

IC Web Integration to Salesforce.com

Administrator's Guide

Interactive Intelligence Customer Interaction Center® (CIC)

2016 R2

Last updated December 21, 2015 (See Change log for summary of changes.)

Abstract

This administrator's guide describes the Interaction Client Web Edition integration with Salesforce.

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Chapter 1: Introduction to the IC Web Integration to Salesforce

About this document

This document describes the following:

- Overview of the integration
- Installation of the integration software
- Setting up and configuring the call center and user records
- Customizing the SIP Soft Phone and screen pops
- Troubleshooting

About salesforce.com®

Salesforce.com provides a suite of services and applications for customer relationship management (CRM), ranging from sales force automation to partner management, marketing, and customer service.

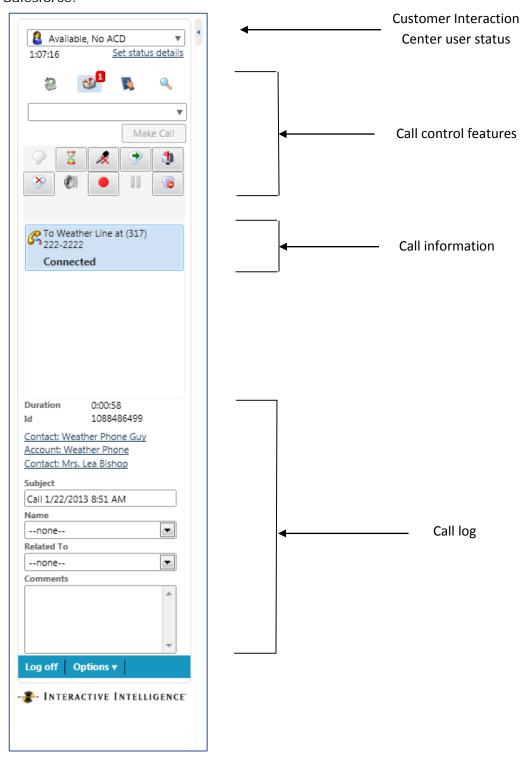
About Customer Interaction Center

Customer Interaction Center is a suite of contact center applications with interactive voice response and IP/PBX capabilities.

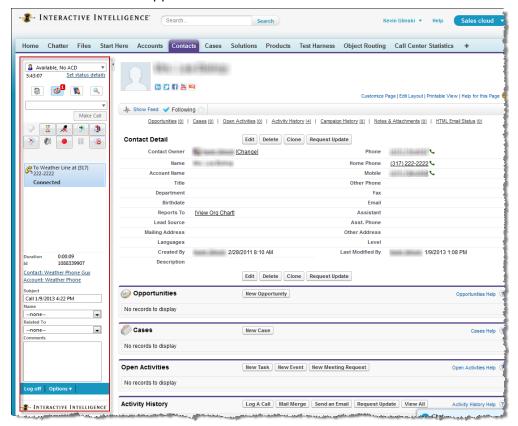
Interaction Client Web Edition is the web version of the desktop management software that comes with Customer Interaction Center. It provides users with access to all the contact center functionality and IP/PBX capabilities of Customer Interaction Center.

Purpose of the integration

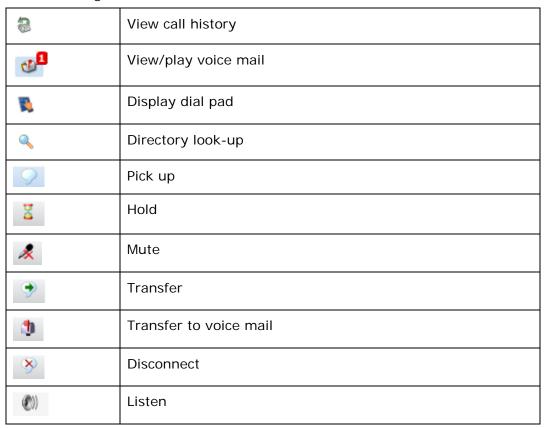
The IC Web Integration to Salesforce provides Customer Interaction Center telephony and call control features to Salesforce users. The features are available in a SIP Soft Phone in Salesforce.



The SIP Soft Phone appears in a sidebar in Salesforce.



The following table describes the call control feature icons in the SIP Soft Phone.



•	Record
00	Pause
•	Make private

Components of the integration

The integration uses Interactive Intelligence's Open CTI (computer-telephony integration) with Salesforce to provide a customizable SIP Soft Phone that functions as a fully integrated part of Salesforce and the Service Cloud® console.

Requirements

The integration requires the following:

• Interaction Client Web Edition

Note: To use the IC Web Integration to Salesforce, you must import and configure the CTI definition file in Salesforce. For more information about importing and configuring the definition file, see <u>Import the definition file</u>.

- A supported web browser. The integration supports any browser that the Interaction Client Web Edition supports. For more information, see: https://my.inin.com/products/cic/Pages/Software-Requirements.aspx.
- A Salesforce account with the appropriate administrative permissions. If the user doesn't have the required Salesforce permissions, some of the Salesforce features described in this document do not appear. For more information about Salesforce permissions, see your Salesforce Help.
- Chrome now supports desktop notifications. To enable Chrome Toasts from Salesforce, enable desktop notifications within the content settings of Chrome. These notifications only appear if the Salesforce webpage is active.
- Customer Interaction Center 2016 R2

Resources

Several Salesforce development application notes are available on the Product Information site at: https://my.inin.com/products/Pages/Development-Application-Notes.aspx.

