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# Amazon Connect CTI Adapter v2 for Salesforce

Setup and Installation Guide

*September 2018*



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## Abstract

This guide provides the steps to setup the integrations between Amazon Connect and Salesforce using the Amazon Connect CTI Adapter and Amazon Connect Lambda for Salesforce.

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# Introduction

The core functionality of the Amazon Connect CTI Adapter provides a WebRTC browser-based Contact Control Panel (CCP) within Salesforce. The Amazon Connect CTI integration consists of two components, a [managed Salesforce package](#) and a AWS Serverless application (need link) deployed to your AWS environment.

With those components, customers can build a deep integration between the Amazon Connect contact center platform and Salesforce, the leading customer relationship management (CRM) platform. The collection of pre-build utilities enables a rapid integration between these two platforms. The AWS Serverless application package contains a set of common Lambda functions to be used by Amazon Connect to interact with Salesforce,

The key benefits of the adapter:

- Agent state synchronization between Salesforce Omni and Amazon Connect
- Provide valuable information to the agent through configurable view of call attributes
- Utilize the Amazon Connect Call Campaign Object for automated outbound dialling
- Automatically create phone call tasks and relate it to the right Salesforce object
- Embed Amazon Connect Call Recordings in the Salesforce record
- Automatically clean-up open tabs to improve agent efficiency
- Easily enable lookup, create and update operations for different Salesforce objects, like Contacts and Cases, within Amazon Connect contact flows.
- Support Salesforce Sales and Service Console in Classic and Lightning

We recommend that you initially install the package into your Salesforce sandbox. After the package is installed, you can configure your Salesforce Call Center configuration within Salesforce.

The next step is to whitelist your Salesforce Visualforce domain within your Amazon Connect Application integration. This allows cross-domain access to your Amazon Connect instance.

We also have a trailhead available <https://sfdc.co/Amazon-Connect> (note, its still in process of being updated to support latest CTI Adapter features).

## Requirements and Prerequisites

Before the Amazon Connect CTI package can be installed, the following prerequisites need to be fulfilled:

1. Salesforce Classic, Salesforce Console, or Lightning Experience
2. Create an Amazon Connect instance (<https://aws.amazon.com/connect/>)
3. Salesforce Omni-Channel must be activated in the Salesforce Org ([https://help.salesforce.com/articleView?id=omnichannel\\_enable.htm&type=0](https://help.salesforce.com/articleView?id=omnichannel_enable.htm&type=0))

### Browser Compatibility

Amazon Connect requires WebRTC to enable soft-phone voice media stream and Websockets to enable soft-phone signalling. Consequently, users are required to use the latest version of either Google Chrome or Mozilla Firefox. For more details, please see the Amazon Connect FAQ page (<https://aws.amazon.com/connect/faqs/>)

### Lightning Support

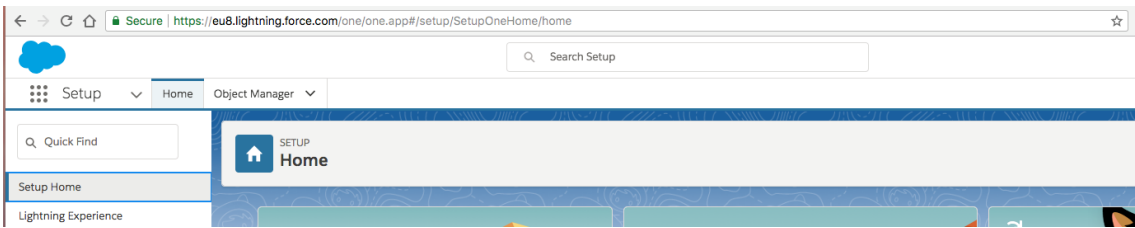
Please note that following features are currently not supported in Salesforce Lightning:

- Salesforce Omni Presence Synchronization
- Call Wrap-up: The Call Wrap-up page will always open as a primary tab and will not close after clicking on the “Save” button. The agent will have to close both tabs manually.
- Outbound Campaign Calls using Salesforce Omni can be routed to the agent, but the automated screen pops and the dialling of the phone number will not work. The agent will have to click on the record links to

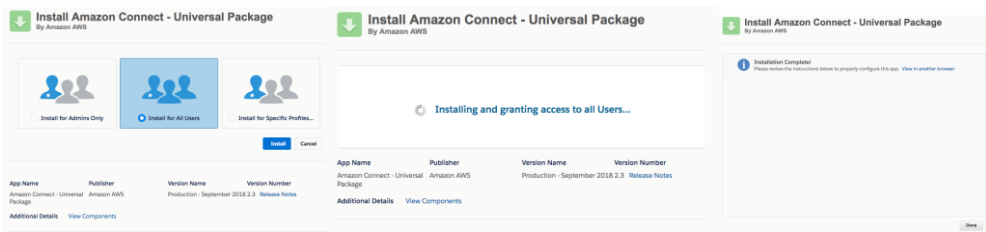
open the records and use Salesforce’s Click-to-Dial feature to make the phone call.

# Package Installation

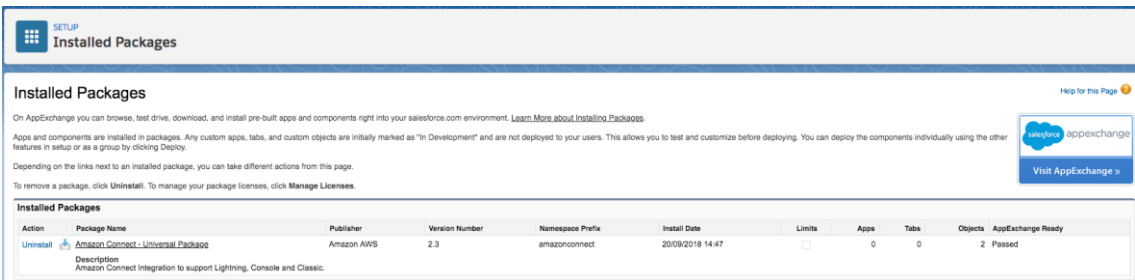
Log in into your Salesforce instance and open Setup:



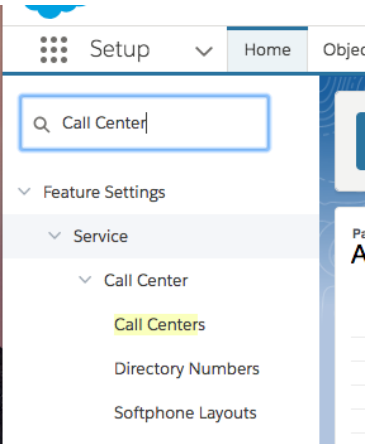
Open the AmazonConnectCTI Package URL and Install for All Users:



Click Done and Installed Packages page will open.



In the Quick Find box, type Call Center, then click on Call Centers:



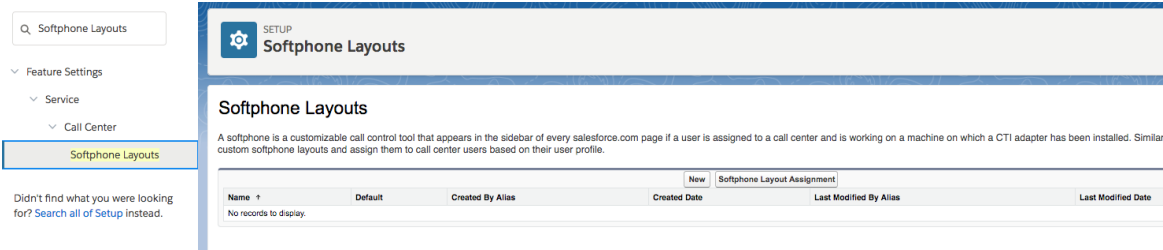
All Call Centers

A call center corresponds to a single computer-telephony integration (CTI) system already in place at your organization. Salesforce.com users must be assigned to a call center before they can use any Call Center features.

Action		Name ↑	Version	Created Date	Last Modified Date
<a href="#">Edit</a>   <a href="#">Del</a>		Amazon Connect CCP Adapter Classic		23/05/2018 13:27	23/05/2018 13:27
<a href="#">Edit</a>   <a href="#">Del</a>		Amazon Connect CCP Adapter Console		23/05/2018 13:27	23/05/2018 13:27
<a href="#">Edit</a>   <a href="#">Del</a>		Amazon Connect CCP Adapter Lightning		23/05/2018 13:27	23/05/2018 13:27

You should be able to see 3 Call Center configurations: Classic, Console and Lightning.

Next, create a default Softphone Layout:



Click on the New button:

Softphone Layout Edit

Help for this Page

Each softphone layout allows you to customize the appearance of a softphone for inbound, outbound, and internal calls. Assign softphone layouts to user profiles by clicking Layout Assignment in the Softphone Layouts page.

SaveCancel

Name

☐ Is Default Layout

Select Call Type Inbound

Softphone Layout

Help about this section

Display these call-related fields:

▶ Caller ID, Dialed Number

Edit

Display these salesforce.com objects:

▶ Account, Contact, Lead

Add / Remove Objects

▶ If single Account found, display: Account Name  
If multiple matches are found, only the Account Name is displayed in Salesforce Classic. In Lightning Experience, all the selected fields are displayed.

Edit

▶ If single Contact found, display: Name  
If multiple matches are found, only the Name is displayed in Salesforce Classic. In Lightning Experience, all the selected fields are displayed.

Edit

▶ If single Lead found, display: Name  
If multiple matches are found, only the Name is displayed in Salesforce Classic. In Lightning Experience, all the selected fields are displayed.

Edit

Set Name (for example AmazonConnectDefault) and set Is Default Layout

### Softphone Layout Edit

Each softphone layout allows you to customize the appearance of a softphone for inbound, outbo

SaveCancel

Name

☒ Is Default Layout

Expand “Display these salesforce.com objects” and select objects that CTI Connector would be able to search, for a screen-pop query. In this example, besides default selection, I’m adding “Case”, as I want to search and screen-pop by CaseID.

Display these salesforce.com objects:

▼ Account, Contact, Lead, Case

Available

Selections

Campaign

Event

Opportunity

Task

User

Add

Remove

Account

Contact

Lead

Case

Up

Down

If necessary, configure the search behavior in case one or multiple records are found:

Page 5

▶ If single Account found, display: Account Name If multiple matches are found, only the Account Name is displayed in Salesforce Classic. In Lightning Experience, all the selected fields are displayed.	Edit
▶ If single Contact found, display: Name If multiple matches are found, only the Name is displayed in Salesforce Classic. In Lightning Experience, all the selected fields are displayed.	Edit
▶ If single Lead found, display: Name If multiple matches are found, only the Name is displayed in Salesforce Classic. In Lightning Experience, all the selected fields are displayed.	Edit
▶ If single Case found, display: Case Number If multiple matches are found, only the Case Number is displayed in Salesforce Classic. In Lightning Experience, all the selected fields are displayed.	Edit

In this example, I'll keep default configuration. Click on the Save button:

### Softphone Layout Edit

Each softphone layout allows you to customize the appearance of a softphone for inbound, outbound, a

SaveCancel

NameAmazonConnectDefault☒ Is Default Layout

### Softphone Layouts

A softphone is a customizable call control tool that appears in the sidebar of every salesforce.com page if a user is assigned to a call center and is working on a machine on which a CTI adapter has been installed. Similar to page layout, you can create custom softphone layouts and assign them to call center users based on their user profile.

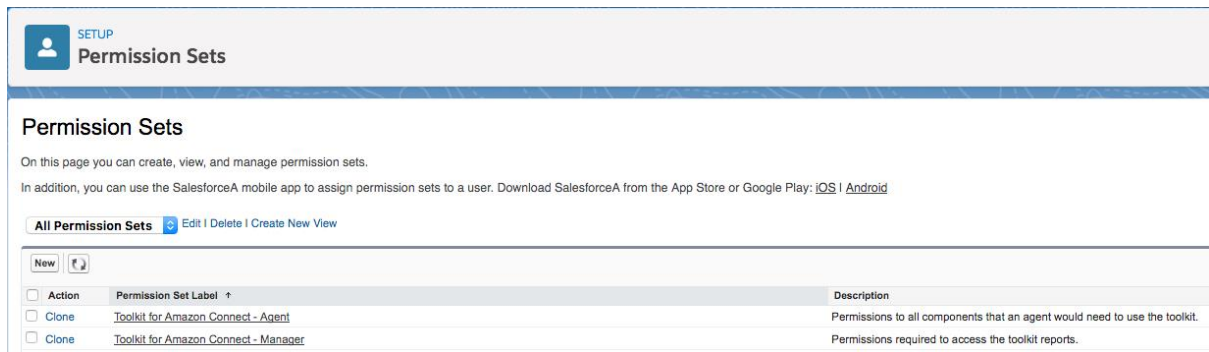
Action		Name ↑	Default	Created By Alias	Created Date	Last Modified By Alias	Last Modified Date
Edit		AmazonConnectDefault	✓	ASFDC	23/05/2018 13:48	ASFDC	23/05/2018 13:48

## Set Access Permissions

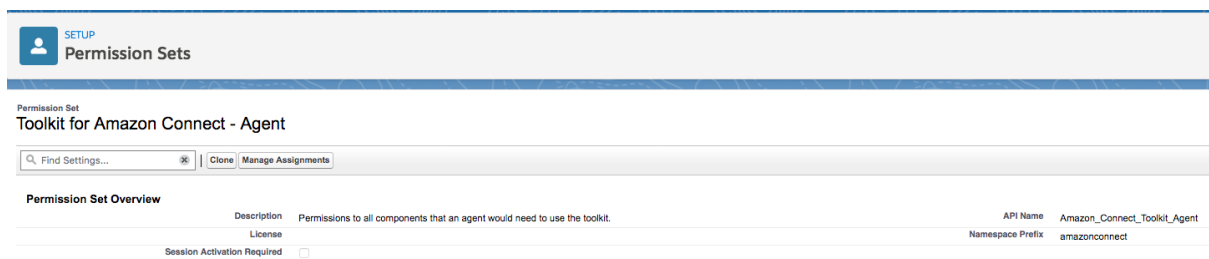
All users must have the permission set to access the Salesforce metadata included in this package. The Amazon Connect CTI integration package comes with two Permission Sets, one for agents and one for managers, which grants the users all necessary access to use the soft-phone.

1. Log in into your Salesforce Org.

a. Navigate to Setup > Manage Users > Permission Sets



b. Click “Toolkit for Amazon Connect - Agent”



2. Click “Manage Assignments”
3. Click “Add Assignments”
4. Select the appropriate users and then click “Assign”



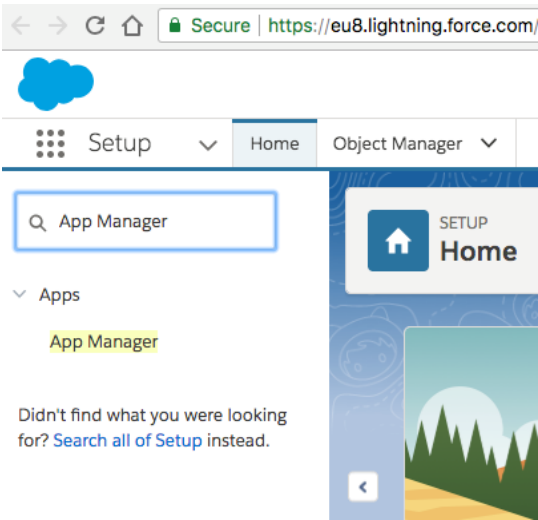
More information on assigning user permissions can be found here:

[https://help.salesforce.com/articleView?id=perm\\_sets\\_mass\\_assign.htm&type=5](https://help.salesforce.com/articleView?id=perm_sets_mass_assign.htm&type=5)



## Configure Lightning Experience

For the Lightning experience, we are going to use Service Console application, but the procedure is the same for other applications. From the Setup screen, type App Manager in Quick Find filed and select App Manager:



You will be able to see all applications that are available in your account.

Lightning Experience App Manager							New Lightning App	New Connected App
12 items • Sorted by App Name • Filtered by TabSet Type								
APP NAME	DEVELOPER NA...	DESCRIPTION	LAST MODIFI...	APP...	VI...			
1 App Launcher	AppLauncher	App Launcher tabs	23/05/2018 12:57	Classic	✓			
2 Community	Community	Salesforce CRM Communities	23/05/2018 12:57	Classic	✓			
3 Content	Content	Salesforce CRM Content	23/05/2018 12:57	Classic	✓			
4 Marketing	Marketing	Best-in-class on-demand marketing automation	23/05/2018 12:57	Classic	✓			
5 Platform	Platform	The fundamental Lightning Platform	23/05/2018 12:57	Classic	✓			
6 Sales	Sales	The world's most popular sales force automation (SFA) solution	23/05/2018 12:57	Classic	✓			
7 Sales	LightningSales	Manage your sales process with accounts, leads, opportunities, and more	23/05/2018 12:57	Lightning	✓			
8 Sales Console	LightningSalesConsole	(Lightning Experience) Lets sales reps work with multiple records on one screen	23/05/2018 12:57	Lightning	✓			
9 Salesforce Chatter	Chatter	The Salesforce Chatter social network, including profiles and feeds	23/05/2018 12:57	Classic	✓			
10 Service	Service	Manage customer service with accounts, contacts, cases, and more	23/05/2018 12:57	Classic	✓			
11 Service Console	LightningService	(Lightning Experience) Lets support agents work with multiple records across customer service channels on one screen	23/05/2018 12:57	Lightning	✓			
12 Site.com	Sites	Build pixel-perfect, data-rich websites using the drag-and-drop Site.com application, and manage content and published...	23/05/2018 12:57	Classic	✓			

Click on drop-down arrow associated to Service Console and select Edit:

APP NAME	DEVELOPER NA...	DESCRIPTION	LAST MODIFI...	APP...	VI...	
11 Service Console	LightningService	(Lightning Experience) Lets support agents work with multiple records across customer service channels on one screen	23/05/2018 12:57	Lightning	✓	
12 Site.com	Sites	Build pixel-perfect, data-rich websites using the drag-and-drop Site.com application, and manage content and published...	23/05/2018 12:57	Classic	✓	Edit

The lightning App Builder opens

The screenshot shows the 'App Details & Branding' configuration page in the Lightning App Builder. The left sidebar lists 'APP SETTINGS' with options: App Details & Branding (selected), App Options, Utility Bar, Select Items, Navigation Rules, and Assign to User Profiles. The main content area is titled 'App Details & Branding' and includes instructions: 'Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.' It is divided into two sections: 'App Details' and 'App Branding'. In 'App Details', the 'App Name' is 'Service Console', the 'Developer Name' is 'LightningService', and the 'Description' is '(Lightning Experience) Lets support agents work with multiple records across customer service channels on one screen'. In 'App Branding', the 'Image' is a purple icon with a white speech bubble, and the 'Primary Color Hex Value' is '#0070D2'. Below this, 'Org Theme Options' includes a checkbox 'Use the app's image and color instead of the org's custom theme'. At the bottom, an 'App Launcher Preview' shows the app icon and name 'Service Console (Lightning Experience) Lets support agents work with m...'. The top navigation bar includes 'Lightning App Builder', 'App Settings', 'Pages', and 'Service Console'.

On the left-hand side, select Utility Bar

The screenshot shows the 'Utility Bar' configuration page in the Lightning App Builder. The left sidebar is the same as the previous screenshot, but 'Utility Bar' is now selected. The main content area is titled 'Utility Bar' and includes instructions: 'Give your users quick access to common productivity tools.' It features a 'Utility Bar Items' section with an 'Add' button. Below this, there are tabs for 'History' and 'Notes'. The 'History' tab is active, showing a list of items. The top navigation bar is the same as the previous screenshot.

Click on the Add button and select Open CTI Softphone

The screenshot shows the 'Add' button dropdown menu in the 'Utility Bar' configuration. The menu is titled 'Utility Bar Items' and has a search bar. Below the search bar, there is a list of items under the heading 'Standard (13)'. The items are: Chatter Feed, Chatter Publisher, Flow, History, List View, Macros, Notes, Open CTI Softphone (highlighted in blue), Quip, and Recent Items. The top navigation bar is the same as the previous screenshot.

### Utility Bar

Give your users quick access to common productivity tools.

Utility Bar Items

[Add](#)

Phone

History

Notes

PROPERTIES

Open CTI Softphone

↑ ↓ Remove

▼ Utility Item Properties

\* Label Phone ⓘ

Icon call X ⓘ

Panel Width 340 ⓘ

Panel Height 480 ⓘ

☒ Load in background when app opens ⓘ

Cancel

Save

Change the Label in necessary and click on the Save button.

Lightning App Builder

App Settings

Pages

Service Console

← Back

APP SETTINGS

App Details & Branding

App Options

Utility Bar

Select Items

Navigation Rules

Assign to User Profiles

Utility Bar

Give your users quick access to common productivity tools.

Utility Bar Items

[Add](#)

Phone

History

Notes

PROPERTIES

Open CTI Softphone

↑ ↓ Remove

▼ Utility Item Properties

\* Label Phone ⓘ

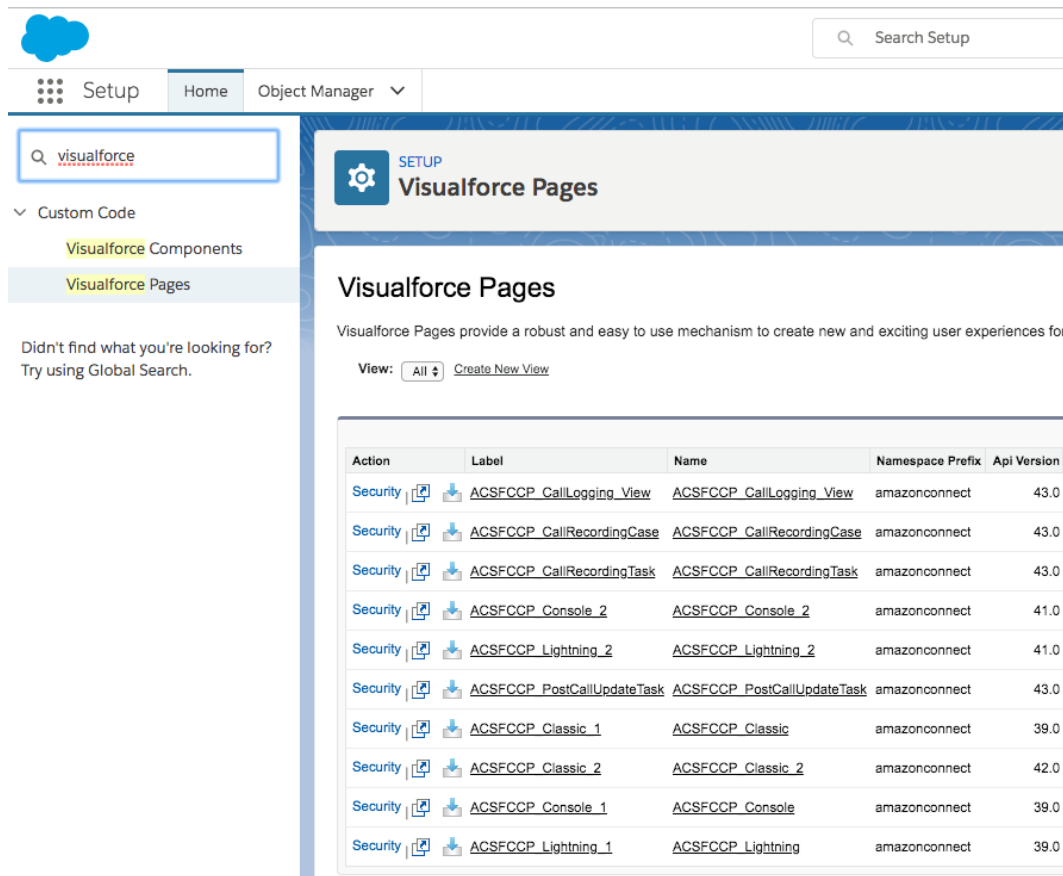
Icon call X ⓘ

Panel Width 340 ⓘ

Panel Height 480 ⓘ

☒ Load in background when app opens ⓘ

Click on the Back button in the top-right corner (not browser's back button). In the Quick Find field, type Visualforce Pages and select Visual Force Pages:



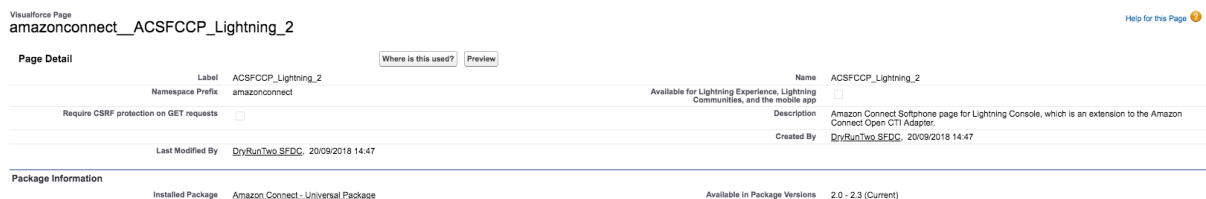
**Visualforce Pages**

Visualforce Pages provide a robust and easy to use mechanism to create new and exciting user experiences for

View: All [Create New View](#)

Action	Label	Name	Namespace Prefix	Api Version
Security	ACSFCPP_CallLogging_View	ACSFCPP_CallLogging_View	amazonconnect	43.0
Security	ACSFCPP_CallRecordingCase	ACSFCPP_CallRecordingCase	amazonconnect	43.0
Security	ACSFCPP_CallRecordingTask	ACSFCPP_CallRecordingTask	amazonconnect	43.0
Security	ACSFCPP_Console_2	ACSFCPP_Console_2	amazonconnect	41.0
Security	ACSFCPP_Lightning_2	ACSFCPP_Lightning_2	amazonconnect	41.0
Security	ACSFCPP_PostCallUpdateTask	ACSFCPP_PostCallUpdateTask	amazonconnect	43.0
Security	ACSFCPP_Classic_1	ACSFCPP_Classic	amazonconnect	39.0
Security	ACSFCPP_Classic_2	ACSFCPP_Classic_2	amazonconnect	42.0
Security	ACSFCPP_Console_1	ACSFCPP_Console	amazonconnect	39.0
Security	ACSFCPP_Lightning_1	ACSFCPP_Lightning	amazonconnect	39.0

As we are currently setting up the Lightning experience, click on ACSFCPP\_Lightning\_2 page



Visualforce Page  
amazonconnect\_\_ACSFCPP\_Lightning\_2

Page Detail

Where is this used? [Preview](#)

Label	Name
ACSFCPP_Lightning_2	ACSFCPP_Lightning_2

Namespace Prefix: amazonconnect

Require CSRF protection on GET requests: ☐

Available for Lightning Experience, Lightning Communities, and the mobile app: ☐

Description: Amazon Connect Softphone page for Lightning Console, which is an extension to the Amazon Connect Open CTI Adapter.

Last Modified By: Dnyanesh SFDC, 20/09/2018 14:47

Created By: Dnyanesh SFDC, 20/09/2018 14:47

Package Information

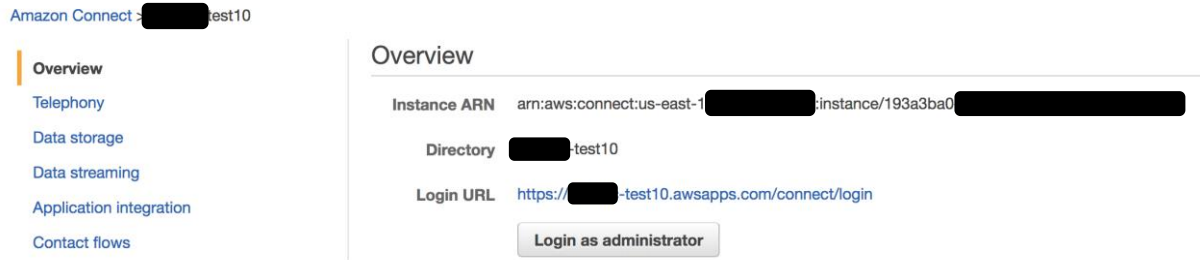
Installed Package: Amazon Connect - Universal Package

Available in Package Versions: 2.0 - 2.3 (Current)

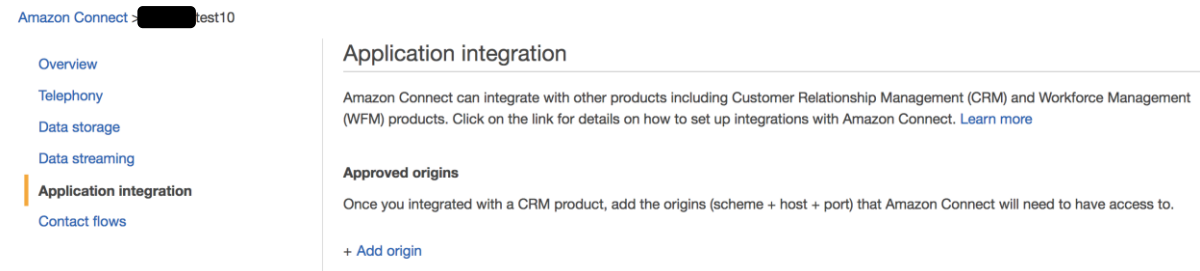
Click on the Preview button. New browser tab will open with the URL of this page. It's going to be in this format:

`https://amazonconnect.sfdcInstance.visual.force.com/apex/ACSFCPP_Lightning`

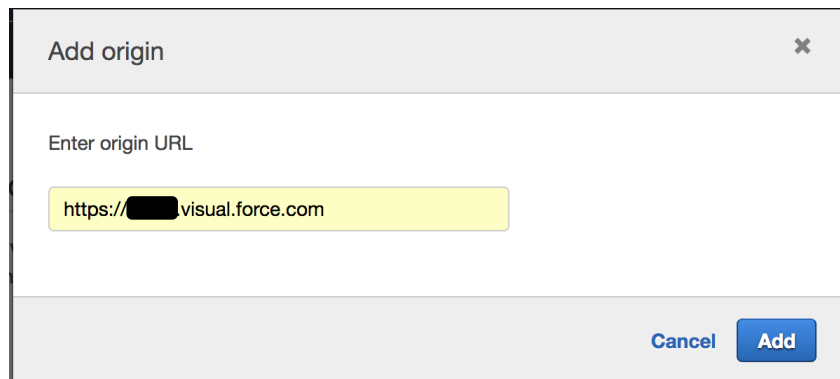
This is what we are going to use as “Origin URL” in our Amazon Connect configuration. From AWS Console, select Amazon Connect service and then select your Amazon Connect instance:



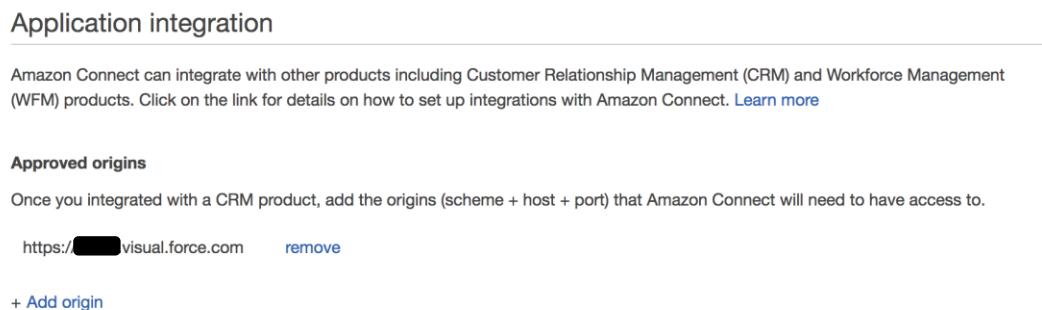
Select “Application Integration” on the left-hand side:



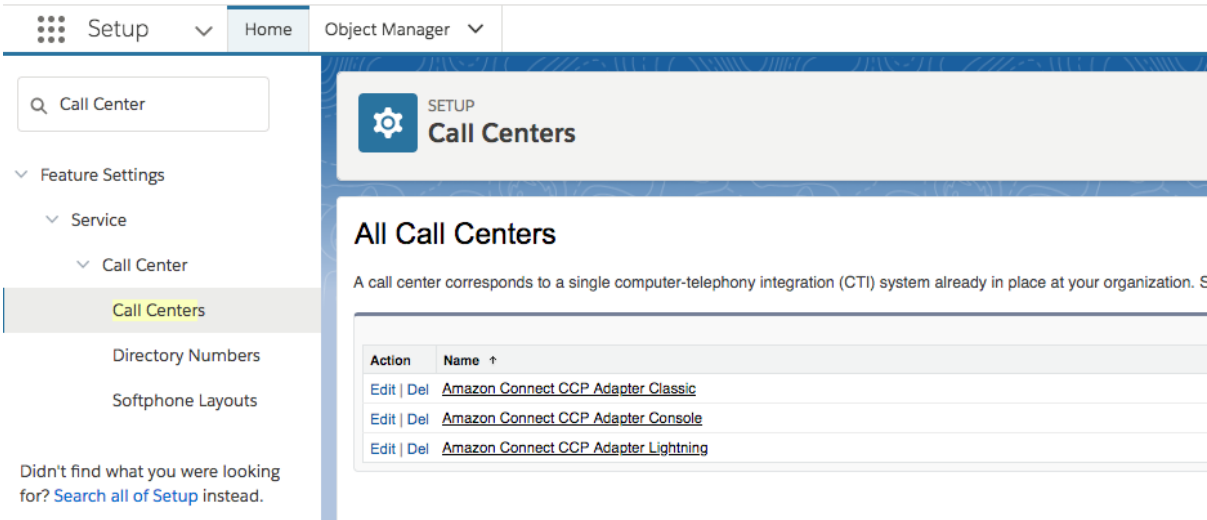
Click on “Add origin” link and enter the origin URL



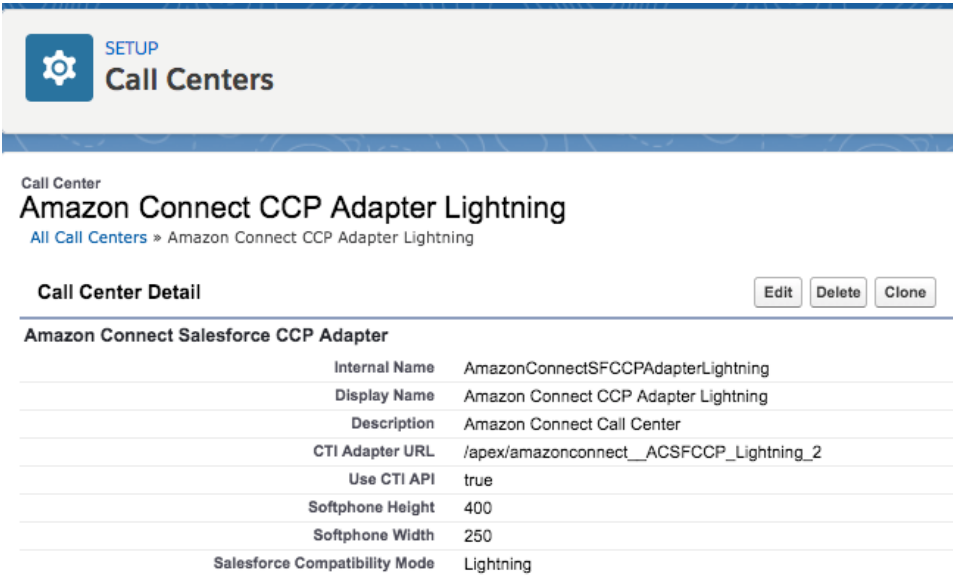
Click “Add” button



Go to Salesforce and in the Setup page, type Call Center, then select Call Centers



Select “Amazon Connect CCP Adapter Lightning”



Click on the Edit button. In the “Amazon Connect CCP URL” filed, enter the name of your Amazon Connect instance in the following format:

<https://yourinstace-name.awsapps.com/connect/ccp>

For example:

<https://test10.awsapps.com/connect/ccp>

Click on the Save button. Click on the “Manage Call Center Users” button at the bottom of the page.

