



Salesforce Integration With FortiVoice Enterprise Technical Note



Salesforce Integration Technical Note

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FortiVoice
Technical Documentation
Knowledge Base
Customer Service & Support
Training Services
FortiGuard
Document Feedback

fortivoice.com
docs.fortinet.com
kb.fortinet.com
support.fortinet.com
training.fortinet.com
fortiguard.com
techdocs@fortinet.com

Introduction

This technical note describes how to configure FortiVoice Enterprise system in order to work with Salesforces both for calling and CDR logging. Use this note in conjunction with the FortiVoice Enterprise Phone System Administration Guide.

Prerequisites

- FVE 5.3.10 build or later
- Salesforce summer release 17 or newer
- FVE IP address added in Network Access in Salesforce
- Salesforce Ant Migration tool
- Public domain name (with signed certificate by a trusted CA) for the FortiVoice system
- HTTPS port mapping for the FortiVoice system

Configuring Salesforce for CDR Records

Salesforce

Log in to Salesforce with an administrator account to begin. The set up requires three stages; setting up a new connected app, create a custom object and configuring FortiVoice.

New Connected App

1. Click Setup icon and go to *Setup*.
2. Select *Objects and Fields* ->*Object Manager* in the left hand navigation, and then click on *Create* -> *Custom Object*.
3. Enter in the *Label* for this object as well as the *Plural Label*, and then click save.



Custom Object Definition Edit [Save] [Save & New] [Cancel]

Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports.

Label: CDR-Record Example: Account

Plural Label: CDR-Records Example: Accounts

Starts with vowel sound

4. Click *Field and Relationships* in the left hand navigation. Click *New* and select the following data types and field names:
 - Text: CDR ID (length 25)
 - Text : From Name (length 50)
 - Text: To Name (length 50)
 - Phone: From Number
 - Phone: To Number
 - Text: Start Time (length 255)

- Number: Call Duration In Seconds (length 10)

FIELD LABEL	FIELD NAME	DATA TYPE
Call Duration In Seconds	CallDurationInSeconds__c	Number(10, 0)
CDR ID	CDRId__c	Text(25)
CDR-Record Name	Name	Text(80)
Created By	CreatedById	Lookup(User)
From Name	FromName__c	Text(25)
From Number	FromNumber__c	Phone
Last Modified By	LastModifiedById	Lookup(User)
Owner	OwnerId	Lookup(User,Group)
Start Time	StartTime__c	Text(255)
To Name	ToName__c	Text(25)
To Number	ToNumber__c	Phone

5. In order to display call duration in a readable state a formula must be used. Click *New* and choose *Formula* for the type.
6. For the name enter 'Call duration' and in the *Formula Return Type* select *Text*. Enter the following into the text field:

```
IF ((MOD(CallDurationInSeconds__c,3600)/60)>10,
TEXT(FLOOR(CallDurationInSeconds__c/3600))+ ":",
TEXT(FLOOR(CallDurationInSeconds__c/3600))+ ":0")
+ IF ((MOD(MOD(CallDurationInSeconds__c,3600),60))>10,
TEXT(FLOOR(MOD(CallDurationInSeconds__c,3600/60)/60)) + ":",
TEXT(FLOOR(MOD(CallDurationInSeconds__c,3600/60)/60)) + ":0")
+ TEXT(MOD(MOD(CallDurationInSeconds__c,3600),60))
```

7. Click *Check Syntax* to ensure no errors occur and then click *save*.

FIELD LABEL	FIELD NAME	DATA TYPE
Call Duration	Call_Duration__c	Formula (Text)

Custom Object

1. Click Setup icon and go to *Setup*.
2. Select *App* -> *App Manager* in the left hand navigation, and then click on *New Connected App* button.
3. Enter in a name for the application and email address for the administrator under the Basic Information section.


