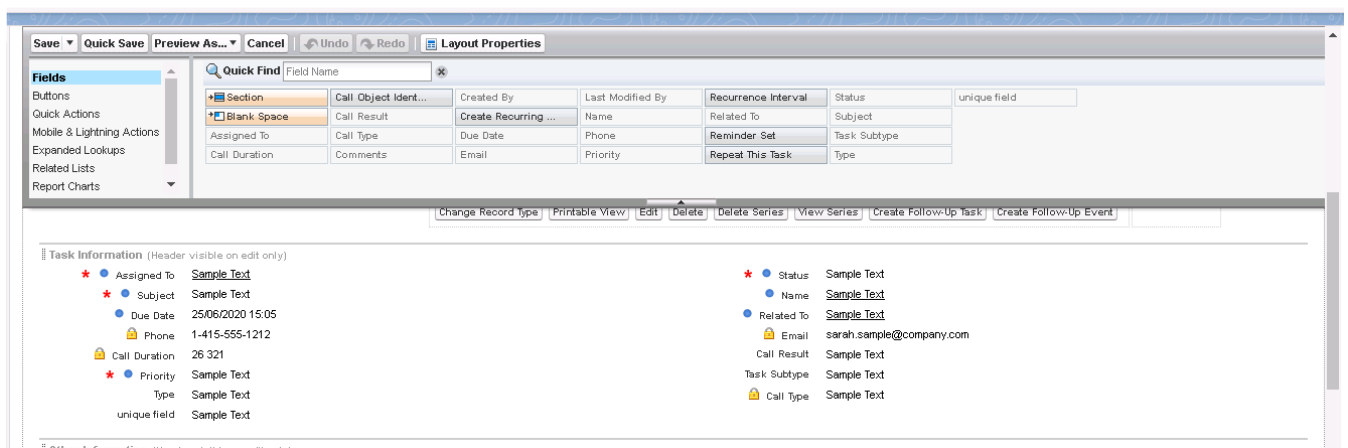
5.2.2 Call Centers Users

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**

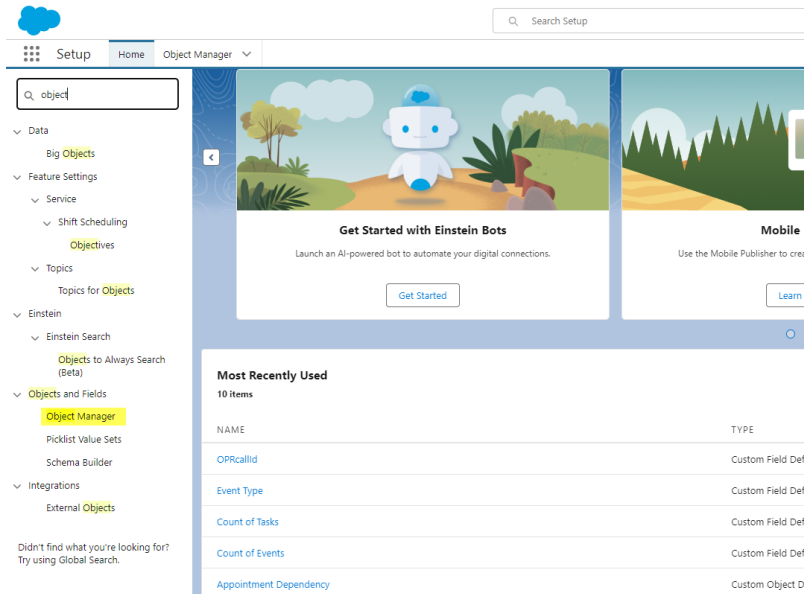
Drag and drop the fields Call Duration, Call Result, Call Type, Call Object Identifier from the task layout to the task information.



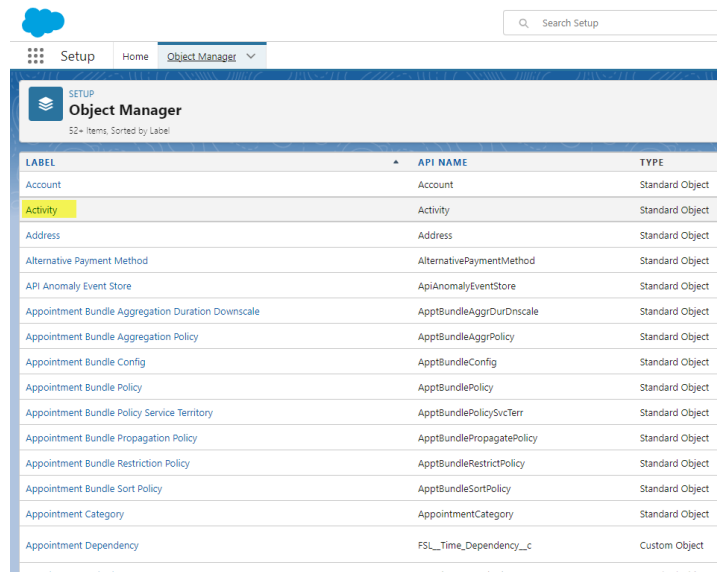
5.4 Customize object with a field GlobalCallID to save the Global Call ID

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

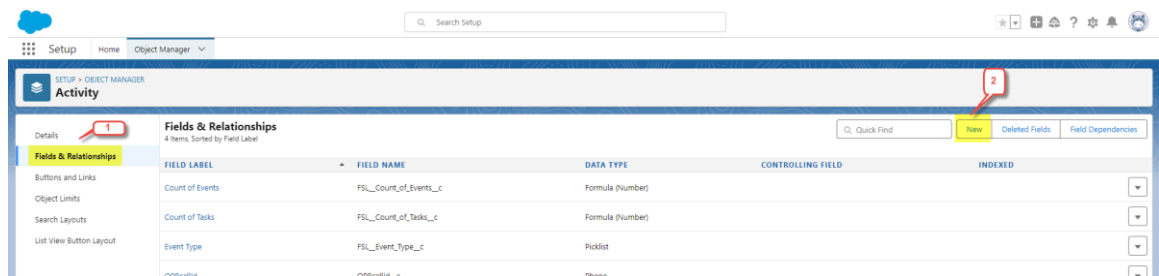
1. From Salesforce / Setup page, search **Object Manager** as shown below:



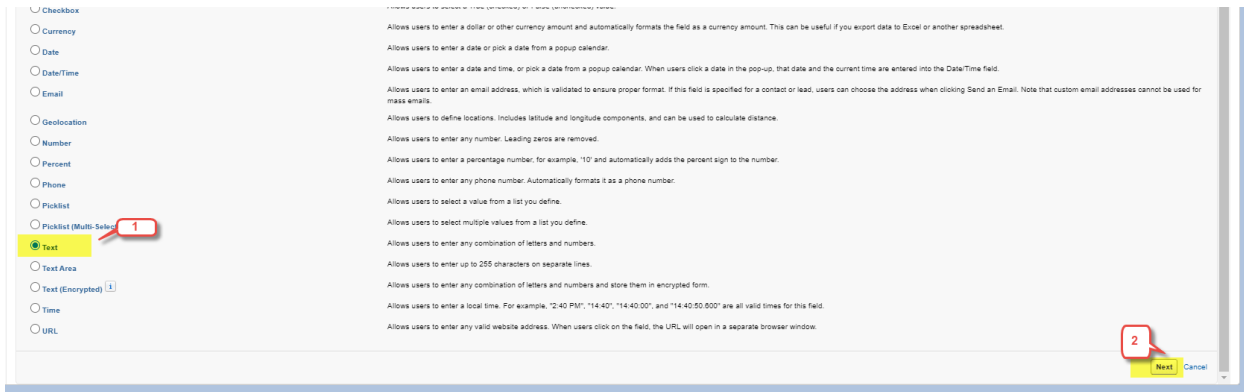
2. On the **Object Manager** screen, select **Activity** option as shown below:



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:



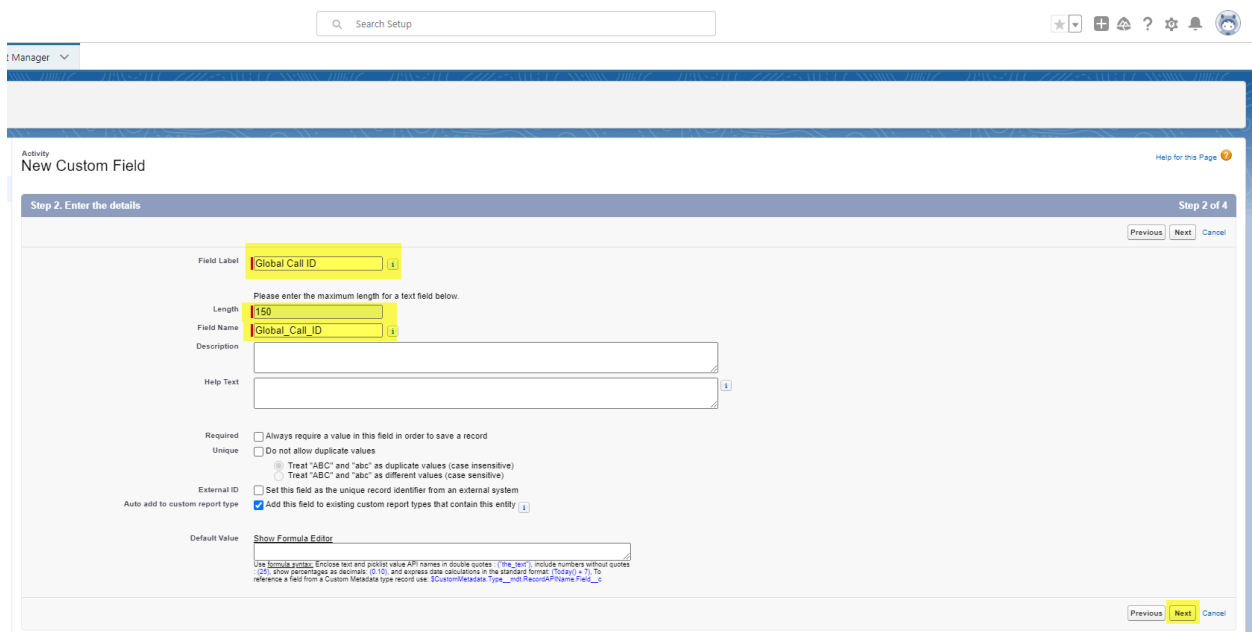
5. On the **New Custom Field** page enter following values in respective fields:

Field Label: Global Call ID

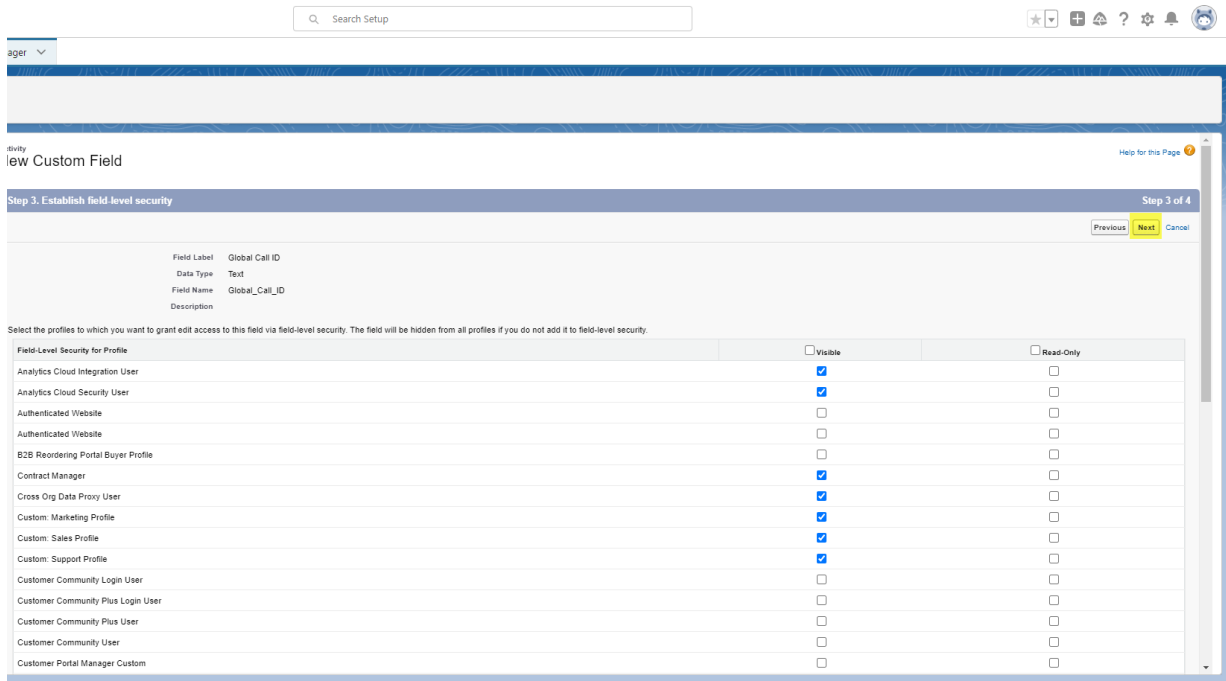
Length: 150

Field Name: Global_Call_ID

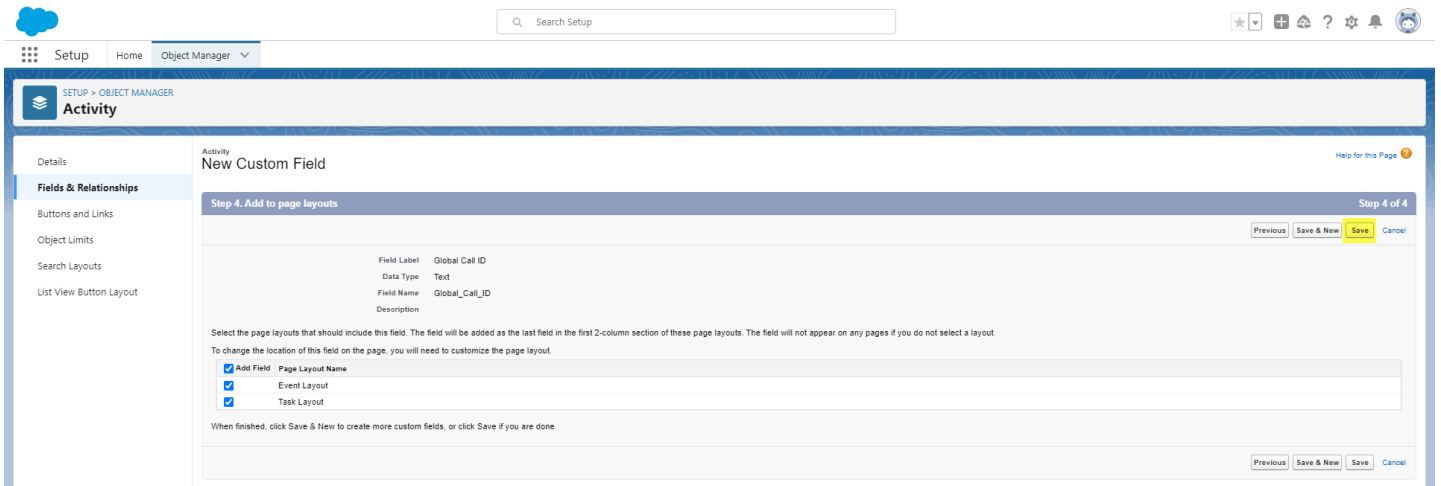
Once done, click on the **Next** tab.