Click on the “Add More Users” button.

Call Center

### Amazon Connect CCP Adapter Lightning: Search for New Users

[All Call Centers](#) » [Amazon Connect CCP Adapter Lightning](#) » [Manage Users](#) » Search for New Users

Set the search criteria below and then click Search to find salesforce.com users who should be enabled as call center

--None--	--None--		AND
--None--	--None--		AND
--None--	--None--		AND
--None--	--None--		AND
--None--	--None--		

Filter By Additional Fields (Optional):

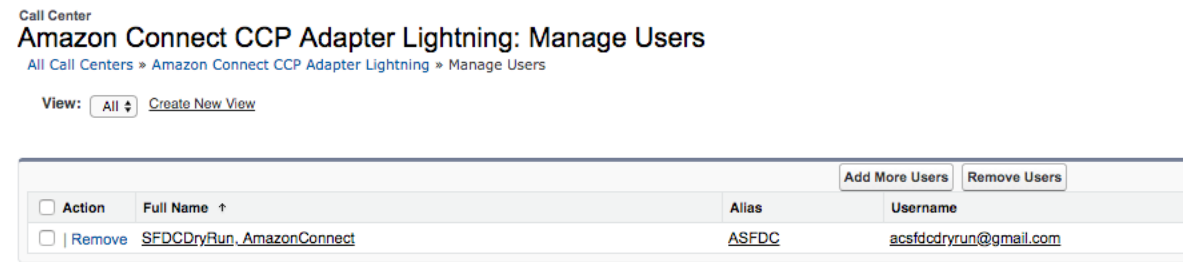
- You can use "or" filters by entering multiple items in the third column, separated by commas.
- For date fields, enter the value in following format: 23/05/2018
- For date/time fields, enter the value in following format: 23/05/2018 14:23

Find

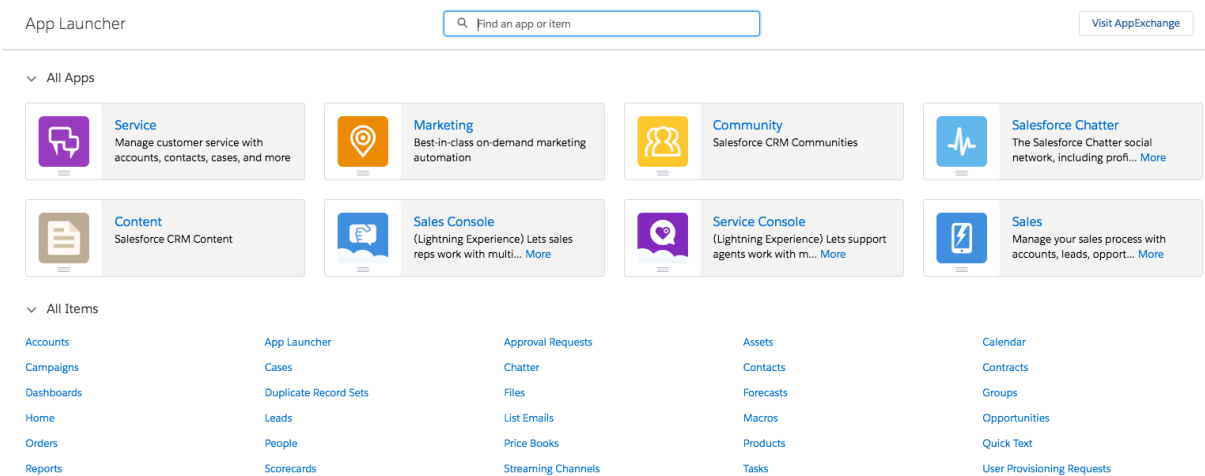
Set filters and click on the Find button. Select the checkbox next to the user and click “Add to Call Center” button.

Add to Call Center Cancel					
<input type="checkbox"/>	Full Name	Alias	Username	Role	Profile
<input checked="" type="checkbox"/>	SFDCCDryRun_AmazonConnect	ASFDC	██████████@gmail.com		System Administrator
<input type="checkbox"/>	User_Integration	integ	integration@000d0n000001bsn5uaa.com		Analytics Cloud Integration User
<input type="checkbox"/>	User_Security	sec	insightssecurity@000d0n000001bsn5uaa.com		Analytics Cloud Security User

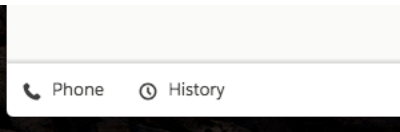
Repeat the steps to add more users.



In the top-left corner, select the dot-matrix button to open the App Launcher.

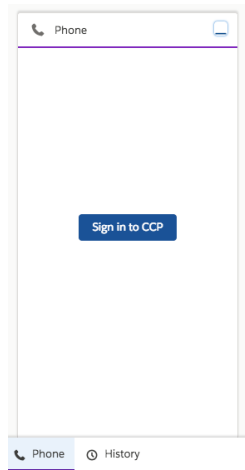


Select the Service Console application. The Phone button should be displayed in the bottom-right corner.

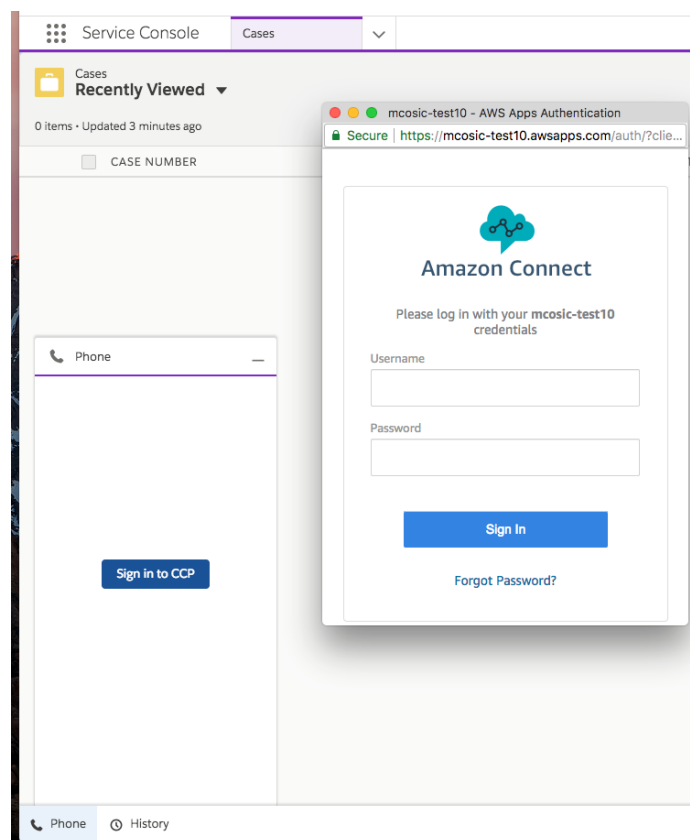


Click on the Phone button to open the softphone pop-up.

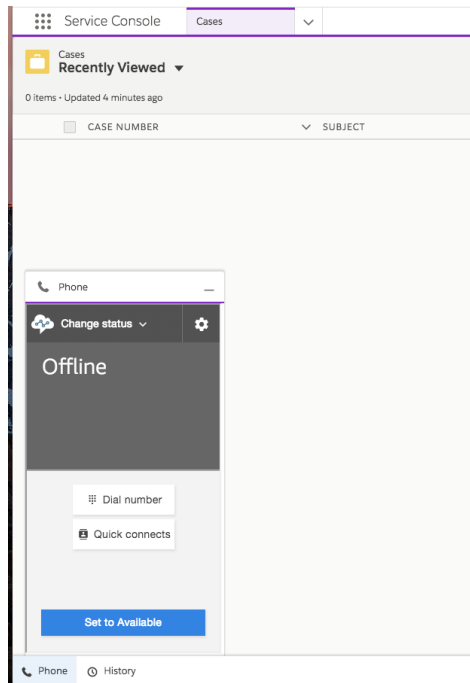




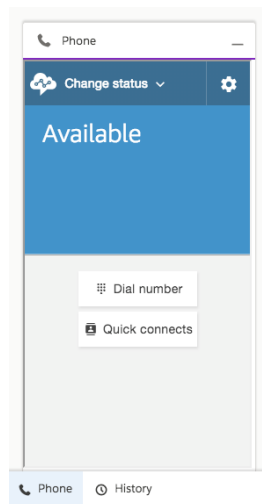
You will need to Sign in into your Amazon Connect CCP. Click on the Sign in to CCP button. A new modal pop-up will show, asking you to enter your credentials.



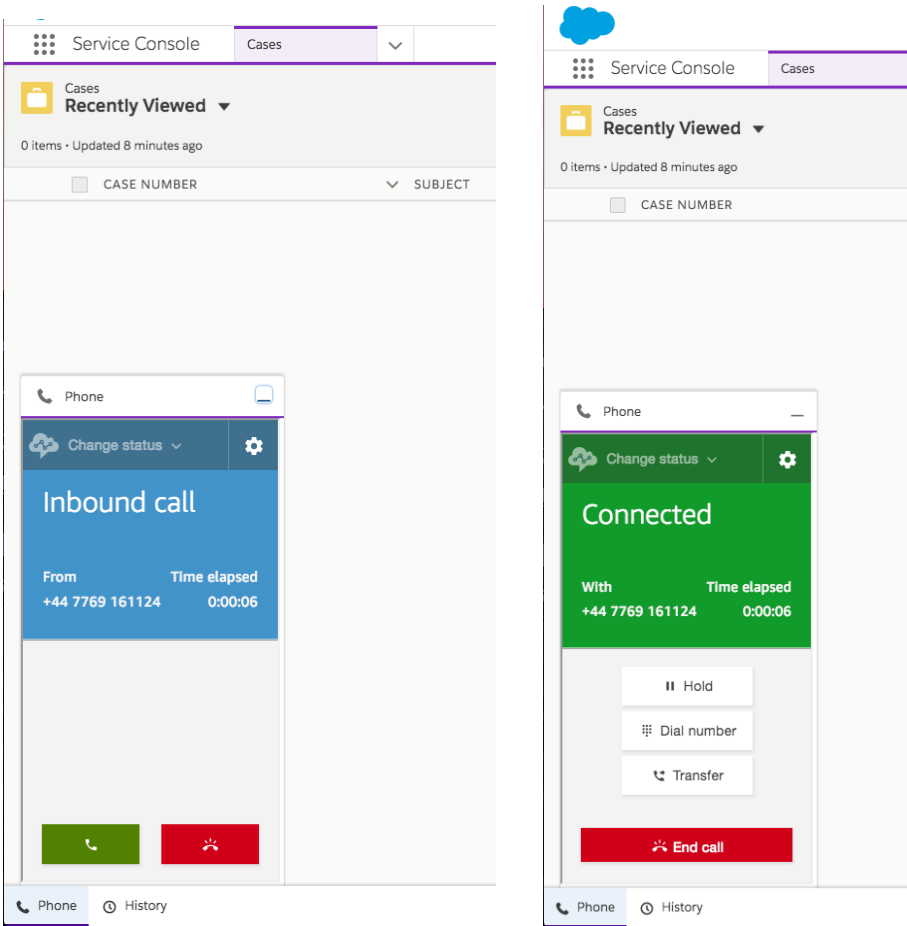
Enter your credentials and click Sign in. Allow Microphone access (if asked by browser). Once Login is successful, the pop-up window will automatically close.



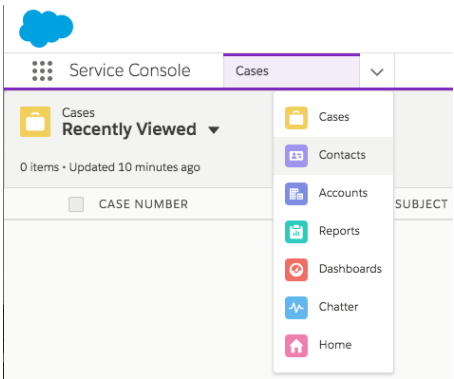
Select “Change status” and select “Available”.



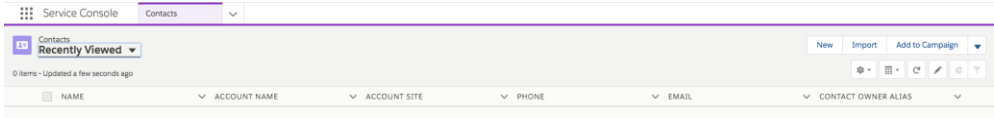
Make an inbound phone call to your Amazon Connect instance. The CCP is going to “ring” and you can answer the call.



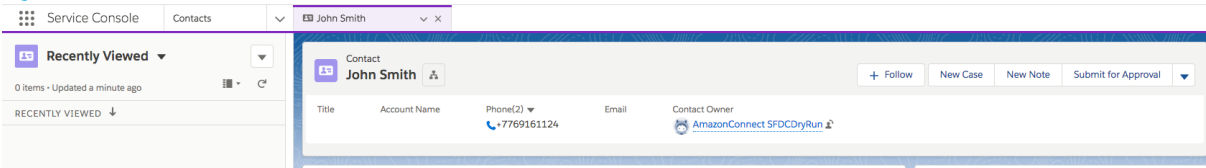
At this time, I need to create a new Contact in Salesforce so that I can test a screen-pop by incoming phone number. Select Contacts from the dropdown menu:



Select New from top-right corner

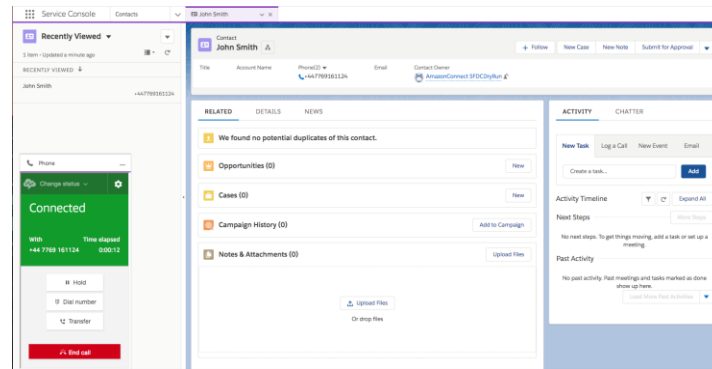


Fill in the details and click on the Save button.

A screenshot of the 'New Contact' form in Salesforce. The form is titled 'New Contact' and has a 'Contact Information' section. It contains various input fields for contact details: Contact Owner (AmazonConnect SFDCDryRun), Phone (+7769161124), Home Phone, First Name (John), Last Name (Smith), Account Name (Search Accounts...), Title, Department, Birthdate, Reports To (Search Contacts...), Lead Source, Mobile, Other Phone, Fax, Email, Assistant, and Asst. Phone. At the bottom, there are buttons for 'Cancel', 'Save & New', and 'Save'.

Close the Contact tab by clicking on the X next to the Name and drop the phone call.

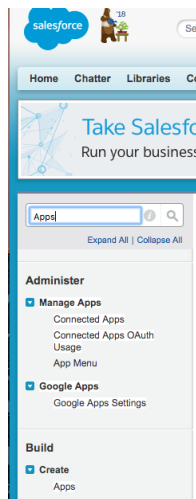
Set your state to Available and make another phone call. The new contact should automatically pop-up as it has been recognized by incoming phone number.



## Configure Console Experience

For the Console experience, we are going to use Sample Console application, but the procedure is the same for other applications.

From the Setup screen, type Apps in Quick Find field and select **Build>Create>Apps**:



You will be able to see all applications that are available in your account.

**Apps** Quick Start New Reorder

Action	App Label	Console	Custom	Description
<a href="#">Edit</a>	<a href="#">App Launcher</a>	<input type="checkbox"/>	<input type="checkbox"/>	App Launcher tabs
<a href="#">Edit</a>	<a href="#">Community</a>	<input type="checkbox"/>	<input type="checkbox"/>	Salesforce CRM Communities
<a href="#">Edit</a>	<a href="#">Content</a>	<input type="checkbox"/>	<input type="checkbox"/>	Salesforce CRM Content
<a href="#">Edit</a>	<a href="#">Marketing</a>	<input type="checkbox"/>	<input type="checkbox"/>	Best-in-class on-demand marketing automation
<a href="#">Edit</a>	<a href="#">Platform</a>	<input type="checkbox"/>	<input type="checkbox"/>	The fundamental Lightning Platform
<a href="#">Edit</a>	<a href="#">Sales</a>	<input type="checkbox"/>	<input type="checkbox"/>	The world's most popular sales force automation (SFA) solution
<a href="#">Edit</a>	<a href="#">Salesforce Chatter</a>	<input type="checkbox"/>	<input type="checkbox"/>	The Salesforce Chatter social network, including profiles and feeds
<a href="#">Edit</a>	<a href="#">Sample Console</a>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	(Salesforce Classic) Lets agents work with multiple records on one screen
<a href="#">Edit</a>	<a href="#">Service</a>	<input type="checkbox"/>	<input type="checkbox"/>	Manage customer service with accounts, contacts, cases, and more
<a href="#">Edit</a>	<a href="#">Site.com</a>	<input type="checkbox"/>	<input type="checkbox"/>	Build pixel-perfect, data-rich websites using the drag-and-drop Site.com application, and manage content and published sites.

Click “Edit” next to the Sample Console application.

Scroll to the bottom of the page and “Assign to Profiles”

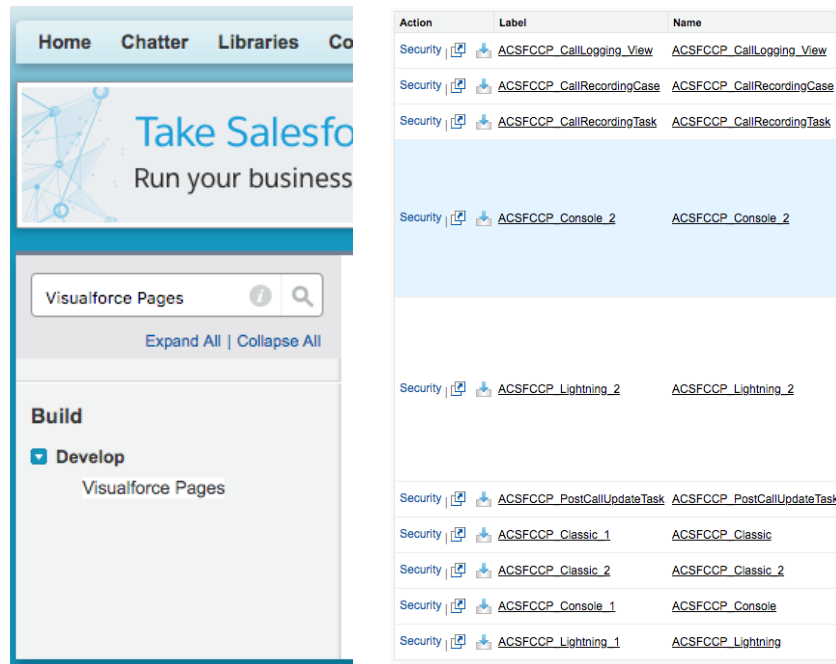
**Assign to Profiles**

Profile	<input type="checkbox"/> Visible	<input type="checkbox"/> Default
<a href="#">Analytics Cloud Integration User</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Analytics Cloud Security User</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Contract Manager</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Cross Org Data Proxy User</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Custom: Marketing Profile</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Custom: Sales Profile</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Custom: Support Profile</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Force.com - App Subscription User</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Identity User</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Marketing User</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Partner App Subscription User</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Read Only</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Solution Manager</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Standard Platform User</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">Standard User</a>	<input type="checkbox"/>	<input type="checkbox"/>
<a href="#">System Administrator</a>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

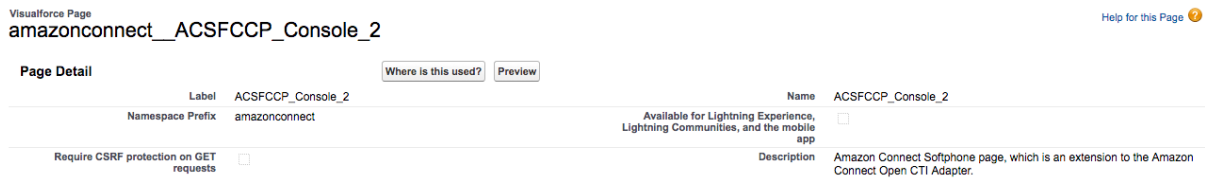
Save Save & New Cancel

In this example, I’m assigning Sample console as Visible to System Administrator.

Click on the Save button. Next, we have to configure Amazon Connect integration. In the Quick Find field, type Visualforce Pages and select Visual Force Pages:



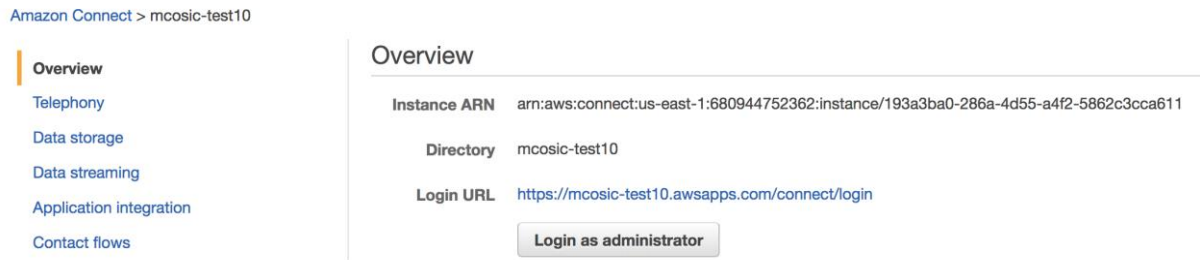
As we are currently setting up the Console experience, click on “ACSFCCP\_Console\_2” page



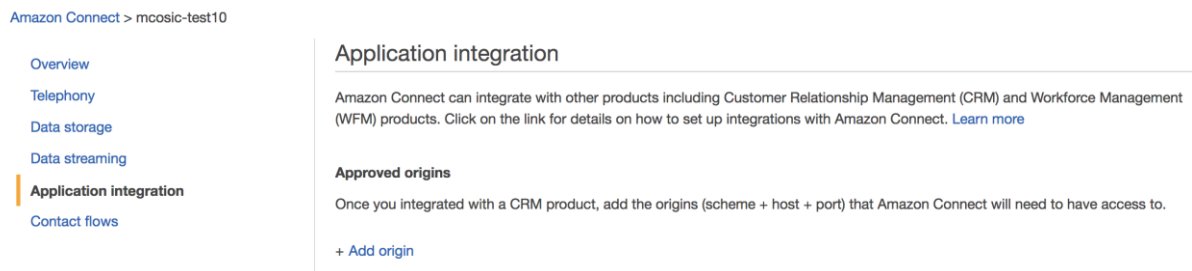
Click on the Preview button. New browser tab will open with the URL of this page. It’s going to be in this format:

`https://amazonconnect.sfdcInstance.visual.force.com/apex/ACSFC  
CP_Console`

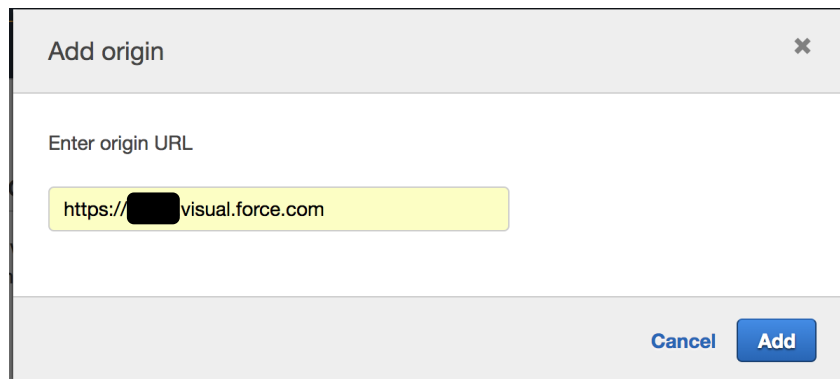
This is what we are going to use as “Origin URL” in our Amazon Connect configuration. From AWS Console, select Amazon Connect service and then select your Amazon Connect instance:



Select “Application Integration” on the left-hand side:



Click on “Add origin” link and enter the origin URL



Click “Add” button



Application integration

Amazon Connect can integrate with other products including Customer Relationship Management (CRM) and Workforce Management (WFM) products. Click on the link for details on how to set up integrations with Amazon Connect. [Learn more](#)

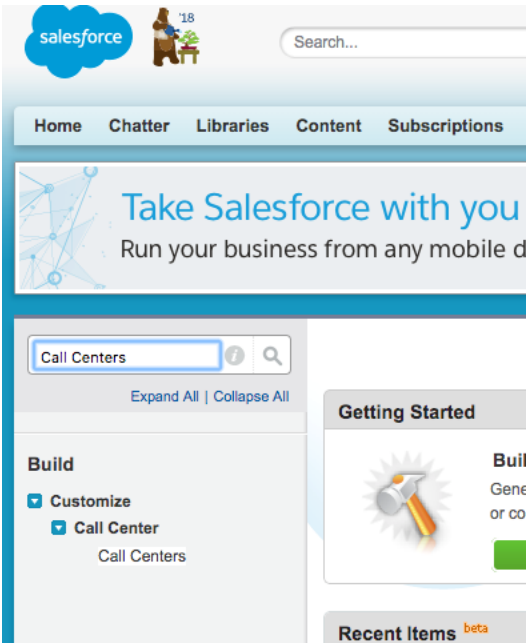
Approved origins

Once you integrated with a CRM product, add the origins (scheme + host + port) that Amazon Connect will need to have access to.

[https://\[redacted\]visual.force.com](#) [remove](#)

[+ Add origin](#)

From the Salesforce Classic layout, select Setup then type Call Centers in the Quick Find field and select Call Centers.



All Call Centers

A call center corresponds to a single computer-telephony integration (CTI) system already in place at your organization. Salesforce.com users mu:

			Import
Action	Name ↑	Version	
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Amazon Connect CCP Adapter Classic</a>		
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Amazon Connect CCP Adapter Console</a>		
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Amazon Connect CCP Adapter Lightning</a>		

Select “Amazon Connect CCP Adapter Console”

Call Center

### Amazon Connect CCP Adapter Console

[All Call Centers](#) » Amazon Connect CCP Adapter Console

**Call Center Detail** Edit Delete Clone

---

**Amazon Connect Salesforce CCP Adapter**

Internal Name	AmazonConnectSFCCPAdapterConsole
Display Name	Amazon Connect CCP Adapter Console
Description	Amazon Connect Call Center
CTI Adapter URL	/apex/amazonconnect__ACSFCCP_Console_2
Use CTI API	true
Softphone Height	400
Softphone Width	250
Salesforce Compatibility Mode	Classic

Click on the Edit button. In the “Amazon Connect CCP URL” field, enter the name of your Amazon Connect instance in the following format:

<https://yourinstance-name.awsapps.com/connect/ccp>

For example:

<https://test10.awsapps.com/connect/ccp>

Click on the Save button. Click on the “Manage Call Center Users” button at the bottom of the page.

**Call Center Users** Manage Call Center Users

---

**Call Center Users by Profile**

Total	0
-------	---

Call Center

### Amazon Connect CCP Adapter Console: Manage Users

[All Call Centers](#) » [Amazon Connect CCP Adapter Console](#) » Manage Users

View: All ⌵ [Create New View](#)

---

Add More Users Remove Users

Full Name ↑	Alias	Username
No records to display.		

Click on the “Add More Users” button.

Call Center

### Amazon Connect CCP Adapter Console: Search for New Users

[All Call Centers](#) » [Amazon Connect CCP Adapter Console](#) » [Manage Users](#) » Search for New Users

Set the search criteria below and then click Search to find salesforce.com users who should be enabled as

--None--

--None--

--None--

--None--

--None--

--None--

--None--

--None--

AND

AND

AND

AND

Filter By Additional Fields (Optional):

- You can use "or" filters by entering multiple items in the third column, separated by commas.
- For date fields, enter the value in following format: 23/05/2018
- For date/time fields, enter the value in following format: 23/05/2018 15:07

Find

Set filters and click on the Find button. Select the checkbox next to the user and click “Add to Call Center” button.