Basic Information


Connected App Name:

API Name:


Contact Email:

Contact Phone:

Logo Image URL :

Icon URL :

Info URL:

Description :

- Configure the following under the API (Enable OAuth Settings), and then click save.
 - In Callback url enter: <https://login.salesforce.com/>
 - In Selected OAuth Scopes choose: Access and manage your data (api)

API (Enable OAuth Settings)

Enabled for Server Flow:

Callback URL:

Use digital signatures:

Included OAuth Scopes:

Available OAuth Scopes

- Access and manage your Chatter data (chatter_all)
- Access and manage your Chatter data (chatter_api)
- Access and manage your Flow data (flow_api)
- Access system permissions (system_permissions)
- Access your basic information: id, picture, email, address, phone)
- Allow access to user unique identifier (openid)
- Full access (Full)
- Perform requests on your behalf at any time (refresh_token, offline_access)
- Provide access to custom applications (visualforce)
- Provide access to your data via the Web (web)

Selected OAuth Scopes:

Provide Security Policy Service Filter:

Include ID Token:

Provide Incent Tokens:

- Record the Consume Key as well as the Consumer Secret

API (Enable OAuth Settings)

Consumer Key: 3MVG9Z8h6Bxz0zc6FWpQm.Gh0lynlu6Byp7AbuB6X Consumer Secret: 1012117118786

- Click Manage and then Edit Policies. In Permitted Users select Admin approved users are pre-authorized and then click save.

OAuth policies

Permitted Users:

- Click Manage Profile and select System Administrator. Verify API Enabled is checked, and then click save.

Administrative Permissions	
Access Chatter For SharePoint	<input type="checkbox"/>
Access Libraries	<input checked="" type="checkbox"/>
Add People to Direct Messages	<input type="checkbox"/>
Allow Inclusion of Code Snippets from UI	<input type="checkbox"/>
API Enabled	<input checked="" type="checkbox"/>
Api Only User	<input type="checkbox"/>

FortiVoice

In order for the FortiVoice to send out the call detail records a new database interface must be configured within the system.

Submit CDR

1. Select *Log & Report* -> *CDR* in the left hand navigation. On the Submit CDR page click *New* to create a new interface.
2. If SMDR is not enable a warning will appear at the top, click the link to enable.

SMDR is disabled

Name:

Status:

Description: [Click to edit...](#)

3. Click *Enabled* and select FortiVoice for the Format and then click *Ok*.

SMDR Service

Enabled:

Format:

Port:

Max clients:

4. Enter a name for the interface and set the *Protocol* to *Http 1.1*

Submit CDR | CDR Template | CDR filter

Name:

Status:

Description: [Click to edit...](#)

Remote RESTful Server

Protocol: Http 1.0 Http 1.1

5. Set the Authentication to *OAuth*.

Protocol: Http 1.0 Http 1.1
 Http headers: [Click to edit...](#)
 Http timeout: (1 ~ 60)
 Authentication:

6. Set the Service format to *Salesforce*.

Service format:

7. Enter the following:

Username – salesforce username

Password – salesforce password

Username (*):
 Password (*): View password

8. Enter the following information:

Login server - Salesforce server address

Client ID – consumer key from Step 5 of Custom Object

Client secret – consumer secret from Step 5 of Custom Object

Login server (*):
 Client ID (*):
 Client secret (*):

9. In the URL suffix enter in */subjects/* and the API name that was created in Step 3 of New Connected App. For example, */subjects/CDR-Record* then click on *Get Salesforce API URI* button

URL suffix:

Note: The created URI will appear in the URI window below the button.

10. Click on *Edit* next to CDR template. In the pop up window clear the content and enter the following in and click *Ok*.

<CDR-Record__c>

```
<CdrId__c>%%CDR_UNIQUE_ID%%</CdrId__c>
<ToName__c>%%CDR_CALLEE_ID%%</ToName__c>
<ToNumber__c>%%CDR_DST_NUM%%</ToNumber__c>
<FromName__c>%%CDR_CALLER_ID%%</FromName__c>
<FromNumber__c>%%CDR_SRC_NUM%%</FromNumber__c>
<StartTime__c>%%CDR_ANSWER_TIME%%</StartTime__c>
<CallDurationInSeconds__c>%%CDR_TALK_TIME%%</CallDurationInSeconds__c>
```

</CDR-Record__c>

11. Click *Create*.

Configuring Salesforce for Call Control

Salesforce - Administrators

Log in to Salesforce with an administrator account to begin. The set up requires installation of the Salesforce plugin.