The application notes provide information for various customizations.

Other information about the integration is available on the Product Information site at: https://my.inin.com/products/integrations/Pages/Salesforce-Web.aspx.

Overview of administrative tasks

As the administrator, you are responsible for the following tasks, as described in the chapters that follow:

- Install Interaction Client Web Edition on an appropriate web server.
- Import and configure the definition file.
- Create the call center record in Salesforce.

- Assign users to the call center and configure the users' button rights for the SIP Soft Phone.
- Create custom call attributes for inbound calls, using data from Customer Interaction Center, Salesforce, or another database.
- Create custom screen pops to provide links to call-related information within Salesforce
- Troubleshoot problems using the log files.

Multimedia routing

The integration supports the routing of these interaction types in addition to calls:

- Emails: The integration manages and provides screen pops for incoming email interactions.
- Web chats: The integration manages and provides screen pops for incoming web chat interactions. An agent can record a web chat or send it to voice mail.

Chapter 2: Configure the Salesforce CTI

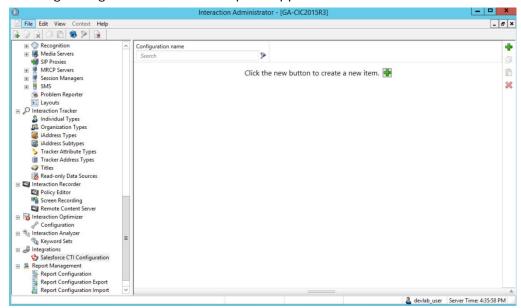
This chapter describes the administrative tasks necessary to configure the Salesforce CTI. You can perform these tasks in Interaction Administrator on the IC server.

Access the Salesforce CTI configuration in Interaction Administrator

To access the configuration settings for the Salesforce CTI:

- 1. In Interaction Administrator, open the Integrations container.
- 2. Under the Integrations container, click Salesforce CTI Configuration.

If there are existing CTI configurations, they appear in a list. If there are no existing configurations, the workspace appears as follows:



You can do any of the following:

- Add a new configuration item.
- Search for a configuration item.
- Delete a configuration item.
- Export a configuration item to the Clipboard.

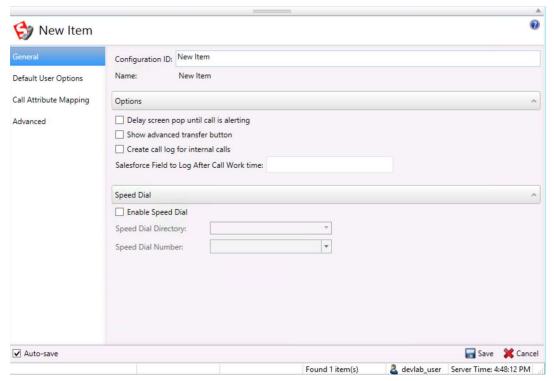
Create a new configuration item

You can have multiple configuration items. For example, if your organization has multiple business units, you could define a configuration for each business unit.

You can assign an Interaction Administrator configuration to a Call Center configuration in Salesforce.

To add a configuration item:

 Under Salesforce CTI Configuration in Interaction Administrator, click the green Add a new item (green plus sign) icon. The New Item pane appears.



- 2. In the Configuration Id field, specify a name for the configuration item.
 - You later reference this name in Salesforce to associate the configuration item with the call center definition.
- 3. Specify the configuration settings as described in the following sections, and then click **Save**.

Interaction Administrator configuration options

The web version of the integration to Salesforce does not use the settings on the General, Default User Options, and Advanced tabs in Interaction Administrator. Those options are for the desktop version of the integration.

After you add a a new item, the only settings you need to configure are on the Call Attribute Mapping tab.

Configure call attribute mapping

Mapping call attributes is a way to customize the list of attributes that appear in the SIP Soft Phone for inbound calls. For information about call attribute mapping, see <u>Configure the synchronization of attributes with the call log</u>.

Configure secure HTTP

Use HTTPS/SSL to run Interaction Client Web Edition.

To use HTTPS, do the following:

 In the appsettings.config file in the app_data folder, set the forceSSL parameter to Always.

```
<ININSettings name="default"
   pageSize="15"
   pollInterval="1000"
   reconnectTimeOut="1800"
   forceSSL="Always"
   httpPort="81"
   httpsPort="444"
   authenticationType="AutoDetect"
   allowRemoteNumber="true">
```

When you configure the URL in Salesforce, specify https, as in: https://server/...
 For more information about configuring the URL, see Configure the call center.

Set the timeout parameter

When a user goes to a page in Salesforce that does not display the CTI for the integration, a timeout occurs after a specified number of minutes. The user is then logged out of the CTI.

By default, the timeout occurs after two minutes. However, you can configure a parameter to change it to another value.