Add to Call Center Cancel

<input type="checkbox"/>	Full Name	Alias	Username	Role	Profile
<input checked="" type="checkbox"/>	SFDCDryRun_AmazonConnect	ASFDC	[REDACTED]@gmail.com		System Administrator
<input type="checkbox"/>	User_Integration	integ	integration@00d0n000001ben5uaa.com		Analytics Cloud Integration User
<input type="checkbox"/>	User_Security	sec	insightsecurity@00d0n000001ben5uaa.com		Analytics Cloud Security User

Repeat the steps to add more users.

Call Center

### Amazon Connect CCP Adapter Console: Manage Users

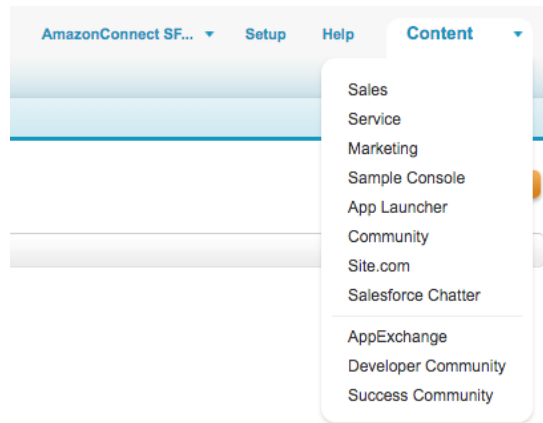
[All Call Centers](#) » [Amazon Connect CCP Adapter Console](#) » [Manage Users](#)

View: All Create New View

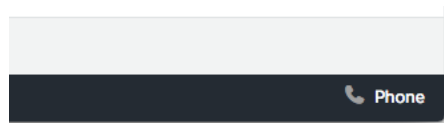
Add More Users Remove Users

<input type="checkbox"/>	Action	Full Name ↑	Alias	Username
<input type="checkbox"/>	<a href="#">Remove</a>	SFDCDryRun_AmazonConnect	ASFDC	[REDACTED]@gmail.com

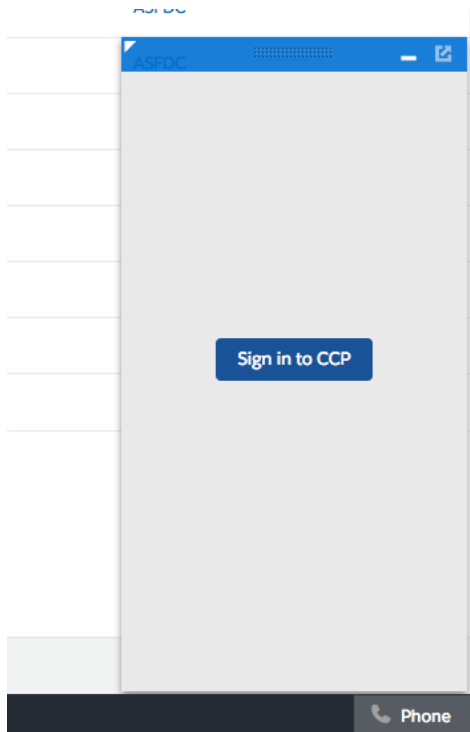
From the top-right corner, select Sample Console application.



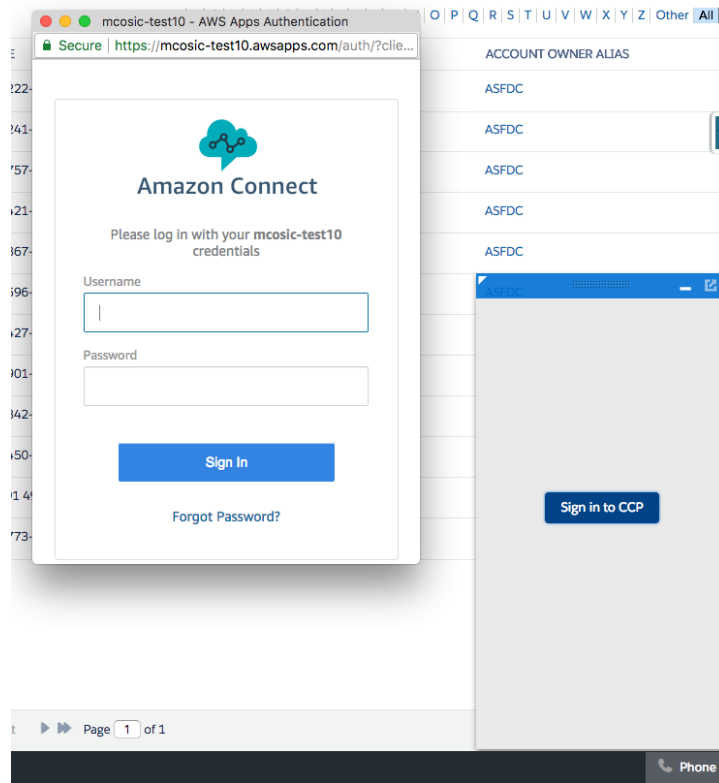
In the bottom-right corner, you will be able to see the Phone button.



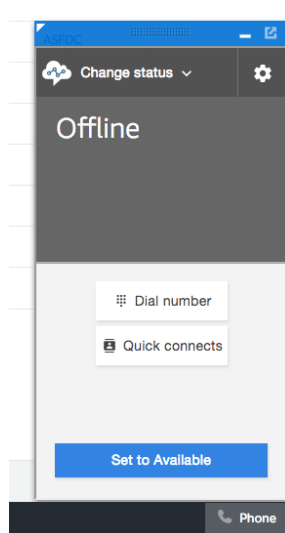
Click on the Phone button to open the softphone pop-up.



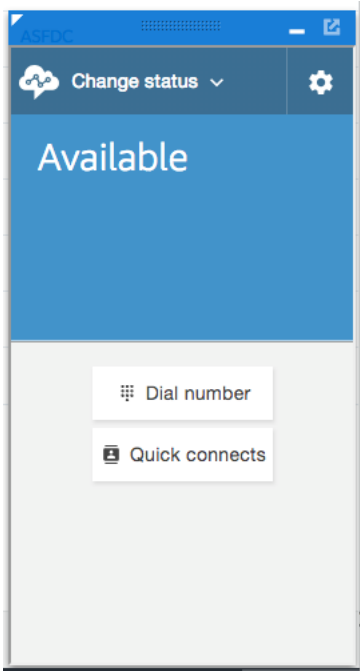
You will need to Sign in into your Amazon Connect CCP. Click on the Sign in to CCP button. A new modal pop-up will show, asking you to enter your credentials.



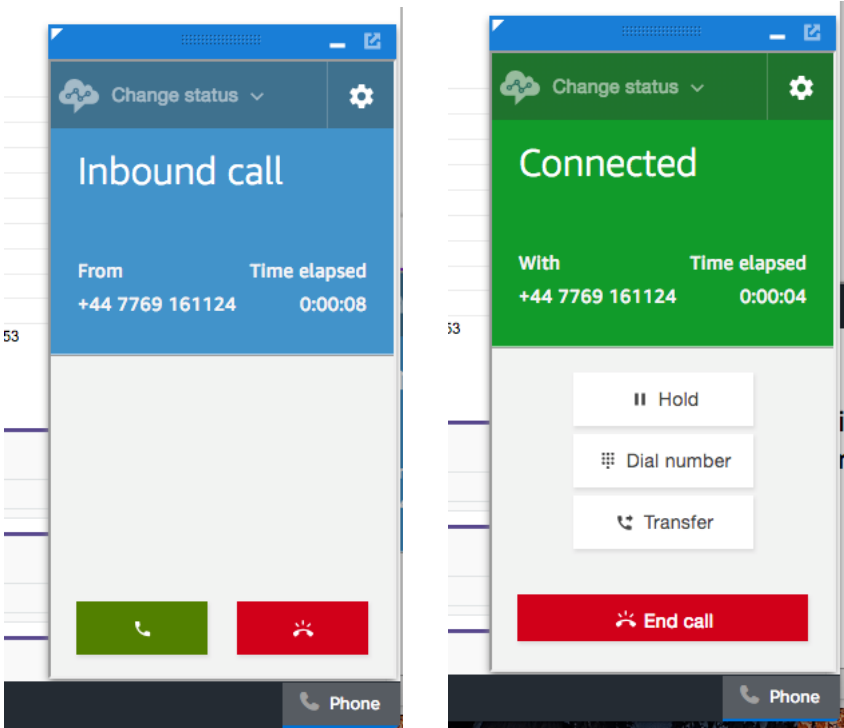
Enter your credentials and click Sign in. Allow Microphone access (if asked by browser). Once login is successful, the pop-up window will automatically close.



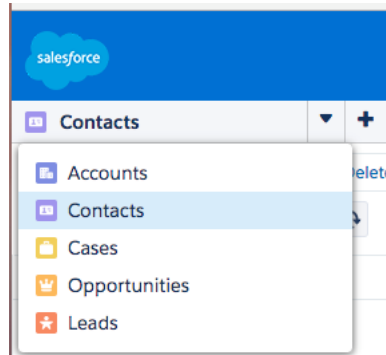
Select “Change status” and select “Available”.



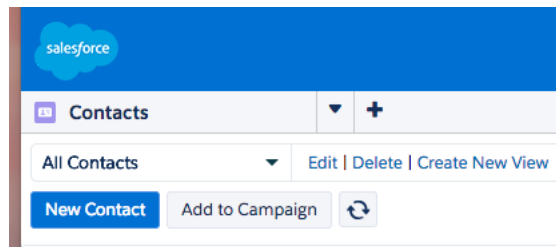
Make an inbound phone call to your Amazon Connect instance. The CCP is going to “ring” and you can answer the call.



At this time, I need to create a new Contact in Salesforce so that I can test a screen-pop by incoming phone number. Select Contacts from the dropdown menu:



Select New from top-left corner



Fill in the details and click on the Save button.

**Contact Edit**  
**New Contact**

Contacts not associated with accounts are private and cannot be viewed by other users or included in reports.

**Contact Information**

Contact Owner	AmazonConnect SFDCCDryRun	Phone	+447 [redacted]
Salutation	--None--	Home Phone	
First Name	John	Mobile	
Last Name	Smith	Other Phone	
Account Name		Fax	
Title		Email	
Department		Assistant	
Birthdate		Asst. Phone	
Reports To			
Lead Source	--None--		

**Service Console** | **Contacts** | **John Smith** | **X**

**Recently Viewed**

0 items - Updated a minute ago

**RECENTLY VIEWED**

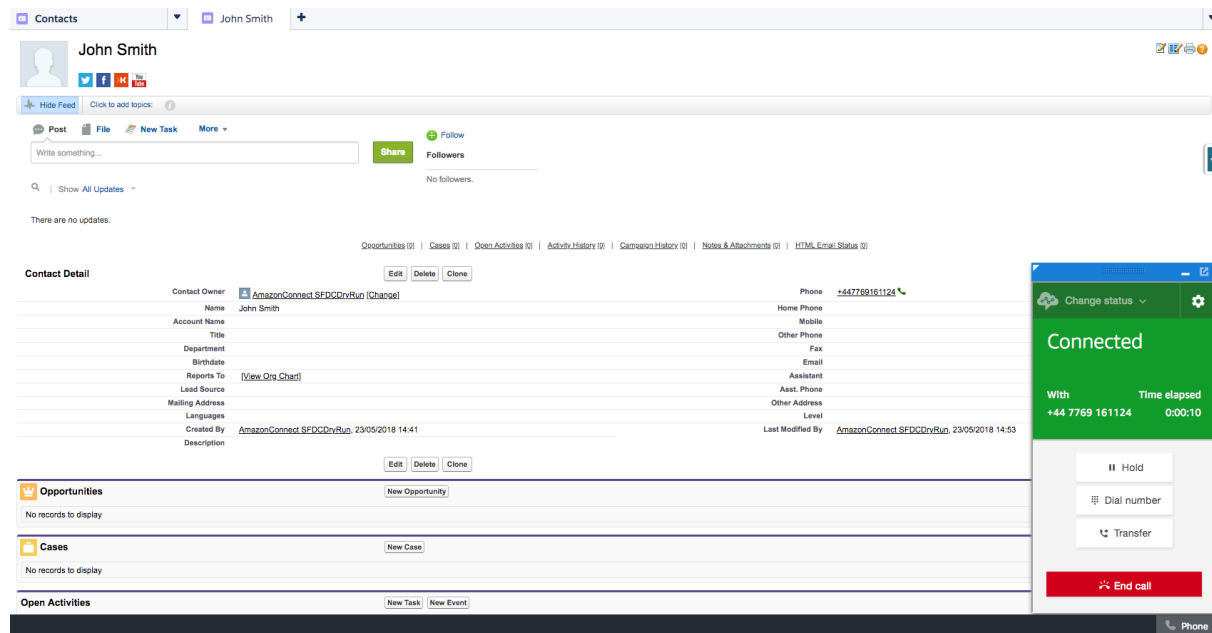
**Contact**  
**John Smith**

**Title** **Account Name** **Phone(2)** **Email** **Contact Owner**

**AmazonConnect SFDCCDryRun**

Close the Contact tab by clicking on the X next to the Name and drop the phone call. Set your state to Available and make another phone call. This time, the new

contact should automatically pop-up as it has been recognized by incoming phone number.



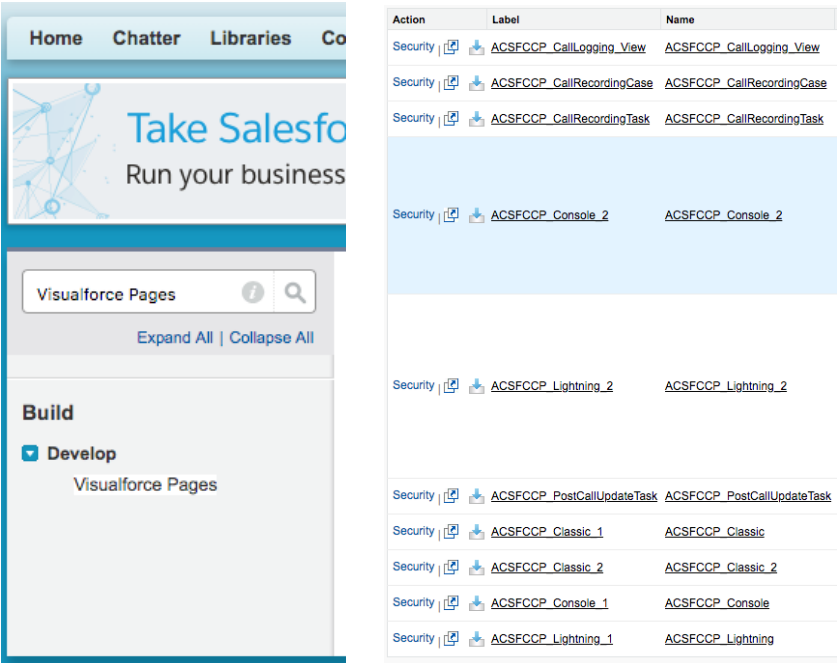
## Configure Classic Experience

The Salesforce Classic is the easiest to configure, but it has some limitations. Most important limitation is that, with Classic layout, there are no tabs and modal containers, so each time new object is selected, a full page reload occurs. This full reload causes softphone to be reloaded too, which could cause an issue in the voice call audio stream. Because of that, in the Classic environment, we have to run a separate instance of softphone (CPP) which will carry the audio, while embedded instance of CCP can be used for call control and screen-pop functionality.

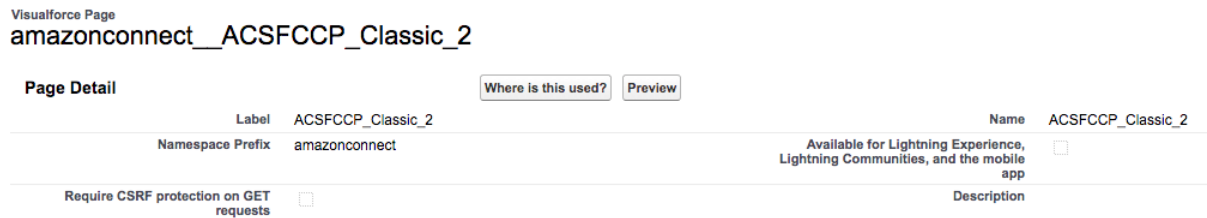
First, we have to configure Amazon Connect integration.

In the Quick Find field, type Visualforce Pages and select Visual Force Pages:





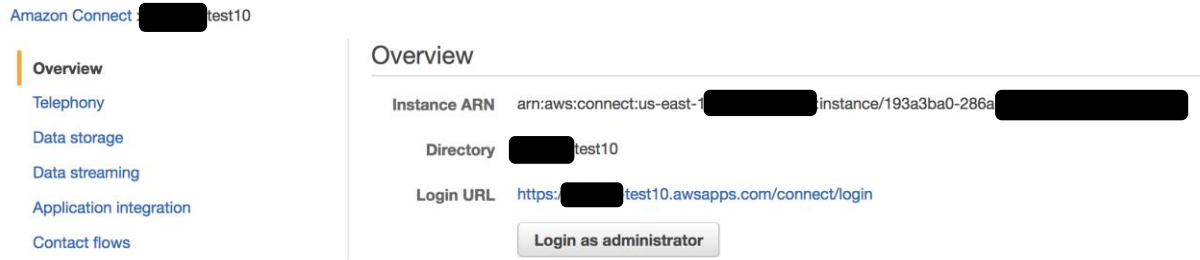
As we are currently setting up the Classic experience, click on ACSFCCP\_Classic\_2 page



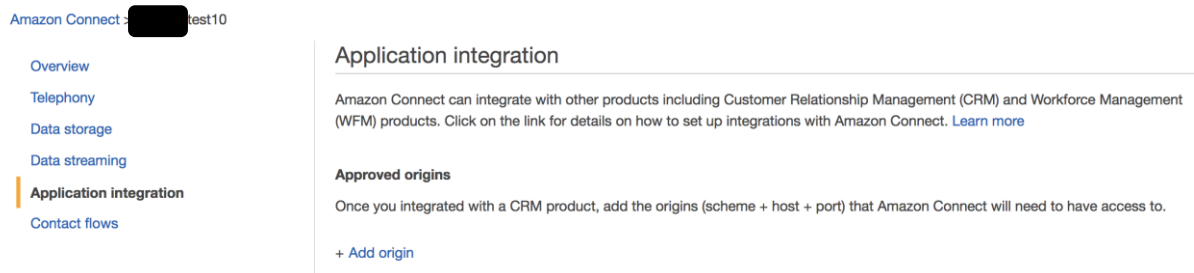
Click on the Preview button. New browser tab will open with the URL of this page. It's going to be in this format:

https://amazonconnect.sfdcInstance.visual.force.com/apex/ACSFCCP\_Classic

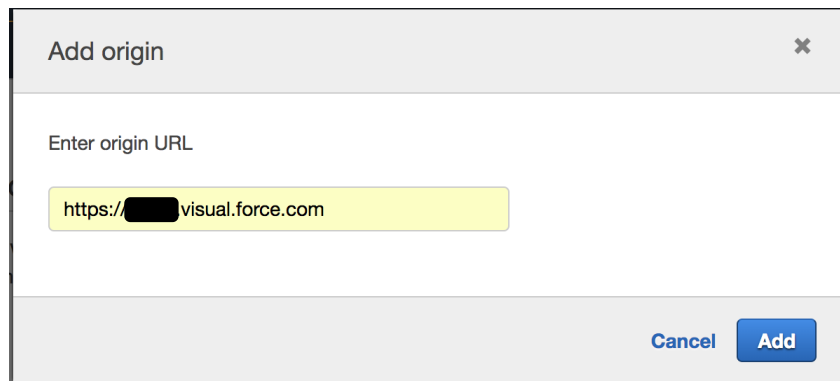
This is what we are going to use as "Origin URL" in our Amazon Connect configuration. From AWS Console, select Amazon Connect service and then select your Amazon Connect instance:



Select “Application Integration” on the left-hand side:



Click on “Add origin” link and enter the origin URL



Click “Add” button

Application integration

Amazon Connect can integrate with other products including Customer Relationship Management (CRM) and Workforce Management (WFM) products. Click on the link for details on how to set up integrations with Amazon Connect. [Learn more](#)

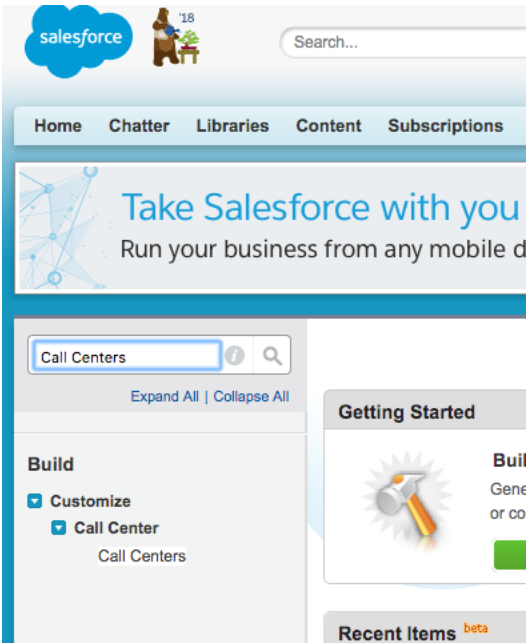
Approved origins

Once you integrated with a CRM product, add the origins (scheme + host + port) that Amazon Connect will need to have access to.

[https://\[redacted\]visual.force.com](#) [remove](#)

[+ Add origin](#)

From the Salesforce Classic layout, select Setup then type Call Centers in the Quick Find field and select Call Centers.



All Call Centers

A call center corresponds to a single computer-telephony integration (CTI) system already in place at your organization. Salesforce.com users mu:

			Import
Action	Name ↑		Version
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Amazon Connect CCP Adapter Classic</a>		
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Amazon Connect CCP Adapter Console</a>		
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">Amazon Connect CCP Adapter Lightning</a>		

Select “Amazon Connect CCP Adapter Classic”

Call Center

Amazon Connect CCP Adapter Classic

All Call Centers » Amazon Connect CCP Adapter Classic

Call Center Detail

Edit

Delete

Clone

Amazon Connect Salesforce CCP Adapter

Internal Name	AmazonConnectSFCCPAdapterClassic
Display Name	Amazon Connect CCP Adapter Classic
Description	Amazon Connect Call Center
CTI Adapter URL	/apex/amazonconnect__ACSFCCP_Classic_2
Use CTI API	true
Softphone Height	400
Softphone Width	250
Salesforce Compatibility Mode	Classic

Click on the Edit button. In the “Amazon Connect CCP URL” filed, enter the name of your Amazon Connect instance in the following format:

<https://yourinstance-name.awsapps.com/connect/ccp>

For example:

<https://test10.awsapps.com/connect/ccp>

Click on the Save button. Click on the “Manage Call Center Users” button at the bottom of the page.

Call Center Users

Manage Call Center Users

Call Center Users by Profile

Total 0

## Call Center Amazon Connect CCP Adapter Classic: Manage Users

View: All ↕ [Create New View](#)

			<a href="#">Add More Users</a>	<a href="#">Remove Users</a>
Full Name ↑	Alias	Username		
No records to display.				

Click on the “Add More Users” button.

Call Center

### Amazon Connect CCP Adapter Classic: Search for New Users

[All Call Centers](#) » [Amazon Connect CCP Adapter Classic](#) » [Manage Users](#) » Search for New Users

Set the search criteria below and then click Search to find salesforce.com users who should be enabled as

--None--

--None--

--None--

--None--

--None--

--None--

--None--

--None--

--None--

--None--

AND

AND

AND

AND

Filter By Additional Fields (Optional):

- You can use "or" filters by entering multiple items in the third column, separated by commas.
- For date fields, enter the value in following format: 23/05/2018
- For date/time fields, enter the value in following format: 23/05/2018 15:42

Find

Set filters and click on the Find button. Select the checkbox next to the user and click “Add to Call Center” button.

Add to Call Center Cancel

<input type="checkbox"/> Full Name	Alias	Username	Role	Profile
<input checked="" type="checkbox"/> SFDCCDryRun_AmazonConnect	ASFDC	@gmail.com		System Administrator
<input type="checkbox"/> User_Integration	integ	integration@00d0n000001ben5uaa.com		Analytics Cloud Integration User
<input type="checkbox"/> User_Security	sec	insightsecurity@00d0n000001ben5uaa.com		Analytics Cloud Security User

Repeat the steps to add more users.

Call Center

### Amazon Connect CCP Adapter Classic: Manage Users

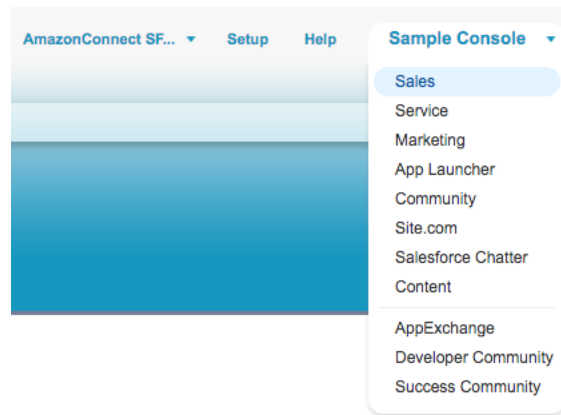
[All Call Centers](#) » [Amazon Connect CCP Adapter Classic](#) » Manage Users

View: All Create New View

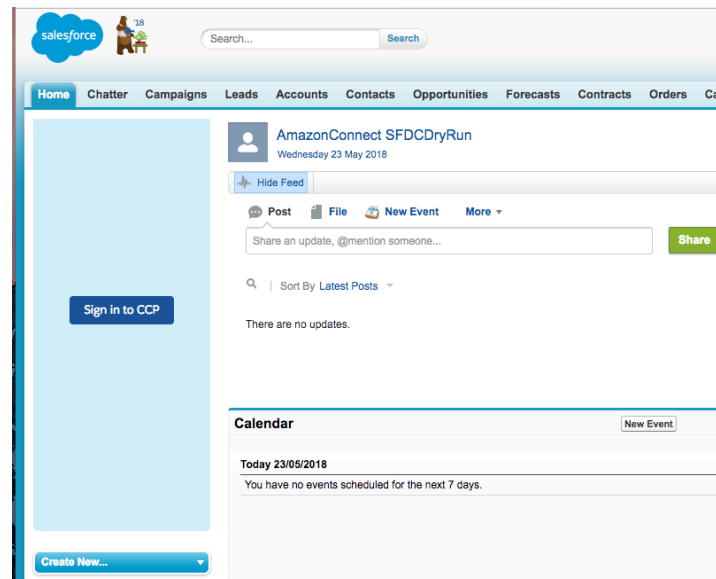
Add More Users Remove Users

<input type="checkbox"/> Action	Full Name ↑	Alias	Username
<input type="checkbox"/> Remove	SFDCCDryRun_AmazonConnect	ASFDC	acsfdcdryrun@gmail.com

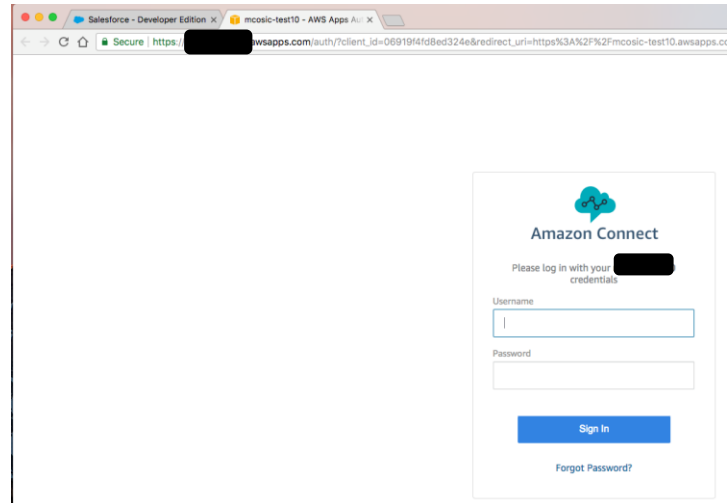
From the top-right corner, select Sales application.



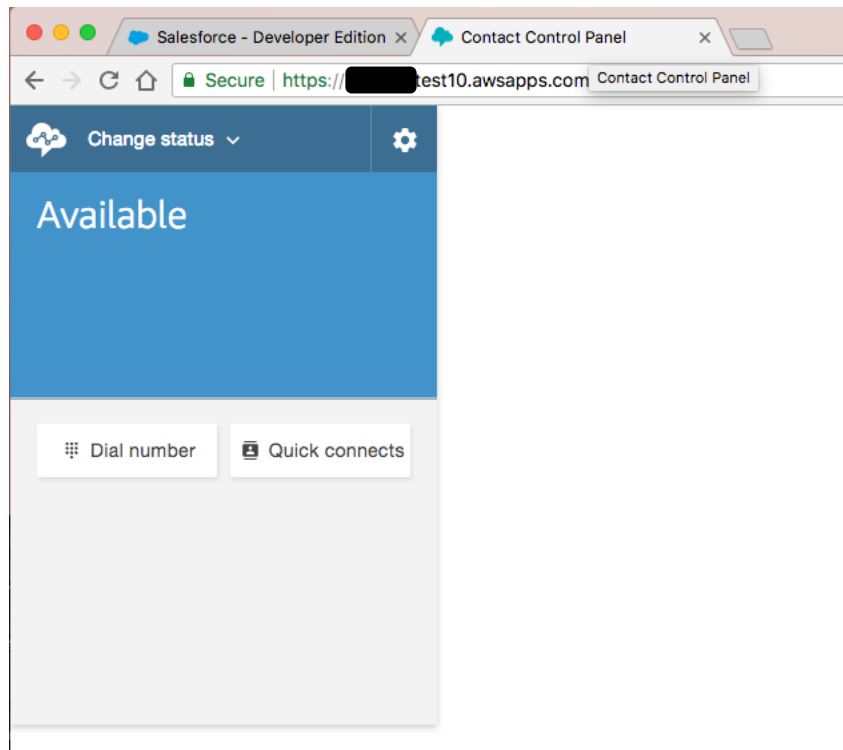
On the left-hand side, you will be able to see the Phone container.