Deploying fvAdapter

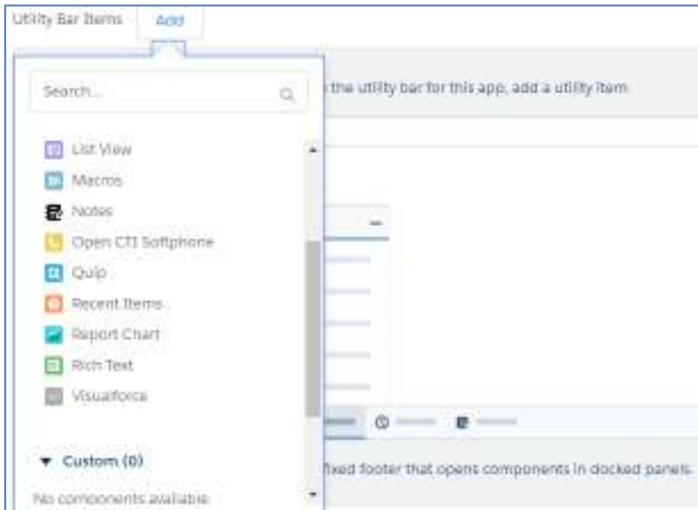
1. Save and extract fvAdapter.zip file into a folder.
2. Open build.properties using a text editor
3. Enter the following information:
 - Sf.username – salesforce username
 - Sf.password – salesforce password + security token
 - Sf.serverurl – Salesforce server address
4. In a console navigate to the fvAdapter directory that was created.
5. Type `ant deployAll -lib ant-salesforce.jar`

Configuring the fvAdapter plugin

1. Click Setup icon and go to *Setup*.
2. Select *Feature Settings ->Service -> Call Center -> Call Centers* in the left hand navigation, and then click on *FortiVoice*.
3. Click *Edit*, then enter the following and click *Save*:
 - FortiVoice URL – <https://<domain>/module/voicemail.fe>
 - FortiVoice WSS – `wss://<domain>/opr_console`
4. Select *Settings ->Security -> Remote Site Settings* in the left hand navigation, and then click on *New Remote Site*.
5. Enter the following and click *Save*:
 - Remote site name – the name of the site
 - Remote site url – <https://<domain>>
6. Select *Feature Settings ->Service -> Call Center -> Call Centers* in the left hand navigation, and then click on *FortiVoice*.
7. Click *Manage Call Center User*; add the corresponding users in Salesforce to Call Center by using *Add Call Center* button and search for each user.
8. Select *App -> App Manager* in the left hand navigation
9. Select a Lightning App to add the dialer to and select edit.
10. Click Utility bar in the left hand navigation menu.



11. Click *Add*, and select Open CTI softphone, then click *Save*.



Salesforce - Users

Users must log into Salesforce with their account information to begin. Once in they will need to update their profile and add the application to be able to use it.

User Profile

1. Click on the User icon and select *Settings*.
2. Select *My Personal Information* -> *Advanced User Details* and click *Edit*.
3. Under General Information, enter the extension number.

Call Center	FortiVoice
Phone	
Extension	111
Fax	
Mobile	+1 6135551234

4. Under Additional Settings enter in the User Pin\Password.

FortiVoice User Portal Password	password
---------------------------------	----------

5. Click on the App Launcher and select the lightning app that the dialer was added to in Step 9 of fvAdapter).

6. Phone dialer will be available in status bar.



Once successfully logged in all contacts will be clickable to call, a slash through the icon indicates that the phone has not successfully logged into the phone. Clicking on the phone in the status bar opens up the window and will either allow dialing of numbers or displays *Log In*, which indicates the profile does not have the correct information.