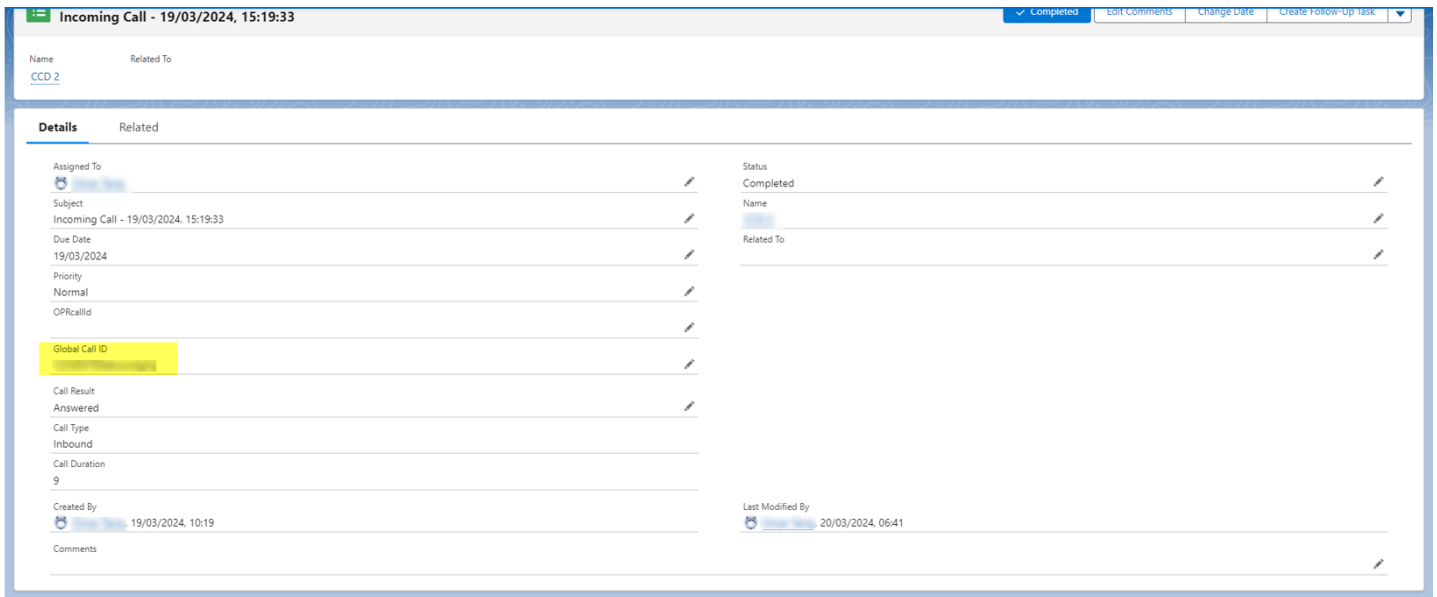
6. On the next page click on the **Next** button as shown below:



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



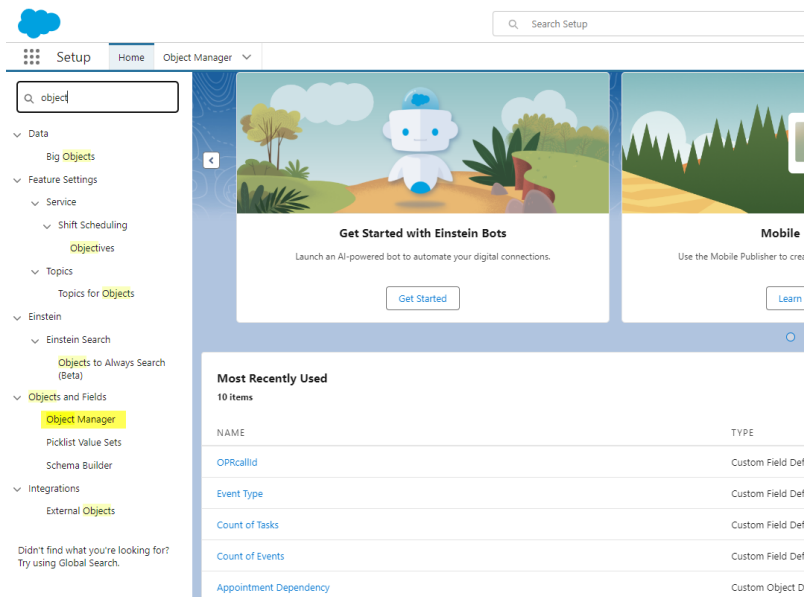
After the above configuration changes have been made, Global Call ID will be available in call logs as highlighted below:



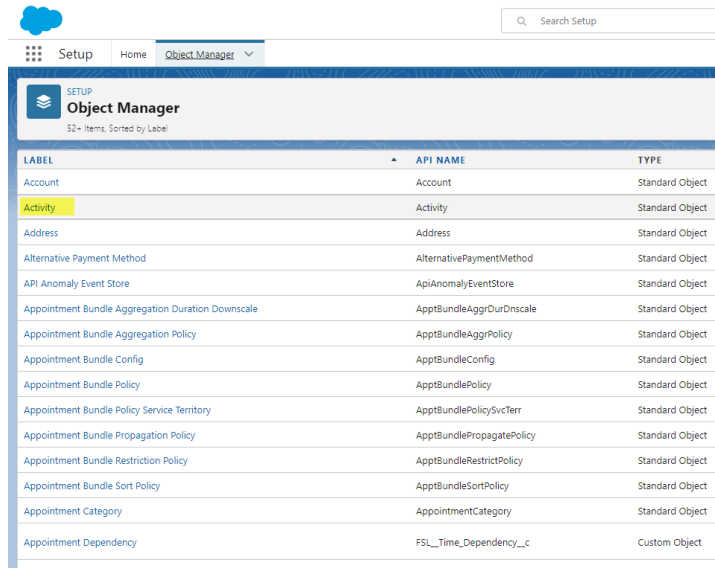
5.5 Call Playback via OmniPCX RECORD

IMPORTANT!! Below mentioned configuration changes are optional and should only be followed if you are using OmniPCX RECORD and want to perform call playback of recorded calls.

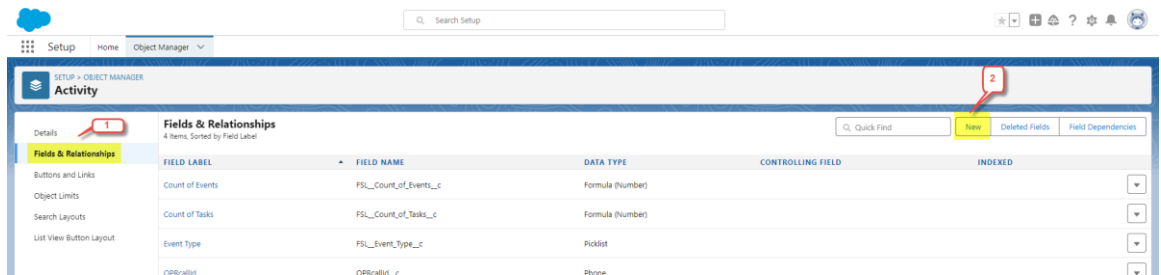
1. From Salesforce / Setup page, search **Object Manager** as shown below:



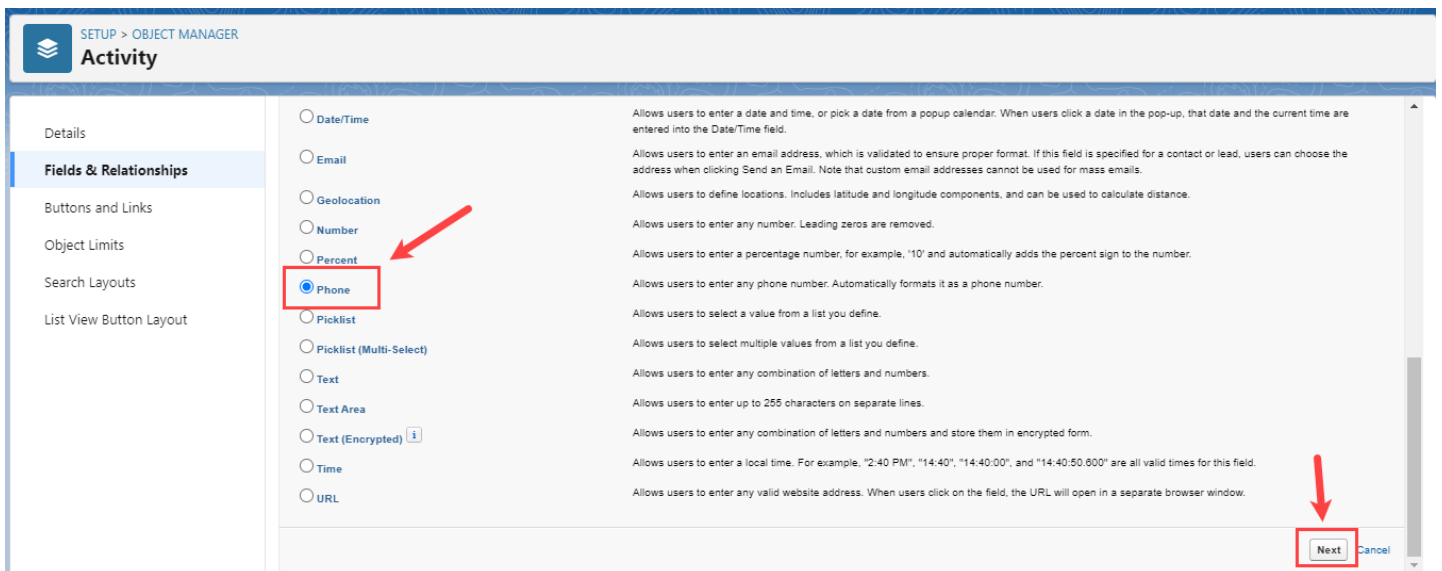
2. On the **Object Manager** screen, select **Activity** option as shown below:



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



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



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

Field Label: OmniPCX RECORD link

Field Name: bxrlink__c

Help Text: Click to play call record in OmniPCX RECORD.

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

Field Label: OmniPCX RECORD link

Field Name: oxrlink_c

Description:

Help Text: Click to play call record in OmniPCX RECORD

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: Show Formula Editor

Use formula syntax: Enclose text and picklist value API names in double quotes ("This text"). Include numbers without quotes (25). Show percentages as decimals: (0.10), and express date calculations in the standard format: (Today) + 7). To reference a field from a Custom Metadata type record use: \$CustomMetadata.Type__mdt:RecordAPIName.Field__c

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

Activity: New Custom Field

Step 3. Establish field-level security

Field Label: OmniPCX RECORD link

Data Type: Phone

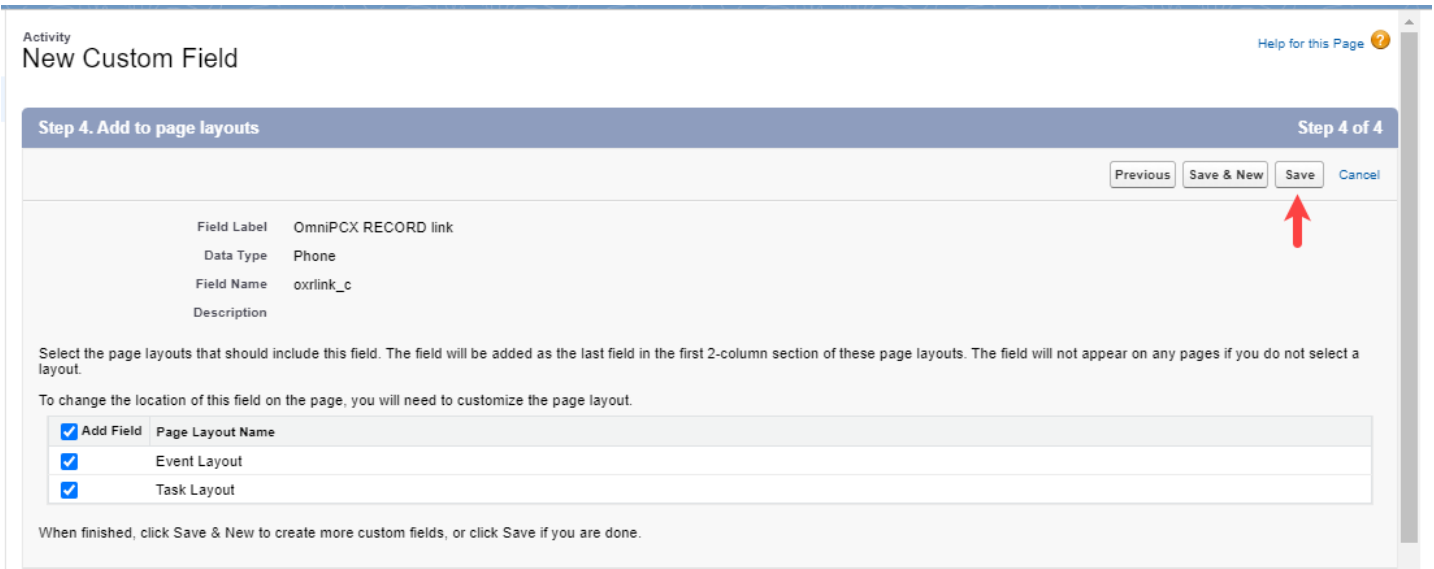
Field Name: oxrlink_c

Description:

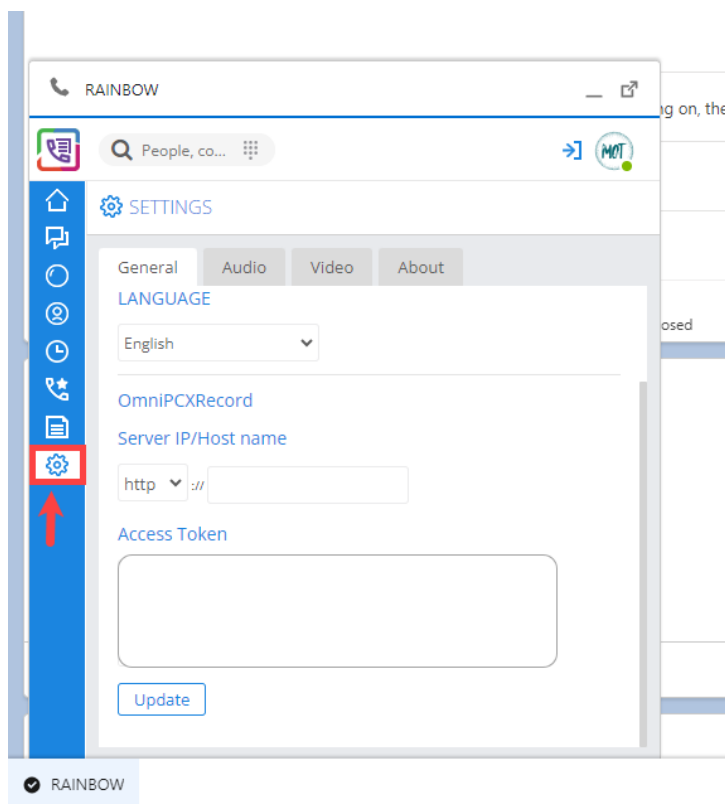
Select the profiles to which you want to grant edit access to this field via field-level security. The field will be hidden from all profiles if you do not add it to field-level security.