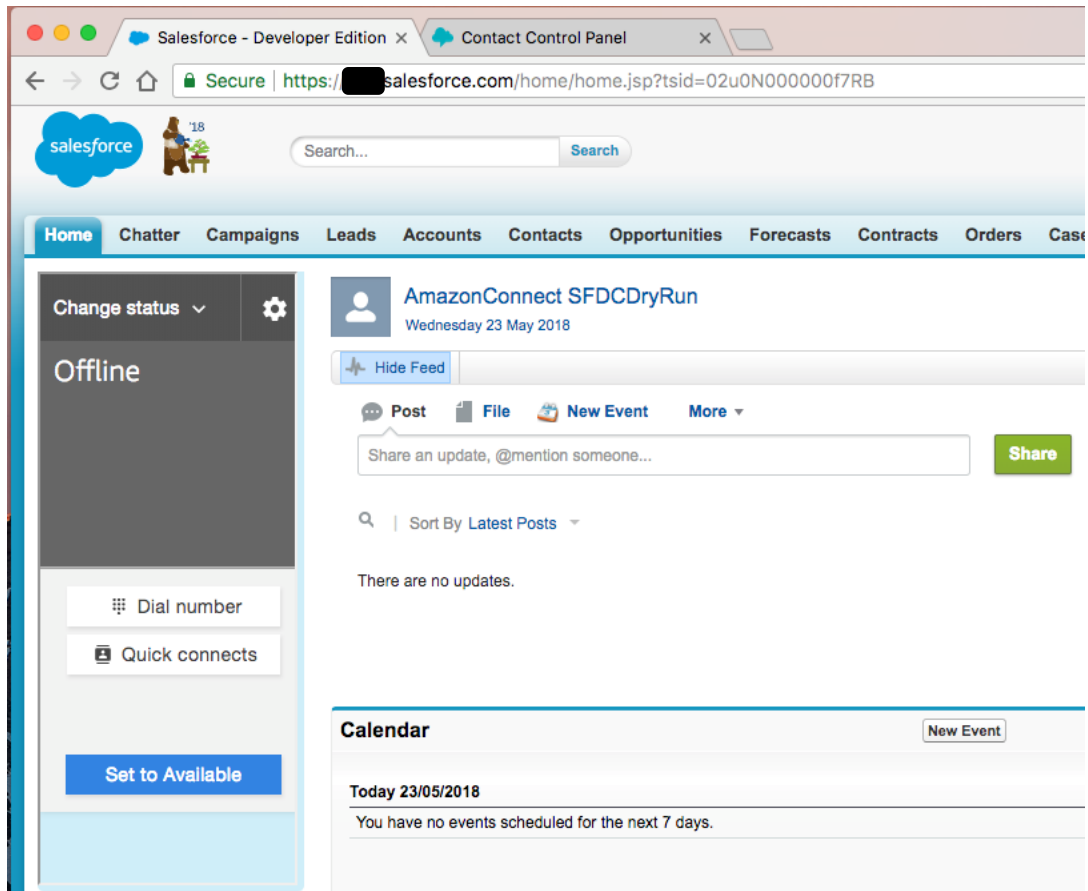
You will need to Sign in into your Amazon Connect CCP. Click on the Sign in to CCP button. A new browser tab will open, asking you to enter your credentials.



Enter your credentials and click Sign in. Allow Microphone access (if asked by browser). Once Login is successful, the new tab with CCP will stay open, as this tab is going to carry the audio for voice calls.

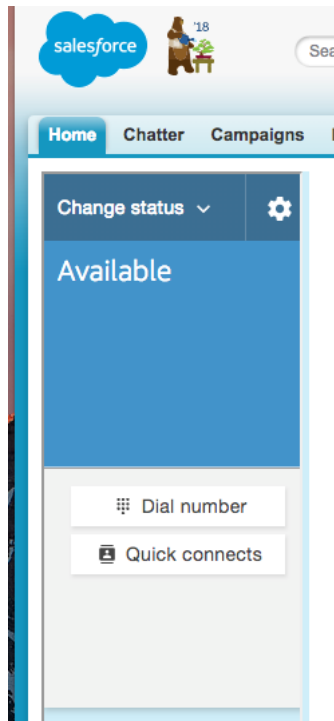


Switch back to Salesforce tab in your browser.

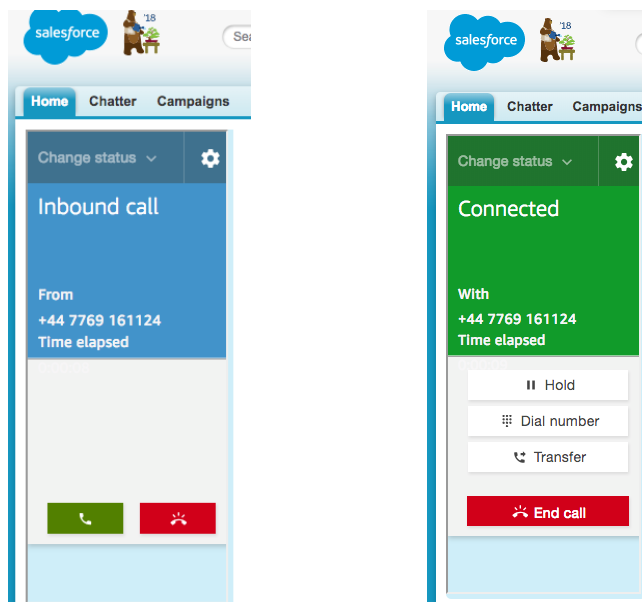


Select "Change status" and select "Available".



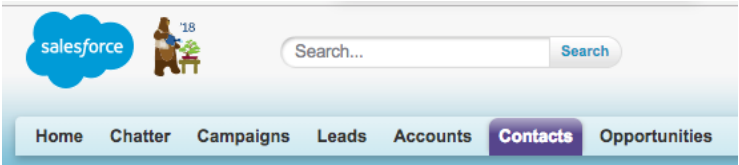


Make an inbound phone call to your Amazon Connect instance. The CCP is going to “ring” and you can answer the call.

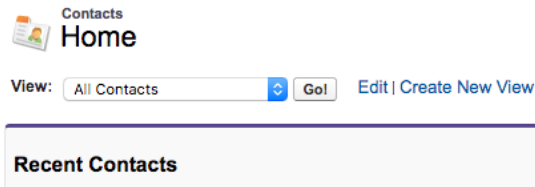


At this time, I need to create a new Contact in Salesforce so that I can test a screen-pop by incoming phone number.


Select Contacts from the main menu bar:



Click on the New button



Fill in the details and click on the Save button.

 **Contact Edit**  
**New Contact**

Contacts not associated with accounts are private and cannot be viewed by other users or included in reports.

---

**Contact Edit** Save Save & New Cancel

**Contact Information**

Contact Owner	AmazonConnect SFDCDryRun	Phone	+4477 [REDACTED]
Salutation	--None--	Home Phone	
First Name	John	Mobile	
Last Name	Smith	Other Phone	
Account Name		Fax	
Title		Email	
Department		Assistant	
Birthdate		Asst. Phone	
Reports To			
Lead Source	--None--		

John Smith

Customize Page | Edit Layout | Print

Hide Feed | Click to add topics: 1

Post | File | New Task | More

Write something... | Share | Follow

Followers

No followers.

Show All Updates

There are no updates.

Back to List

Opportunities (0) | Cases (0) | Open Activities (0) | Activity History (0) | Campaign History (0) | Notes & Attachments (0) | HTML Email Status (0)

**Contact Detail**

Edit | Delete | Clone

Contact Owner	AmazonConnect.SFDCDryRun (Change)	Phone	+447 [redacted]
Name	John Smith	Home Phone	
Account Name		Mobile	
Title		Other Phone	
Department		Fax	
Birthdate		Email	
Reports To	[View Org Chart]	Assistant	
Lead Source		Asst. Phone	
Mailing Address		Other Address	
Languages		Level	
Created By	AmazonConnect.SFDCDryRun, 23/05/2018 14:41	Last Modified By	AmazonConnect.SFDCDryRun, 23/05/2018 15:53
Description			

Go back to the Home page and drop the phone call.

Home | Chatter | Campaigns | Leads | Accounts | Contacts | Opportunities | Forecasts

Change status: Available

Dial number

Quick connects

AmazonConnect.SFDCDryRun

Wednesday 23 May 2018

Hide Feed

Post | File | New Event | More

Share an update, @mention someone...

Sort By Latest Posts

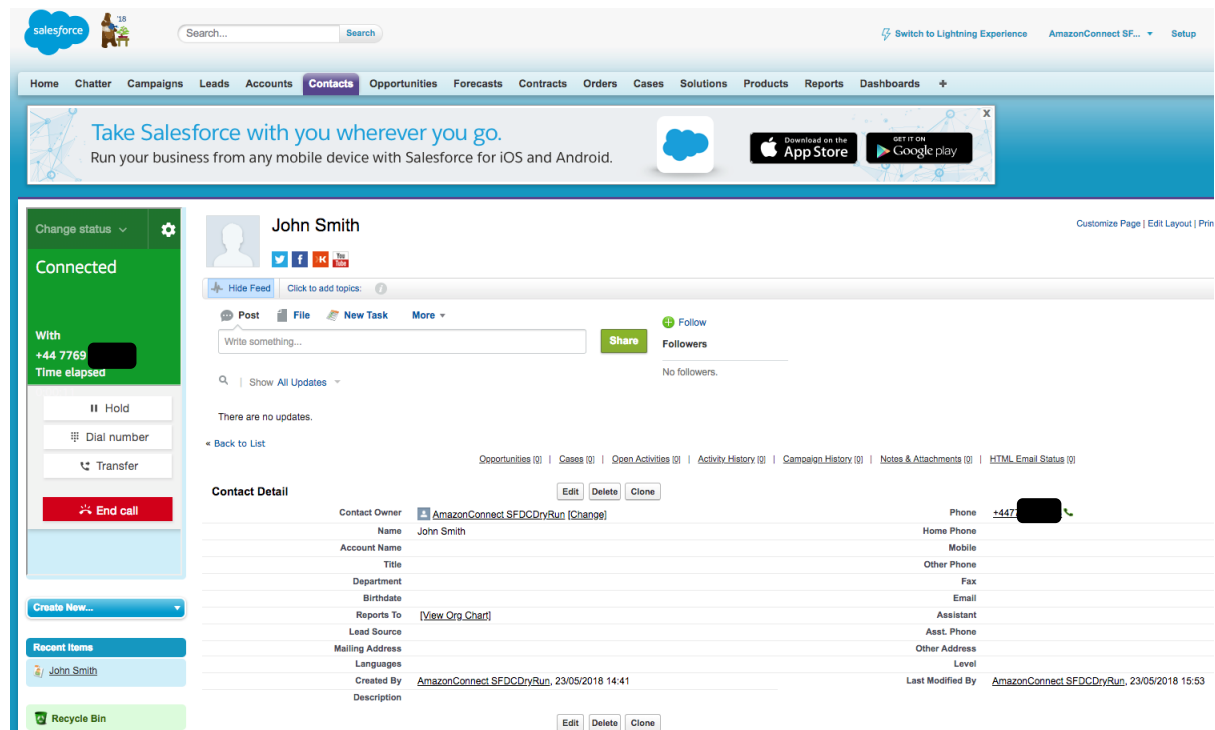
There are no updates.

**Calendar**

Today 23/05/2018

You have no events scheduled for the next 7 days.

Set your state to Available and make another phone call. This time, the new contact should automatically pop-up as it has been recognised by incoming phone number.



The page is fully reloaded, but the softphone preserved the audio stream, as another instance of CCP was running in the 2<sup>nd</sup> tab. If the 2<sup>nd</sup> tab is closed, the audio will be lost. The 2<sup>nd</sup> CCP instance can also run in a separate browser window, if preferred.

Go to Salesforce Setup page and type Call Centers in Quick Find, then select Call Centers.

## All Call Centers

A call center corresponds to a single computer-telephony integration (CTI) system already in place at your organization. Salesforce.com users must

Action		Name ↑	Version
<a href="#">Edit</a>	<a href="#">Del</a>	<a href="#">Amazon Connect CCP Adapter Classic</a>	
<a href="#">Edit</a>	<a href="#">Del</a>	<a href="#">Amazon Connect CCP Adapter Console</a>	
<a href="#">Edit</a>	<a href="#">Del</a>	<a href="#">Amazon Connect CCP Adapter Lightning</a>	

Select “Amazon Connect CCP Classic”

Call Center

## Amazon Connect CCP Adapter Classic

[All Call Centers](#) » Amazon Connect CCP Adapter Classic

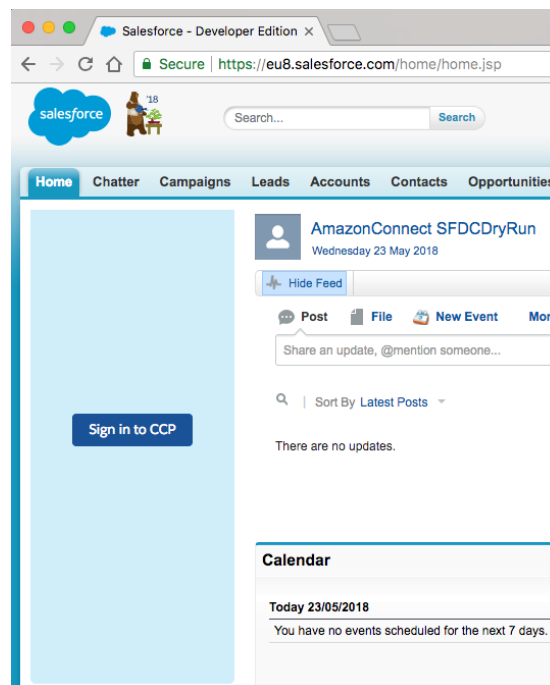
**Call Center Detail** Edit Delete Clone

**Amazon Connect Salesforce CCP Adapter**

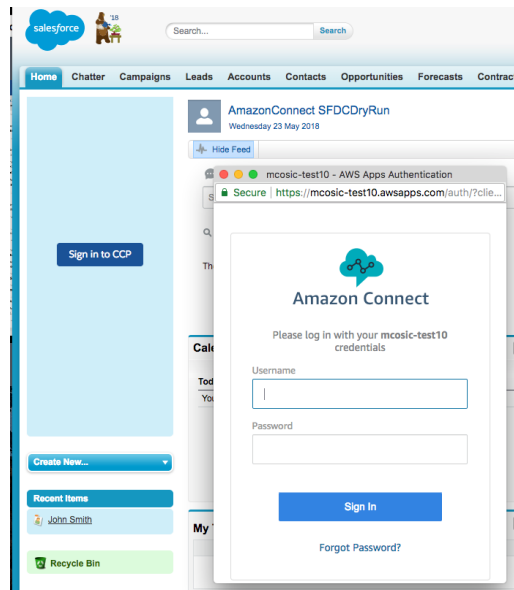
Internal Name	AmazonConnectSFCCPAdapterClassic
Display Name	Amazon Connect CCP Adapter Classic
Description	Amazon Connect Call Center
CTI Adapter URL	/apex/ACSFCPP_Classic
Use CTI API	true
Softphone Height	400
Softphone Width	250
Salesforce Compatibility Mode	Classic

Click on the Edit button and find the “Amazon Connect CCP Login Popup” field. By default, this field is set to “false”, which means that Login Popup will be opened in a 2<sup>nd</sup> tab. If we change this value to “true”, then Login Popup will be opened in a new browser window.

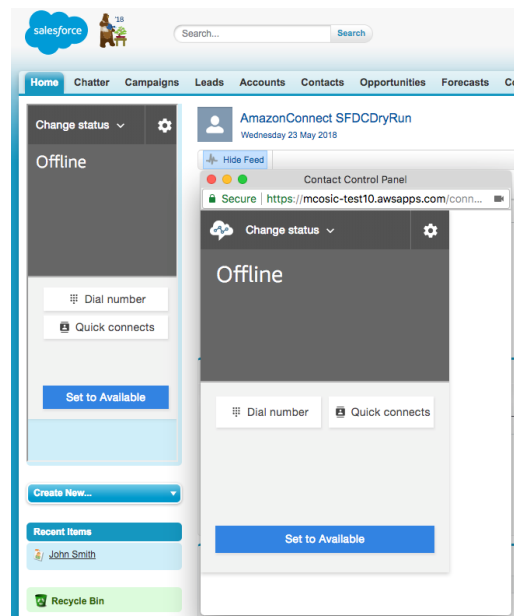
You may also notice that “Amazon Connect CCP Medialess” field is set to “true”. This basically means that embedded CCP instance will not carry any media. Set the value to “true” and click on the Save button. Go back to Sales application. If CCP is already logged in, please log out.



Click on the “Sign in to CCP” button and new browser window will open, asking you for credentials.

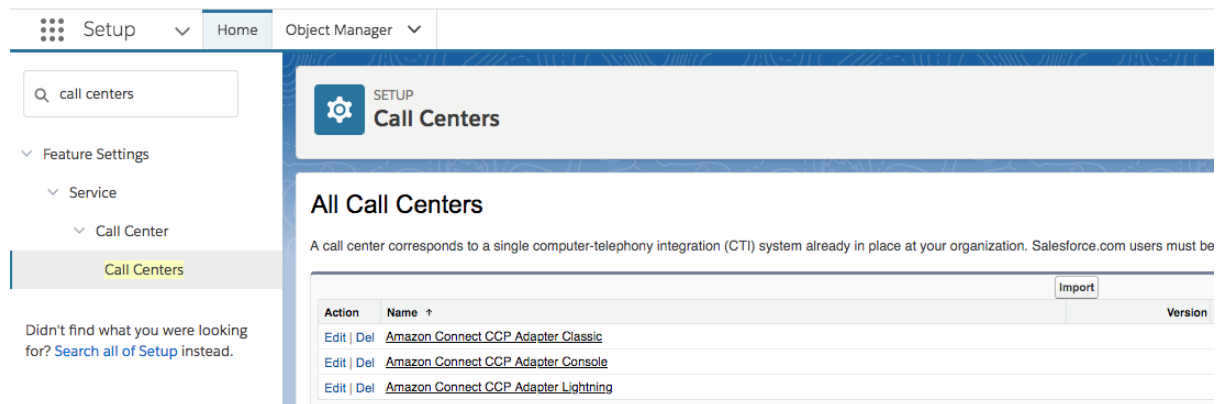


Enter your credentials and click Sign In. The CCP application will log in, but popup window will stay open and it will host the 2<sup>nd</sup> CCP which will carry the audio stream. This window can be minimized or moved to 2<sup>nd</sup> screen.

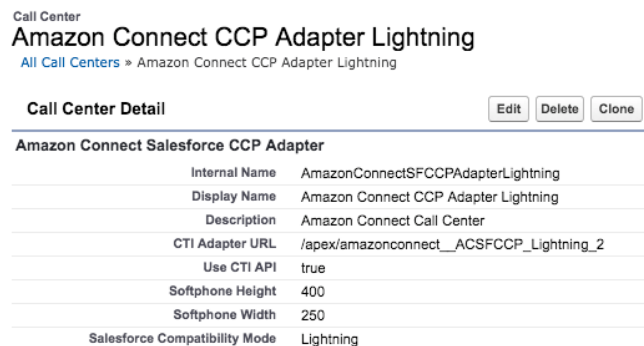


# Amazon Connect SSO/SAML Support

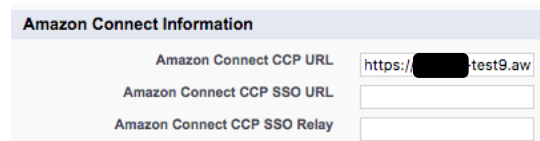
Amazon Connect Salesforce CTI Adapter fully supports SSO/SAML integration. To configure your SSO integration, open Salesforce Setup page, type Call Centers in Quick Find and select Call Centers.



Choose one of the Call Center configurations, based on your current environment. In this case, I'm going to select Lightning.



Click Edit and find Amazon Connect CCP SSO URL and Amazon Connect CCP SSO Relay fields in the form.



**Amazon Connect CCP SSO URL** has to be set to your IDP login page. In this example, I am using Microsoft AD Federation Service (ADFS), so the URL will be:

<https://sts.yourcorpdomain.com/adfs/ls/idpinitiatedsignon.aspx>

**Amazon Connect CCP SSO Relay** is used to open CCP automatically after the login. To create Relay string, you may use an online tool (for [example](http://jackstromberg.com/adfs-relay-state-generator/) <http://jackstromberg.com/adfs-relay-state-generator/> )

**ADFS RelayState Generator**  
AD FS 2.0 (Rollup 2 and Greater) RelayState Generator for IDP Initiated Signon

---

IDP URL String

Relying Party Identifier

Relay State / Target App

**IDP URL String** is your IDP login URL

(<https://sts.yourcorpdomain.com/adfs/ls/idpinitiatedsignon.aspx>)

**Relying Party Identifier** should be set to: *urn:amazon:webservices*

IDP URL String

Relying Party Identifier

**Relay State / Target App** has to be set to Amazon Connect CCP URL in the following format:

<https://console.aws.amazon.com/connect/federate/instanceId?destination=%2Fconnect%2Fccp>

You Amazon Connect instanceId can be found in the AWS Console:



In my example, the instanceID is *f0c669ee-21dc-43c3-b5b0-4e825dfc198b*. My final Target App URL is:

<https://console.aws.amazon.com/connect/federate/f0c669ee-21dc-43c3-b5b0-4e825dfc198b?destination=%2Fconnect%2Fccp>



## ADFS RelayState Generator

AD FS 2.0 (Rollup 2 and Greater) RelayState Generator for IDP Initiated Signon

<b>IDP URL String</b>	<input type="text" value="https://sts.mcosiccorp.tk/adfs/ls/idpinitiatedsignon.aspx"/>
<b>Relying Party Identifier</b>	<input type="text" value="urn:amazon:webservices"/>
<b>Relay State / Target App</b>	<input type="text" value="https://console.aws.amazon.com/connect/federate/f0c669ee-21dc-43c3-b5b0-4e825dfc198b?destination=%2Fconsole%252F%252Fconsole.aws.amazon.com%252Fconnect%252Ffederate%252Ff0c669ee-21dc-43c3-b5b0-4e825dfc198b%252Fdestination%253D%25252Fconnect%25252Fccp"/>
<input type="button" value="Generate URL"/>	

Click on the Generate URL:

### Results:

```
https://sts.mcosiccorp.tk/adfs/ls/idpinitiatedsignon.aspx?
RelayState=RPID%3Durn%253Aamazon%253Awebservices%26RelayState%3Dhttps%253A%252F%252Fconsole.aws.amazon.com%252Fconnect%252Ffederate%252Ff0c669ee-21dc-43c3-b5b0-4e825dfc198b%252Fdestination%253D%25252Fconnect%25252Fccp
```

**Amazon Connect CCP SSO Relay** is going to be set to everything on the right side from “?” in the Result that we’ve got. In my example, that is:

```
RelayState=RPID%3Durn%253Aamazon%253Awebservices%26RelayState%3Dhttps%253A%252F%252Fconsole.aws.amazon.com%252Fconnect%252Ffederate%252Ff0c669ee-21dc-43c3-b5b0-4e825dfc198b%252Fdestination%253D%25252Fconnect%25252Fccp
```

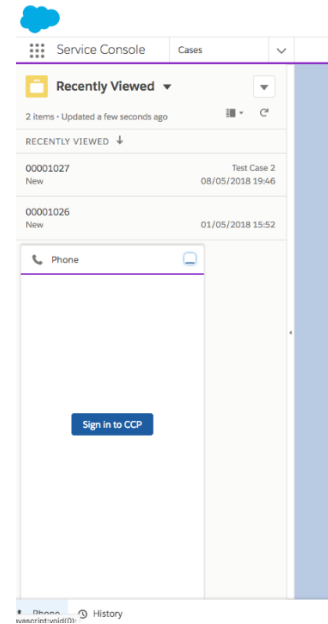
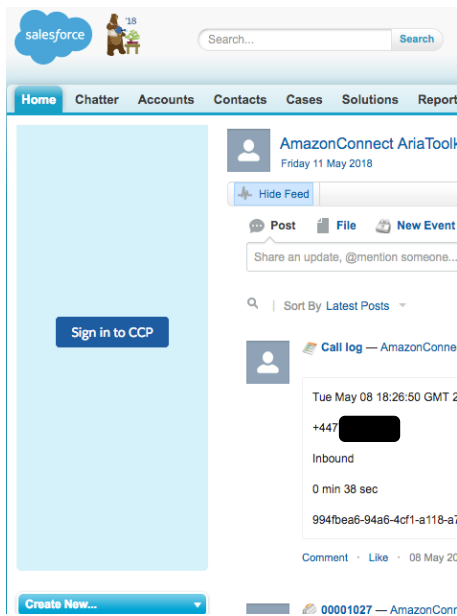
Once both fields are set, Click on the Save button:

Amazon Connect Information	
Amazon Connect CCP URL	<input type="text" value="https://[redacted]test9.aws"/>
Amazon Connect CCP SSO URL	<input type="text" value="https://[redacted].t"/>
Amazon Connect CCP SSO Relay	<input type="text" value="RelayState=RPID%3Durn%253Aamazon%253Awebservices%26RelayState%3Dhttps%253A%252F%252Fconsole.aws.amazon.com%252Fconnect%252Ffederate%252Ff0c669ee-21dc-43c3-b5b0-4e825dfc198b%252Fdestination%253D%25252Fconnect%25252Fccp"/>

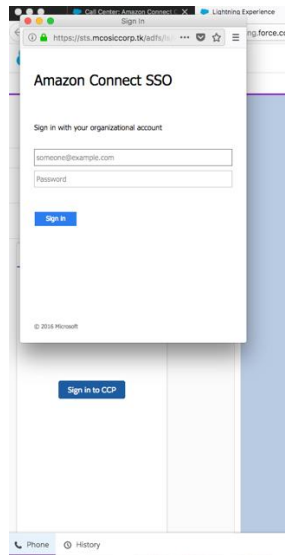
The final setup will look like this:

Amazon Connect Information	
Amazon Connect CCP URL	https://[redacted]estf9.awsapps.com/connect/ccp
Amazon Connect CCP SSO URL	https://sts.[redacted]adfs/ls/idpinitiatedsignon.aspx
Amazon Connect CCP SSO Relay	RelayState=RPIDY%3Durn%253Aamazon%253Awebservices%26RelayState%3Dhttps%253A%252F%252Fconsole.aws.amazon.com%252Fconnect%252Ffederate%252F0cd68e%253Fdestination%253D%252Fconnect%252Fccp

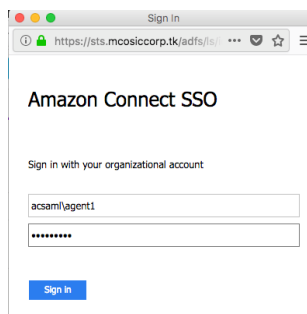
From this point, you can go back to your Salesforce application and open Softphone container. These are examples for Classic and Lightning environments.



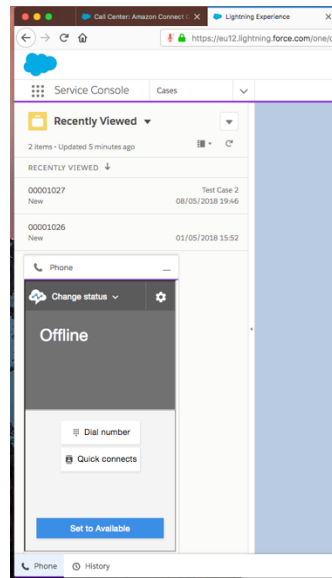
Once you click on “Sign in to CCP” button, a popup is presented, asking for credentials. This is the login page from your IDP.



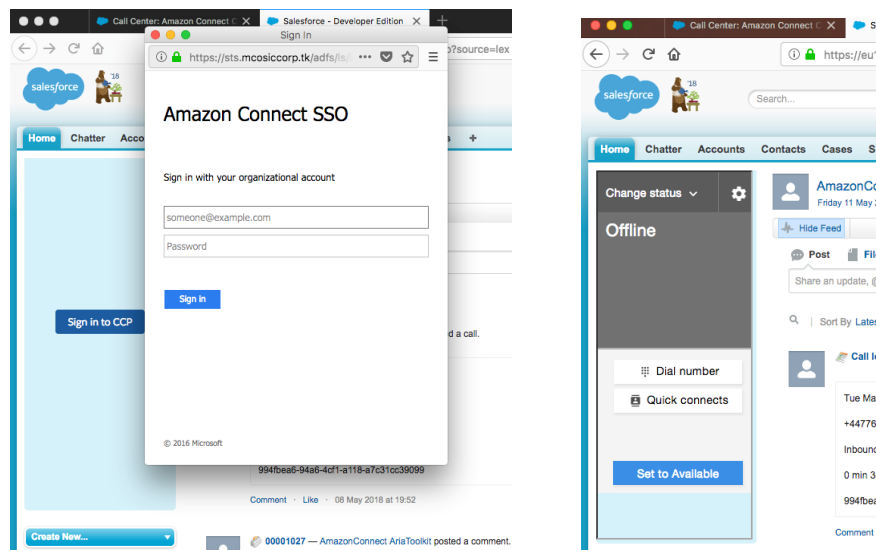
Enter domain credentials and click Sign in



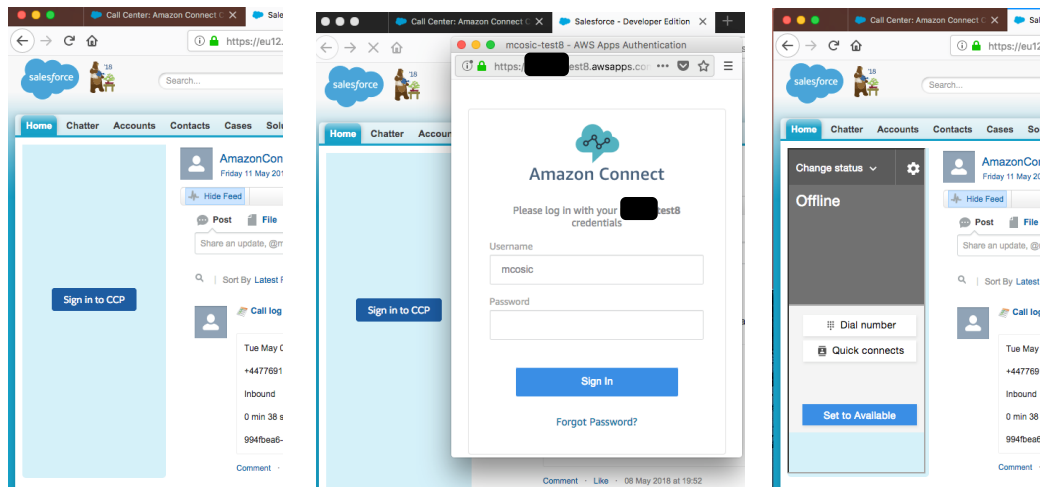
Once logged in, the login popup disappears and CCP shows up in the SFDC Phone container:



We have similar behaviour with Classic, with only difference that 2<sup>nd</sup> instance of CCP (popup window) stays open after login, as that instance will carry the audio stream from a voice call.



If the **Amazon Connect CCP SSO URL** filed on the Call Center configuration for is empty, SSO/SAML will not be enabled and Amazon Connect will use standard AWS login form.



## Medialess CCP and VDI support

Amazon Connect CTI Connector supports VDI deployments, by allowing Medialess CCP instance to be embedded in the Salesforce. This instance will be used for call control and screen-pop only, while additional CCP instance carrying audio stream can run locally.

In the Call Center configuration forms, there are 3 parameters which enable a flexible configuration of embedded CCP (softphone).

Amazon Connect CCP Medialess	true
Amazon Connect CCP Login Popup	true
Amazon Connect CCP Auto-Close	false

**Amazon Connect CCP Medialess** will support VDI deployments, where the CCP instance running in Salesforce won't have voice media in it. It also supports Salesforce Classic environment.

**Amazon Connect CCP Login Popup** - when this parameter is set to true, we will have a login form in a popup window, whilst if it's set to false, the login form will be opened in a new tab. It supports both non-SSO and SSO deployments.

**Amazon Connect CCP Auto-Close** when this parameter is set to true, the popup window (or new tab) will be automatically closed upon login, otherwise it would stay opened.

For VDI deployments, we would set **Amazon Connect CCP Medialess = true** and **Amazon Connect CCP Auto-Close = true** while **Amazon Connect CCP Login Popup** can be either true or false (probably true).

This way, the browser hosting Salesforce would have a single CCP instance, without media, while another CCP instance would run locally with voice enabled.

For Salesforce Classic environments, we would set **Amazon Connect CCP Auto-Close** to false, so that we have a CCP instance carrying media, while agent is browsing through different pages in Salesforce Classic. That CCP instance can run in a separate tab (**Amazon Connect CCP Login Popup = false**) or in a separate popup window (**Amazon Connect CCP Login Popup = true**) – depending on the customer preference. Also, we would set **Amazon Connect CCP Medialess=true** so that CCP instance running in Salesforce doesn't carry voice media. Instead, media will go through CCP instance in new tab or popup window.