There are two ways to set the timeout parameter.

- Edit the web.config file, which by default, is located in \Program Files\Interactive Intelligence\WebClient.
 - 1. Set the sessionState property to the number of minutes for the timeout.

- Open the site in IIS.
 - 1. Under Management, expand Configuration Editor.
 - Select system.web\sessionstate.
 - 3. Set the property to the number of minutes for the timeout.

Chapter 3: Set up a call center

This chapter describes how to set up a Salesforce Call Center record for the web version of the Customer Interaction Center integration and then assign users to that Call Center. Assign Salesforce users to a Call Center record so they can use Salesforce Call Center features.

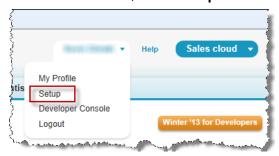
When you set up the call center, reference the Interaction Administrator configuration item that you created in the previous chapter.

Note: Many of the following configuration tasks require that you have certain permissions in Salesforce before you can perform those tasks. For a list of the required permissions, click the Salesforce **Help** link on the related dialog box.

Access the call center setup page

To access the call center setup page:

- 1. In Salesforce, click the down arrow next to the user name to display the user menu.
- 2. On the user menu, click **Setup**.



3. Under App Setup, click **Customize**, and then click **Call Center**.



4. Under Call Center, click **Call Centers**. The current list of call center records appears on the All Call Centers page.

Continue with the following configuration procedures.

Import the definition file

To set up the Call Center record, import the integration definition file. After you import the file, you can assign users to the Call Center.

The default contents of the XML call center definition file are as follows:

To set up the Call Center record using the definition file for the Customer Interaction Center integration:

- Go to the All Call Centers setup page.
 For more information, see <u>Access the call center setup page</u>.
- 2. Click Import.
- In the Call Center Definition File field, click Browse to locate the XML definition file for the Customer Interaction Center Web Client integration with Salesforce: ICIntegrationwithSalesforceDefinition_Web.xml

Note: You can download the definition file from the Product Information website at: https://my.inin.com/products/integrations/Pages/Salesforce-Web.aspx.

- 4. Click **Import** to begin importing the definition.
 - When the import is complete, the Call Center page appears.
- 5. On the Call Center page, click **Edit** to display the call center detail.

To configure the call center, continue to the next section.

Configure the call center

To link the call center with the web server and the options you specified in Interaction Administrator, supply information on the Call Center Edit page.

Most of the information that appears in the General Information section on this page comes directly from the imported XML file. If you want to change any of the values from the XML file, you can either edit them on this page or edit the XML file and import it again.

To specify the call center information that does not come from the XML file:

1. In the CTI Adapter URL field, type the URL that points to the Interactive Intelligence web server and SalesforceClient.aspx file.

2. In the CTI Configuration Name field, type the name of the configuration you added in Interaction Administrator.

For more information, see <u>Create a new configuration item</u>.



Note: For attributes to be properly logged, the CTI Configuration Name must match the configuration name in Interaction Administrator.

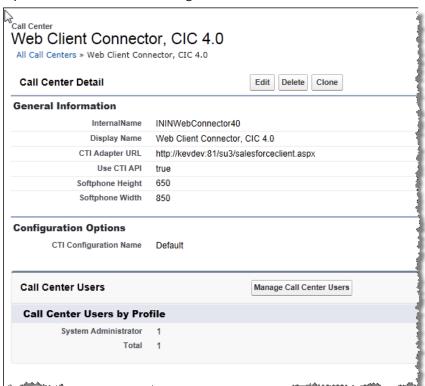
Click Save.

To assign users to the call center, continue to the next section.

Set up call center users

To assign users to the new call center, follow these steps.

1. Open the Interactive Intelligence Salesforce Connector Call Center Detail page.



Note: To navigate to this page, click the name of the Web Client call center connector on the All Call Centers page.

- Under Call Center Users at the bottom of the page, click Manage Call Center Users.
- 3. Click **Add Users** or **Add More Users** and then add your call center users.

For more information about adding users, see the Salesforce Help.

Configure button rights for users

You can configure the buttons that appear on the SIP Soft Phone in Salesforce by assigning button display rights for a user, role, or workgroup in Interaction Administrator. For example, for the Mute button to appear in the SIP Soft Phone, the user, the user's role, or the user's workgroup must have permissions set.

In Interaction Administrator:

- 1. Go to the Button Display section on the Security tab.
- 2. Select the **Show Mute Button** permission.

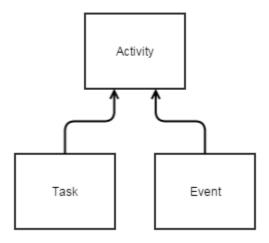
For more information about button display rights, see the Button Display topic in Interaction Administrator Help.

Chapter 4: Call log

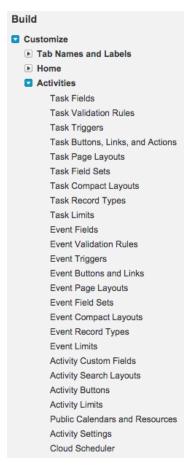
Overview of call logging in Salesforce

Call logging, also know as activity logging or task logging, provides a way to track interactions. By linking to cases, contacts, accounts and other record types in Salesforce, call logging also provides a history of what interactions happened with a specific object. Call logging can be used to run reports, track first call resolution, inform employee pay, and troubleshoot issues.