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"/>
R2R Reporting Portal User Profile	<input type="checkbox"/>	<input type="checkbox"/>

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



8. Afterwards, open up the Rainbow CRM Bridge and click on **Settings** option as shown below. Following screen is displayed:

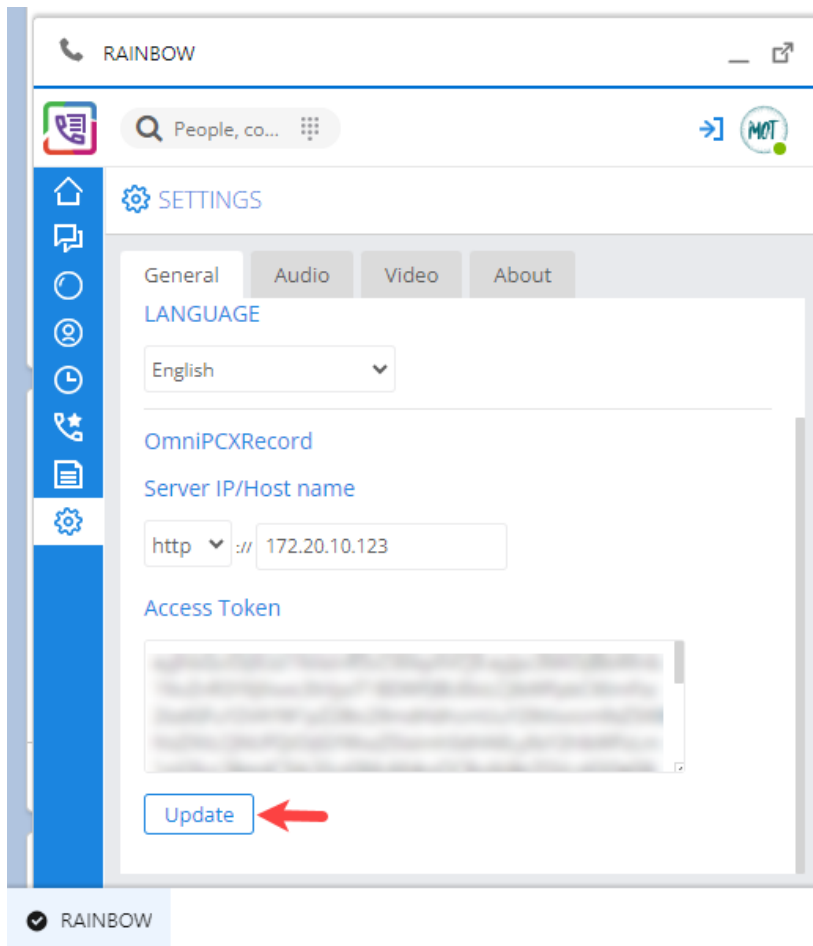


In the General tab, following 2 options are available to configure call playback via OmniPCX RECORD.

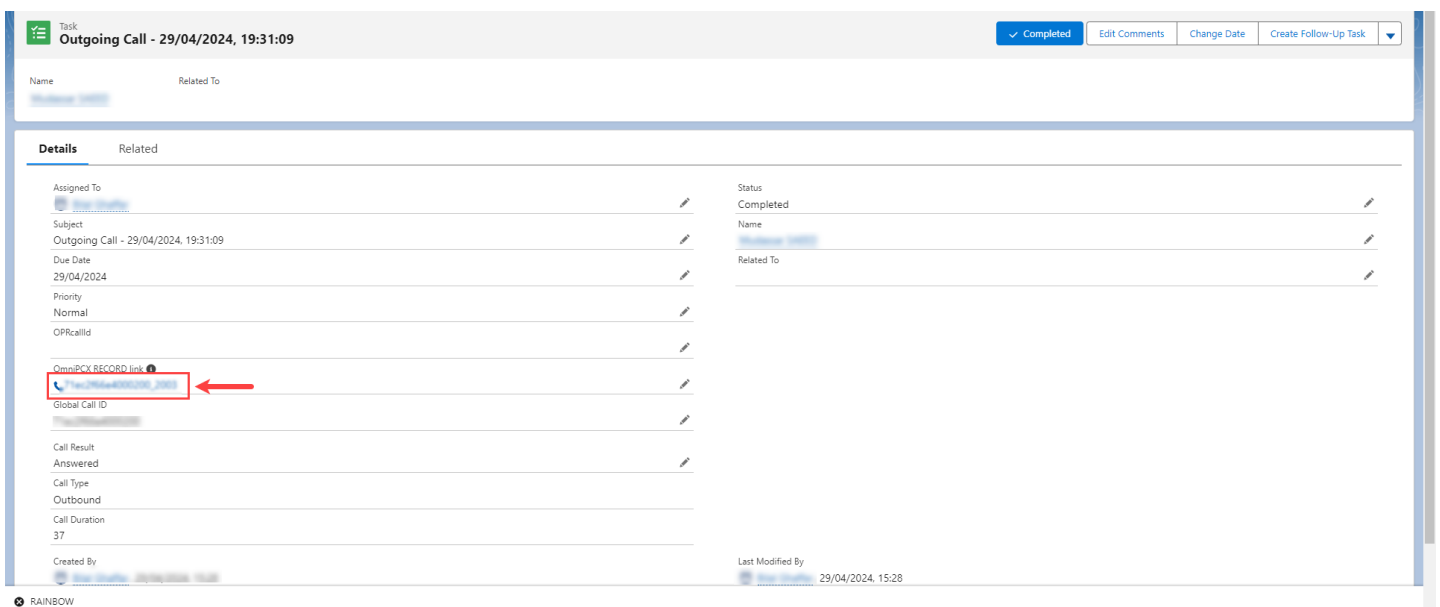
Server IP / Hostname: Provide IP address of the OmniPCX RECORD server in this field.

Access Token: Provide REST API token generated from the web interface of OmniPCX RECORD in this field.

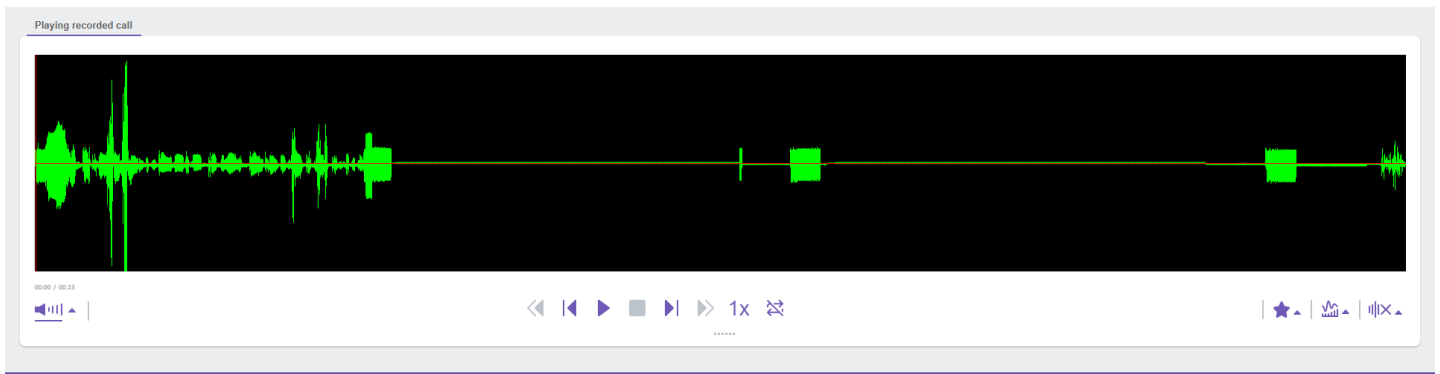
Click on the **Update** button as shown below:



After the above configuration changes have been made, link to play call record will be available in call logs as highlighted below:



Once you click on the link, the call playback will start in the OmniPCX RECORD as shown below:



IMPORTANT!! The call duration displayed in the call logs of Salesforce and OmniPCX RECORD can differ from one another.

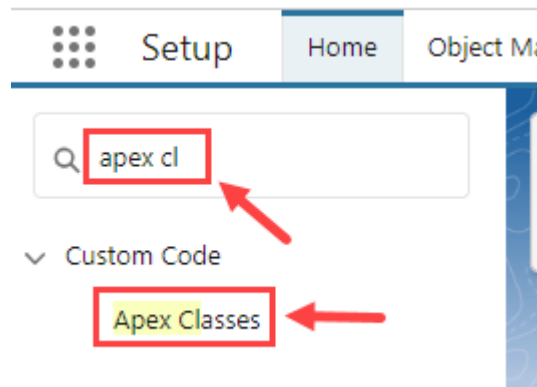
IMPORTANT!! In case of a conference call, there is a possibility that more than one call can be recorded with same Global Call ID and device information in the OmniPCX RECORD. But the user will only be able to playback the 1st call from the call logs screen in Salesforce.

5.6 Apex Classes

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

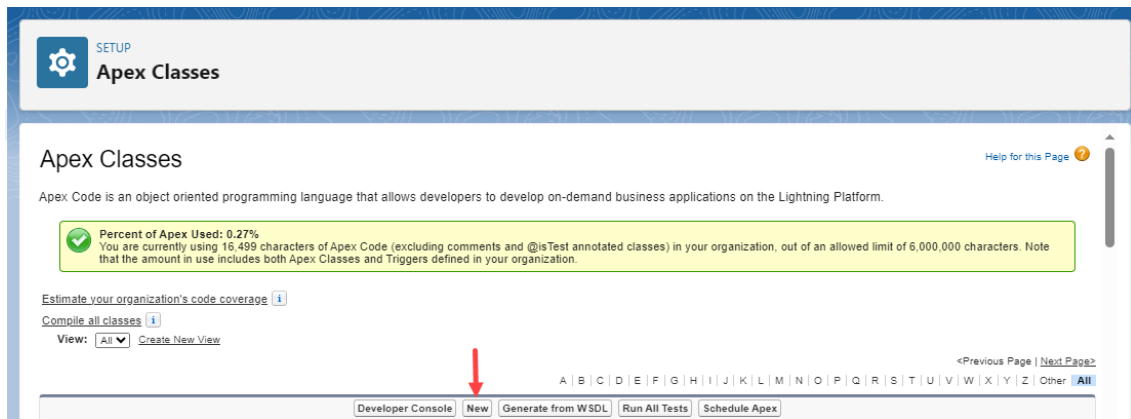
IMPORTANT!! The users that will use the connector should have their profiles allowed to use the APEX classes.

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.

It is possible to modify the search according to the phone format used in salesforce object.

Insert the format rule in the “**formatPhoneNumber**” function:

```

webService static String formatPhoneNumber(String phoneNumber) {
String formatPhoneNumber = phoneNumber;
// By example: conversion for US
// input +18171231234 => search (817)123-1234
// uncomment the following lines
// if (phoneNumber.startsWith('+1')) {
// formatPhoneNumber = '(' + phoneNumber.substring(2, 5) + ')' + phoneNumber.substring(5, 8) + '-' +
phoneNumber.substring(8);
// }
return formatPhoneNumber;
}

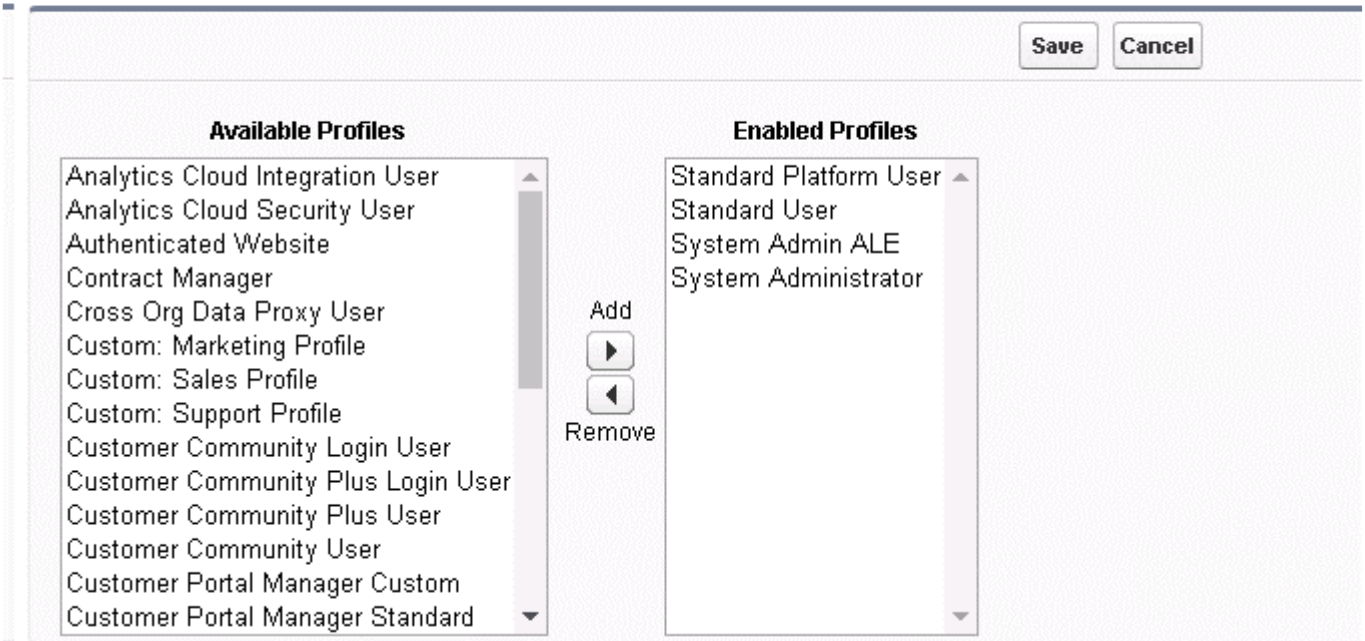
```

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

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)

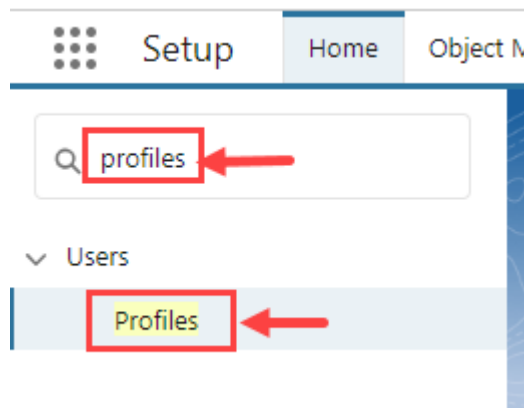
Enable Profile Access for Apex Class

RainbowConnector



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 testGetAccountsByFirstLastName() {
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 getAccountsByFirstLastName query method
37 System.assert(RainbowConnector.getAccountsByFirstLastName(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](#)