## Auto-login feature

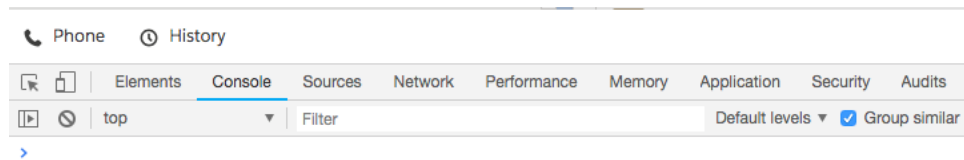
Amazon Connect CTI Connector supports the auto-login feature, by simulating the “Sign in to CCP” button click, upon logging in to the Salesforce. The behaviour is controlled by “Amazon Connect CCP Auto-login” parameter in the Call Center adaptor configuration.

Amazon Connect CCP Auto-Login 5

The parameter expects a number (integer), which determine the number of seconds to wait before the auto-login is executed. The default value is set to 5 (seconds), but this value can be increased or decreased, or it can be set to 0, which disables the auto-login.

The optimal value can be set by examining results from few load tests. The main idea is to login (simulate the Login button click) as soon as Salesforce page is loaded when a CCP user was not already logged in, but to prevent Login button click if a Salesforce page is reloaded when the CCP user is already logged in. In case when CCP user is already logged in and Salesforce page is refreshed, the Login button shows up for a couple of seconds and then CCP automatically loads up, so there is no need to login again.

To check how fast CCP loads in your environment, leave the default value of 5 seconds, login into the Salesforce, wait for 5 seconds for CCP to log in (enter the credentials if/when prompted) and wait for CCP to loads up completely. Open the Developer Tools in your browser and clean up the Console:



Refresh the page and wait for Salesforce and CCP to fully reload.

First, look for the following log record in you Console:

```
[2018-09-07T10:51:15.099Z] [INFO]: ConnectSFCCP:cbInConsole:connectAutoLogin=5000
```

This is the moment when timer for auto-login is initialised, in this case it's 10:51:15.099, and the timer value is 5 seconds (5000 ms).

The next message we need to find is:

```
[2018-09-07T10:51:17.759Z] [INFO]: ConnectSFCCP:onSoftphoneLoginSuccessful invoked
```

This indicates the moment when timer is stopped, because the CCP is already logged in and loaded.

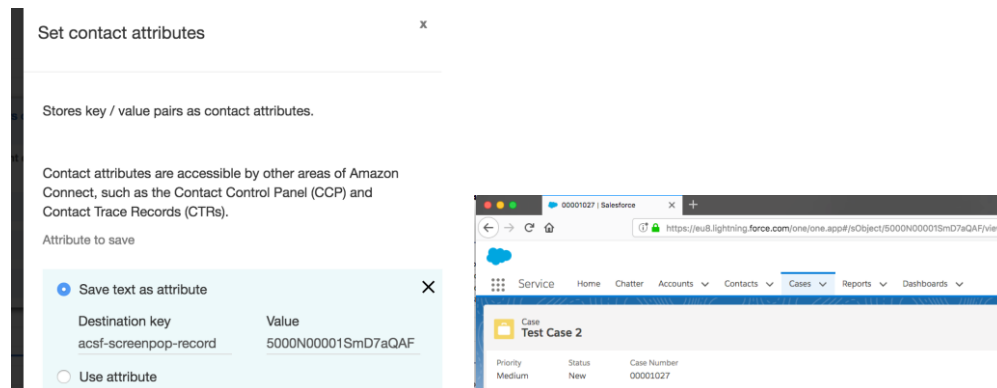
The time difference between the first message (10:51:15.099) and the second message (10:51:17.759) is just less than 3 seconds. That's the time needed for an already logged in CCP to load and the "Amazon Connect CCP Auto-Login" value should be longer than that. In this case, it would be possible to decrease the default value of 5 seconds to 4 seconds, but it's recommended that the test is repeated few times, on a representative agent's PC.

## Enhanced search for screen-pop

There are a couple of special attributes that can be set to drive the screen pop behavior for the agent upon ringing of the call. The attributes are exclusive, meaning that only one attribute will be processed, while the other will be ignored. The following list describes the attributes in the order there are evaluated.

**Search specific record: acsf-screenpop-record** - To screen pop a specific Salesforce record, for example a case, the ID of that record needs to be stored in an attribute called “acsf-screenpop-record”. If present, the Softphone will screen pop this specific record when the call is assigned to the agent.

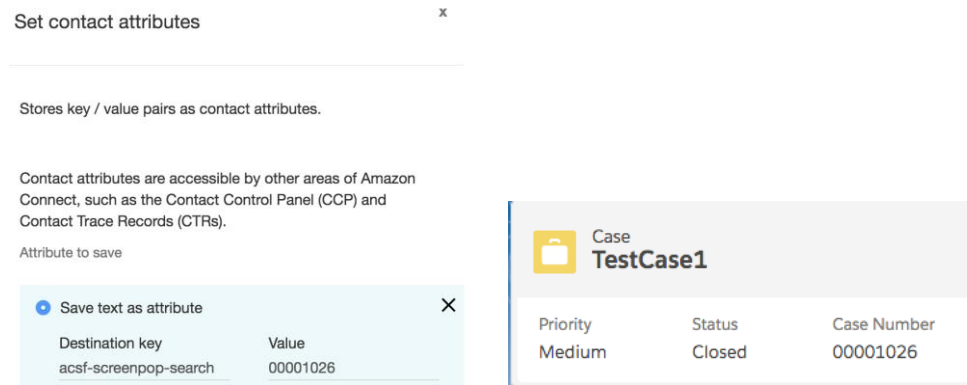
Please note that this is an internal object ID, for example internal case ID, not the Case Number that is displayed in the Salesforce application (internal ID is displayed in the URL). You can use ‘Set contact attributes’ in the Amazon Connect Contact Flow to set the value.



**Full Search: acsf-screenpop-search** - To search for a value other than the caller’s phone number, set that value in an attribute called “acsf-screenpop-search”. When the call is assigned to the agent, the Softphone will submit this value for search. The resulting screen pop will depend on your Softphone Layout configuration within Salesforce (you have to specify searchable objects in the Softphone Layout, like described in the first section of this document).

For example, you may search by Case Number that is displayed in the Salesforce application.





If neither of those two contact attributes are present, the Softphone will search for the caller's phone number in Salesforce. The resulting screen pop will depend on your Softphone Layout configuration within Salesforce.

For details on how to configure screen pops using Salesforce's Softphone Layout feature, please visit:

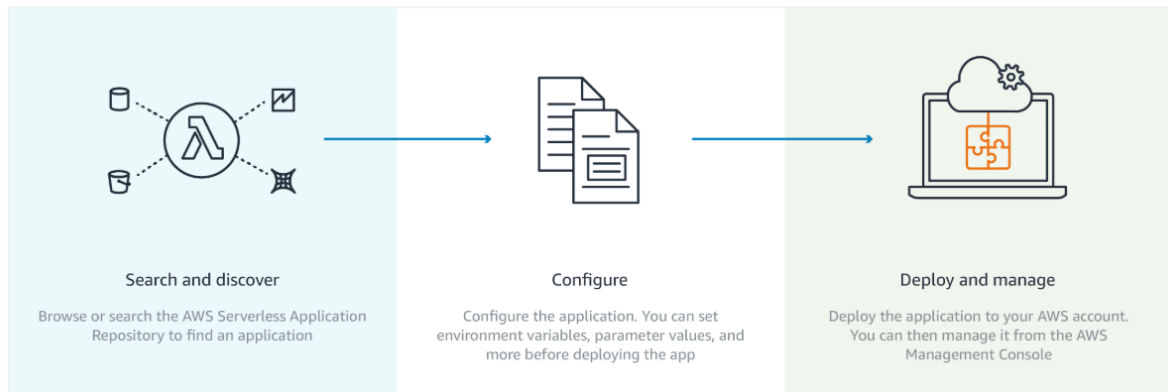
[https://help.salesforce.com/articleView?id=cti\\_admin\\_phonelayoutscreate.htm&type=5](https://help.salesforce.com/articleView?id=cti_admin_phonelayoutscreate.htm&type=5)

## Installing the Amazon Connect Salesforce Lambda package

This section will guide you through the installation process of Amazon Connect Salesforce Lambda package, which is hosted in AWS Serverless Application Repository.

The AWS Serverless Application Repository enables you to quickly deploy code samples, components, and complete applications. Each application is packaged with an AWS Serverless Application Model (SAM) template that defines the AWS resources used. There is no additional charge to use the Serverless Application Repository - you only pay for the AWS resources used in the applications you deploy.

## How it works: Deploying applications



## Prerequisites

### Determine your production Environment

In your installation notes, enter the value for “Production Environment” as “true” or “false”, depending on whether the Salesforce environment that you are deploying the package into is a production or a sandbox. For Production, enter “true”. For Sandbox enter “false”.

### Determine your Consumer Key and Secret

To leverage the full potential of the integration, Salesforce data needs to be accessed from AWS environment. The AWS Serverless package comes with a set of pre-built queries to lookup, update and create Salesforce objects within Amazon Connect Contact Flows, in form of AWS Lambda functions.

The Lambda function access Salesforce using the Salesforce REST API. To get access to the environment, a Connected App must be configured with OAuth settings enabled.

1. Log in to Salesforce
2. Navigate to Setup > Create > Apps

## Apps

Help for this Page

An app is a group of tabs that work as a unit to provide functionality. Users can switch between apps using the app drop-down menu at the top-right corner of every page. You can customize existing apps to match the way you work, or build new apps by grouping standard and custom tabs.

Custom apps work in conjunction with User Profile Tab Visibility settings. [View User Profiles now.](#)

Apps			
Action	App Label	Console	Custom
Edit	App Launcher	<input type="checkbox"/>	<input type="checkbox"/>
Edit	Community	<input type="checkbox"/>	<input type="checkbox"/>
Edit	Contact	<input type="checkbox"/>	<input type="checkbox"/>
Edit	Marketing	<input type="checkbox"/>	<input type="checkbox"/>
Edit	Platform	<input type="checkbox"/>	<input type="checkbox"/>
Edit	Sales	<input type="checkbox"/>	<input type="checkbox"/>
Edit	Salesforce Chatter	<input type="checkbox"/>	<input type="checkbox"/>
Edit	Service Console	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Edit	Service	<input type="checkbox"/>	<input type="checkbox"/>
Edit	Site.com	<input type="checkbox"/>	<input type="checkbox"/>

Subtab Apps

Action	App Label	Description
Edit	Profile (Others)	The tabs displayed when users view someone else's profile
Edit	Profile (Self)	The tabs displayed when users view their own profile

Connected Apps

Action	Connected App Name	Description	Version
<a href="#">New</a>			

- Click on the “New” button for the Connected Apps at the bottom of the page
- In the following form, fill out the Connected App Name, API Name and Contact Email with values of your choice. We recommend “Amazon Connect Integration” as the Connected App Name and the default value for the API name.

## New Connected App

[Save](#) [Cancel](#)

**Basic Information**

Connected App Name

API Name

Contact Email

- Select the checkbox next to “Enable OAuth Settings” as shown below.

API (Enable OAuth Settings)

Enable OAuth Settings ☒

- Ensure the Callback URL is set to <https://www.salesforce.comhttps://www.salesforce.com>

API (Enable OAuth Settings)

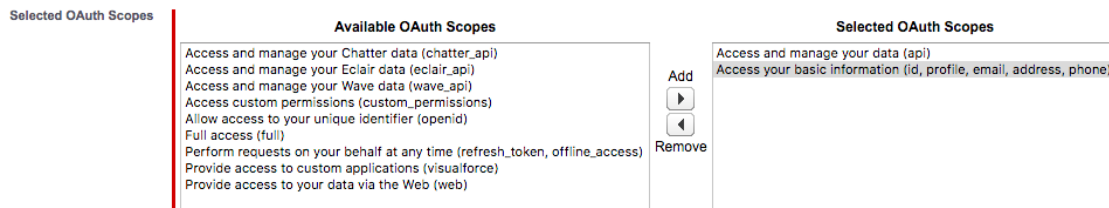
Enable OAuth Settings ☒

Enable for Device Flow ☐

Callback URL

- Ensure Selected OAuth Scopes has the following values selected:
  - Access and manage your data (api)

- b. Access your basic information (id, profile, email, address, phone)



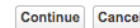
8. Select the checkbox “Require Secret for Web Server Flow”



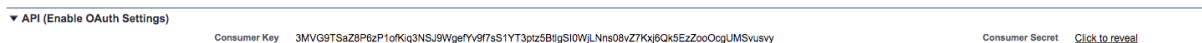
9. Click “Save” at the bottom of the screen.

10. New Connected App

Allow from 2-10 minutes for your changes to take effect on the server before using the connected app.



11. Once the app has been created, on the app’s detail screen, please copy the “Consumer Key” value to your installation notes



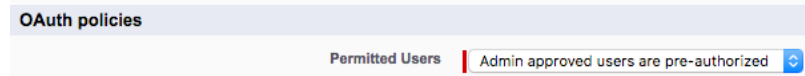
12. Select “Click to reveal” next to Consumer Secret and record this value to “Consumer Secret” in your installation notes.

13. Click “Manage” at the top of the page



14. On the page that appears, click “Edit Policies”

15. Set “Permitted Users” to “Admin approved users are pre-authorizes”



OAuth policies

Permitted Users | Admin approved users are pre-authorized

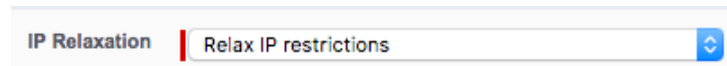
16. Click “OK” on the pop-up dialog:



Enabling this option will result in all users currently using this app being denied access. Please reference the Connected Apps OAuth Usage Report if you are unsure who is using the app.

Cancel OK

17. Set “IP Relaxation” to “Relax IP restrictions”



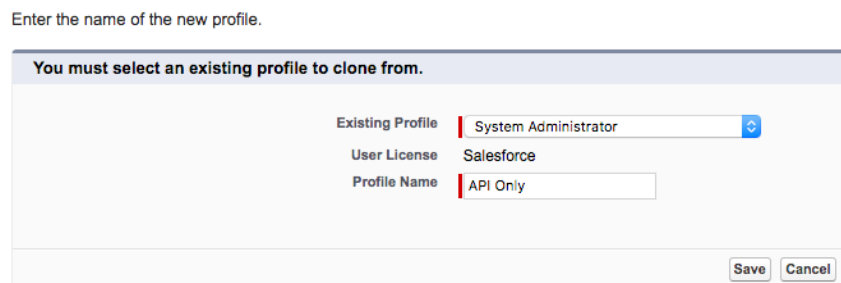
IP Relaxation | Relax IP restrictions

18. Click “Save”

## Determine your Username, Password and Security Token

The authentication of the Lambda Functions requires valid user credentials. It is a common practice to create an API user account for this purpose.

1. Log in to Salesforce
2. Navigate to Setup > Manage Users > Profiles
3. Click “New Profile”
4. Enter the Profile Name (i.e. “API Only”)
5. Select the existing profile to clone (The integration user's access to just those objects required for the integration)



Enter the name of the new profile.

You must select an existing profile to clone from.

Existing Profile | System Administrator

User License | Salesforce

Profile Name | API Only

Save Cancel

NOTE: You're advised to use a full Salesforce License for the user to be able to set the below permissions and have full access to avoid any other errors.

6. Click “Save”

## New Profile is created:

Profile  
**API Only**  
[Back to List: Profiles](#)

Users with this profile have the permissions and page layouts listed below. Administrators can change a user's profile by editing that user's personal information.

If your organization uses Record Types, use the Edit links in the Record Type Settings section below to make one or more record types available to users with this profile.

[Login IP Ranges](#) | 
 [Enabled Apex Class Access](#) | 
 [Enabled Visualforce Page Access](#) | 
 [Enabled External Data Source Access](#) | 
 [Enabled Named Credential Access](#) | 
 [Enabled Service Presence Status Access](#) | 
 [Enabled Custom Permissions](#)

**Profile Detail**

Name	API Only		
User License	Salesforce	Custom Profile	✓
Description			

### 7. Scroll down to “Password Policies” and click Edit:

**Password Policies**

User passwords expire in	90 days
Enforce password history	3 passwords remembered
Minimum password length	8
Password complexity requirement	Must mix alpha and numeric characters
Password question requirement	Cannot contain password
Maximum invalid login attempts	10
Lockout effective period	15 minutes
Obscure secret answer for password resets	<input type="checkbox"/>
Require a minimum 1 day password lifetime	<input type="checkbox"/>
Don't immediately expire links in forgot password emails	<input type="checkbox"/>

[Edit](#)
[Clone](#)
[Delete](#)
[View Users](#)

### 8. Set User password expire in “Never expires”

**Password Policies**

User passwords expire in	Never expires
Enforce password history	No passwords remembered
Minimum password length	8
Password complexity requirement	Must mix alpha and numeric characters
Password question requirement	Cannot contain password
Maximum invalid login attempts	10
Lockout effective period	15 minutes
Obscure secret answer for password resets	<input type="checkbox"/>
Require a minimum 1 day password lifetime	<input type="checkbox"/>
Don't immediately expire links in forgot password emails	<input type="checkbox"/> <a href="#">i</a>

**Important:** Failure to this may lead to production outages.

- Under Administrative Permissions, please make sure "Lightning Experience User" is unchecked

Lightning Experience User	<input type="checkbox"/>
---------------------------	--------------------------

- Click “Save”
- Navigate to Setup > Manage Apps > Connected Apps
- Select the app you have created in the previous step (i.e. Amazon Connect Integration)

### Connected Apps

Manage access to apps that connect to this Salesforce organization.

App Access Settings

Edit

☒ Allow users to install canvas personal apps

View: All Create New View

Action	Master Label
<a href="#">Edit</a>	<a href="#">Amazon Connect Integration</a>

13. Click “Manage Profiles”

Profiles

Manage Profiles

No profiles associated with this app.

14. Ensure the “API Only” profile is selected:

Application Profile Assignment

[« Back to Connected App Detail](#)

Select the appropriate profiles to choose which users have access to this application.

Select	Profiles
<input type="checkbox"/>	<a href="#">Analytics Cloud Integration User</a>
<input type="checkbox"/>	<a href="#">Analytics Cloud Security User</a>
<input checked="" type="checkbox"/>	<a href="#">API Only</a>

15. Click “Save” at the bottom of the page.

16. Navigate to Setup > Manage Users > Users.

17. Click “New User”

## All Users

On this page you can create, view, and manage users.

In addition, download SalesforceA to view and edit user details, reset passwords, and perform other administrative tasks from your mobile devices: [iOS](#) | [Android](#)

View: All Users Edit | [Create New View](#)

New UserReset Password(s)Add Multiple Users

☐ ActionFull Name ↑AliasUsername

18. Set necessary fields: Last Name, Alias, Email, Username, Nickname

### New User

User Edit

General Information

First Name

Last NameAPIUser

Aliasapiuser

Email

Usernameapiuser

Nicknameapiuser

Title

Company

Department

Division

19. On the right-hand side, set the User License and Profile

Role<None Specified>

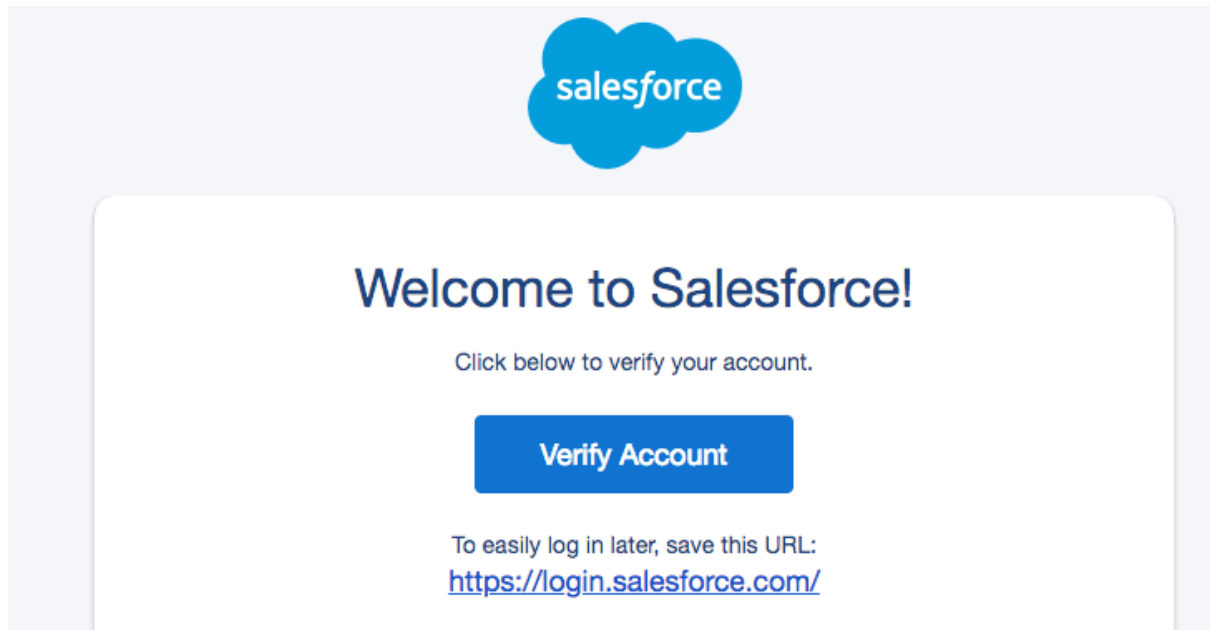
User LicenseSalesforce

ProfileAPI Only

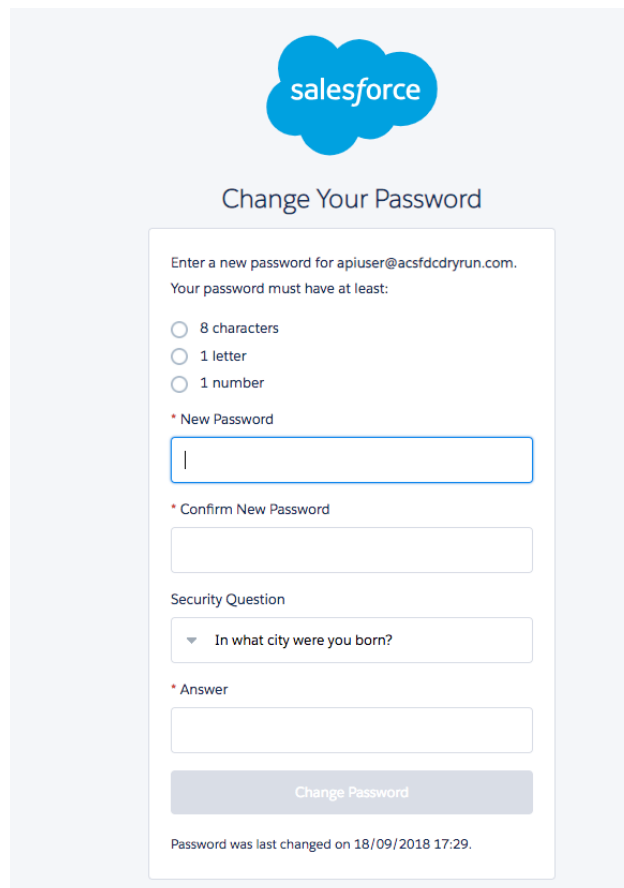
20. Click “Save”

21. A confirmation email will be sent, with an activation link. Click the link to activate your user.



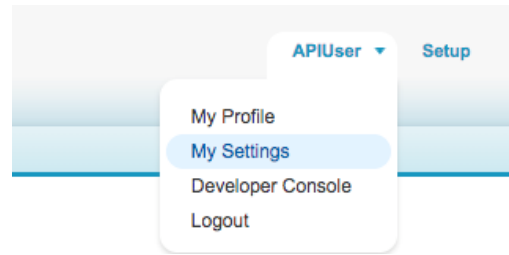


22. Change (set) a password for apiuser (Considered a strong that contains at least 20 random characters):

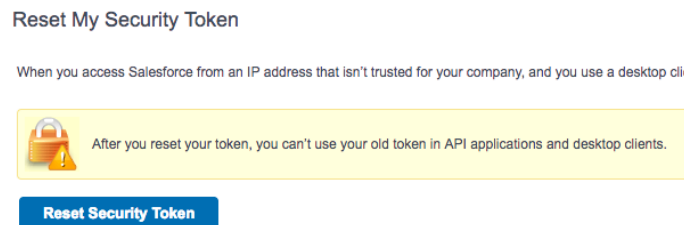
A screenshot of the 'Change Your Password' form in Salesforce. The form is titled 'Change Your Password' and includes the Salesforce logo. It prompts the user to 'Enter a new password for apiuser@acsfdcdryun.com.' and lists requirements: 'Your password must have at least: 8 characters, 1 letter, 1 number'. There are three radio buttons for these requirements. The form includes fields for 'New Password', 'Confirm New Password', 'Security Question' (with a dropdown menu showing 'In what city were you born?'), and 'Answer'. A 'Change Password' button is at the bottom. A footer note states 'Password was last changed on 18/09/2018 17:29.'

23. Click “Change Password”

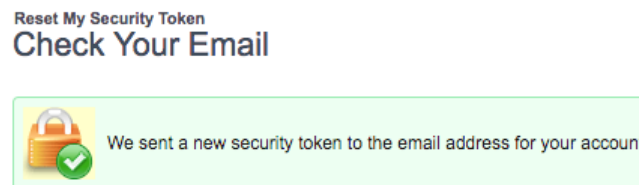
24. Access the API user personal settings by selecting the username in the top right corner, then “My Settings”.



25. Type “Security Token” in the Quick Find box and click “Reset My Security Token”.



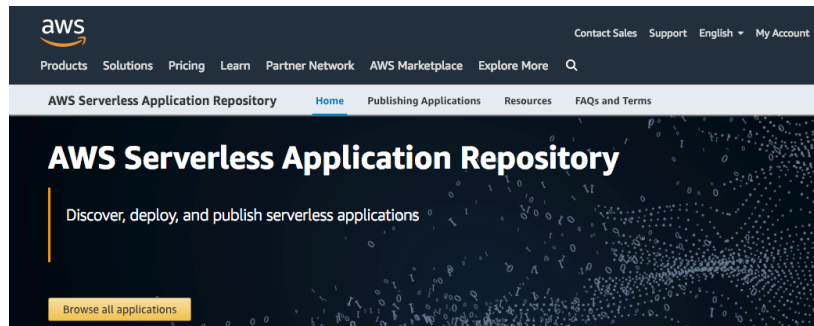
26. Your security token will be emailed to you



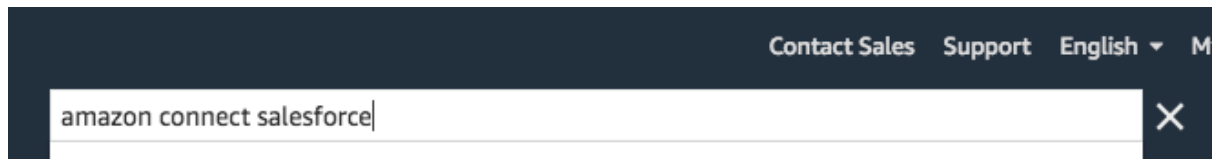
27. Copy the security token from the email in to your installation notes for the “Access Token” value.

## Install the Amazon Connect Salesforce Lambda package

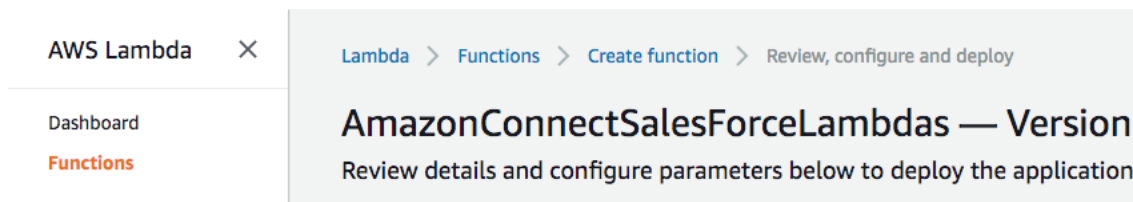
1. Log in into your AWS Account.
2. Navigate AWS Serverless Application Repository (<https://aws.amazon.com/serverless/serverlessrepo/>)



3. Click on the Search (magnifying glass) and type in Amazon Connect Salesforce



4. Select AmazonConnectSalesForceLambdas and click “Deploy”



5. Fill in the fields in “Configure application parameters”. All values should be available in your installation notes:

**Configure application parameters**

**Application name**  
The stack name of this application created via AWS CloudFormation

**SalesforceAccessToken**  
The security token of the Salesforce API user account used above.

**SalesforceConsumerKey**  
Your Salesforce consumer key

**SalesforceConsumerSecret**  
Your Salesforce consumer secret is available in Salesforce immediately to the right of your Salesforce Consumer Key

**SalesforceHost**  
Your Salesforce Host

**SalesforcePassword**  
The password of a valid Salesforce API account for your environment. This account must be the same one as entered in the "Salesforce API Configuration Username" parameter above.

**SalesforceProduction**  
True for Production Environment, False for Sandbox

**SalesforceUsername**  
The username of a valid Salesforce API account for your environment. For example, user@domain.com

**SalesforceVersion**  
To find the Salesforce Edition and API Version please visit <https://help.salesforce.com/articleView?id=000199268&type=1>

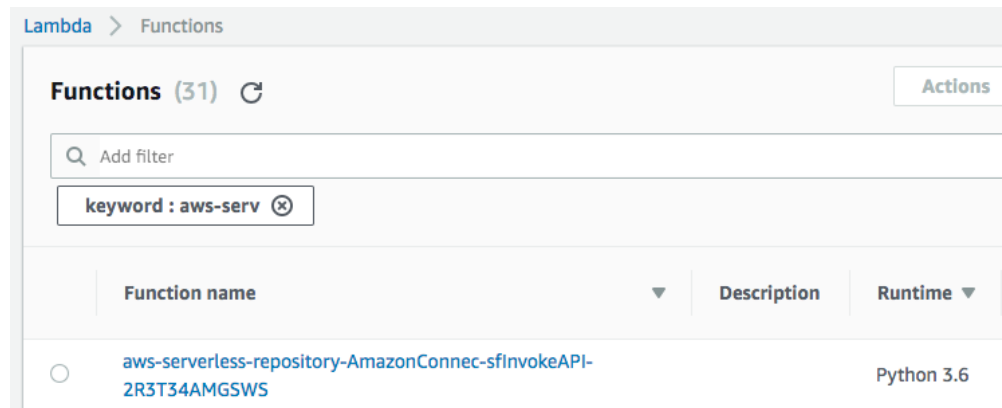
Cancel

Previous

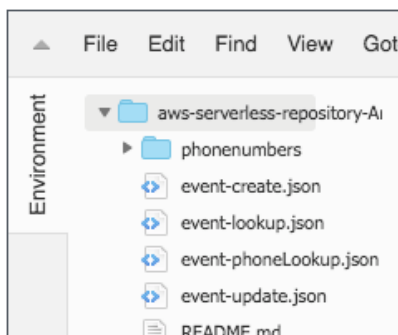
Deploy

6. Once completed, click “Deploy”

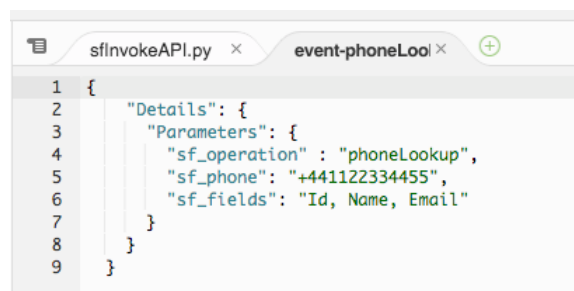
7. Once completed, you will be able to see the newly created Lambda function:



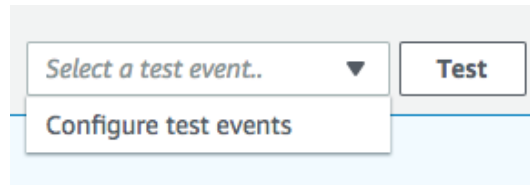
8. The package provides a single Lambda function (sfInvokeAPI) that supports multiple operations, like lookup, create and update. For the initial validation, sample events are provided within the function. Click on the function name and check the list of files in the editor.