Manual Dialing

1. Open the phone dialer.
2. Click on the keypad icon
3. Enter number, click *Call*.



Click to dial

1. Search for a contact.
2. Click on the contact number

	<input type="checkbox"/> NAME	<input type="checkbox"/> ACCOUNT NAME	<input type="checkbox"/> ACCOUNT RECORD T...	<input type="checkbox"/> ACCOUNT SITE	<input type="checkbox"/> PHONE
1	<input type="checkbox"/> bbb bbb	AAA			7703

3. The phone dialer will automatically open.

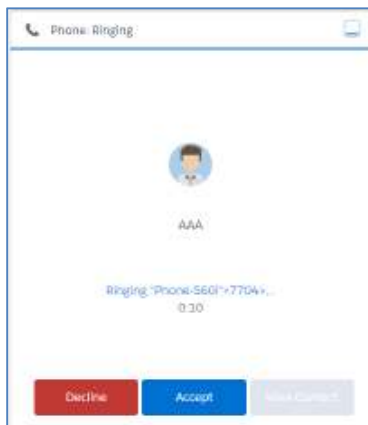
Holding a call

1. Place/Receive a call
2. While on call hit the *Hold* button.
3. Hit the *Resume* button to retrieve the caller.



Receiving a call

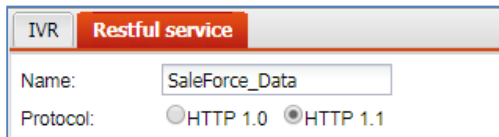
1. Inbound calls will launch the dialer.
2. Select *Accept* to answer the call, or *Decline* to reject the call.



FVE Call Center Console

Extensions using the FVE Call Center console can have inbound call pop-ups contain detail information retrieved from Salesforce when the fvAdapter plug in has been installed.

1. Select *Call Center* -> *IVR* in the left hand navigation.
2. Click *Restful Service*, and then click *New* to create a new interface.
3. Enter a name for the interface and set the *Protocol* to *Http 1.1*

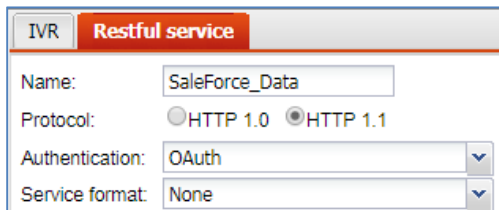


IVR Restful service

Name:

Protocol: HTTP 1.0 HTTP 1.1

3. Set the Authentication to *OAuth*.



IVR Restful service

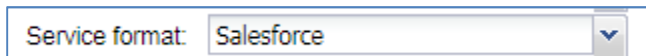
Name:

Protocol: HTTP 1.0 HTTP 1.1

Authentication:

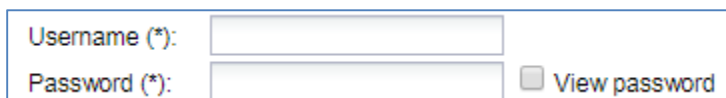
Service format:

4. Set the Service format to *Salesforce*.



Service format:

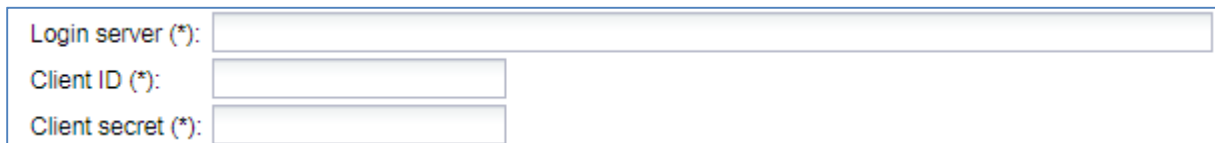
5. Enter the following:
Username – salesforce username
Password – salesforce password



Username (*):

Password (*): View password

6. Enter the following information:
Login server - Salesforce server address
Client ID – consumer key from Step 5 of Custom Object
Client secret – consumer secret from Step 5 of Custom Object



Login server (*):

Client ID (*):

Client secret (*):

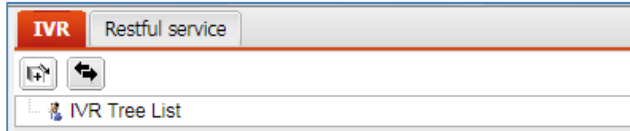
7. Enter in the */query*, then click on *Get Salesforce API URI* button



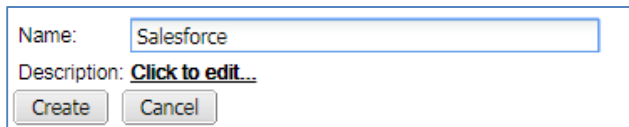
Base URL suffix:

Note: The created URI will appear in the window below the button.