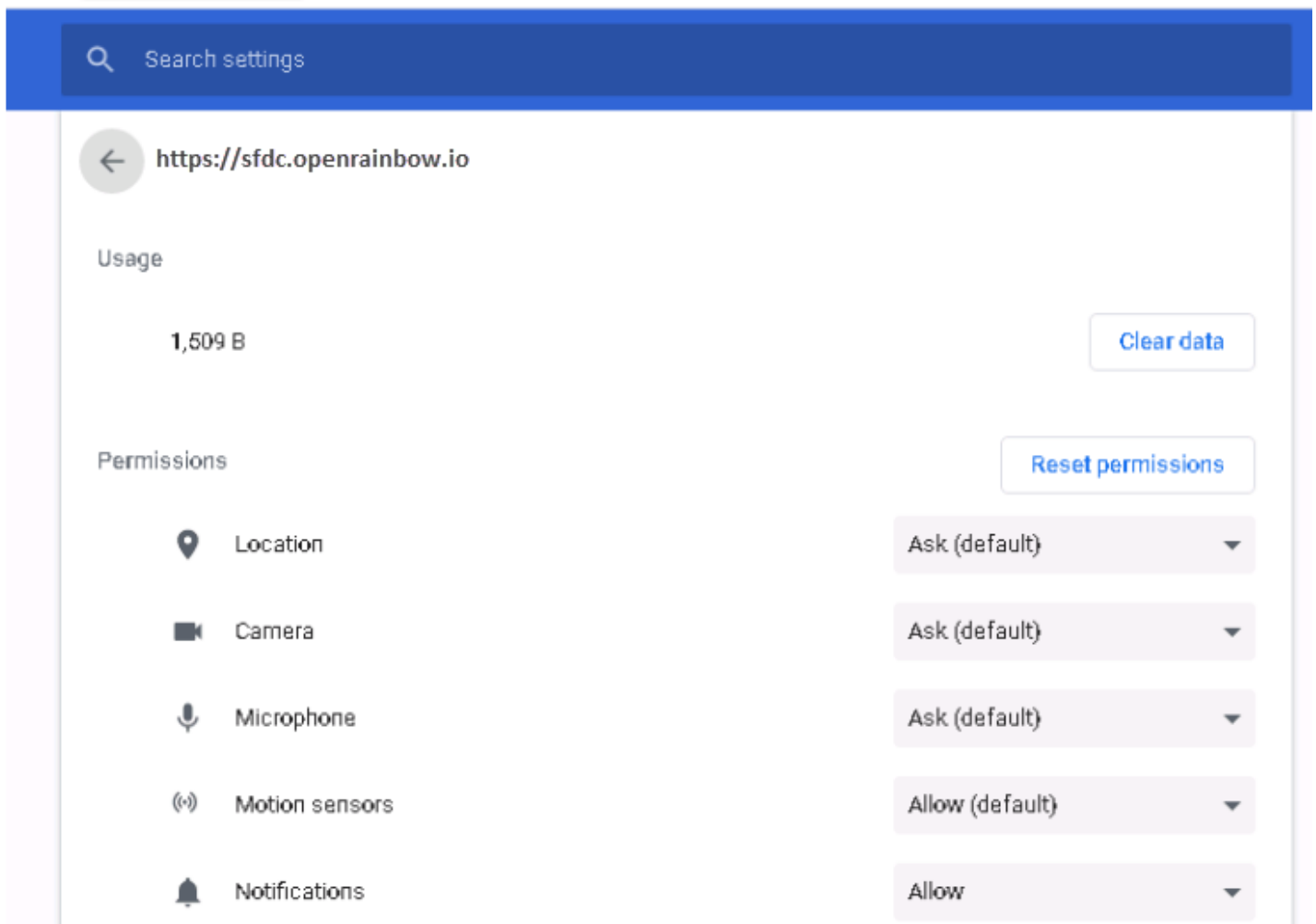
Abort		
Status	Class	Result
Test Run: 2020-02-13 14:51:28, emmanuel.gillon@ale.com, (1 test class run)		
✓	[View] RainbowConnectorTest	(8/8) Test Methods Passed

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:

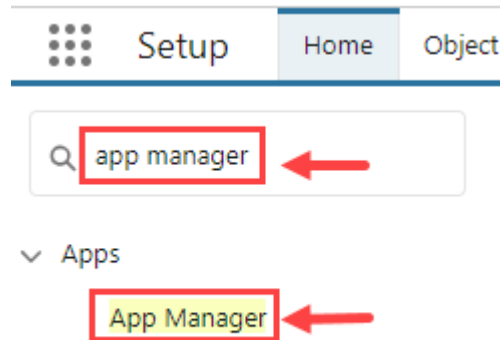
- the URL of the connector provided by ALE and used in Configuration file
- the URL of Salesforce.



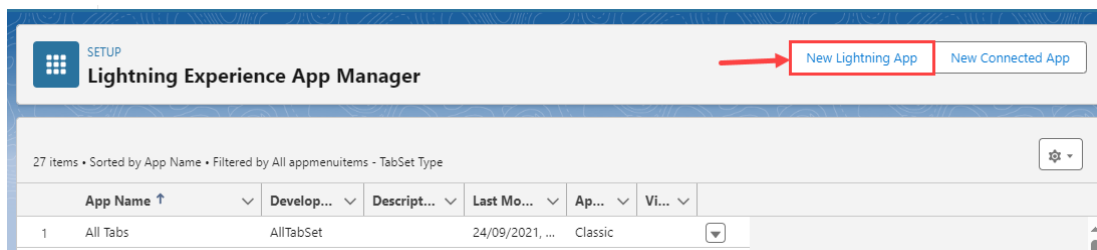
7 Salesforce App

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:

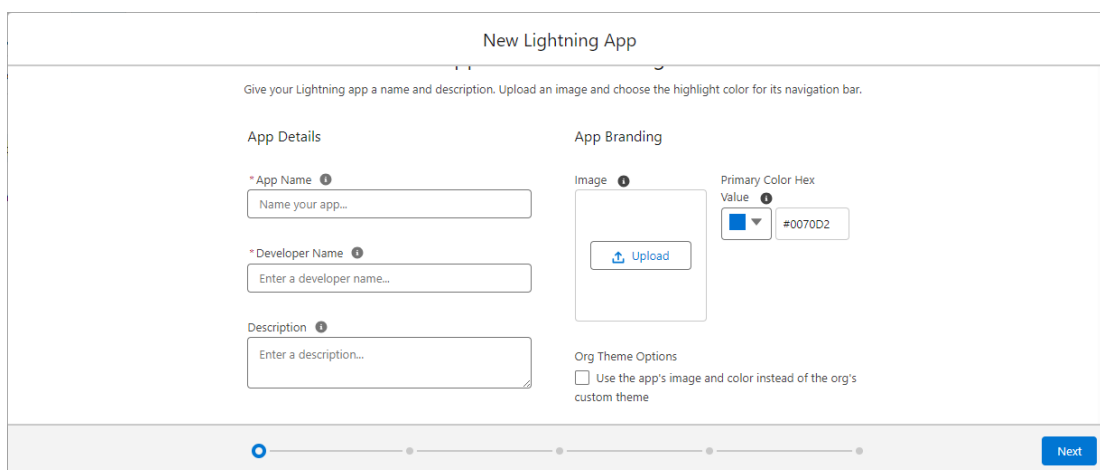
1. From Salesforce / Setup page, search **App Manager**



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



Following screen is displayed:



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

App Details

- * App Name
- * Developer Name
- Description

App Branding

- Image
- Primary Color Hex Value
- Org Theme Options Use the app's image and color instead of the org's custom theme

Next

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 ⓘ

* Developer Name ⓘ

Description ⓘ

App Branding

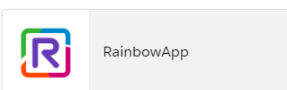
Image ⓘ


Primary Color Hex Value ⓘ

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

Org Theme Options

App Launcher Preview



- 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

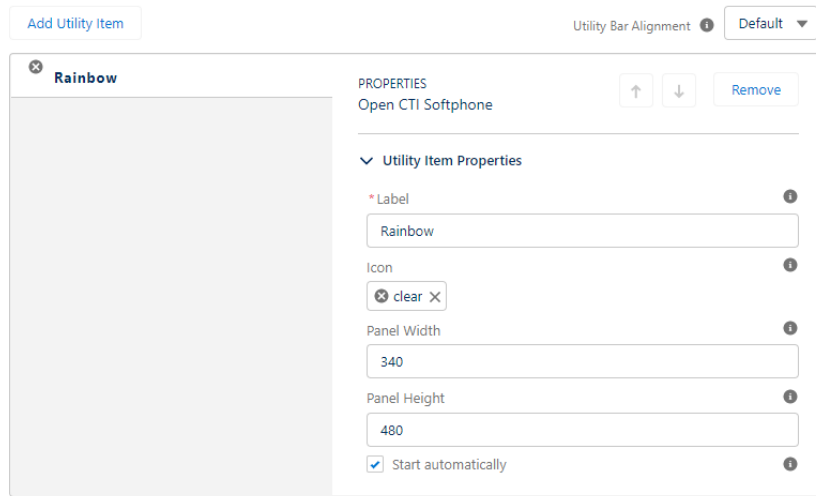
Disable end user personalization of nav items in this app

Disable temporary tabs for items outside of this app

- In Utility items, add Utility item
- Select Open CTI Softphone

Utility Items (Desktop Only)

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

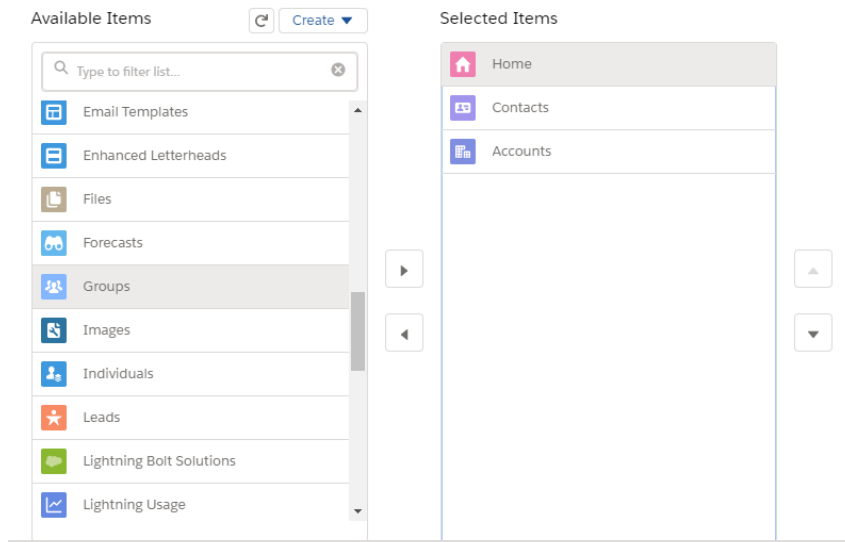


- 7. In Navigation Items, add items you need.
 - Contacts** is mandatory for the connector to perform search on contacts.
 - Accounts** is mandatory for the connector to perform search on accounts.

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.



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

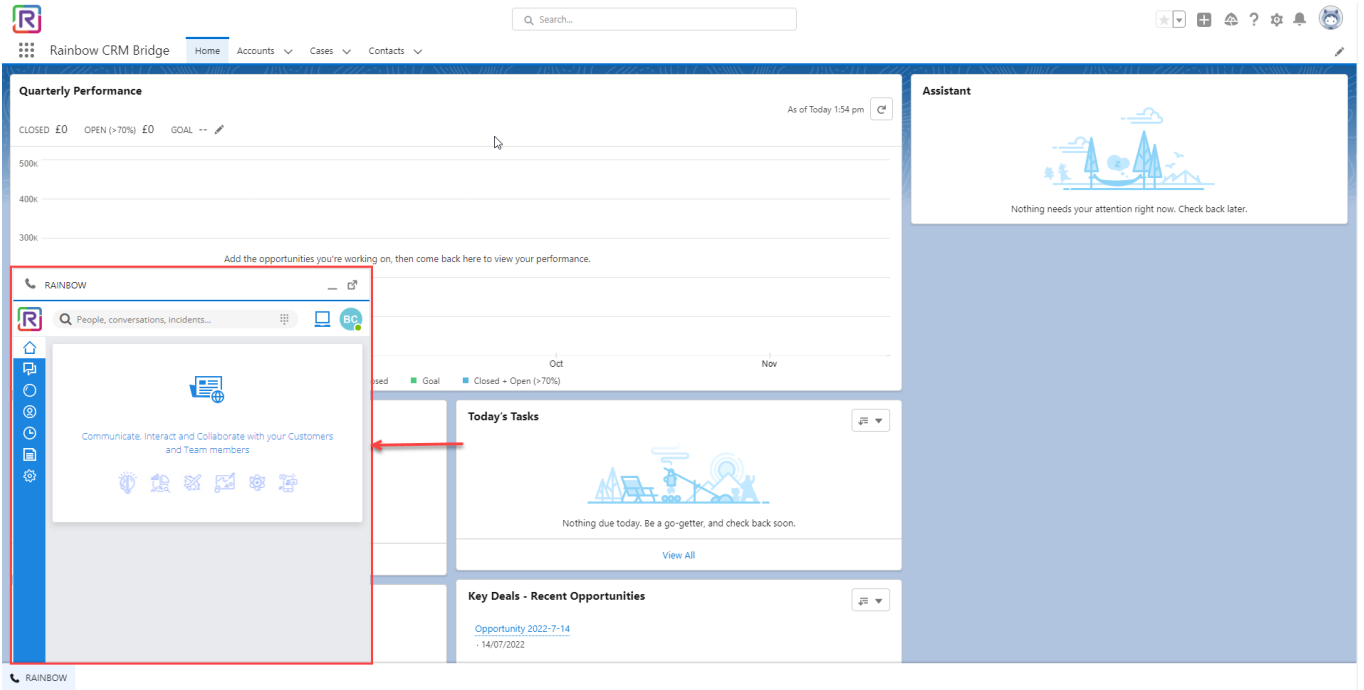
New Lightning App

User Profiles

Choose the user profiles that can access this app.