9. To validate a phone number lookup, double-click on event-phoneLookup.json file and copy the text in your clipboard.



10. In the top-right corner, click the drop-down arrow next to the “Test” button and select “Configure test events”



11. Select “Create new test event”, set Event name (i.e. phoneLookup) and paste the JSON payload you’ve copied in the previous step.

**Configure test event** ×

A function can have up to 10 test events. The events are persisted so you can switch to another computer or web browser and test your function with the same events.

☒ Create new test event  
☐ Edit saved test events

Event template  
Hello World ▼

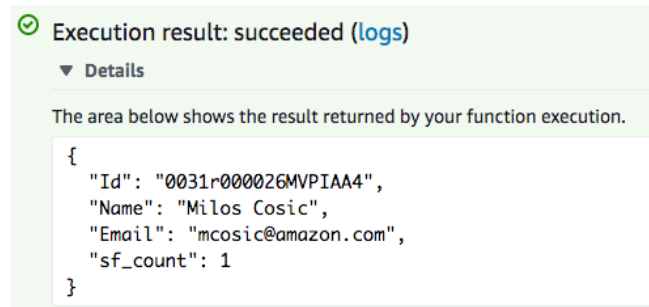
Event name  
eventLookup

```
1 {  
2   "Details": {  
3     "Parameters": {  
4       "sf_operation": "phoneLookup",  
5       "sf_phone": "+441122334455",  
6       "sf_fields": "Id, Name, Email"  
7     }  
8   }  
9 }
```

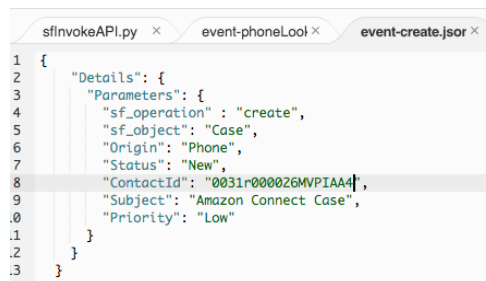
12. Click “Create” button
13. From the drop-down list, select your “eventLookup” and click “Test” button



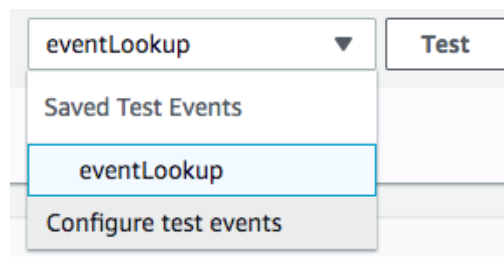
14. If successful, the result will contain fields defined in “sf\_files” parameter in the invocation event



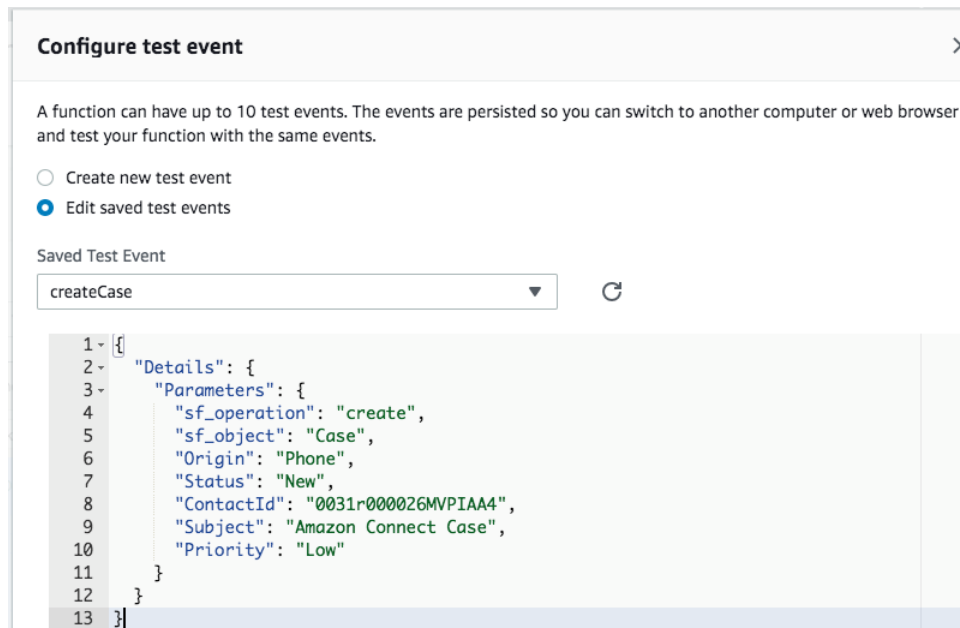
15. As a next step, we are going to use the ContactId provided and create a Case in Salesforce. Double-click on “event-create.json” file and set the ContactId value from the previous step. Copy the JSON text into your clipboard.



16. In the top-right corner, click the drop-down arrow next to the “Test” button and select “Configure test events”



17. Select “Create new test event”, set Event name (i.e. createCase) and paste the JSON payload you’ve copied in the previous step.



**Configure test event**

A function can have up to 10 test events. The events are persisted so you can switch to another computer or web browser and test your function with the same events.

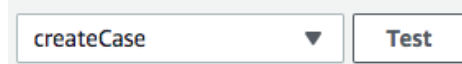
☐ Create new test event  
☒ Edit saved test events

Saved Test Event

createCase

```
1 {  
2   "Details": {  
3     "Parameters": {  
4       "sf_operation": "create",  
5       "sf_object": "Case",  
6       "Origin": "Phone",  
7       "Status": "New",  
8       "ContactId": "0031r000026MVPIA4",  
9       "Subject": "Amazon Connect Case",  
10      "Priority": "Low"  
11    }  
12  }  
13 }
```

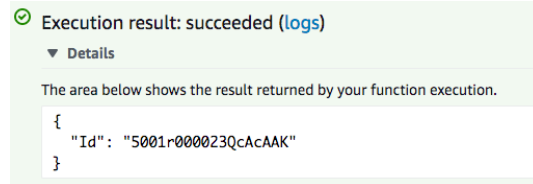
18. Click “Create” button
19. From the drop-down list, select your “createCase” and click “Test” button



createCase ▼ Test

20. If successful, the result will contain a Case Id for newly created case:



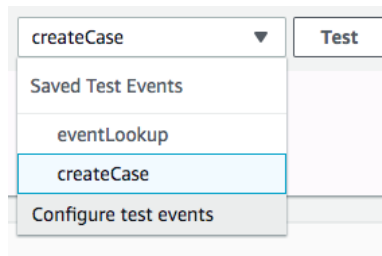


21. As defined in the event payload, Status is “New” and Priority is “Low”. We are going to use the update operation to close the case. Copy the Case Id provided in the previous step, then double-click on “event-update.json” file and paste the Case Id in “sf\_id” parameter:

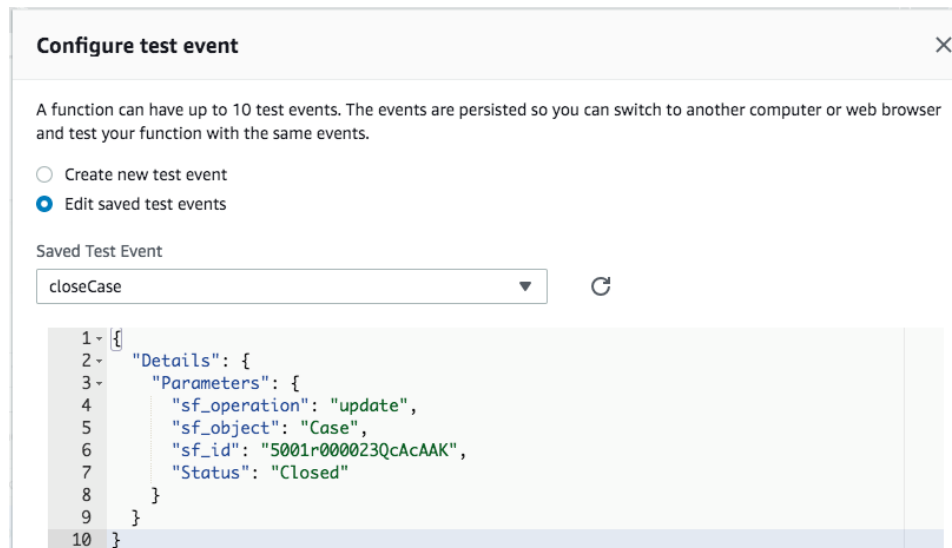
The screenshot shows a code editor with four tabs: `sfInvokeAPI.py`, `event-phoneLook`, `event-create.jsor`, and `event-update.json`. The `event-update.json` tab is active, displaying the following JSON payload:

```
1 {
2   "Details": {
3     "Parameters": {
4       "sf_operation": "update",
5       "sf_object": "Case",
6       "sf_id": "5001r000023QcAcAAK",
7       "Status": "Closed"
8     }
9   }
10 }
```

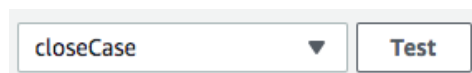
22. In the top-right corner, click the drop-down arrow next to the “Test” button and select “Configure test events”



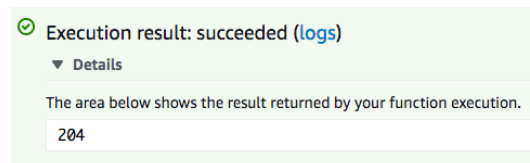
23. Select “Create new test event”, set Event name (i.e. closeCase) and paste the JSON payload you’ve copied in the previous step.



24. Click “Create” button
25. From the drop-down list, select your “closeCase” and click “Test” button



26. If successful, the result will be HTTP code 204 (“No Content” success code):



27. Log in to Salesforce and search for Case and its details. The Case status should be “Closed”.

## Invoking the Amazon Connect Salesforce Lambda from Contact Flows

The Amazon Connect Contact Flow defines the routing behavior within Amazon Connect, allowing contact center administrators to customize call flow behavior such as playing prompts, invoking Lambda functions for data lookup, and sending the call to different queues based on various conditions. As a result, Contact Flows are expected to be highly customized for each organization. While the Adapter package does not provide any Contact Flows, there are some best practices that are worth highlighting when utilizing the Adapter.

The key element that enables Contact Flow integration is the AWS Lambda function. A Lambda function is a serverless piece of code that is invoked by the Contact Flow. Typically, Lambda functions are used to update or retrieve information from databases or APIs, as well as integrating with other systems. Lambda function can return any data processed to the Contact Flow where it can be used for decision making.

Since Salesforce is highly customizable, the same Salesforce object in a different environment may have different fields associated with it. As a result, we can expect objects to have different requirements for how they are retrieved, updated and created. The CTI Adapter was built to be able to query Salesforce objects regardless of how they have been customized. The user of the Adapter must therefore ensure they are passing the appropriate parameters to the Lambda functions provided as part of the Adapter.

The Lambda function supports different operations, based on the mandatory input parameter “sf\_operation”.

### Salesforce Lookup

This operation is invoked by setting “sf\_operation” to “lookup”. In this case, the Lambda function queries Salesforce for objects based on the parameters passed to it.

- “**sf\_object**” parameter contains Salesforce Object, like Case, Contact etc.

- “**sf\_fields**” parameter contains a set of fields to be returned in a result. For example, if we are querying Case, we might specify “Id, IsClosed, Subject”, or if we are querying Contact, we might specify “Id, Name, Email”
- Specify a conditional parameter, for example “CaseNumber” or “homephone”. Multiple values may be sent and they will be applied with “AND” operator.

In the Amazon Connect Contact Flow Designer, add *Integrate > Invoke AWS Lambda function* block. Set ‘sfInvokeAPI’ Lambda ARN and make sure you have granted Amazon Connect to invoke the Lambda Function.

Example for phone number lookup:

Invoke AWS Lambda function

Makes a call to AWS Lambda, and optionally returns key / value pairs.

The returned key value pairs can be used to set contact attributes.

Function ARN  
arn:aws:lambda:us-east-1:680944752362:function:aws-ser

Function input parameters

Use text

Destination key  
sf\_operation

Value  
lookup

Use text

Destination key  
sf\_object

Value  
Contact

Use text

Destination key  
sf\_fields

Value  
Id, Name

Use attribute

Destination key  
homephone

Type  
System

Attribute  
Customer Number

A result example:

```
"ExternalResults": {
  "Id": "0031r000026MVP1AA4",
  "sf_count": "1",
  "Name": "Milos Cosic"
}
```

Example for Case lookup:

Invoke AWS Lambda function

Makes a call to AWS Lambda, and optionally returns key / value pairs.

The returned key value pairs can be used to set contact attributes.

Function ARN

2362:function:aws-serverless-repository-AmazonConnect

Function input parameters

Use text

Destination key

sf\_operation

Value

lookup

Use text

Destination key

sf\_object

Value

Case

Use text

Destination key

sf\_fields

Value

Id, IsClosed, Subject

Use attribute

Destination key

CaseNumber

Type

System

Attribute

Stored customer input

A result example:

```
    "ExternalResults": {  
      "Id": "5001r000023QcAAK",  
      "IsClosed": "true",  
      "sf_count": "1",  
      "Subject": "Amazon Connect Case"  
    }  
  }
```

## Salesforce Create

This operation is invoked by setting “sf\_operation” to “create”. In this case, the Lambda function creates a Salesforce object based on the parameters passed to it.

- “**sf\_object**” parameter contains Salesforce to be created, like Case.
- Specify additional parameters for the Salesforce object to be created. Please be sure to include all parameters required to create the Salesforce object.

In the Amazon Connect Contact Flow Designer, add *Integrate > Invoke AWS Lambda function* block. Set ‘sfInvokeAPI’ Lambda ARN and make sure you have granted Amazon Connect to invoke the Lambda Function.

An example for Case creation:





The image shows two screenshots of the Amazon Connect CTI Adapter configuration interface. The top screenshot shows the 'Use text' configuration for the 'Subject' field with the value 'Amazon Connect Case'. The bottom screenshot shows the 'Use text' configuration for the 'Priority' field with the value 'Low'.

A result example (providing the newly created Case Id):

```
"ExternalResults": {  
  "Id": "5001r000023QfhPAAS"  
},
```

## Salesforce Update

This operation is invoked by setting “sf\_operation” to “update”. In this case, the Lambda function updates a Salesforce object based on the parameters passed to it.

- “**sf\_object**” parameter contains Salesforce to be updated, like Case.
- Specify additional parameters for the Salesforce object to be created. Parameters must include `sf\_object` and `sf\_id`.

In the Amazon Connect Contact Flow Designer, add *Integrate > Invoke AWS Lambda function* block. Set ‘sfInvokeAPI’ Lambda ARN and make sure you have granted Amazon Connect to invoke the Lambda Function.

An example for Case update:

Invoke AWS Lambda function

×

Makes a call to AWS Lambda, and optionally returns key / value pairs.

The returned key value pairs can be used to set contact attributes.

Function ARN

752362:function:aws-serverless-repository-AmazonConnect

Function input parameters

Use text

×

Destination key

sf\_operation

Value

update

Use text

×

Destination key

sf\_object

Value

Case

Use attribute

×

Destination key

sf\_id

Type

External

Attribute

Id

Case Id is usually received as a result of a previous case lookup, but it can be also stored as an Attribute (i.e. sf\_case\_id)

Use text

×

Destination key

Status

Value

Closed

A result example (HTTP Status Code):

```
"ExternalResults": {  
  "Status": "204"  
}
```

204 is “No Content” success code

## Salesforce Phone Lookup

This operation is invoked by setting “sf\_operation” to “phoneLookup”. In this case, the Lambda function queries Salesforce for Contacts based on the parameter passed to it.

It uses the Salesforce Object Search Language (SOLS) to construct text-based search queries against the search index, which gives significant performance improvement when searching phone number fields.

- “**sf\_phone**” parameter contains the phone number to search.
- “**sf\_fields**” parameter contains a set of fields to be returned in a result. As it searches for Contacts, we might specify “Id, Name, Email”

In the Amazon Connect Contact Flow Designer, add *Integrate > Invoke AWS Lambda function* block. Set ‘sfInvokeAPI’ Lambda ARN and make sure you have granted Amazon Connect to invoke the Lambda Function.

Example for phone number lookup:

Invoke AWS Lambda function

×

Makes a call to AWS Lambda, and optionally returns key / value pairs.

The returned key value pairs can be used to set contact attributes.

Function ARN

[arn:aws:lambda:us-east-1:123456789012:function:arnless-repository-AmazonConnectInvokeAPI-2R3T34AMG](#)

Function input parameters

Use text

×

Destination key

sf\_operation

Value

phoneLookup

Use text

×

Destination key

sf\_fields

Value

Id, Name

Use attribute

×

Destination key

sf\_phone

Type

System

Attribute

Customer Number

A result example:

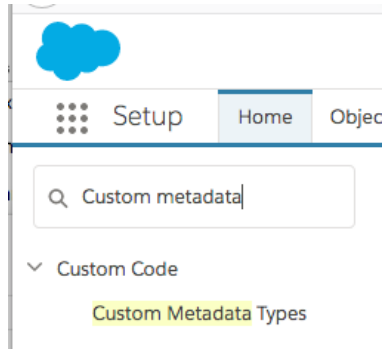
```
"ExternalResults": {
  "Id": "0031r000026MVP1AA4",
  "sf_count": "1",
  "Name": "Milos Cosic"
}
```

## Contact Attributes Display

Amazon Connect allows for user defined Contact Attributes to be attached to a phone call within Contact Flows. This can be used to track caller inputs, IVR selections, outcomes of an interaction with Amazon Lex, or data lookup from backend systems through Lambda. Some of those values can be useful to be displayed to the agent to speed up data input or skip processes such as authenticating the customer.

To configure a contact attribute for display within embedded CCP:

1. Log in to your Salesforce Org.
2. Navigate to **Setup** then in type *Custom Metadata* in Quick Find



3. Click the “Manage Records” link next to the “Call Attributes Configuration” label

All Custom Metadata Types

Custom metadata types enable you to create your own setup objects whose records are metadata rather than data. These are typically used to define application configurations. Rather than building apps from data records in custom objects or custom settings, you can create custom metadata types and add metadata records, with all the manageability of

New Custom Metadata Type					
Action	Label	Installed Package	Namespace Prefix	Visibility	Api Name
<a href="#">Manage Records</a>	<a href="#">Call Attributes Configuration</a>	Amazon Connect - Universal Package	amazonconnect	Public	amazonconnect__Call_Attributes_Configuration__mdt

4. The CTI Adapter contains a sample attribute, “special\_attr”. Click the “New” button on the list view.

Call Attributes Configurations

View: <span>All</span> <span>Create New View</span>	
Action	Call Attributes Configuration Name
<a href="#">Edit</a>	<a href="#">special_attr</a>

5. This will open the “New Call Attribute Configuration” form as seen below

Call Attributes Configuration

Call Attributes Configuration Edit

Save

Save & New

Cancel

Information

Label

Call Attributes Configuration Name

Amazon Connect Attribute Name

CCP Attribute Label

Save

Save & New

Cancel

6. The following table describes the fields that are displayed inside the form

Field Name	Valid Values	Description
Label	Any string including spaces	The label of the record
Call Attributes Configuration Name	Any string following the API naming guidelines.	The Salesforce API name of the record. This value must be unique among all records.
Amazon Connect Attribute Name	Any string including spaces	The name of the attribute as it is defined in the Amazon Connect Contact Flow.
CCP Attribute Label	Any string including spaces	The label as it will be displayed to the agent.

7. An example of attribute is given below:

Call Attributes Configuration

Call Attributes Configuration Edit

Save

Save & New

Cancel

Information

Label

Authentication

Call Attributes Configuration Name

Authentication

i

Amazon Connect Attribute Name

authenticated

CCP Attribute Label

Is Authenticated?

Save

Save & New

Cancel

8. Click the “Save” button

Call Attributes Configuration

[« Back to List: Users](#)

Call Attributes Configuration Detail

Edit

Delete

Clone

Label	Authentication
Call Attributes Configuration Name	Authentication
Amazon Connect Attribute Name	authenticated
CCP Attribute Label	Is Authenticated?

9. Open the Amazon Connect Contact Flow Designer and drop *Set > Set Contact Attributes* block to your Contact Flow. Set the attribute based on your business logic. For example:

Set contact attributes

Stores key / value pairs as contact attributes.

Contact attributes are accessible by other areas of Amazon Connect, such as the Contact Control Panel (CCP) and Contact Trace Records (CTRs).

Attribute to save

Use text

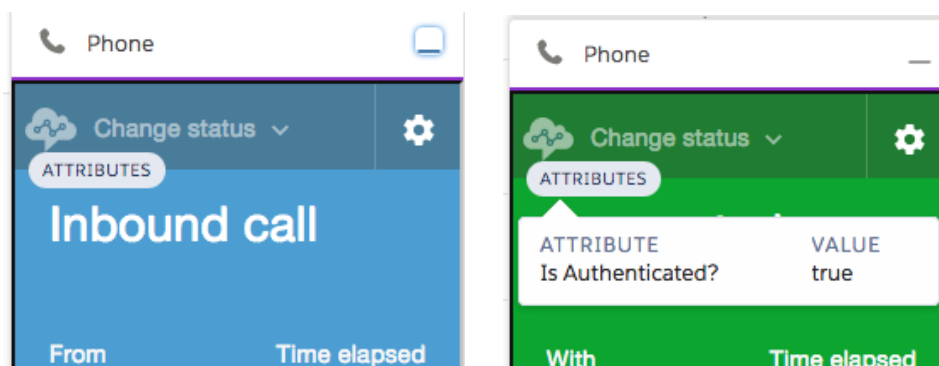
Destination key

authenticated

Value

true

10. Place and inbound call and ask to speak with an agent. Accept the incoming call and check if Contact Attribute is displayed in the embedded CCP.



## Call Wrap-up and Call Disposition Codes

Upon the completion of a call, Amazon Connect puts the agent into the “After Call Work” state. As part of the Adapter, a “Call Wrap-Up” screen will be triggered within Salesforce. The screen requires the user to associate the call activity with a Contact, or Lead, and then relate it to an Account or alternate Salesforce Object available in the drop-down list. Once the desired object is selected, the user clicks on the “Look-up” list icon to find and associate the desired record to the call. The Comments box allows for free-form text to be added.

The Call Result field allows the user to specify the result of the call from a drop-down list. When the user clicks on “Save” the Salesforce tab and sub-tabs popped with the call and the Wrap-Up screen are closed and the user is automatically put into an “Available” state (please see the limitations in Lightning environment).

Salesforce logs phone calls in a Task record. The Task record contains many standard fields associated to call information, which are not included in the Task layout by default. One of the fields is called *CallDisposition*, and the Adapter will ensure that a value is provided in this field for every call it logs.

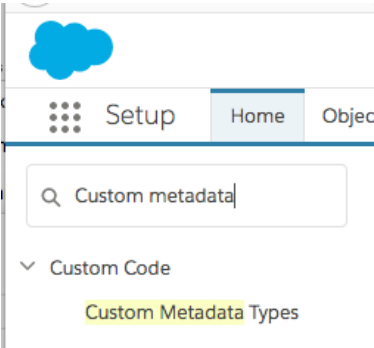
The *CallDisposition* field is a free-form text field, which makes it difficult to report on the value agents may enter as those are most likely not going to be



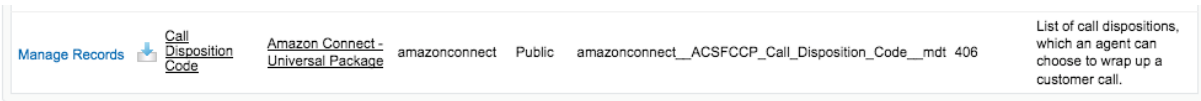
consistent. For this purpose, the Adapter comes with a way to configure a list of valid values to be used for the *CallDisposition* field when wrapping up a call.

To add, update or remove *Call Disposition Codes*:

- 1. Log in to your Salesforce Org
- 2. Navigate to **Setup** then in type *Custom Metadata* in Quick Find



- 3. Click the “Manage Records” link next to the “Call Disposition Codes” label



- 4. The CTI Adapter contains a sample code, “Completed”. Click the “New” button on the list view.



While this code cannot be removed, it can be deactivated by clicking the “Edit” button and then unselecting the “Active” checkbox. Save the record to finalize the change.

- 5. To create a new disposition code, click “New” button on the list view. This will open the New Call Disposition Code form as seen below:

**Call Disposition Code**

**Call Disposition Code Edit** Save Save & New Cancel

**Information**

Label

Call Disposition Code Name  i

Disposition Code

Active ☒

Save Save & New Cancel

6. The following table describes the fields that are displayed inside the form

Field Name	Valid Values	Description
Label	Any string including spaces	The label to be displayed to the agent for selection on the call wrap-up screen.
Call Disposition Code Name	Any string following the API naming guidelines.	The Salesforce API name of the record. This value must be unique among all records.
Disposition Code	Any string including spaces	The actual value to be added to the CallDisposition field of the Task record representing a call.
Active	Checked or unchecked	When unchecked, the disposition code will not be offered to the agent for selection during a call wrap-up.
Protected Comment	Checked or unchecked	This field is not used. Please leave unchecked.

7. An example of Call Disposition Code is given below:

## Call Disposition Code

Call Disposition Code Edit

SaveSave & NewCancel

Information

Label

Customer Not Home

Call Disposition Code Name

Customer\_Not\_Home

i

Disposition Code

CustomerNotHome

Active

☒

SaveSave & NewCancel

8. Click the “Save” button

## Call Disposition Code

[« Back to List: Users](#)

Call Disposition Code Detail

EditDeleteClone

Label

Customer Not Home

Call Disposition Code Name

Customer\_Not\_Home

Disposition Code

CustomerNotHome

Active

☒

9. Place an inbound call and ask to speak with an agent. Accept the incoming call and then hang up. The Call Disposition form should be displayed, allowing you to store the outcome of the call. You are able to select Contact and Account related to the call.

John Smith

×

Salesforce - Develo...

×

Save

Subject

Inbound - BasicQueue - +447769161124

Name

Contact

⌵

Related To

Account

⌵

Comments

Call Result

✓ Completed

Customer Not Home

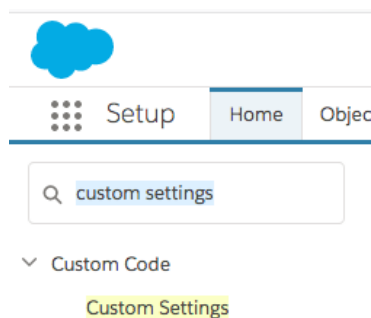
Save

# Call Recording Link for Task

The Adapter comes with a Visualforce component that provides users with the ability to download a call recording created within Amazon Connect from a Salesforce page.

To configure Call Recording links:

1. Log in to your Salesforce Org
2. Navigate to **Setup** then in type *Custom Settings* in Quick Find



3. Click on the “Manage” link next to the “Toolkit for Amazon Connect” custom setting

## Custom Settings

Use custom settings to create and manage custom data at the organization, profile, and user levels. Custom settings data is stored and accessed efficiently, without the cost of repeated queries. Custom settings data can be used by formula fields, Visualforce, Apex

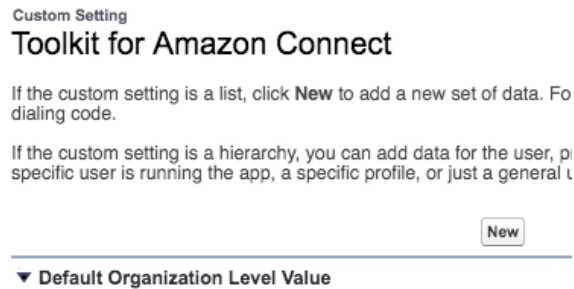
View: All [Create New View](#)

[Get Usage](#)

A | B | C | D | E | F | G | H | I | J | K | L | M | N |

Action	Label ↑	Visibility	Settings Type	Namespace Prefix	Description
<a href="#">Manage</a>	<a href="#">Toolkit for Amazon Connect</a>	Public	Hierarchy	amazonconnect	Configuration settings of the Toolkit for Amazon Connect.

4. Next, click on the “New” button on the top of the page, which will create the Default Organization values.



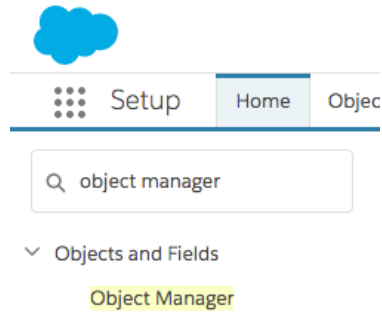
5. On the following page, provide the URL to your Amazon Connect instance without path information. The value of the URL field would be in the form of `https://yourinstancename.awsapps.com`.

The Adapter creates a Task in Salesforce for every phone interaction received by an agent. This Task will always be linked to the phone call via the Amazon Connect Contact ID. If Amazon Connect is configured to record the phone calls, the recording can be made available on the Task details page.

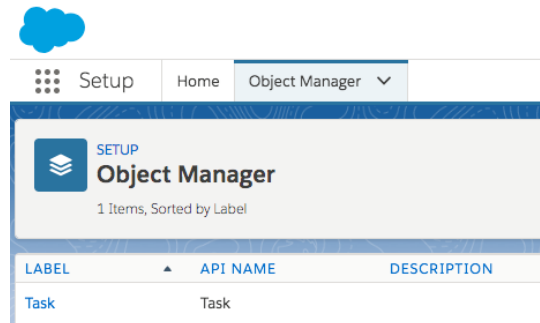
To illustrate the setup for the Task Page Layout, the Adapter comes with a sample Task Page Layout called “*CTI Adapter for Amazon Connect - Task Layout*”. It is an extension to the default Task Page Layout, which exposes more fields related to phone calls. Please refer to the Call Details section of the screen shot below. The Visualforce Page for the call recording is already added to this Layout. The recommended height is 70px.

To edit the sample Task Page Layout, please follow the steps:

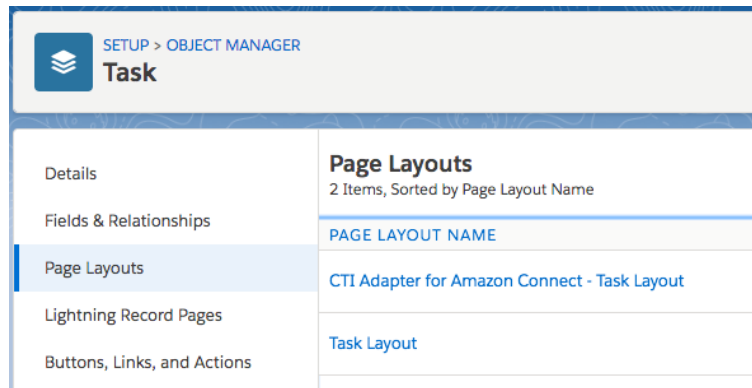
1. Log in to your Salesforce Org
2. Navigate to **Setup** then in type *Object Manager* in Quick Find



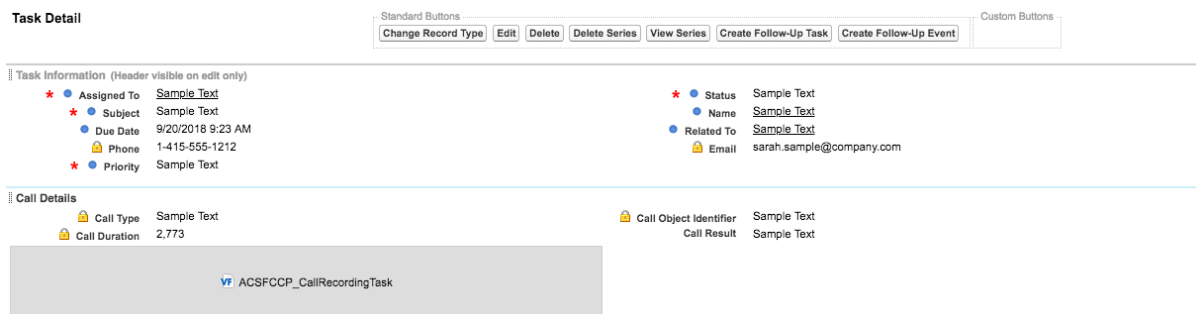
3. Click on the “Task” object



4. Click on the “Page Layouts”



- Click on the “*CTI Adapter for Amazon Connect - Task Layout*” and the layout designer will open



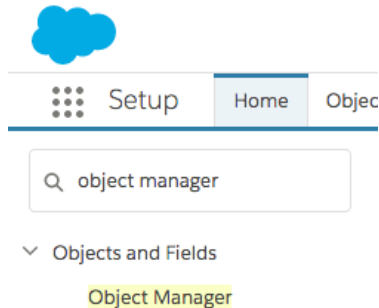
- To have that information show up on the agent’s screen, you can either create a similar configuration in your existing Page Layout or assign the Page Layout provided by the Adapter to the appropriate Profiles of your users. The following screenshot shows how the Call Details section looks when using the “*CTI Adapter for Amazon Connect - Task Layout*”.
- To have access to the recording, the user must have an active session with Amazon Connect. This can be achieved by either logging in to the CCP softphone, or by logging in to Amazon Connect outside of Salesforce. After the session is established, a page refresh should make the player appear.