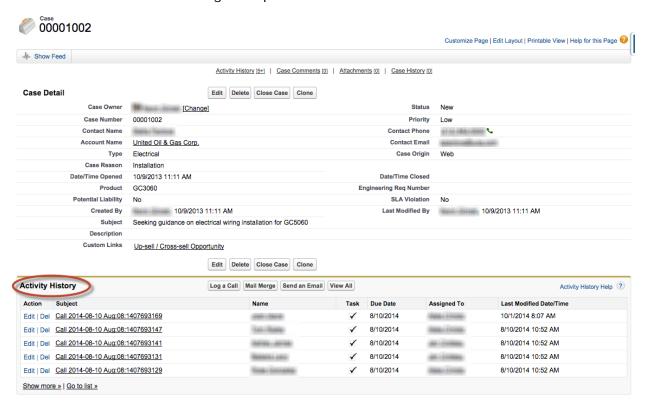
In the integration, call logging is saved to a Task, which is a type of Activity object in Salesforce. (Event is another type of Activity object, but the integration does not track Events.)



Tasks and Events in Salesforce appear under the Activities node. They can share custom fields, layouts, and buttons, but they have their own triggers, standard fields, and validation rules.



Activities and Tasks are grouped together in the Activity History section of records, such as the case record in the following example.



Save data to the call log

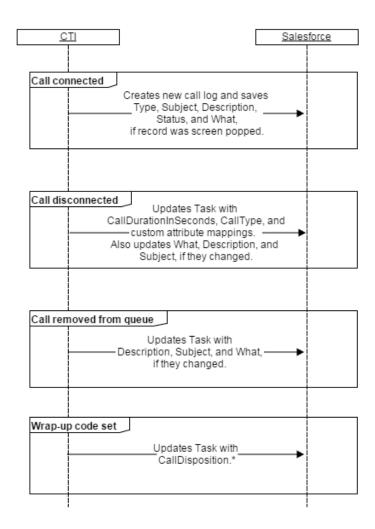
The integration saves data with the OpenCTI method saveLog(), not through direct inserts or updates using Apex.

The integration saves data to Salesforce a number of times throughout a call. Frequent saving of data ensures that in the event of an outage or other error, the most up-to-date information is logged to the Task.

Because frequent, smaller saves prevent the loss of larger amounts of data, the integration often only saves one or two attributes at a time. For example, if a mapped field does not exist in Salesforce or a <u>trigger causes problems</u>, the entire update would fail, potentially leading to the loss of all the data.

Note: Because saves are more frequent, any Task triggers that are set to run before or after an update also run more frequently.

The following diagram shows the types of data saved from CTI to Salesforce during different interactions.



^{*} CallDisposition is not mapped out-of-the-box. To save wrap-up codes, you must <u>map</u> <u>CallDisposition to the CIC attribute</u> <u>Eic_WrapUpCodeSet</u>.

Configure the synchronization of attributes with the call log

The integration gives you the option to synchronize interaction attributes to the Salesforce call log activity on inbound and outbound interactions. Synchronizing interaction attributes allows you to store any interaction attributes with the Salesforce call log. If call attributes change, even after disconnection, the data remains in sync between the interaction and the call log.

Note: If you transfer a call from one queue to another or transfer a call to a post-call survey, no information after the transfer is logged.

To configure the synchronization of attributes with the call log:

- 1. Create a custom field in Salesforce.
- 2. <u>Map the custom field to the CIC attribute</u>.

Any interaction attribute that you set before the call is removed from the agent's queue can be mapped to Salesforce.

The integration maps certain Task fields by default.

Default fields in Salesforce

The integration automatically logs the following task fields for every interaction that an agent handles:

Field label	Field name	Description
Assigned To	Owner	Assigned owner of the task; assigned to Created By by default.
Call Duration	CallDurationInSeconds	Duration of the call with the agent
Call Object Identifier	CallObject	Interaction Client call ID key for the interaction
Call Type	CallType	Type of call: internal, inbound, or outbound
Comments	Description	Comments that are filled out in the call log
Created By	CreatedBy	Same as AssignedTo: ID of the user logged on to Salesforce
Due Date	ActivityDate	Date/time when the call entered the agent's queue
Name	Who	Contact or lead that the call log is associated with. The call log can only be associated with one.
Phone	Phone	Remote number as shown in CIC
Priority	Priority	Set to Normal.

Field label	Field name	Description
Related To*	What	Contract, Campaign, Account, Opportunity, Product, Asset, Case, Solution, Live Chat Transcript, Live Agent Session, or Merchandise that the call log is associated with; can only be associated with one.
Status	Status	Set to Completed.
Subject	Subject	Subject in the call log, which defaults to <interaction type=""> <date> <time>; cannot be changed.</time></date></interaction>
Туре	Туре	Type of interaction (Call, Email, Chat, Callback); not to be confused with Call Type.