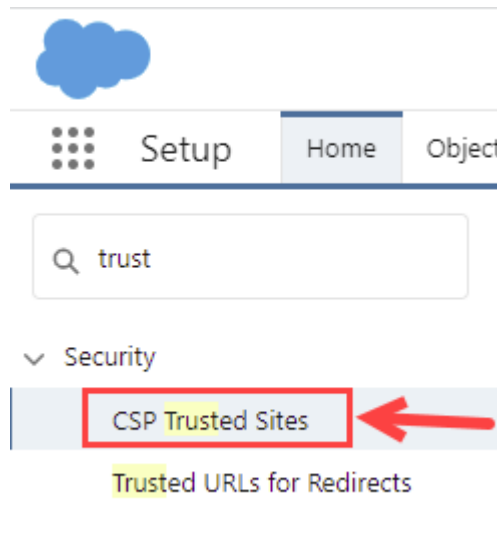
9. When done, your new app will be displayed in the App Launcher

The connector is displayed like this:

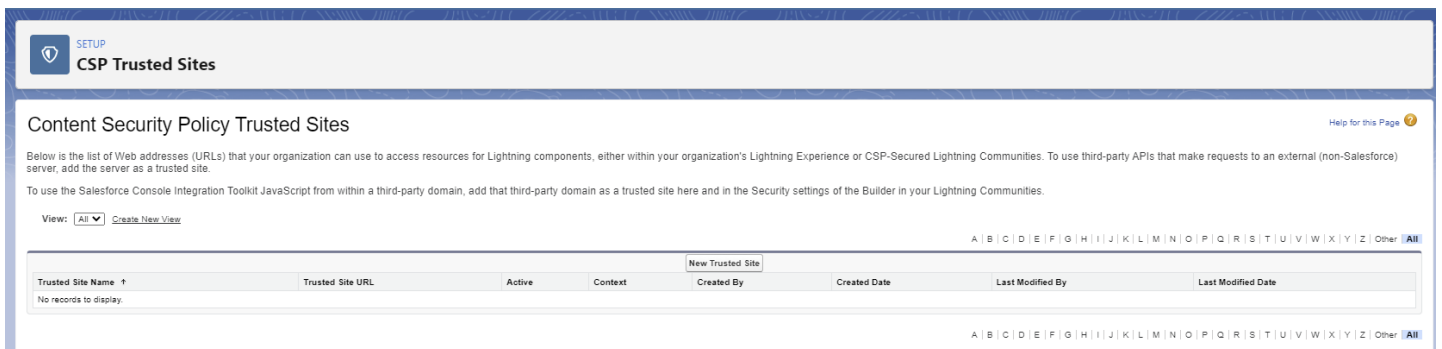


8 Create Trusted Sites

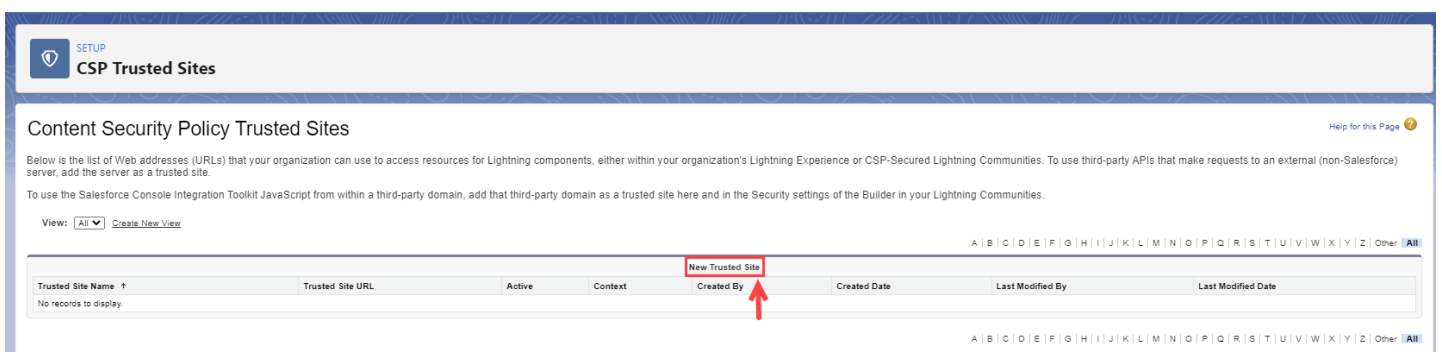
In order to create a trusted site in Salesforce CRM for Rainbow Connector, please Search CSP Trusted Sites in the **Quick Find** as shown below



Once you click on CSP Trusted Sites, following screen is displayed:



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



Following screen will be displayed:

SETUP
CSP Trusted Sites

CSP Trusted Site Definition

The trusted site's URL can be added to the list of allowed sites for the following directives in the CSP header:

- connect-src
- frame-src
- img-src
- style-src
- font-src
- media-src

These directives allow Lightning components to load resources, such as images, styles, and fonts, from the site within a declared context. It also allows client-side JavaScript code to make requests to the site. Additionally, trusted sites opened in Lightning can use the [Salesforce Console Integration Toolkit](#) JavaScript methods.

Content Security Policy Trusted Site Edit Save Save & New Cancel

General Information Required Information

Trusted Site Name

Trusted Site URL

Description

Active

Context

CSP Directives

Select at least one directive.

Allow site for connect-src

Allow site for font-src

Allow site for frame-src

Allow site for img-src

Allow site for media-src

Allow site for style-src

Save Save & New Cancel

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

SETUP
CSP Trusted Sites

CSP Trusted Site Definition

The trusted site's URL can be added to the list of allowed sites for the following directives in the CSP header:

- connect-src
- frame-src
- img-src
- style-src
- font-src
- media-src

These directives allow Lightning components to load resources, such as images, styles, and fonts, from the site within a declared context. It also allows client-side JavaScript code to make requests to the site. Additionally, trusted sites opened in Lightning can use the [Salesforce Console Integration Toolkit](#) JavaScript methods.

Content Security Policy Trusted Site Edit Save Save & New Cancel

General Information Required Information

Trusted Site Name

Trusted Site URL

Description

Active

Context

CSP Directives

Select at least one directive.

Allow site for connect-src

Allow site for font-src

Allow site for frame-src

Allow site for img-src

Allow site for media-src

Allow site for style-src

Save Save & New Cancel

Once you have made the necessary configuration according to above screenshot, please press Save button. Following screen will be displayed:

SETUP
CSP Trusted Sites

CSP Trusted Site Definition Help for this Page

Content Security Policy Trusted Site Detail Edit Delete Clone

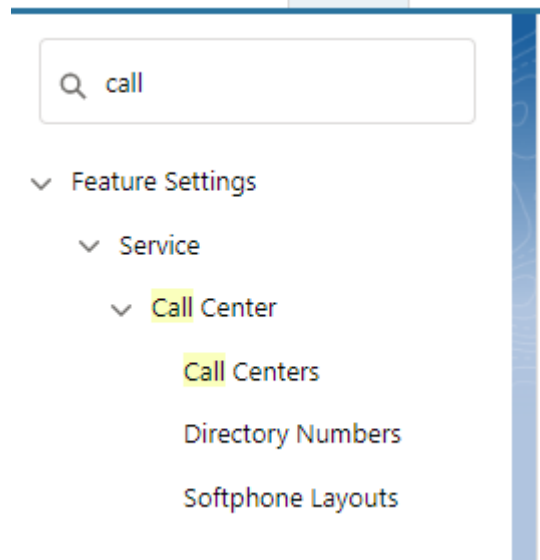
Trusted Site Name	RainbowConnectorSite	Modified By	Bilal_Ghaffar: 22/03/2022, 07:19
Trusted Site URL	https://stbc.openrainbow.io		
Description			
Active	<input checked="" type="checkbox"/>		
Context	All		
Allow site for connect-src	<input type="checkbox"/>		
Allow site for font-src	<input type="checkbox"/>		
Allow site for frame-src	<input checked="" type="checkbox"/>		
Allow site for img-src	<input checked="" type="checkbox"/>		
Allow site for media-src	<input type="checkbox"/>		
Allow site for style-src	<input type="checkbox"/>		
Created By	Bilal_Ghaffar: 22/03/2022, 07:19		

Edit Delete Clone

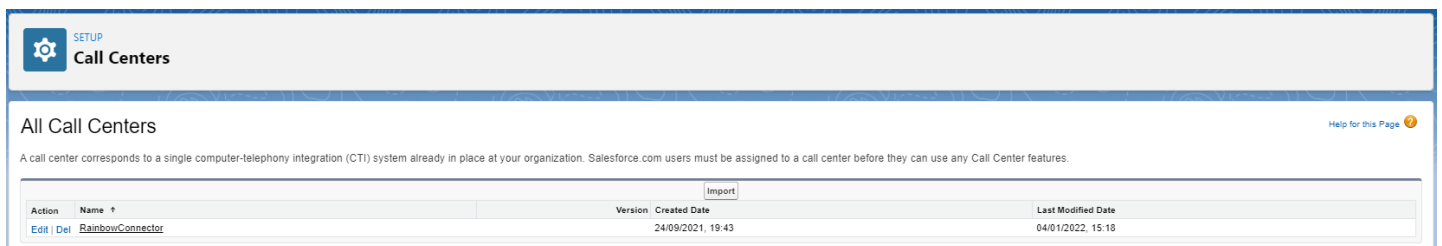
9 Migration Process

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

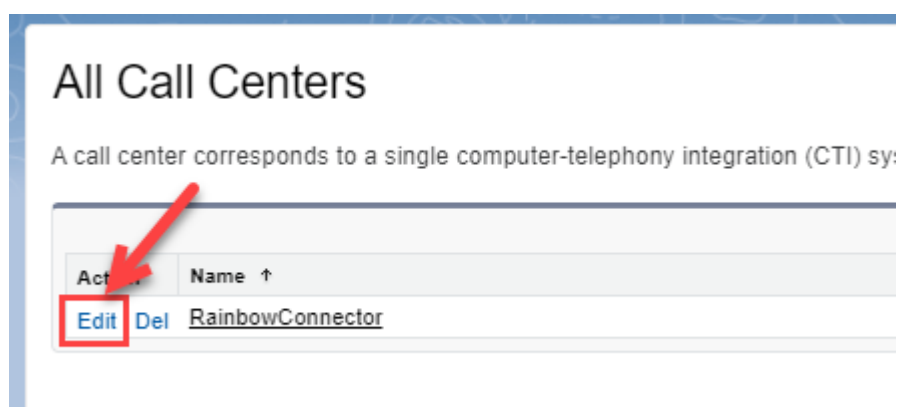
1. Login to Salesforce / Setup page and search Call Centers in the **Quick Find** field as shown below:



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

Call Center Edit
RainbowConnector

Call Center Edit [Save] [Cancel]

General Information

Internal Name: RainbowConnector

Display Name: RainbowConnector

CTI AdapterURL: https://sfdc-connector-ighnii

CTI Standby AdapterURL: https://sfdc-connector-ighnii

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

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

Dialing Options

Outside Prefix: []

Long Distance Prefix: []

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

Dialing Options

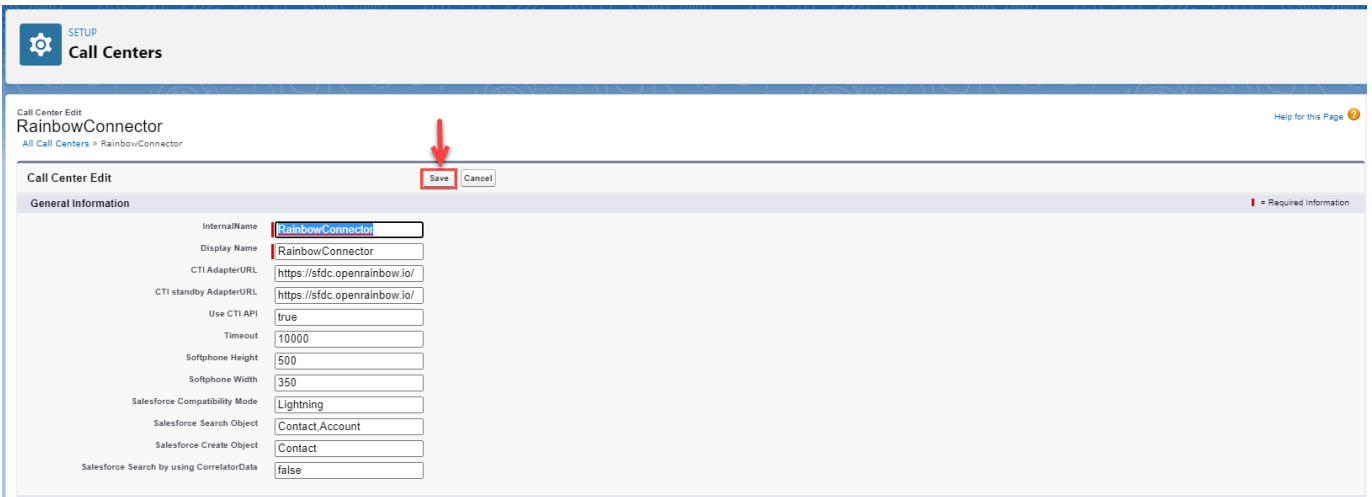
Outside Prefix: []

Long Distance Prefix: []