## Call Display on the Account Page

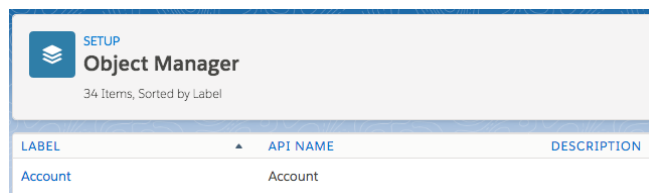
The Adapter comes with a Visualforce Page that displays all phone calls made using Amazon Connect for an Account. It differs from the standard Activity Related List because it filters all other activities out and focuses on the phone calls only.

To show the recent calls on the Account details page, add the “ACSFCCP\_CallLogging\_View” Visualforce Page to the Account Page layout. It is recommended to create a dedicated section with a 1-Column layout for this purpose, and to make the Visualforce Page scrollable.

1. Log in to your Salesforce Org.
2. Navigate to **Setup** then in type *Object Manager* in Quick Find.

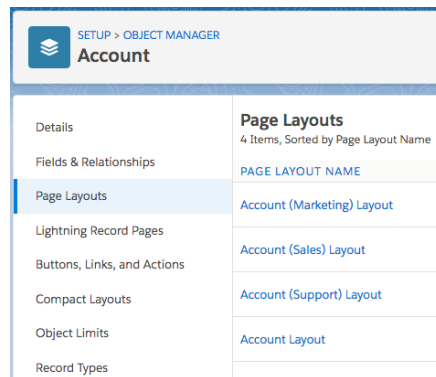


3. Click on the “Account” object.

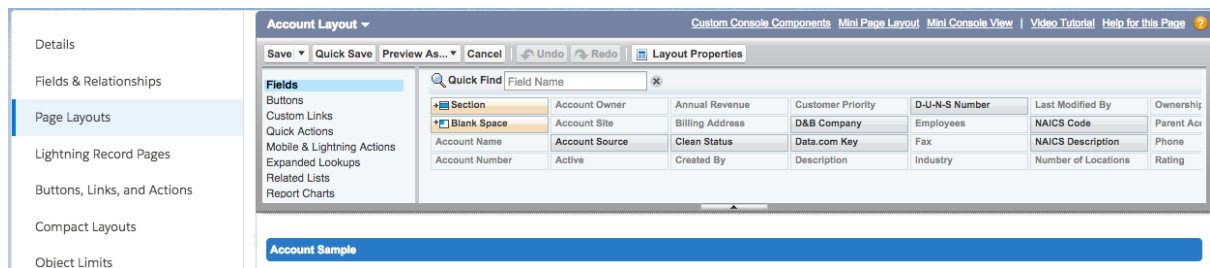




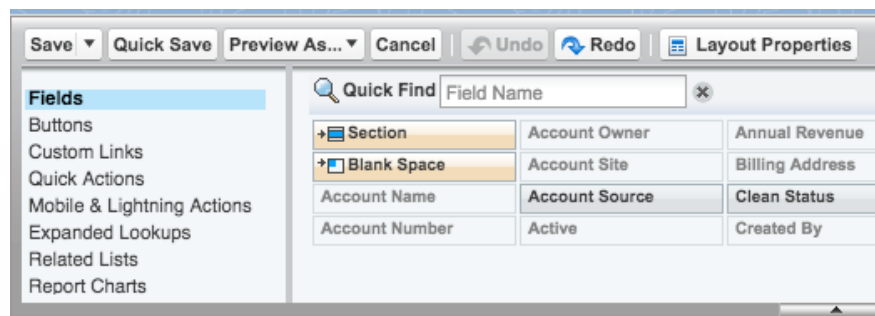
4. Click on the “Page Layouts”.



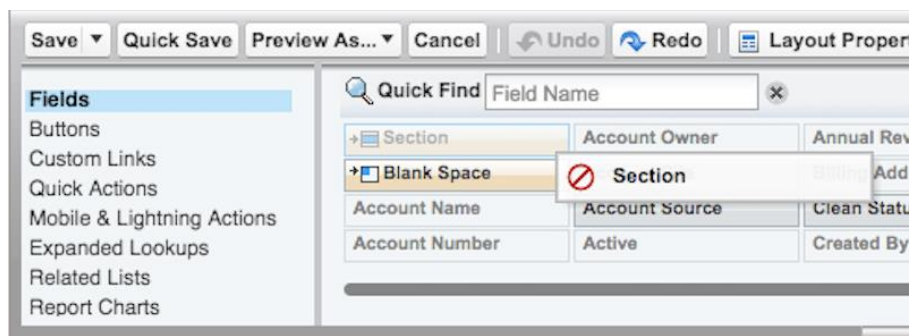
5. Click on the “Account layout” and the layout designer will open.

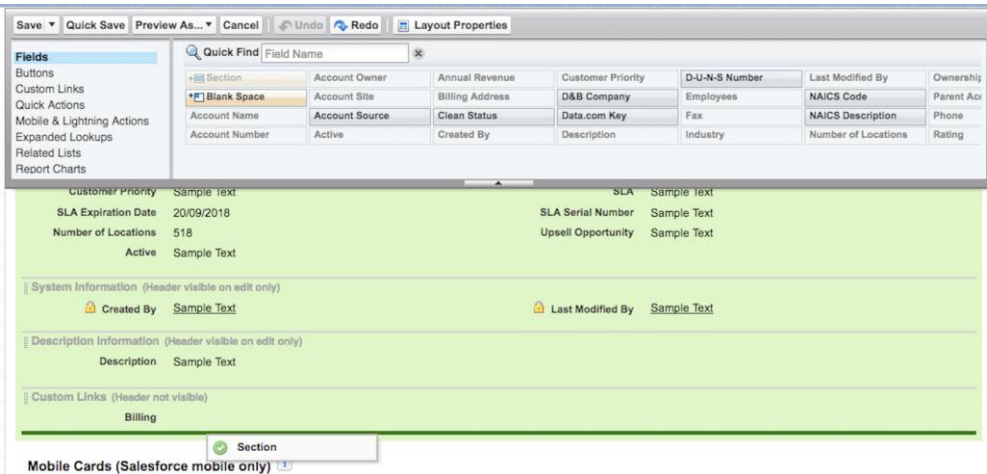


6. From the left-hand side menu, select “Fields”

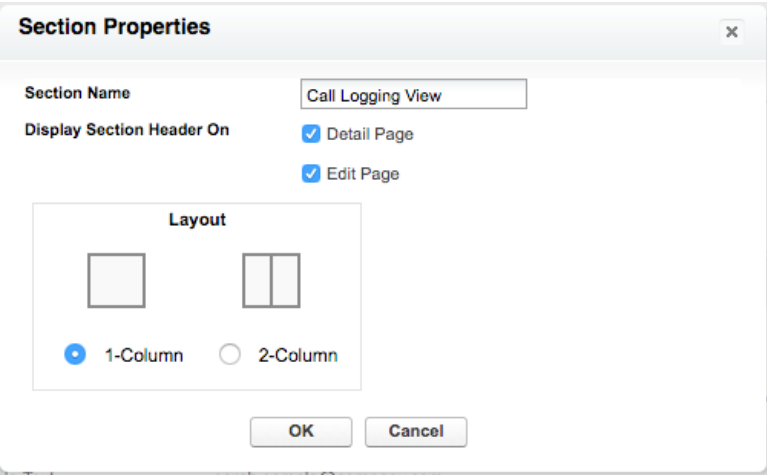


7. Drag and Drop “Section” item to add a new section on the layout

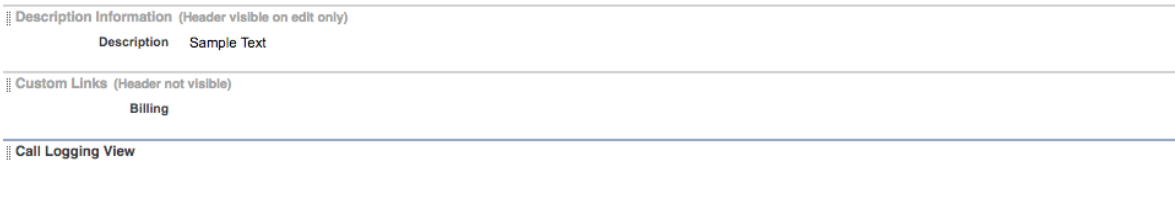




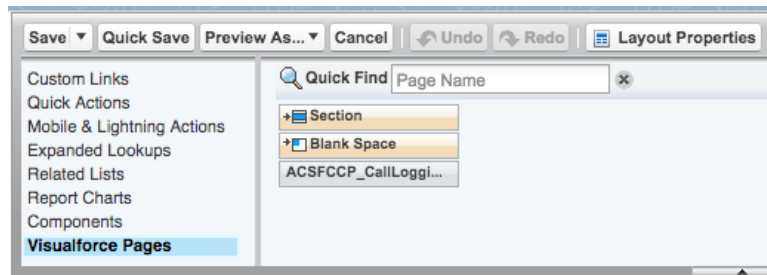
8. On the pop-up form, set Section Name (“Call Logging View”) and 1-Column Layout



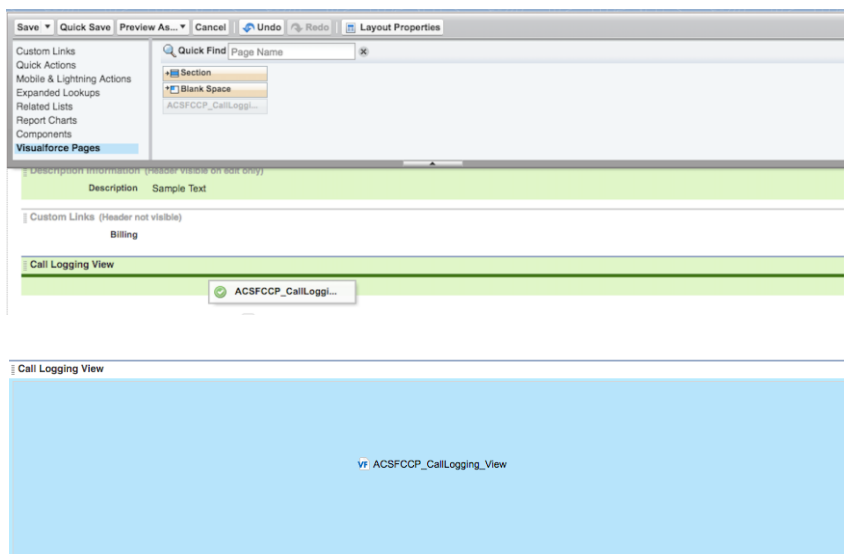
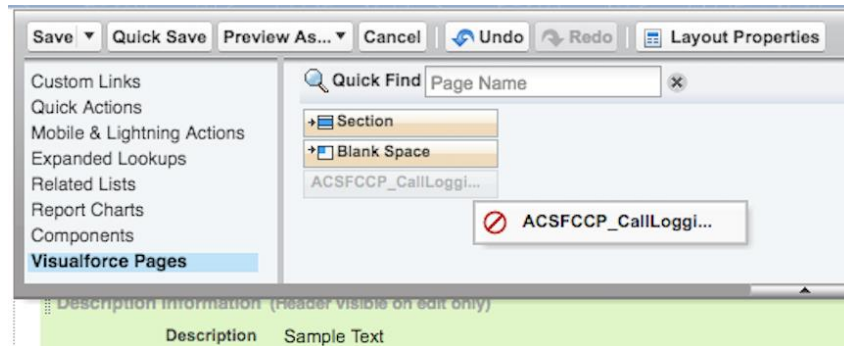
9. Click “OK”



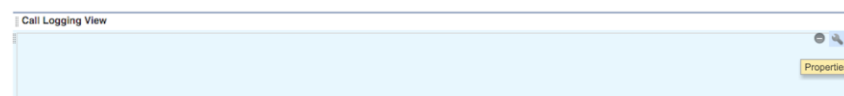
10. From the left-hand side menu, select Visualforce Pages:



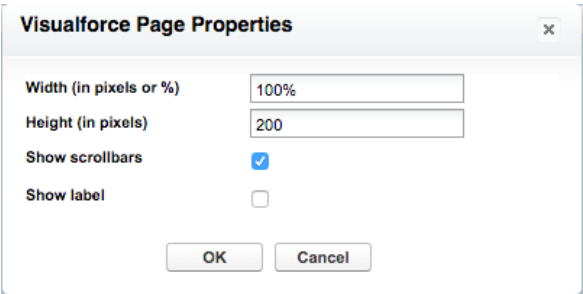
11. Drag and drop “ACSFCCP\_CallLogging\_View” item to the “Call Logging View” section



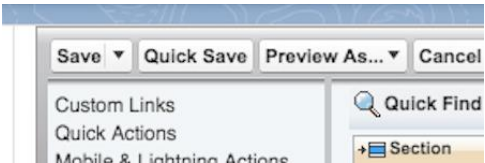
12. Hover the newly added component and click on the “Setting” icon



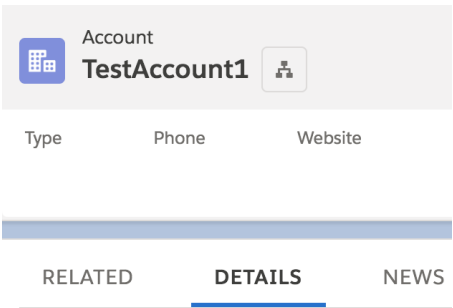
13. Check “Show scrollbars” and click “OK”.



14. Click the “Save” button in the top-left corner



15. Make some phone calls, ask to speak with an agent. Open the Account, then select “Details” tab



16. Scroll down the Details page until you see the “Call Logging View” section

Call Logging View				
CALL DATE	PHONE NUMBER	CALL TYPE	PHONE CALL DURATION	CALL IDENTIFIER
Thu Jun 07 16:59:54 GMT 2018	+447769161124	Inbound	0 min 31 sec	805f8089-3646-4f9b-ae73-be9236aa26a1
Thu Jun 07 08:17:07 GMT 2018	+447769161124	Inbound	0 min 23 sec	a0a42712-6d3d-4700-b650-d6b8aae189cc
Thu May 17 06:55:21 GMT 2018	+447769161124	Inbound	0 min 10 sec	37491b40-85a7-4feb-a388-fd2c69ea8eb2
Tue May 08 18:26:50 GMT 2018	+447769161124	Inbound	0 min 38 sec	994fba6-94a6-4cf1-a118-a7c31cc39099
Tue May 08 18:00:11 GMT 2018	+447769161124	Outbound	0 min 4 sec	40c6ad53-429a-42a2-b4c0-d46b20c109b6

For more information on how to add a Visualforce Page to a Page layout, please visit:

[https://trailhead.salesforce.com/en/modules/visualforce\\_mobile\\_salesforce1/units/visualforce\\_mobile\\_salesforce1\\_layouts\\_cards](https://trailhead.salesforce.com/en/modules/visualforce_mobile_salesforce1/units/visualforce_mobile_salesforce1_layouts_cards)

## Outbound Campaign Calls

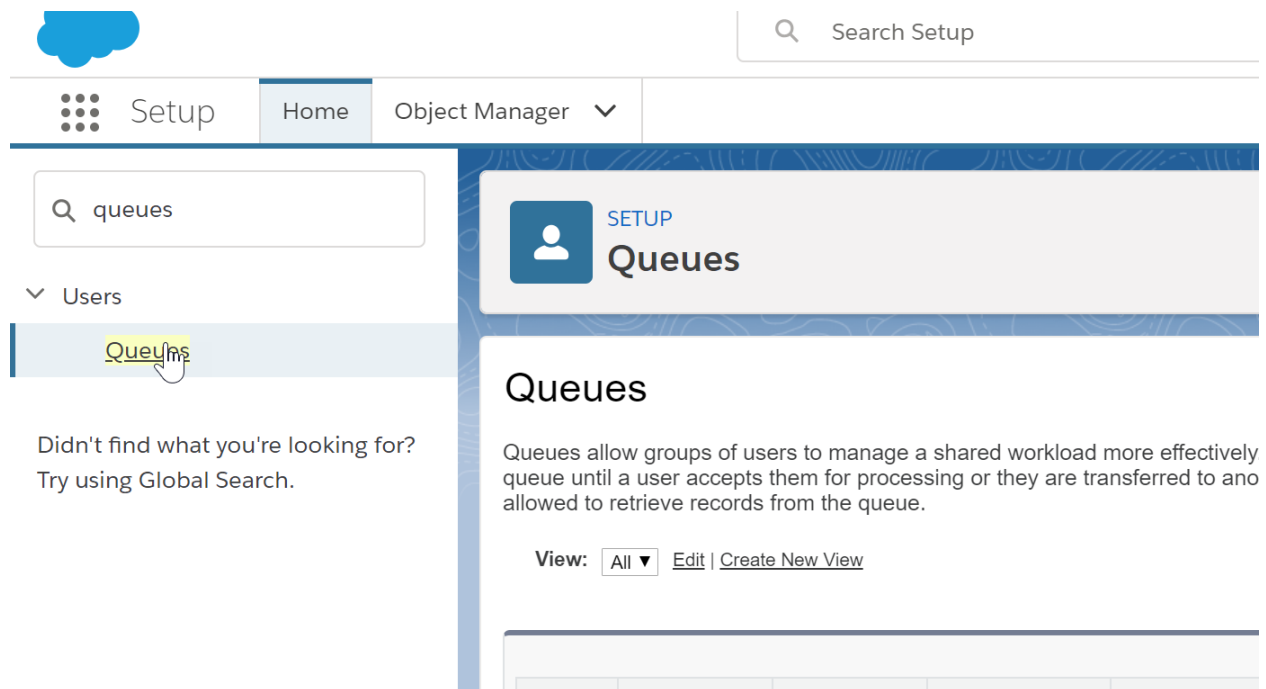
The package allows for running Outbound Call Campaigns using Salesforce Omni Channel routing and Amazon Connect. To enable outbound campaigns, the Custom Object called Amazon Connect Call Campaign, which comes bundled with the Toolkit, must be configured to be routed by Salesforce Omni.

Outbound call campaigns are a feature of the package that utilizes Omni-Channel routing and Amazon Connect. To use the Call Campaigns, we must first configure the following items:

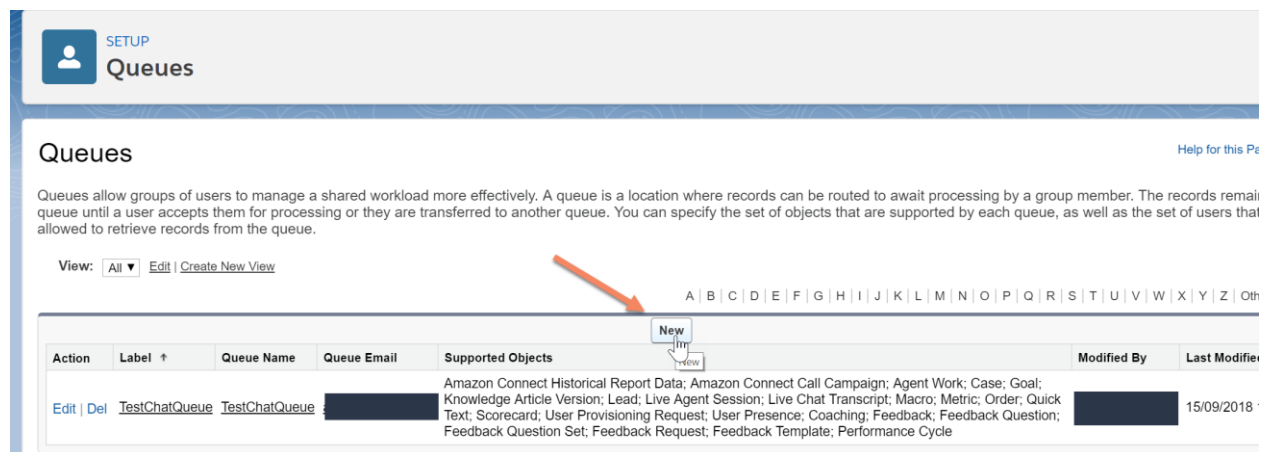
1. Create a Queue for users to manage a workload and configure it for the custom object.
2. Create a Service Channel and configure it for the custom object.
3. Create a Routing Configuration.
4. Associate the Routing Configuration with the Agents and the Queue.
5. Create a Presence Status and Configuration and assign it to the Users.

### Create a Queue

First, go to Setup in your instance. In the search box, type “queue”. Click on “Queues”.



You may see some entries if you are already using Omni-Channel for other things in your instance. We want to create a new queue for the purpose of handling these outbound call campaigns.



On the Queues screen, we need to click “New”. Complete the required fields for Label and QueueName will autopopulate. Move down the screen until you see “Supported Objects”. Select the Amazon Connect Call Campaign object and click the “Add” button.

**SETUP**  
**Queues**

**Supported Objects**

Select the objects you want to assign to this queue. Individual records for those objects can then be owned by this queue.

**Available Objects**

- Amazon Connect Historical Report Data
- Agent Work
- Amazon Connect Call Campaign
- Case
- Goal
- Knowledge Article Version
- Lead
- Live Agent Session
- Live Chat Transcript
- Macro
- Metric
- Order
- Quick Text
- Scorecard

**Selected Objects**

--None--

1

2

Add

Remove

**Queue Members**

To add members to this queue, select a type of member, then choose the group, role, or user from the "Available Members" list. If the Queue is Public Read/Write/Transfer, you do not need to assign users to the queue, as all users already have access.

Search: Users ▼ for:  Find

**Available Members**


- User: [Redacted]
- User: [Redacted]
- User: [Redacted]
- User: [Redacted]

**Selected Members**


--None--

Scroll down to the Queue members to select the members of the queue. You can assign the queue by Public Groups, Roles, Roles and Subordinates, or Users. If you need to wade through many users, groups, or roles, feel free to use the “Find” feature.

Once you have found the entity you’d like to add, select it and click add, just like we did with the object in the previous step.

 **SETUP**  
**Queues**

User Presence  
Coaching  
Feedback  
Feedback Question  
Feedback Question Set  
Feedback Request  
Feedback Template  
Performance Cycle

  
Remove


**Queue Members**

To add members to this queue, select a type of member, then choose the group, role, or user from the "Available Members" list. If the Queue is Public Read/Write/Transfer, you do not need to assign users to the queue, as all users already have access.

Search:  for:


**Available Members**


User:  
User:  
User:  
User:




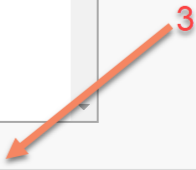
**Selected Members**

--None--

  
Add

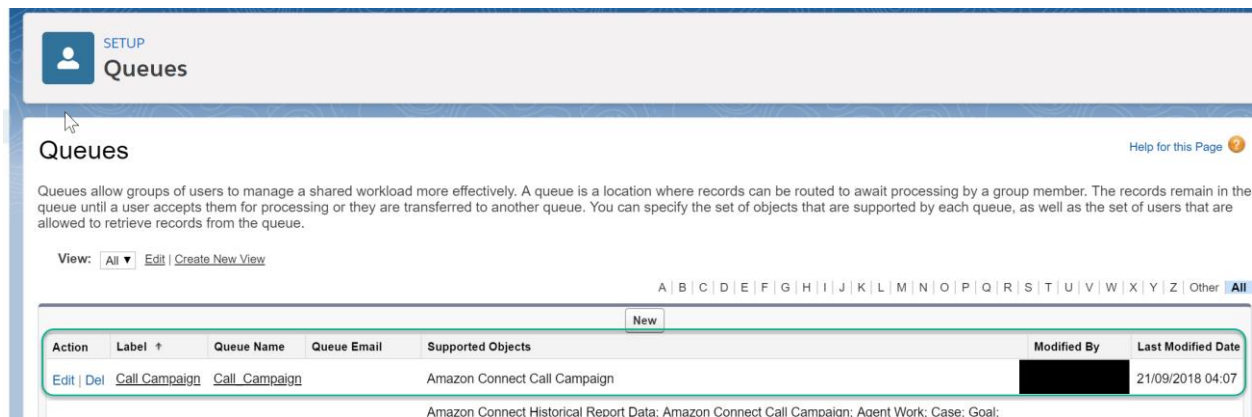
  
Remove





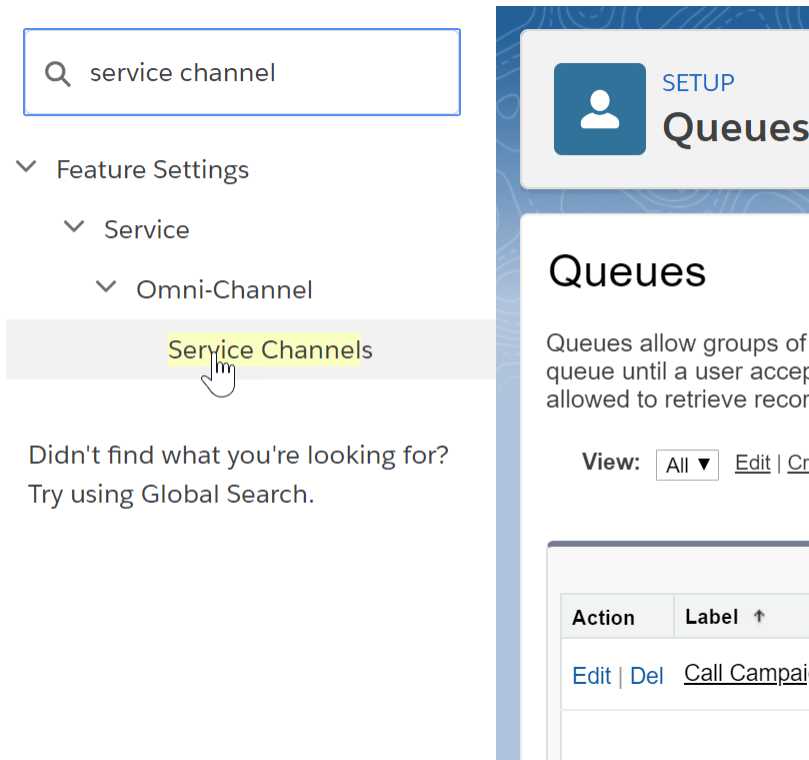
Now, our queue has been created and assigned to users.





## Create a Service Channel

Click into the Setup search box in the left navigation panel and type “Service Channel”. Then click “Service Channels”.



Click “New” to create our new Service Channel.

SETUP

Service Channels

## Service Channels

Service Channels let you turn any Salesforce object—such as a case, lead, SOS session, or even a custom object—into a work record. Omni-Channel then plucks these work items from their queues—like flowers from the garden of agent productivity—and routes them to your agents in real time.

Does your organization use Live Agent for chats or SOS for video calls? If so, you'll notice that Salesforce creates those Service Channels for you automatically, so you can get up and running using Live Agent and SOS with Omni-Channel right away.


Show diagram ▼

Let's get this party started and create a new Service Channel. After you create a Service Channel, [create a Routing Configuration](#) to determine how work items are pushed to your agents.

View: All ▼ Create New View


New

Action	Service Channel Name ↑	Developer Name
Edit	<a href="#">Live Agent</a>	[REDACTED]

 SETUP

## Service Channels

Service Channels let you turn any Salesforce object—such as a case, lead, SOS session, or even a custom object—into a work record. Omni-Channel then plucks these work items from their queues—like flowers from the garden of agent productivity—and routes them to your agents in real time.

 Show me an example ▼

After you create a Service Channel, [create a Routing Configuration](#) to determine how work items are pushed to your agents.

We have resources that will help you get up and running with Omni-Channel for your organization.

[Create Service Channels](#)  
Need help creating your first Service Channel? Check out our Salesforce help.

[Service Channel Settings](#)  
Learn more about what individual settings you can configure.

[Set Up Omni-Channel - implementation](#)  
Snuggle up with a cup of cocoa and enjoy the end-to-end process of setting up Omni-Channel.

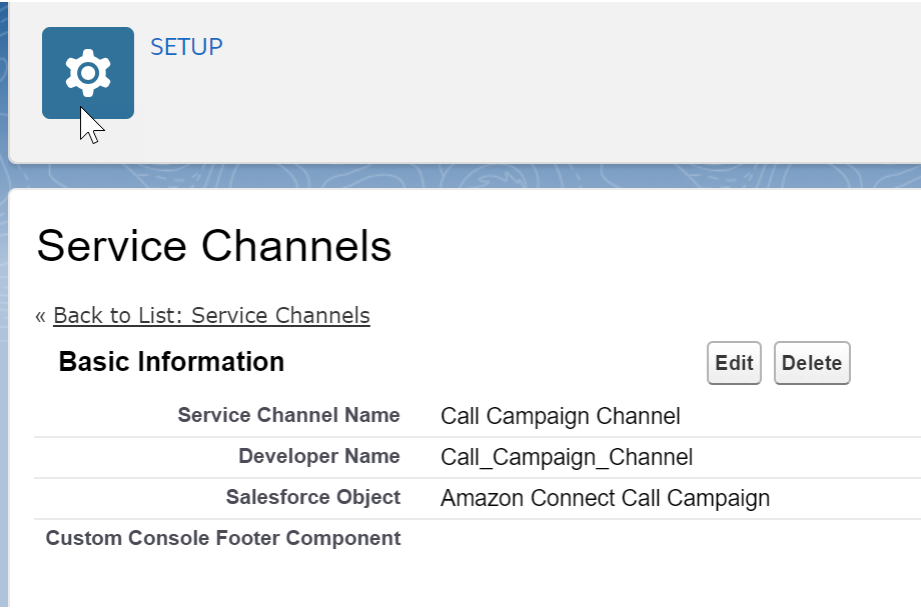
Save Cancel

### Basic Information

Service Channel Name	<input type="text" value="Call Campaign Channel"/>	← 1
Developer Name	<input type="text" value="Call_Campaign_Channel"/>	
Salesforce Object	<input type="text" value="Amazon Connect Call Campaign"/>	← 2
Custom Console Footer Component	<input type="text"/>	

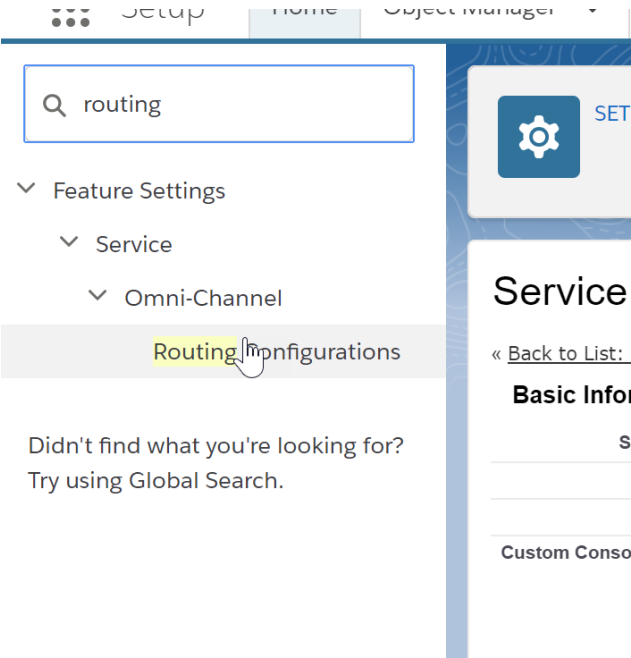
3 → Save Cancel

In the new Service Channel form, enter your desired Service Channel Name (step 1). The Developer Name field will autopopulate based on the Service Channel Name content. Then, select the Amazon Connect Call Campaign object (step 2). Finally, save the new Service Channel (step 3).