Note: Additional fields are mapped in the Automatic Field Synchronization table within the Salesforce Call Center definition. For more information about these mappings, see the Salesforce documentation.

- * When the following events occur, a Salesforce object is added to the Related To drop-down menu:
- A screen pop of that record occurs.

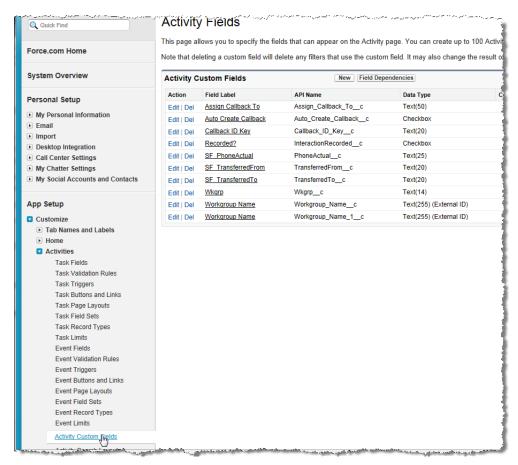
Note: If a record is open and is screen popped again, due to Salesforce limitations the record is not automatically added to the Related To drop-down menu.

- In Sales Cloud®, the user navigates to the record, or if the record is already open, the user clicks anywhere on the page.
- In Service Cloud, the user opens a new tab with the record, or if the user selects another tab, the user then selects the first tab again.

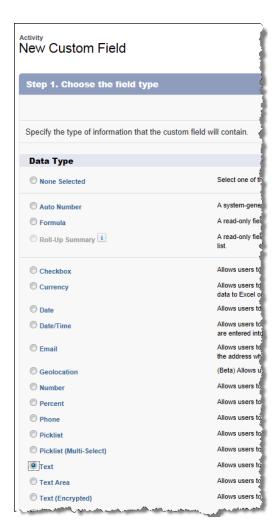
Create a custom field in Salesforce

To create an activity custom field in Salesforce so that you can map it to a Customer Interaction Center attribute, follow these steps. The example shown illustrates the addition of the Workgroup attribute.

- In Salesforce, click the down arrow next to the user name to display the User menu.
- 2. On the User menu, click **Setup**.
- In the navigation panel on the left side of the screen, go to App Setup > Customize > Activities > Activity Custom Fields.



- 4. Under Activity Custom Fields, click **New**.
- 5. Under Step 1. Choose the field type, select the appropriate data type for the custom field (in this example, Workgroup is a text field), and then click **Next**.



6. Under Step 2. Enter the details, specify the field label, length, name, and description, select the **External ID** check box, and then click **Next**.



- 7. Under Step 3. Establish field-level security, specify whether the field is visible or read-only for each of the profiles listed, and then click **Next**.
- 8. Under Step 4. Add to page layouts, specify where to display the field on the page, and then click **Save**.
 - The Activity Custom Fields list appears.
- 9. In the Activity Custom Fields list, click the name of the field you just added.

 The Custom Field Definition Detail information appears.
- 10. Make note of the value that appears in the API Name field. You use it in to <u>map a custom field to a Customer Interaction Center attribute</u>.

Note: Custom attributes in Salesforce always end in __c. For example, a new field called Workgroup_Name becomes the API Name Workgroup_Name__c.

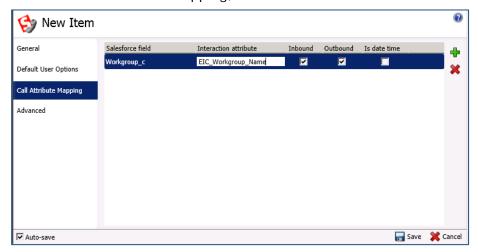
Next, map the custom field to a CIC attribute.

Map a custom field to a Customer Interaction Center attribute

- 1. In Interaction Administrator, expand Integrations, and then click Salesforce CTI Configuration.
- 2. Select the appropriate configuration item, if it exists, or add a new configuration item.
 - For more information, see <u>Create a new configuration item</u>.
- 3. In the configuration, click the **Call Attribute Mapping** tab.
- 4. To add a new mapping, click the green plus sign icon.
- 5. In the Salesforce field, specify the API name generated in the previous section.
- 6. In the Interaction attribute field, specify the name of the CIC attribute.
- 7. Select the appropriate check boxes as described in the following table:

Inbound	To synchronize attributes for inbound interactions
Outbound	To synchronize attributes for outbound interactions
Is date time	To indicate that a field is a Date Time attribute

8. Enter another attribute mapping, or click **Save**.



Sync wrap-up codes

Wrap-up codes in Interaction Client Web Edition do not automatically sync with Salesforce. To sync the wrap-up codes, set attribute mapping to the CIC attribute Eic_WrapUpCodeSet.

Note: Do NOT use Eic_WrapUpCode. This attribute does not produce the correct data.

Troubleshoot issues with call logging

First, check your browser's Console and Network debugging tabs for clues about problems you are encountering and possibly cannot reproduce.

Console tab in the browser

Information in your browser's Console tab can indicate whether the integration saved data to the call log and if the data was an update or an insertion.

A message like the following indicates that the integration saved data to the call log. The parameters are sent as a query-formatted string.