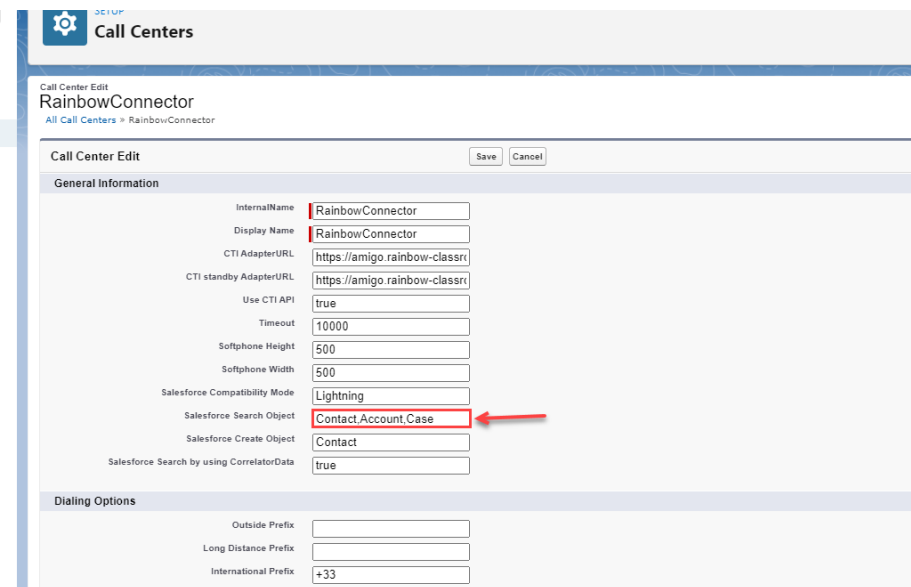
International Prefix: +33

Incoming Prefix: +33

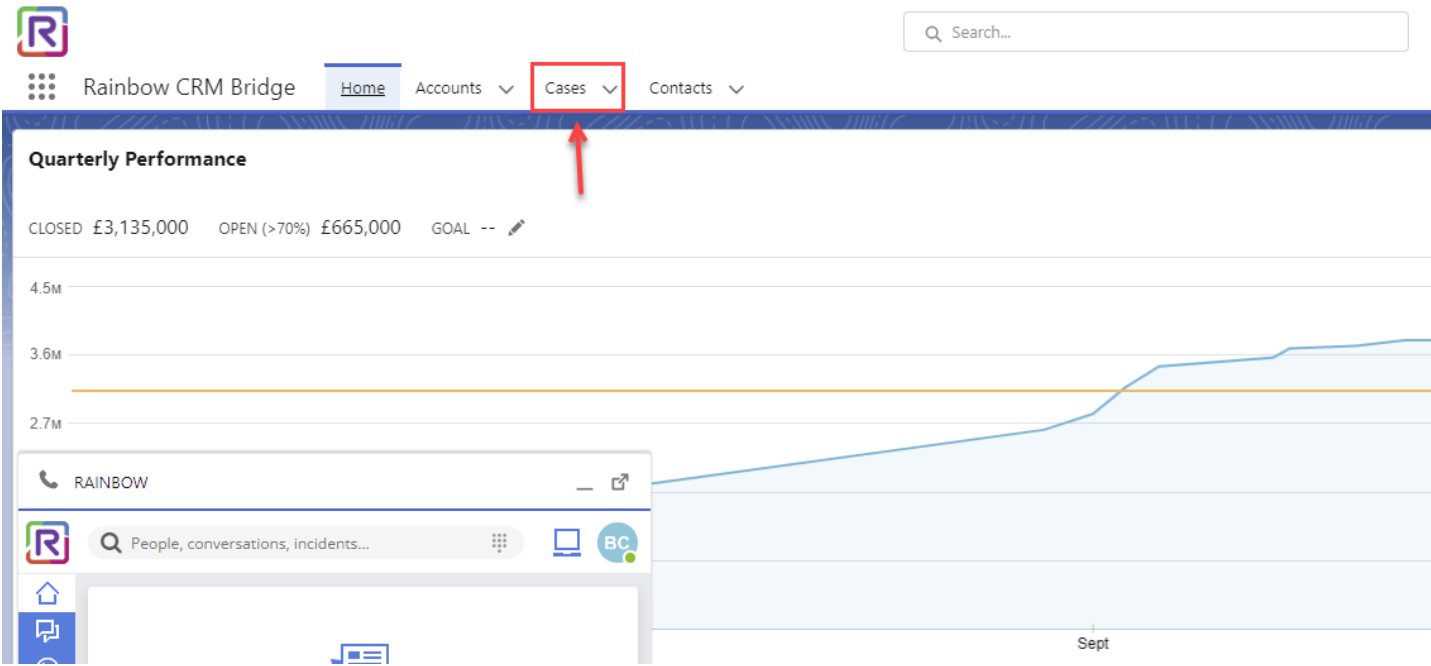
6. Once all configurations are made, Press on Save Button as highlighted below:



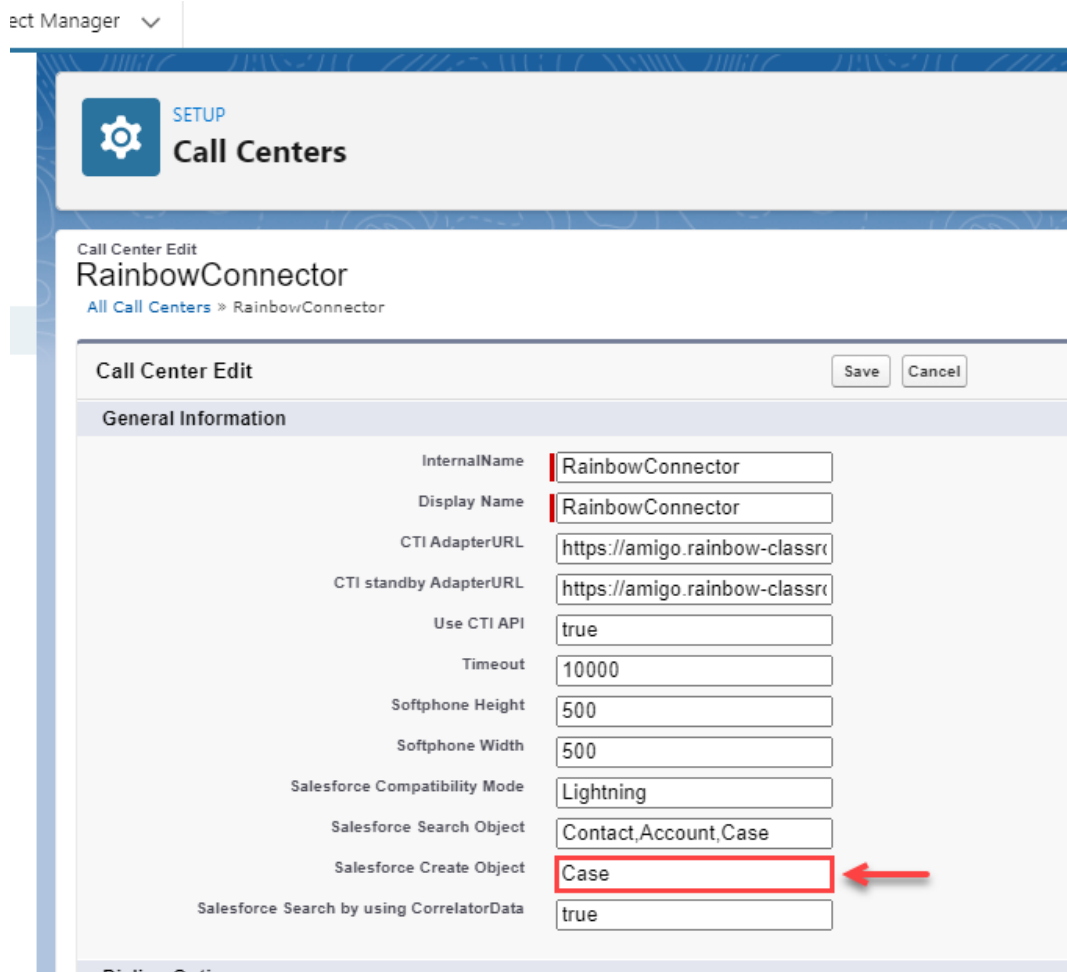
Note: If you want to search a case object in the Salesforce app then please write **Contact, Account, Case** in the Salesforce Search Object field as highlighted below:



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:

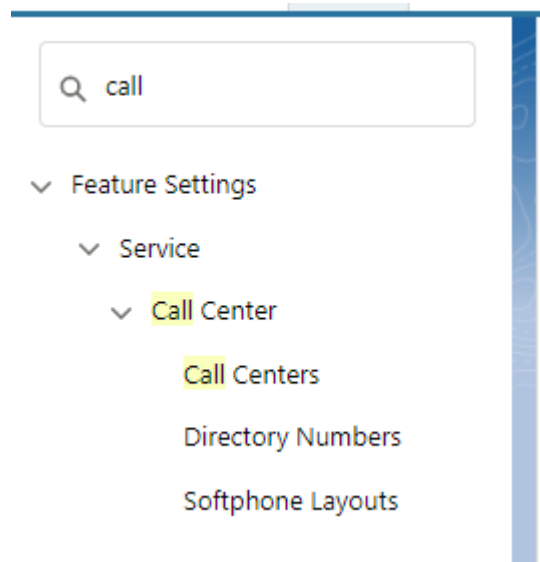


10 Configuring Salesforce Create Objects for unknown contacts

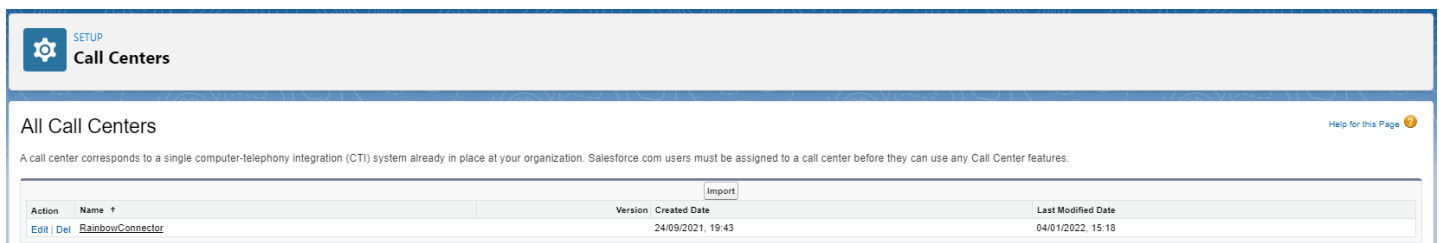
Salesforce provides the feature of objects to categorize records for incoming calls e.g. contacts, account, case and lead. Whenever an incoming call is received by a Rainbow CRM user from an unknown contact/account etc. then a pop up can be displayed to create entry for that particular object (contact,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

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

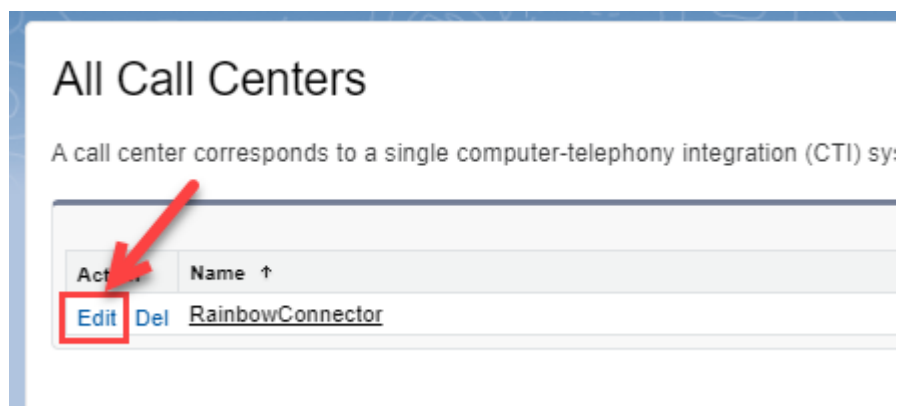
1. Login to Salesforce / Setup page and search Call Centers in the **Quick Find** field as shown below:



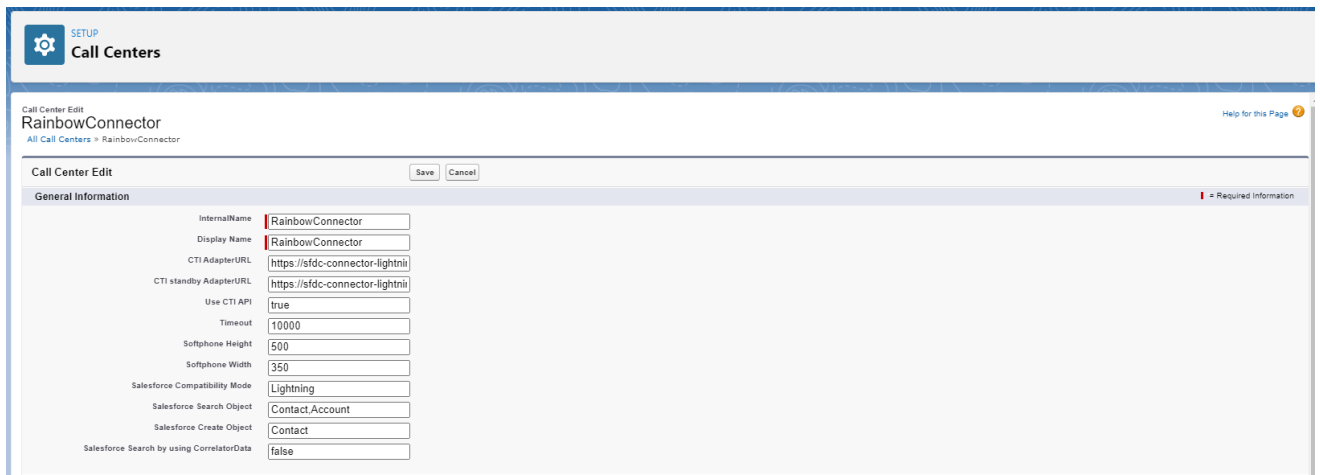
Once you click on Call Centers, following screen is displayed:



2. Click on Edit as highlighted below:



Following screen will be displayed:



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.

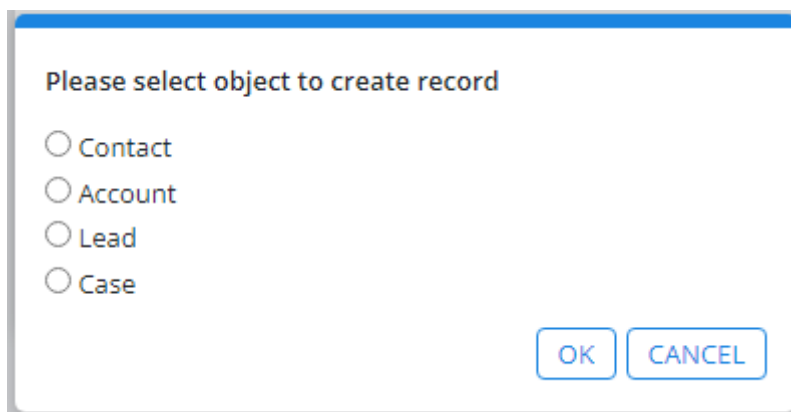
In the below screenshot, all the available objects are mentioned in the relevant fields

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

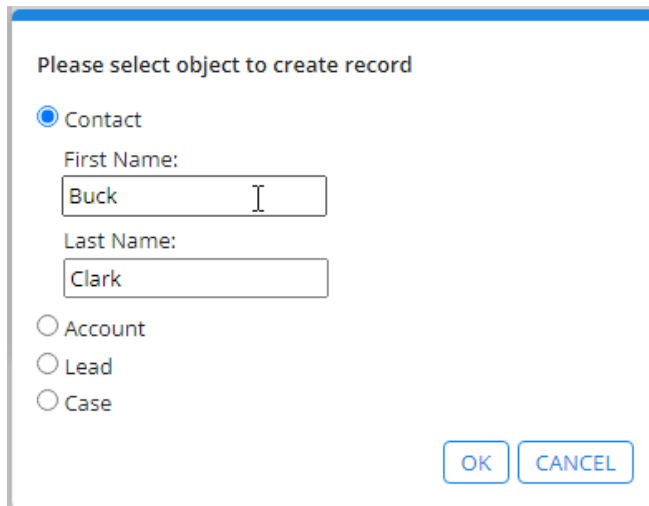
Note: It is not mandatory to mention all the objects in the above highlighted fields but please ensure that objects entered in **Salesforce Create Object** field are subset of **Salesforce Search Object** field.