Create a Routing Configuration

Now, we need to create a routing configuration. Enter “routing” into the search box in the left navigation and click “Routing Configurations”.



SETUP

Routing Configurations

Routing Configurations

Routing Configurations determine how work items are routed to agents. They let you prioritize the relative importance and size of work items across your Omni-Channel Queues. Since not all work items take the same amount of effort, Routing Configurations let you control the relative size of items in your Queues so agents can focus the right amount of attention on their work. That way, the most important work items are handled accordingly, and work is evenly distributed to your agents. After all, we want to make sure every agent gets to have an equal amount of fun, right?

Show diagram

After you create your Routing Configuration, you need to associate Routing Configurations with **Queues**. The items in that Queue are pushed to your agents based on the settings in your Routing Configuration. For routing to work correctly, make sure all of your agents are assigned to your Omni-Channel Queues.

View:

All

Create New View

New


Action	Routing Configuration Name ↑	Developer Name	Routing Priority	Routing Model
<a href="#">Edit</a>   <a href="#">Del</a>	<a href="#">TestRouting</a>	<a href="#">TestRouting</a>	1	Most Available

We have up Omni

[Create f](#)  
Need he  
Salesfor


[Set Up C](#)  
Snuggle  
end-to-e

On the Routing Configurations landing page, click “New”.


SETUP

## Routing Configurations

Routing Configurations determine how work items are routed to agents. They let you prioritize the relative importance and size of work items across your Omni-Channel Queues. Since not all work items take the same amount of effort, Routing Configurations let you control the relative size of items in your Queues so agents can focus the right amount of attention on their work. That way, the most important work items are handled accordingly, and work is evenly distributed to your agents. After all, we want to make sure every agent gets to have an equal amount of fun, right?

 **Show diagram**

After you create your Routing Configuration, you need to associate Routing Configurations with **Queues**. The items in that Queue are pushed to your agents based on the settings in your Routing Configuration. For routing to work correctly, make sure all of your agents are assigned to your Omni-Channel Queues.

[We have resou  
up Omni-Chan](#)  
[Create Routin](#)  
 Need help crea  
 Salesforce help  
[Routing Confi](#)  
 Learn more abo  
[Set Up Omni-C](#)  
 Snuggle up with  
 end-to-end pro


Save Cancel

**Basic Information**


Routing Configuration Name

Developer Name

Overflow Assignee

 If you don't give the overflow assignee access to the object types in your queues and set an overfl assignments won't work.

User



**Routing Settings**

The routing priority determines the order in which work items across your Omni-Channel queues get pushed to your agents. Lower-priority iter


The routing model determines how to evenly distribute work items to your agents. It acts as a tiebreaker if two or more agents qualify to take c the fewest number of open work items. Most Available routes to the agent with the most open capacity in proportion to their set capacity.

Enter the Routing Configuration Name (step 1), and the Developer Name will autopopulate. If you'd like to set an Overflow Assignee, you can optionally do that at this point. The overflow assignee will receive work if your organization reaches its Omni-Channel limits. This setting has no effect until the limits are reached.

Page 109

The screenshot shows the 'Routing Settings' configuration page in Amazon Connect. At the top, there is a 'User' dropdown menu. Below it, the 'Routing Settings' section contains explanatory text and three input fields: 'Routing Priority' (a text box with the value '2'), 'Routing Model' (a dropdown menu with 'Most Available' selected), and 'Push Time-Out (seconds)' (an empty text box). Red arrows with numbers 1, 2, and 3 point to these fields respectively. Below the 'Routing Settings' section is the 'Work Item Size' section, which includes explanatory text and two input fields: 'Units of Capacity' (a text box with the value '5') and 'Percentage of Capacity' (an empty text box). A red arrow with the number 4 points to the 'Save' button at the bottom of the page.

Next, you must configure the Routing Settings. First, (step 1) enter the priority of the work across the Omni-Channel queues. Second (step 2), select the model to use to act as the tie-breaker between agents. Third, (step 3) specify the units of capacity or percentage of capacity of the work items in the queue. Finally, (step 4), click “Save”.

 **SETUP**

# Routing Configurations

[« Back to List: Routing Configurations](#)

**Basic Information**

EditDelete

Routing Configuration Name	Call Campaign Routing Config
Developer Name	Call_Campaign_Routing_Config
Overflow Assignee	

▼ Routing Settings

Routing Priority	2
Routing Model	Most Available
Push Time-Out (seconds)	
Units of Capacity	5.00
Percentage of Capacity	

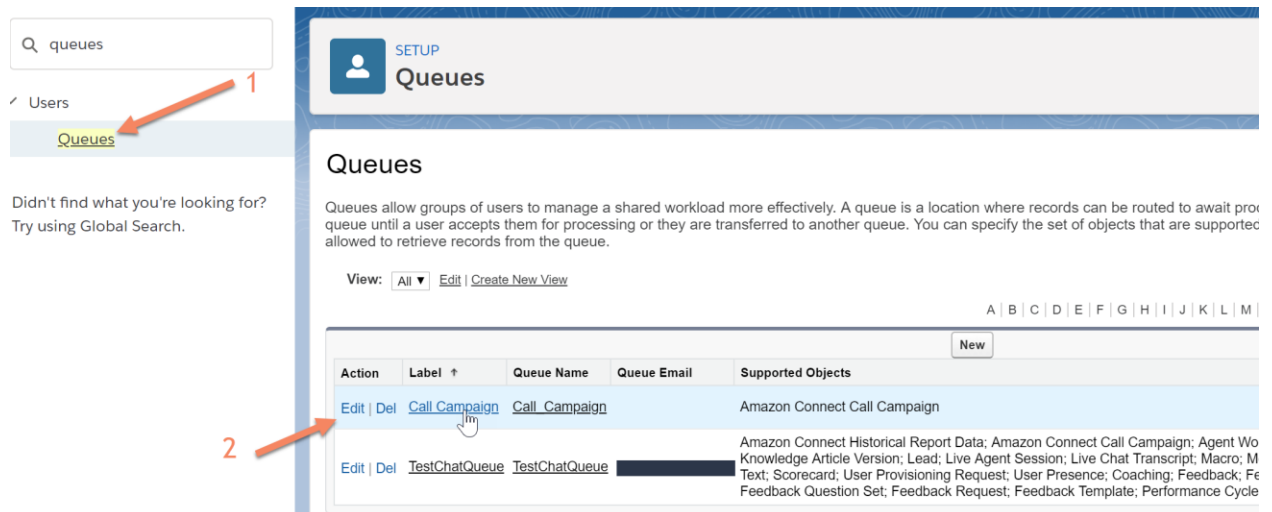
▼ Related Queues

Label	Queue Name
-------	------------

You have created your Routing Configuration.

Now, we need to assign the Routing Configuration to our queue.





Go to the left nav and search for “queues”. Then, click on “Queues” (step 1). Finally, click on the “Edit” link next in the row of our Queue (step 2).

Enter the name of the queue and the email address to use when sending notifications (for e) When an object is assigned to a queue, only the queue members will be notified.

Label

Queue Name

Queue Email

Send Email to Members ☐


**Configuration with Omni-Channel Routing**

If your organization uses Omni-Channel, you can link queues to a routing configuration. This Configurations.

Routing Configuration

**Supported Objects**

Use the magnifying glass button to search for our new Routing Configuration.

 **Lookup**

You can use "\*" as a wildcard next to other characters to improve your search results.

### Search Results

Routing Configuration Name	Developer Name	Routing Priority	Routing Model	Units of Capacity	Percentag
TestRouting	<u>TestRouting</u>	1	Most Available	5.00	
Call Campaign Routing Config	<a href="#">Call Campaign Routing Config</a>	2	Most Available	5.00	

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Select our Routing Configuration from the Lookup window.

The screenshot shows the 'Queues' section of the Amazon Connect console. The 'Edit Queue' form for 'Call Campaign' is displayed. The form includes fields for 'Label' (Call Campaign), 'Queue Name' (Call\_Campaign), and 'Queue Email'. A red arrow points to the 'Save' button. Below the form, there is a section for 'Configuration with Omni-Channel Routing' and a 'Supported Objects' section.

**Queues**

Edit Queue  
**Call Campaign**

**Queue Edit** Save Cancel

**Queue Name and Email Address**

Enter the name of the queue and the email address to use when sending notifications (for example, when a call is assigned to a queue). When an object is assigned to a queue, only the queue members will be notified.

Label

Queue Name

Queue Email

Send Email to Members ☐

**Configuration with Omni-Channel Routing**

If your organization uses Omni-Channel, you can link queues to a routing configuration. This will push work from the queue to the routing configuration.

Routing Configuration

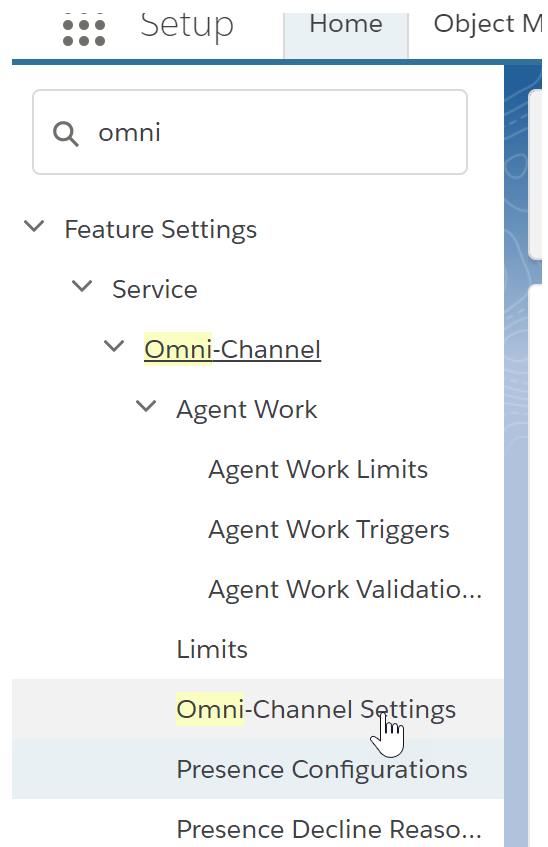
**Supported Objects**

Click “Save” to store our changes.

## Omni-Channel Presence Syncing

In order to sync your Connect User status with your Omni-Channel agent status, you must configure Omni-Channel Presence Syncing. This will make your Omni-Channel presence status match your Amazon Connect Agent Status and vice versa.

First, we must enable omni-channel



Enter “omni” into the left navigation search box in Setup in your Salesforce instance.

Select “Omni-Channel Settings” from the menu.

**Omni-Channel Settings**

Welcome to Omni-Channel!

Omni-Channel is a comprehensive customer service solution that lets contact centers push work to Omni-Channel lets you create work items from your Salesforce records—including cases, chats, lead objects—and route them to the most qualified, available agents in your organization, all in real time. integrates seamlessly into the Salesforce console, so it's easy for your support agents to use.

With Omni-Channel, you can manage the priority of work items to make sure that critical assignmer quickly. You can manage your agents' capacity and availability for work to ensure that they're given assignments that they can handle. You can also define which agents can work on different types of Omni-Channel routes all of these assignments to the correct agents automatically. Agents no longer work items manually from a queue, and managers no longer have to triage or dispatch work to ager most qualified available agent in real time!

[Show diagram](#)

First, you need to enable Omni-Channel. Then, [create Service Channels](#).

**Enable Omni-Channel** ☒ **This must be checked**

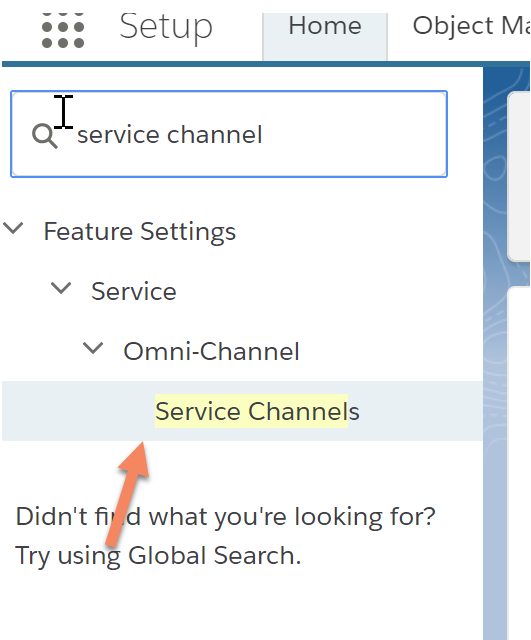
**Use Skills-Based Routing** ☐

[Save](#) [Cancel](#)

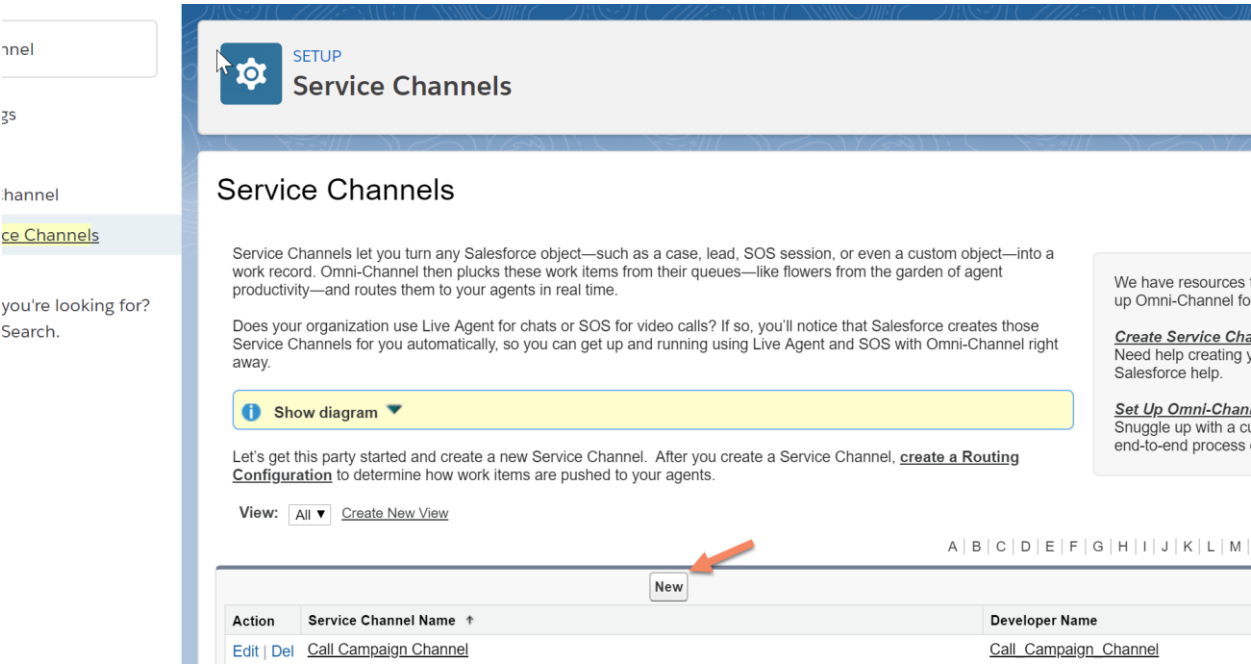
Place a check in the checkbox for “Enable Omni-Channel”.

## Create a Service Channel


Next, for Omni-Channel (we will use Live Chat), we need to create a Service Channel.



Search in the left navigation for “service channel” and select “Service Channels” when it appears.




Select new from the Service Channel page

 SETUP

## Service Channels

Service Channels let you turn any Salesforce object—such as a case, lead, SOS session, or even a custom object—into a work record. Omni-Channel then plucks these work items from their queues—like flowers from the garden of agent productivity—and routes them to your agents in real time.

 Show me an example ▼

After you create a Service Channel, [create a Routing Configuration](#) to determine how work items are pushed to your agents.


Save Cancel

### Basic Information

Service Channel Name	Live Agent
Developer Name	sfdc_liveagent
Salesforce Object	Live Chat Transcript
Custom Console Footer Component	

Save Cancel

Add a name to your Service Channel and select the Salesforce Object that coincides with your new Service Channel. Life Agent is selected as the default object when you add the Service Channel. Add a routing config as we did above for the Outbound Call Campaign. Add Presence Statuses that map to what you have in Connect.



SETUP


Presence Statuses

# Presence Statuses

Presence Statuses indicate how “present” your agents are to receive work while they’re signed into Omni-Channel. You can create different statuses to indicate whether an agent is away or available to receive incoming work items. Salesforce creates an offline status for you automatically, so you don’t have to create it yourself.


Presence Statuses are associated with one or more service channels. Agents who are signed in with those statuses can receive work items from those channels. If you have agents who can handle different work items at the same time, those agents can log in with a Presence Status that’s associated with both of those channels.

Additionally, you can create specialized statuses for agents to use when they’re busy, such as when they’re at lunch or in training.



Show me an example

After you create a Presence Status, you must assign it to your agents through a [Profile](#) or [Permission Set](#) so that they have access to it. After that, you need to create a [Presence Configuration](#) to determine the Omni-Channel settings that are assigned to your agents.



View: 

All

[Create New View](#)

New

Action	Status Name ↑	Developer Name
<a href="#">Edit</a>	<a href="#">Available</a>	<a href="#">Available</a>
<a href="#">Edit</a>	<a href="#">Available - Chat</a>	<a href="#">Available Chat</a>
<a href="#">Edit</a>	<a href="#">Busy</a>	<a href="#">Busy</a>
<a href="#">Edit</a>	<a href="#">Day Dreaming</a>	<a href="#">Day Dreaming</a>
<a href="#">Edit</a>	<a href="#">Offline</a>	<a href="#">Offline</a>
<a href="#">Edit</a>	<a href="#">On Break</a>	<a href="#">On Break</a>

A | B | C | D | E | F | G | H | I |

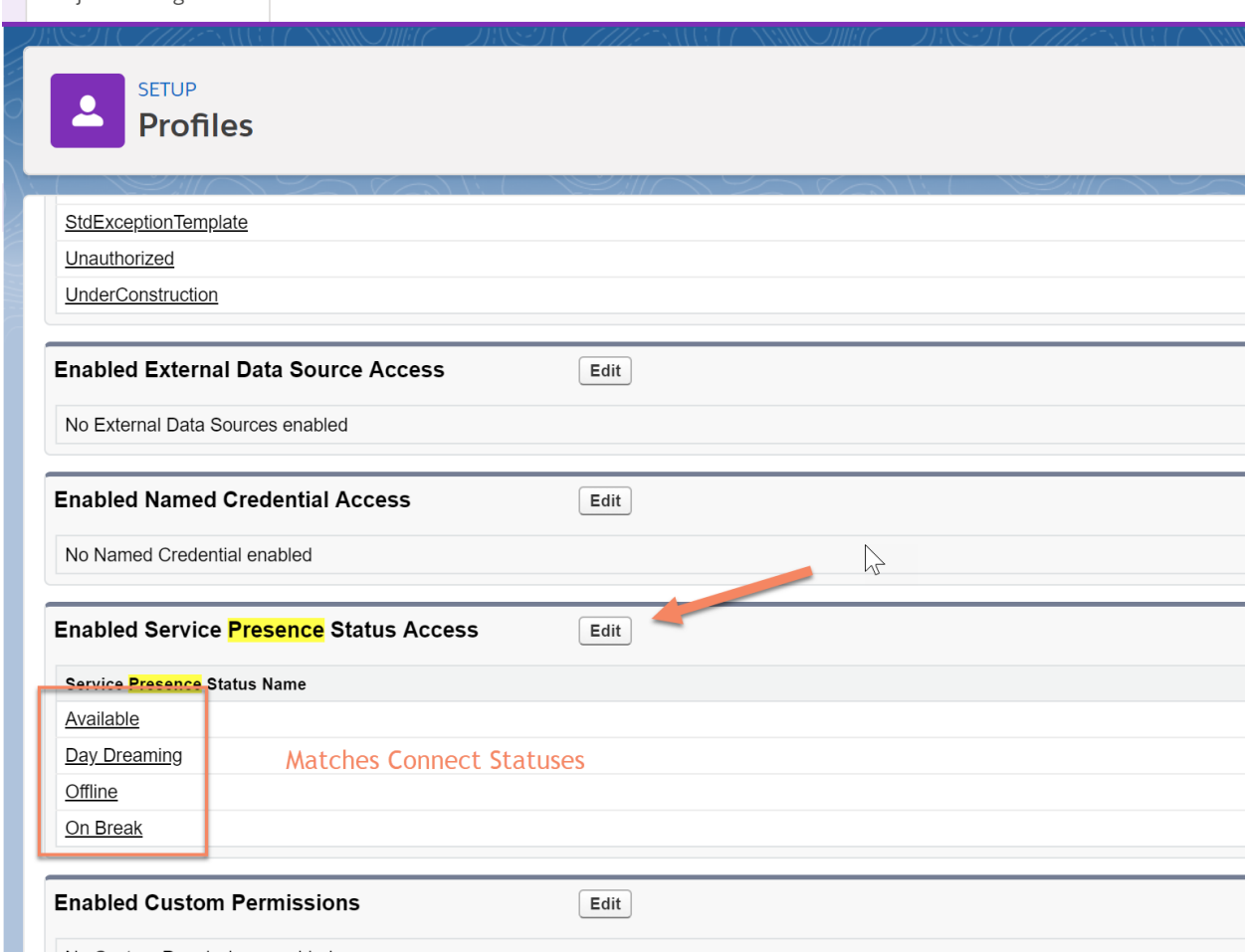
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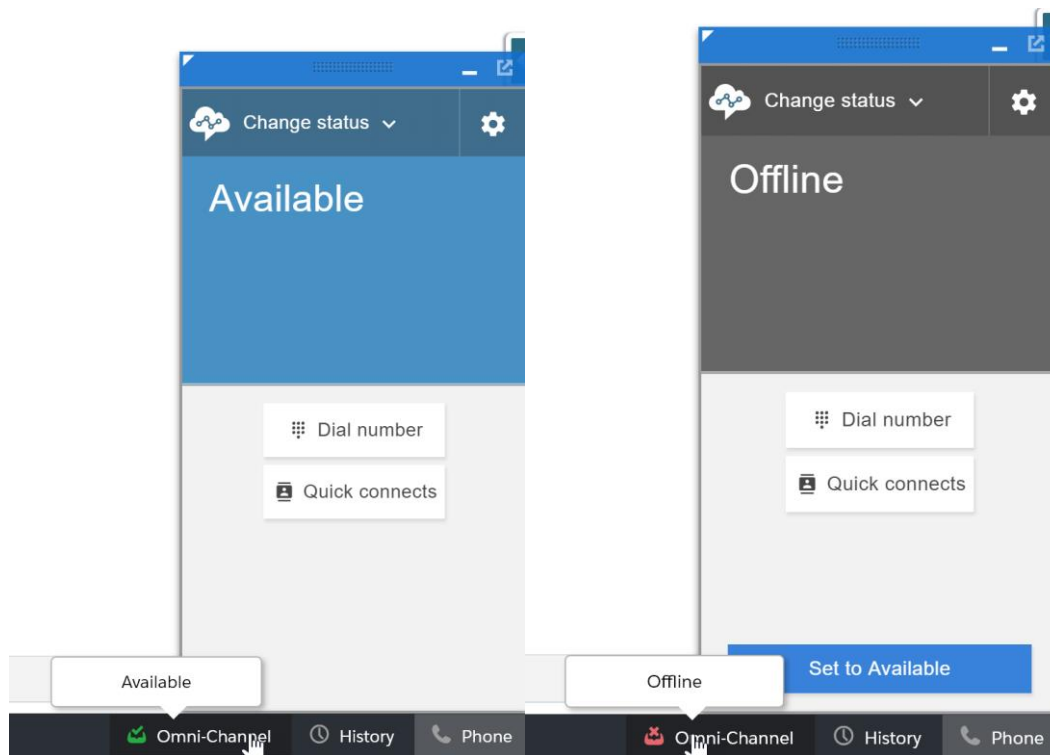
[Set Up](#)  
Snugg  
end-to

We can assign access to these statuses by going to Profiles in the left navigation and ensuring that the agent will be able to access the statuses that map to their Connect statuses.





When you are finished, the omni-channel widget and the Phone will synchronize their statuses, depending on what the user is doing.



**SETUP**  
**Queues**

## New Queue

**Queue Edit** Save Cancel

**Queue Name and Email Address**

Enter the name of the queue and the email address to use when sending notifications (for When an object is assigned to a queue, only the queue members will be notified).

Label

Queue Name

Queue Email

Send Email to Members ☐

**Configuration with Omni-Channel Routing**

If your organization uses Omni-Channel, you can link queues to a routing configuration. TI Configurations.

Routing Configuration

**Supported Objects**

Select the objects you want to assign to this queue. Individual records for those objects ca

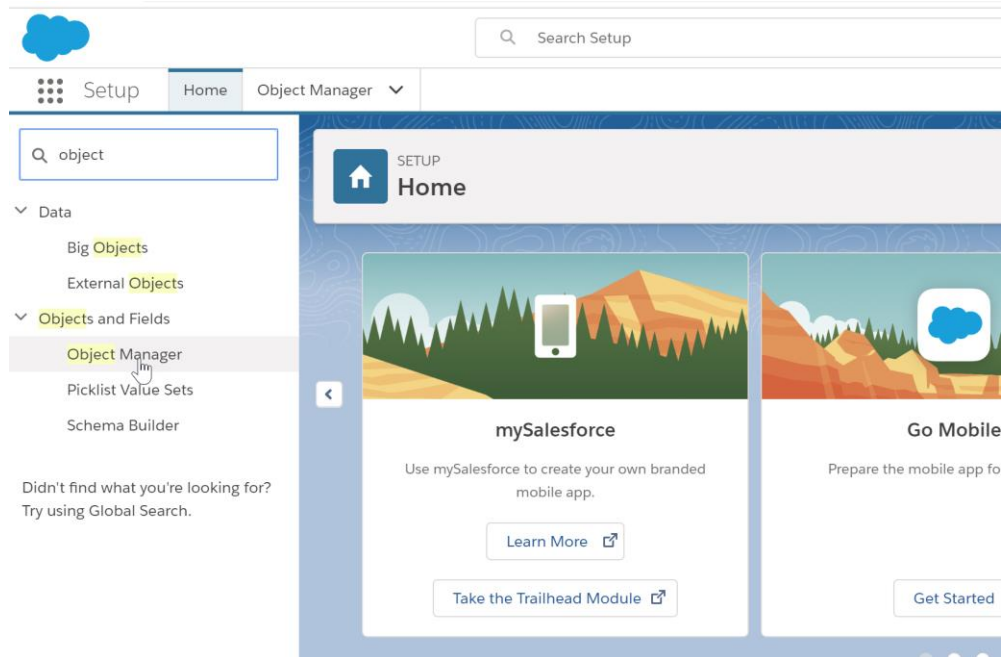
**Available Objects**

- Amazon Connect Historical Report Data
- Agent Work
- Amazon Connect Call Campaign

**Selected Objects**

--None--

First, go to Setup in our instance. In the search box in the upper left of the screen, type object.



Click on “Object Manager”.

Setting up Salesforce Omni to route the Custom Object requires the following configurations to be in place:

- Create Salesforce Queue for Custom Object and Assign to Users • Create Service Channel for Custom Object
- Create Routing Configuration
- Associate Routing Configuration with Agents and Queue
- Create Presence Status and Configuration and Assign to Users

More information on how to set up Salesforce Omni can be found at the following link:

[https://help.salesforce.com/articleView?id=omnichannel\\_create\\_objects.htm&type=o](https://help.salesforce.com/articleView?id=omnichannel_create_objects.htm&type=o)

After the configuration is in place to route the Custom Object, a process needs to be set up to insert records of the “Amazon Connect Call Campaign” object and assigns those to the queue that was created in the previous steps.

The following table describes all fields of the Custom Object, their possible values, and the behavior that the agent will experience when receiving a call.

Field API Name	Type	Mandatory	Valid Values	Description
<b>Name</b>	Auto Number	Do not set		This field will automatically be filled when a new record is created.
<b>OwnerId</b>	Id	Yes	Salesforce User or Queue ID	Set this value to the Queue that is configured to route the records using Salesforce Omni.
<b>Phone_Number__c</b>	Phone	Yes	Valid Phone Number	This will be the phone number the Toolkit will attempt to dial automatically when the record was accepted by the agent.
<b>Account__c</b>	Id	No	Salesforce Account ID	The account associated with this call record. The account will automatically be screen popped when the record was accepted by the agent.
<b>Contact__c</b>	Id	No	Salesforce Contact ID	The contact associated with this call record. The contact will automatically be screen popped and focused when the record was accepted by the agent.
<b>Opportunity__c</b>	Id	No	Salesforce Opportunity ID	The opportunity associated with this call record. The opportunity will automatically be screen popped when the record was accepted by the agent.
<b>Lead__c</b>	Id	No	Salesforce Lead ID	The lead associated with this call record. The lead will automatically be screen popped and focused when the record was accepted by the agent.
<b>Case__c</b>	Id	No	Salesforce Case Id	The case associated with this call record. The case will automatically be screen

was accepted by the agent.

Please note that only the ID/Lookup fields can differ between records, and only the fields that contain a value will be screen popped. If a Contact is provided, the Contact Tab will always be in focus. If no Contact, but a Lead is provided, the Lead Tab will be in focus. If neither a Contact or a Lead will be provided, the Amazon Connect Call Campaign record details page will remain in focus.

- Amazon Connect Call Campaign records can be created in various ways.

Following is a list of common methods that can be used to create records for an outbound call campaign:

- A Process Builder Flow can create a campaign either instantly or delayed based on record changes. This can be useful for follow up calls that are not required to be done by a specific individual.
- Apex Scheduled Job can query records in the Salesforce org on a nightly basis and create call campaign records for the coming day.
- Create a Custom Button to convert a Salesforce Campaign and its members into call campaign records.
- Use Salesforce Data Loader to create call campaign records from a CSV file

## Further Reading

For additional information, see the following:

- Amazon Connect CTI Adapter for Salesforce:  
<https://appexchange.salesforce.com/appxListingDetail?listingId=a0N3A00000EJH4yUAH>
- Amazon Connect User Guide:  
<https://docs.aws.amazon.com/connect/latest/userguide/using-amazon-connect.html>
- Amazon Connect Admin Guide:  
<https://docs.aws.amazon.com/connect/latest/adminguide/what-is-amazon-connect.html>
- Amazon Connect API Reference (Outbound, User Management)  
<https://docs.aws.amazon.com/connect/latest/APIReference/Welcome.html>
- Amazon Connect Release Notes:  
<https://docs.aws.amazon.com/connect/latest/adminguide/amazon-connect-release-notes.html>

- Amazon Connect FAQ: <https://aws.amazon.com/connect/faqs>

## Document Revisions

Date	Description
September 2018	First release of CTI Adapter v2 documentation

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