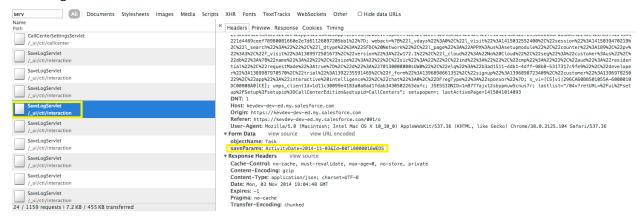
saving call \log info Type=Call&Subject=Call%2011%2F3%2F2014%202%3A04%20PM&Description=&Status=Completed \log call \log ca

A line like the following then appears. If the ID is included, then the data is an update to a Task. Otherwise, the data is an insert to a Task.

call log saved to id 00Ti0000016WEDS

Network tab in the browser

Information in your browser's Network tab can provide more information. The integration sends information through a POST to SaveLogServlets. The parameters are sent in the Form Data sections of the POST. Check the Response Headers section for information about what is failing.



Potential issues

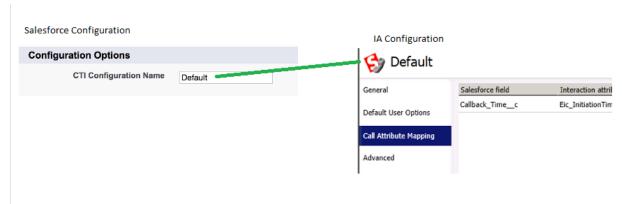
Custom attributes not saved to the call log

Make sure that the CTI configuration name is correct.

A message similar to the following appears after the page loads. Check the name that appears after /reqConfiguration/CtiConfigurationName, both of which appear in red in the following example.

```
{"/displayNameLabel":"Display
Name","/internalNameLabel":"InternalName","/reqConfiguration/CtiConfiguration
Name":"Default","/reqGeneralInfo/reqAdapterUrl":"http://chris-
win7doc/WebClient/SalesforceClient.aspx","/reqGeneralInfo/reqSoftphoneHeight"
:"50","/reqGeneralInfo/reqSoftphoneWidth":"198","/reqGeneralInfo/reqUseApi":"
true","/reqGeneralInfo/reqInternalName":"ININQuickSpinWeb","/reqGeneralInfo/reqDisplayName":"Interactive Intelligence Web Client Connector"}
```

The name must match the name of the configuration in Interaction Administrator. If they do not match, no custom attributes are saved to the call log.



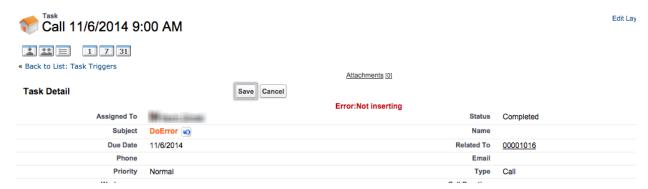
Data not saved at the end of calls

The integration does not load on some Salesforce pages, such as Reports and Chatter. If the integration is not visible in the Salesforce page, when the call ends or the call exits user's queue, no data is saved to the call log.

Data not saved to the call log

Triggers that run for Task updates could block a full update. As a result, some data is not saved to the call log.

Typically, in a trigger you use the addError method to prevent a save from happening and to return an error message to the user. For example, you update an object from the Salesforce UI and, if the validation on the record fails, want to return an error message.



In this case, the addError method prevents the update, but Salesforce does not return the actual message, "Not inserting." Instead, the result of the save is logged to the browser's

Console window with the generic error "SaveLog API method failed unexpectedly." This error message is the extent of the details returned by Salesforce.

```
trigger PreventTaskUpdate on Task (before update, before insert)
1
2
   {
3
       Task updatedTask = Trigger.new[0];
4
        if(updatedTask.Subject == 'DoError'){
          system.debug('what id is not null, not inserting');
6
7
          updatedTask.addError('Not inserting');
8
        }
9
    }
```

Tracking down the cause of the error "SaveLog API method failed unexpectedly" is difficult. The developer console in Salesforce erroneously shows that the call was a success.



To see that the addError method was called, look in the Execution Log.

Execution Log		
Timestamp	Event	Details
13:33:38:071	EXECUTION_STARTED	
13:33:38:071	CODE_UNIT_STARTED	[EXTERNAL] TRIGGERS
13:33:38:071	CODE_UNIT_STARTED	$[{\sf EXTERNAL}] {\tt 01qi00000007y0X} {\tt PreventTaskUpdate} \ on \ {\tt Task} \ trigger \ event \ {\tt BeforeInsert} \ for \ [{\tt new}]$
13:33:38:072	SYSTEM_METHOD_ENTRY	[6] System.debug(ANY)
13:33:38:072	USER_DEBUG	[6] DEBUG what id is not null, not inserting
13:33:38:072	SYSTEM_METHOD_EXIT	[6] System.debug(ANY)
13:33:38:072	SYSTEM_METHOD_ENTRY	[7] SObject.addError(String, String)
13:33:38:072	SYSTEM_METHOD_EXIT	[7] SObject.addError(String, String)
13:33:38:072	CUMULATIVE_LIMIT_USAGE	
13:33:38:072	LIMIT_USAGE_FOR_NS	(default)
12-22-20-000	LIMIT LICACE FOR MC	NL

Invalid Salesforce fields

Interaction Administrator does not validate call attribute mapping to make sure that you do not map to an invalid field in Salesforce. Instead, check your browser's Console. If you map an attribute to an invalid Salesforce field, an error like "Invalid save parameter: AttributeNameThatDoesntExist" is returned.