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:

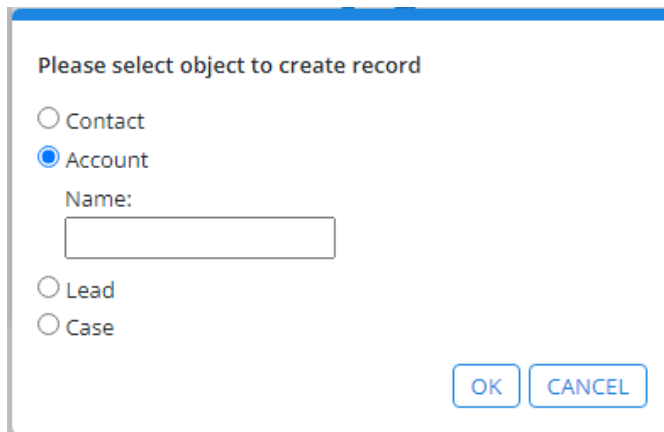


If the user selects to create a record in Contact object for unknown contact, then they have to provide first name and last name as shown below:



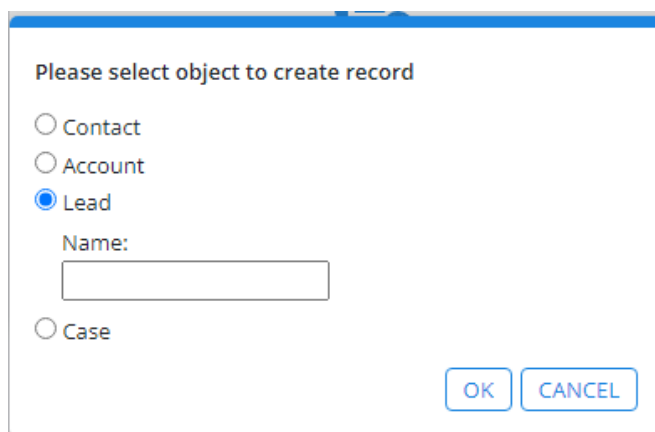
The dialog box titled "Please select object to create record" has a blue header. It contains four radio button options: "Contact" (selected), "Account", "Lead", and "Case". Below the "Contact" option, there are two text input fields: "First Name:" with the value "Buck" and "Last Name:" with the value "Clark". At the bottom right, there 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" has a blue header. It contains four radio button options: "Contact", "Account" (selected), "Lead", and "Case". Below the "Account" option, there is a single text input field labeled "Name:". At the bottom right, there 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" has a blue header. It contains four radio button options: "Contact", "Account", "Lead" (selected), and "Case". Below the "Lead" option, there is a single text input field labeled "Name:". At the bottom right, there 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:

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

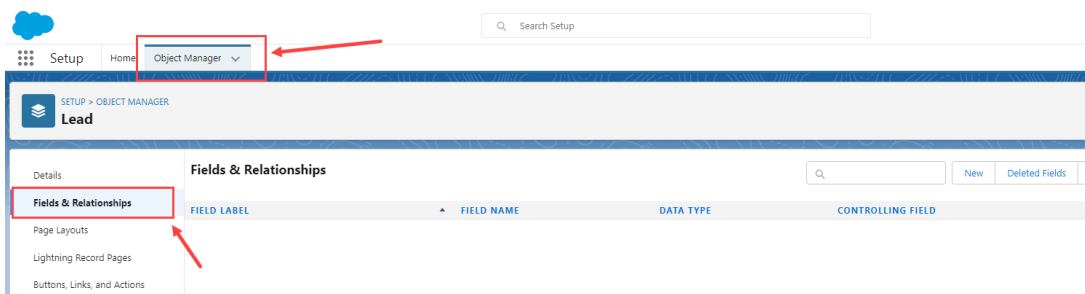
Note!! If an object is not provided in Salesforce Search Object field but if it is provided in Salesforce Create Object field then multiple records will be created for an incoming call that is received from that particular user/entity.

11 Configuration to bypass validation rules

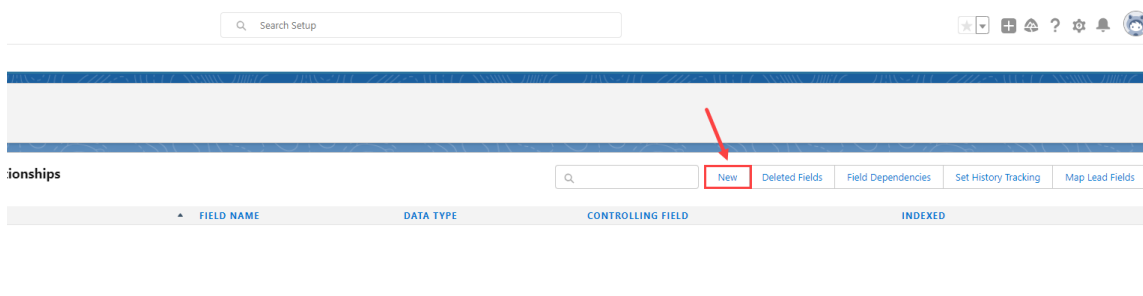
Several organisations might have configured custom validation rules in Salesforce CRM that might conflict with the proper functioning of Rainbow CRM Bridge. In order to bypass these custom validation rules, a new field has to be created in relevant Salesforce object.

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.

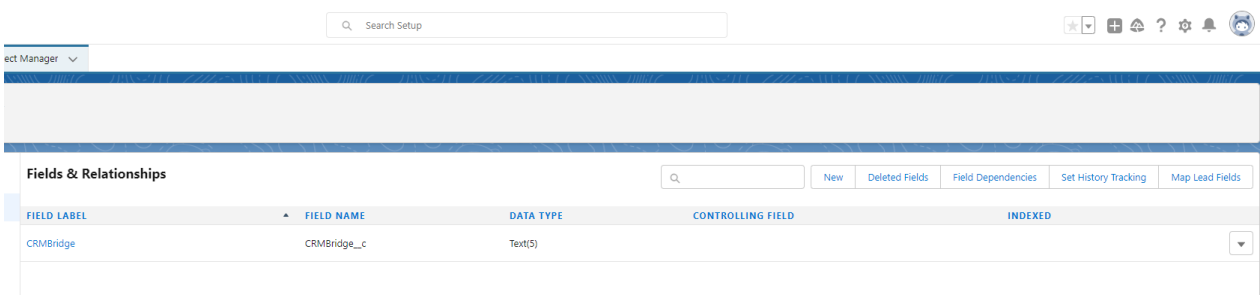
1. Access Object Manager in Salesforce CRM for Leads and go to the Fields & Relationships section as highlighted below:



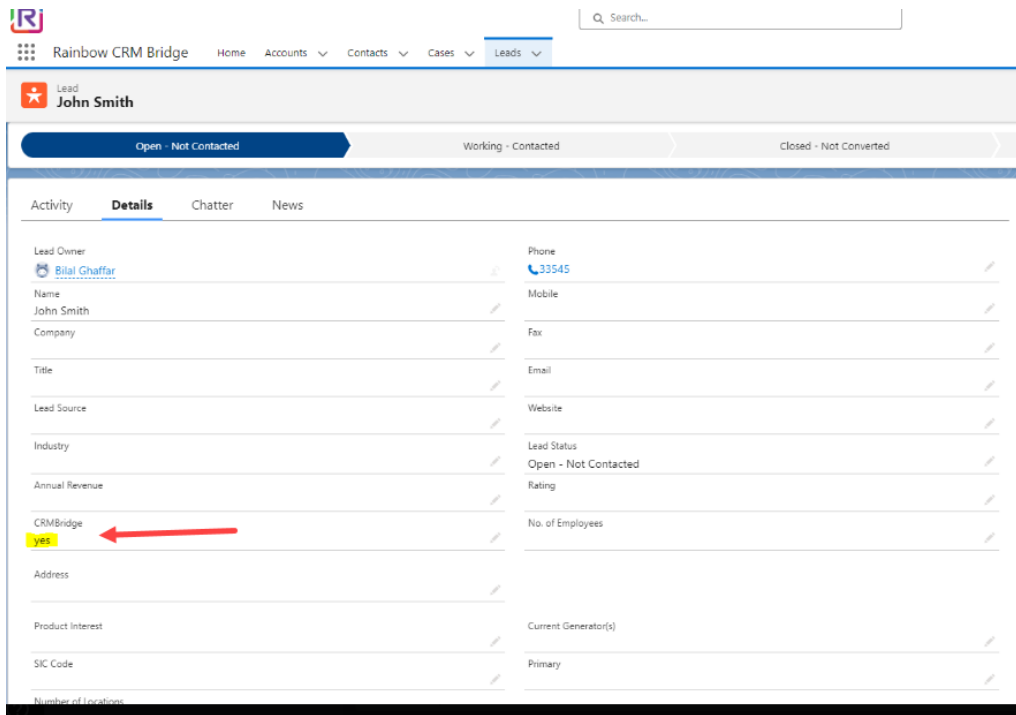
2. Click on New button as highlighted below to create a new field:



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:









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		

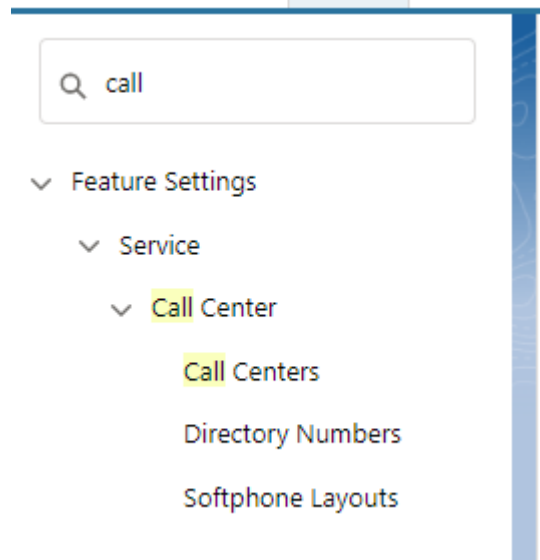
Click to Call feature is enabled by default.

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.

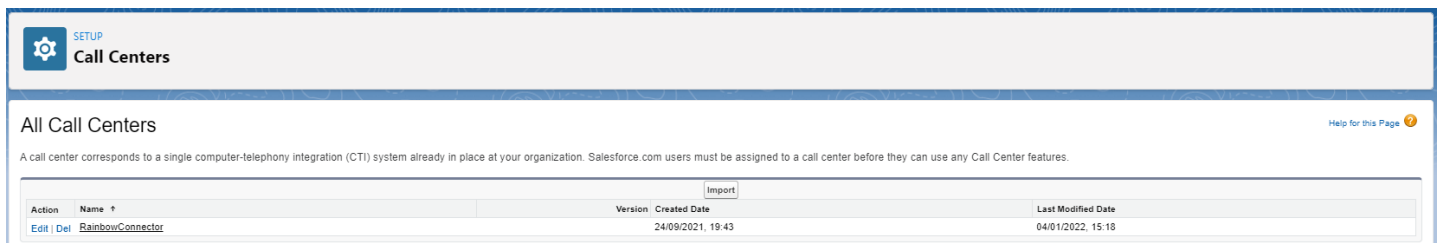
Note: If a user chose not to create a record (account/contact/case) for the unknown from the displayed popup then neither a record (account/contact/case) will be created nor the logs will be entered for this call.

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

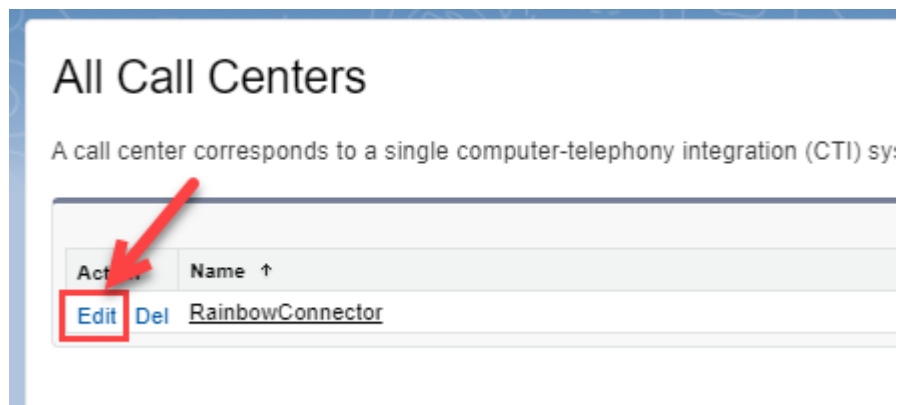
1. Login to Salesforce / Setup page and search Call Centers in the **Quick Find** field as shown below:



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
- 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	<input type="text" value="8"/>
User Profile	
Number of results to display search link	<input type="text" value="2"/>
Allow user to modify parameters	<input type="text" value="false"/>
Default parameters	<input true";c"="" type="text" value="outgoingscreepop="/>
Allow user to answer call by clicking in the notification	<input type="text" value="true"/>
Timeout in seconds for web notification	<input type="text" value="10"/>
Activate SSO mode	<input type="text" value="false"/>
Display automatically the search dialog	<input type="text" value="true"/>

- 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	<input type="text" value="8"/>
User Profile	
Number of results to display search link	<input type="text" value="2"/>
Allow user to modify parameters	<input type="text" value="false"/>
Default parameters	<input ="false";"outgoi"="" type="text" value="c2cenabled"/>
Allow user to answer call by clicking in the notification	<input type="text" value="true"/>
Timeout in seconds for web notification	<input type="text" value="10"/>
Activate SSO mode	<input type="text" value="false"/>
Display automatically the search dialog	<input type="text" value="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	<input type="text" value="8"/>
User Profile	
Number of results to display search link	<input type="text" value="2"/>
Allow user to modify parameters	<input type="text" value="false"/>
Default parameters	<input ="false";"outgoi"="" type="text" value="c2cenabled"/>
Allow user to answer call by clicking in the notification	<input type="text" value="true"/>
Timeout in seconds for web notification	<input type="text" value="10"/>
Activate SSO mode	<input type="text" value="false"/>
Display automatically the search dialog	<input type="text" value="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";`

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:

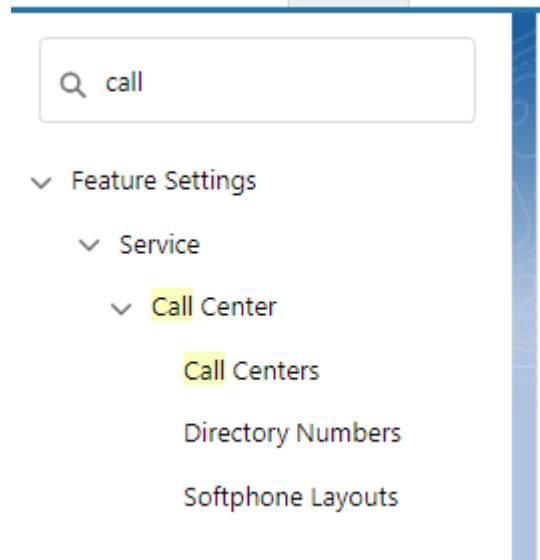
	<input type="checkbox"/> Name	Account Name	Account Site	Phone	Email	Contact Owner Alias
1	<input type="checkbox"/>			3887		
2	<input type="checkbox"/>			5307		
3	<input type="checkbox"/>			923234457955		
4	<input type="checkbox"/>			3889		
5	<input type="checkbox"/>			3888		
6	<input type="checkbox"/>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