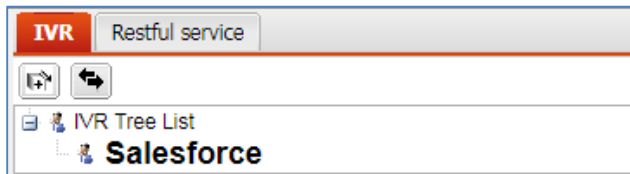
8. Click *Create*.
9. Click the *IVR* tab, then right click on IVR Tree list and select *New* to create a new IVR.



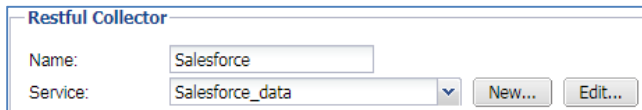
10. Enter a name for the instance, and then click *Create*.

A screenshot of a dialog box for creating a new instance. It has a 'Name:' label followed by a text input field containing the word 'Salesforce'. Below that is a 'Description:' label followed by a button labeled 'Click to edit...'. At the bottom of the dialog are two buttons: 'Create' and 'Cancel'.

11. Click on the instance you just create to open the properties.

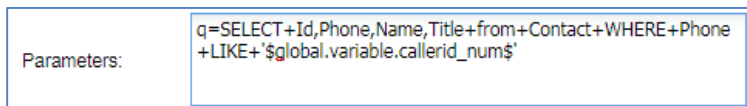


12. Click on *Add restful collect* to open the restful collector properties
13. Enter a name and select the service created in step 3.

A screenshot of a dialog box titled 'Restful Collector'. It has a 'Name:' label followed by a text input field containing 'Salesforce'. Below that is a 'Service:' label followed by a dropdown menu showing 'Salesforce_data'. To the right of the dropdown are two buttons: 'New...' and 'Edit...'.

14. Enter the following into the *parameter* field:

```
q=SELECT+Id, Phone, Name, Title+from+Contact+WHERE+Phone+LIKE+'$global.variable.callerid_num$'
```

A screenshot of the 'Restful Collector' dialog box, focusing on the 'Parameters:' label and a text input field. The input field contains the SQL query: 'q=SELECT+Id, Phone, Name, Title+from+Contact+WHERE+Phone+LIKE+'\$global.variable.callerid_num\$'.

15. Click *New* under Fields to create record for the pop up.
16. For the phone number field enter the following
 - Field – Phone
 - Query - `//*[local-name()='Phone']`[1]/text()
 - Action on returned data – Add to agent console
 - Display name – Caller Number

Field:

Query: [\[Add variable \]](#)

Action on returned data

None

Add to agent console - Display name:

Add to SIP header - Field name:

Add to Remote CDR - Field name:

Add to Report - Field name:

17. Click *Create*.

18. Click *New* under Fields to create record for the pop up.

19. For the name number field enter the following

- Field – Name
- Query - `//*[local-name()='Name'][1]/text()`
- Action on returned data – Add to agent console
- Display name – Caller Name

Field:

Query: [\[Add variable \]](#)

Action on returned data

None

Add to agent console - Display name:

Add to SIP header - Field name:

Add to Remote CDR - Field name:

Add to Report - Field name:

20. Click *Create*.

21. Click on *Add IVR Handling* and create where to send the calls.

Note: You will need to update your call handling to send the calls to the IVR in order to retrieve the desired information. This can be done by updating the inbound call routing, Auto Attendant or specific call queue handlings to send the caller to this IVR first.