Chapter 5: Create custom call attributes

To create a custom label:

- 1. Set the SF_LabelNames attribute to the label name that you want to appear in the SIP Soft Phone.
 - For example, the name of the custom attribute is SF_LabelNames and the value associated with that attribute is "Calling About."
- 2. Assign a value to the SF_LabelValues attribute to indicate the possible values for the custom attribute.
 - For example, possible options for the "Calling About" attribute are Information, Purchasing, Return, and Billing. You can specify all of those options in the same Value field, separated by a pipe ("|").

For more information about attributes, see Appendix A: Attribute reference.

Methods for creating custom attributes

To configure the list of attributes, you can create custom attributes in any of the following applications:

- Interaction Attendant
- Interaction Designer

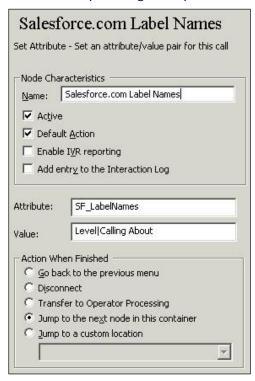
The following sections include examples from each of these applications.

Create custom attributes in Interaction Attendant

In Interaction Attendant, you can use the Set Attribute tool to set the SF_LabelNames and SF_LabelValues attributes. The following sections describe how to set the attributes. For more information, refer to the Interaction Attendant documentation.

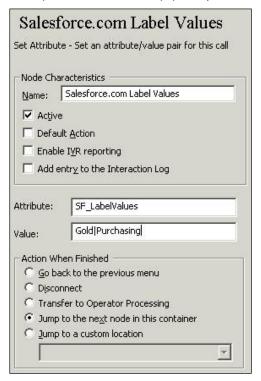
Set SF_LabelNames

Specify the names of the new labels to display in the Value field for the SF_LabelNames attribute, separating multiple text labels with a pipe ("|"):



Set SF_LabelValues

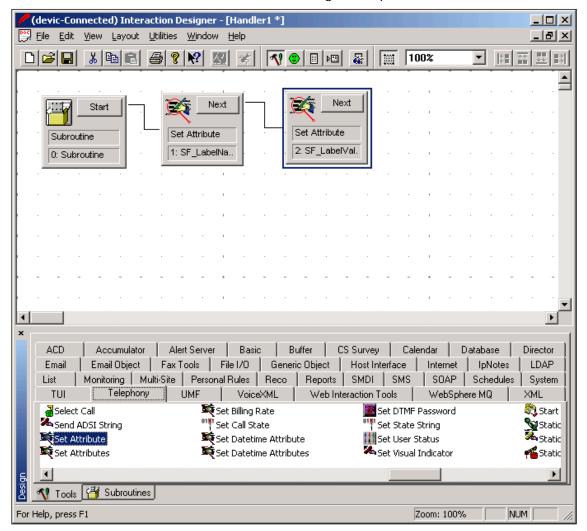
Set the SF_LabelValues attribute to the values to appear next to the labels, separating multiple values with a pipe ("|"):



Create custom attributes in Interaction Designer

You can also use the Set Attribute tool in Interaction Designer to customize the list of attributes that appear in the client for an inbound call.

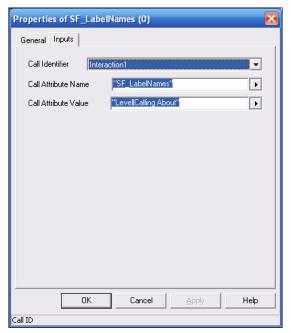
The following sections describe how to set the attributes. For more information about using tools to set attributes, see the Interaction Designer help.



Note: If you write a custom handler to set a date/time value on the interaction, use the Set Date/Time Attribute toolstep to set the date/time. Otherwise, synchronization doesnot work properly. If you use an out-of-the-box call attribute, such as Eic_CallInitiationTime, it is already stored on the interaction as a Date/Time attribute type.