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

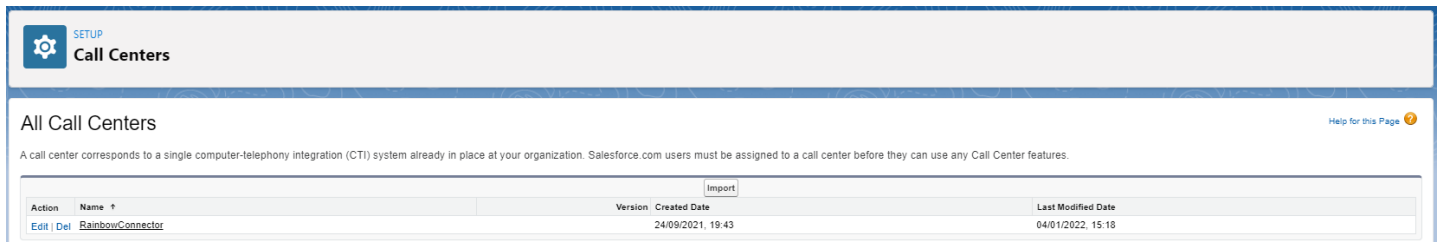
13 SSO Authorization Process

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

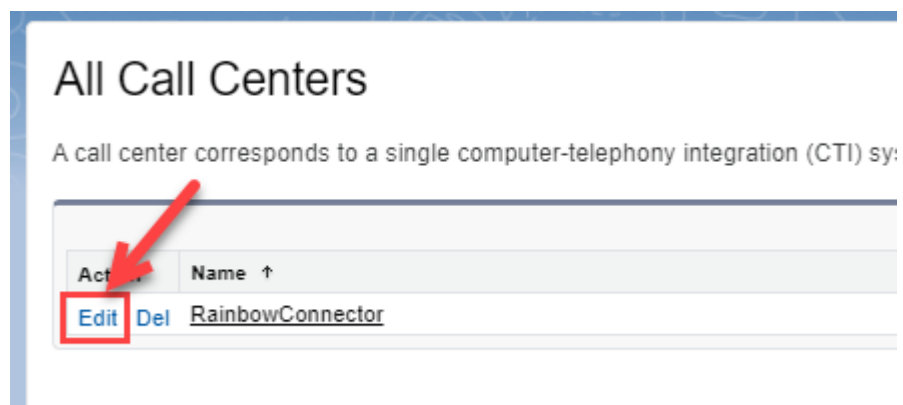
1. Login to Salesforce / Setup page and search Call Centers in the **Quick Find** field as shown below:



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



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



Following screen will be displayed:

Call Center Edit [Save] [Cancel]

General Information ! Required Information

InternalName	RainbowConnector
Display Name	RainbowConnector
CTI AdapterURL	https://sfdc-connector-lightnii
CTI Standby AdapterURL	https://sfdc-connector-lightnii
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:

Use CTI API true

Timeout 10000

Softphone Height 500

Softphone Width 500

Salesforce Compatibility Mode Lightning

Salesforce Search Object Contact Account

Salesforce Create Object Contact

Salesforce Search by using CorrelatorData false

Dialing Options

Outside Prefix

Long Distance Prefix

International Prefix

Incoming Prefix

Calling Options

Number of digits for internal call 8

User Profile

Number of results to display search link 1

Allow user to modify parameters true

Default parameters {"displayAutomaticObject": "fe"}

Allow user to answer call by clicking in the notification false

Timeout in seconds for web notification 30

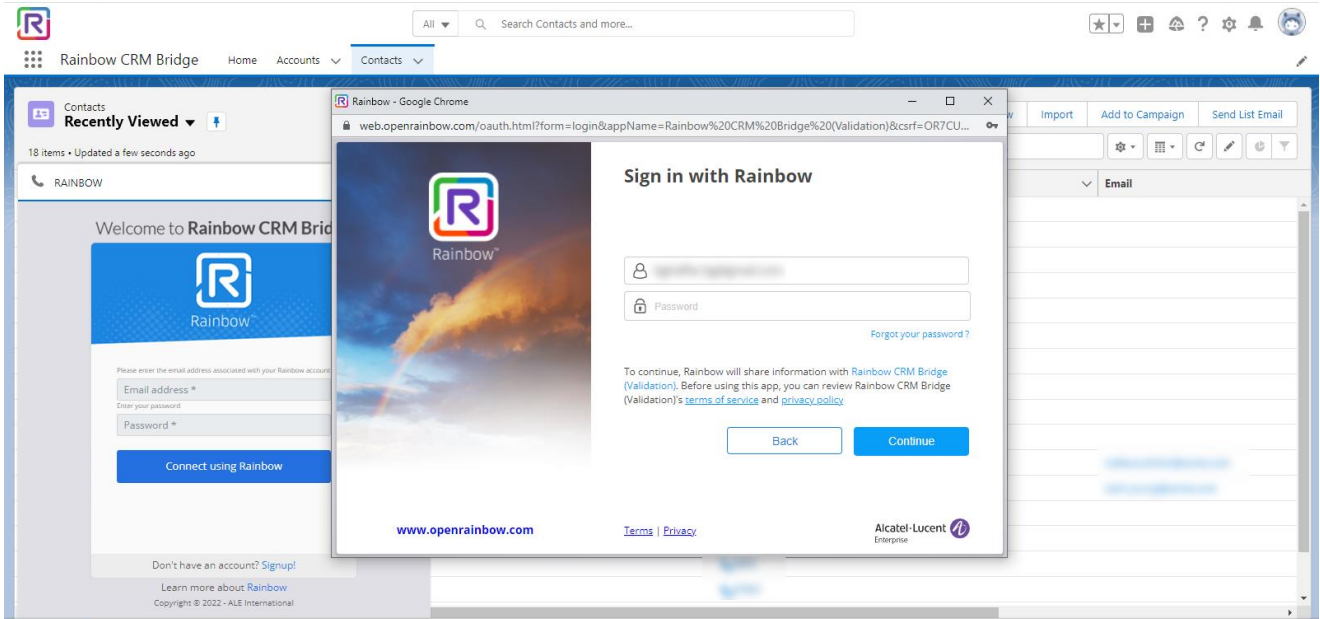
Activate SSO mode true

Display automatically the search dialog false

[Save] [Cancel]

Once done, Press on Save button.

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



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).

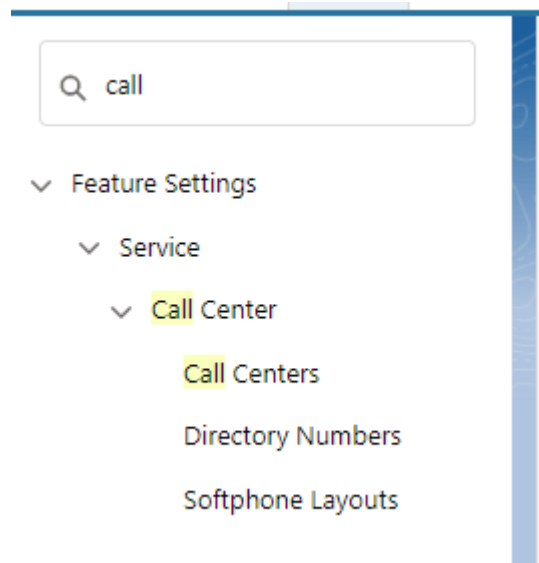
Note: If you have enabled SSO authorization then please make sure that the pop-up blocker on your browser is disabled.

14 Configuring Bot User

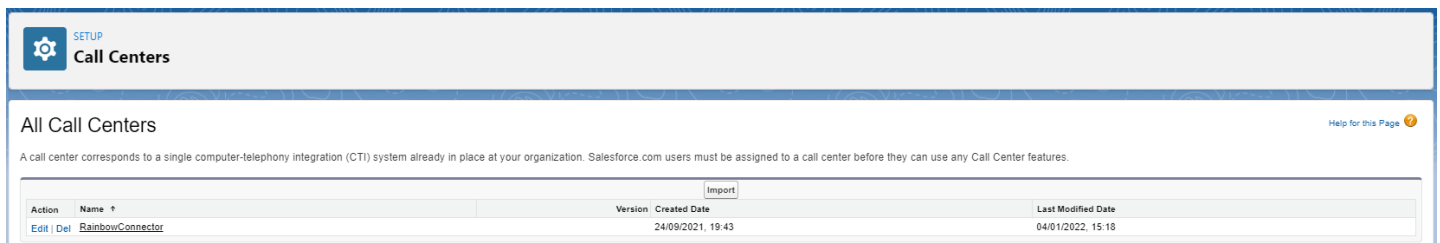
Salesforce provides the ability to configure a BOT user within your call centers. With the help of this BOT user, 3rd party applications (e.g. VNA) can be integrated to interact with Rainbow CRM Bridge application. In order to configure this user, an email address has to be provided. Commands passed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

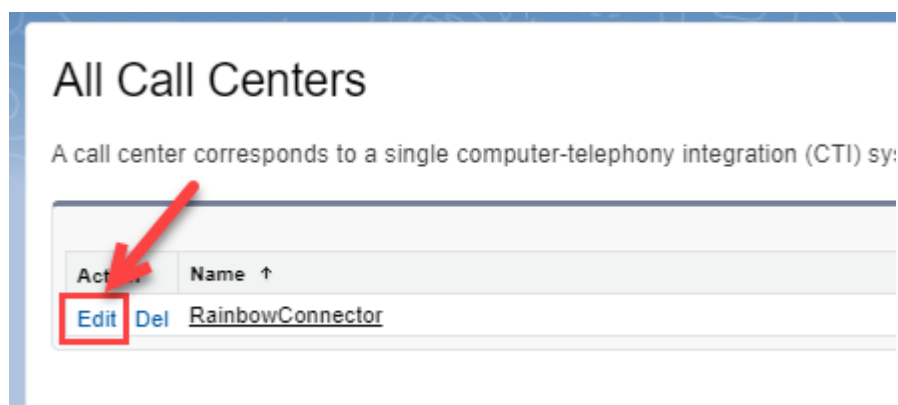
4. Login to Salesforce / Setup page and search Call Centers in the **Quick Find** field as shown below:



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



5. Click on Edit as highlighted below:



Following screen will be displayed:

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

InternalName	RainbowConnector
Display Name	RainbowConnector
CTI AdapterURL	https://sfdc-connector-lightnii
CTI standby AdapterURL	https://sfdc-connector-lightnii
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

6. 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:

The screenshot shows the 'Configurations' section with the following fields:

Allow user to answer call by clicking in the notification	false
Timeout in seconds for web notification	10
Activate SSO mode	false
Display automatically the search dialog	true
BOT Email	<input type="text"/>

The 'BOT Email' field is highlighted with a red box and a red arrow pointing to it.

Once done, Press **Save** button.

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

14.1 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>

14.2 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.

14.3 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>
```

15 Language Settings

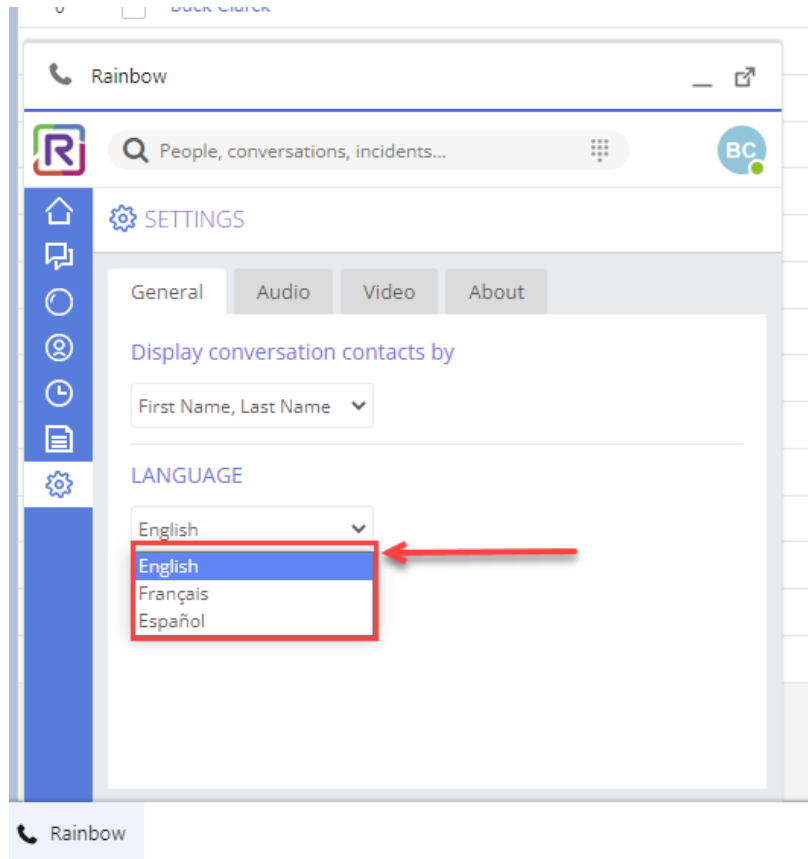
You can update the display language on Rainbow CRM Bridge as per your choice. Following options are available:

1. English
2. French
3. Spanish

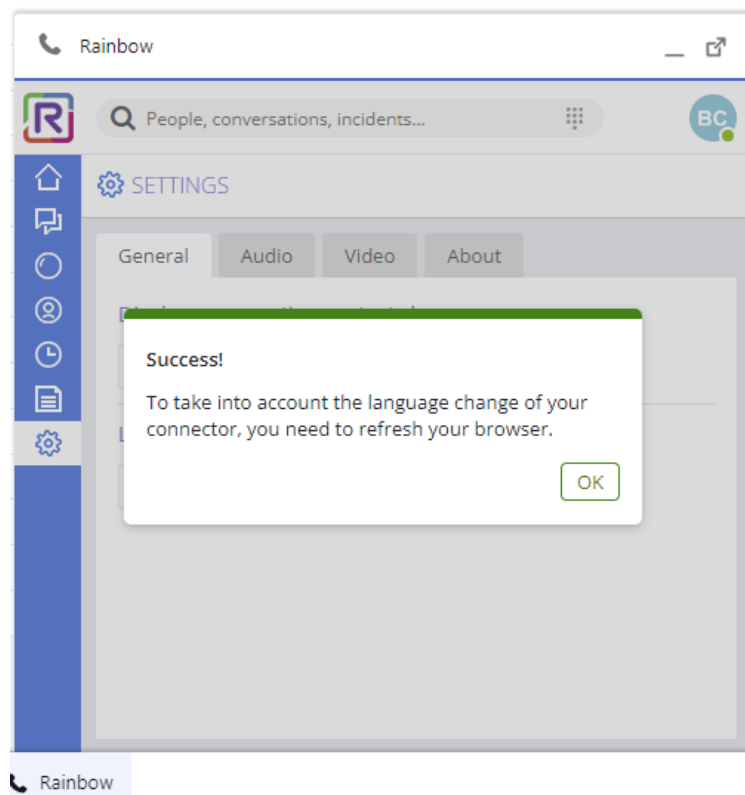
In order to update language settings, go to Settings tab by clicking on the  icon as highlighted below:



Now 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.

16 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.

17 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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