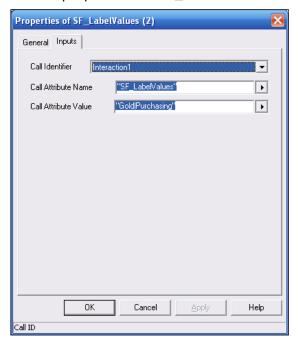
Set SF_LabelNames

Set the properties for SF_LabelNames as in this example:



Set SF_LabelValues

Set the properties for SF_LabelValues as in this example:



Chapter 6: Screen pops

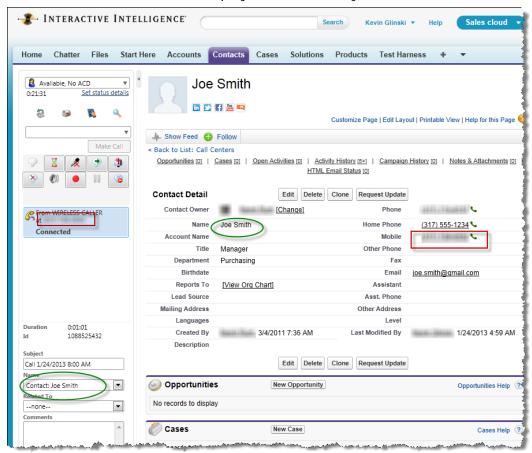
This chapter describes three types of screen pops:

- Screen pops as they function by default
- Custom screen pops that include attributes you specify, and that search for and display matching data when popped
- Custom screen pops that open new Salesforce objects and prefill them with data

Default screen pop functionality

By default, the integration displays the caller ID (ANI) in the SIP Soft Phone, searches all phone number fields for the caller's phone number, and then displays any matching records.

In the following example, you can see that the caller ID matches the Mobile field in the Contact Detail record, which displayed automatically in the SIP Soft Phone.



If no match is found, the phone number still appears in the Caller ID field in the SIP Soft Phone, but no contact record appears in the SIP Soft Phone.

Customize search-based screen pops

This web integration uses the SF_SearchValue call attribute to search for a record to pop. The record can be a case number, phone number, contact name, and so on. If the record is not specified, the search is based on the ANI.

Methods for setting up screen pops

You can use either of these methods to configure screen pops:

- Use Interaction Attendant.
- Create a handler in Interaction Designer.

The following sections include examples of both methods.

Set up screen pop attributes in Interaction Attendant

You can use the Set Attribute tool in Interaction Attendant to specify the interaction attributes to display in the SF_SearchValue attribute.

The following sections describe how to set the attributes. For more information, refer to the <u>Interaction Attendant</u> documentation.

Set SF SearchValue

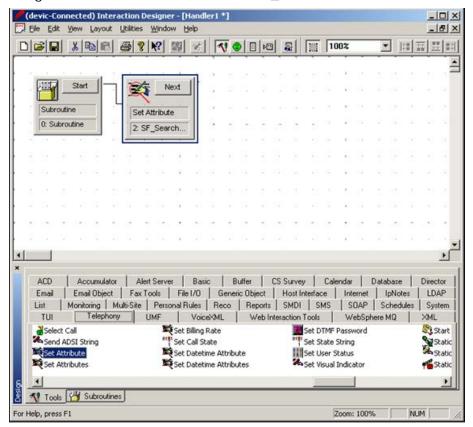
Set SF_SearchValue to the value that you want to search, separating multiple items with a pipe ("|"):



Set up screen pop attributes in Interaction Designer

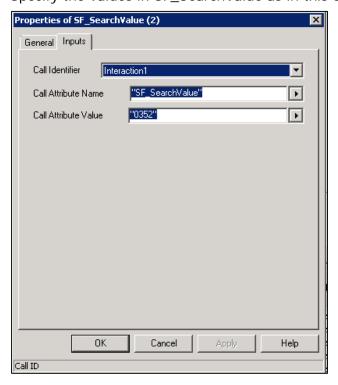
You can use the Set Attribute tool in Interaction Designer (Telephony tab) to create a handler for the custom screen pop.

Specify the name of the attribute that contains the entity/fields within Salesforce, and then assign the value to search on in the SF_SearchValue attribute.



Set SF_SearchValue

Specify the values in SF_SearchValue as in this example:



Configure screen pops for intercom calls

By default, there is no screen pop or call log activity for intercom calls. However, if your organization wants to create them, you can do so by setting the SF_SearchValue attribute for intercom calls. When these attributes are set, intercom calls are treated just like inbound, external calls.

Configure screen pops to create new objects

The previous section describes how to execute screen pops by searching for existing Salesforce objects by matching values in specific fields. For example, you can define a screen pop on an existing Salesforce Case or an existing Salesforce Account.

This section describes how you can configure custom screen pops that create new Salesforce objects as the screen pop and automatically prefill them with data. This method is similar to the one for popping existing objects, but is a little more complex.

Identify the URL

Each page within Salesforce is URL-driven, meaning that you can check the URL after navigating to an object and see the exact URL to return to that location. For example, navigating to the Contacts tab results in this URL: https://na5.salesforce.com/003/o.

Additionally, when you create a new Contact, the URL is similar: https://na5.salesforce.com/003/e.

The only difference between these URLs is the last character. The "003" is a three-character code that defines contacts. Each Salesforce object has its own three-character code.

The following table contains a list of some of the current codes typically used by Salesforce objects.

Salesforce object	Three-character code
Contacts	003
Campaigns	701
Leads	000
Accounts	001
Opportunities	006
Cases	500
Products	01t

Note: Salesforce reserves the right to change these codes at any time. This approach to page manipulation is not a standards-based API that Salesforce guarantees will not change over time. There are, however, currently no other alternatives from Salesforce.

The first portion of the URL (https://na5.salesforce.com) could look different in your environment. To screen pop a new Salesforce object, you only need the portion that follows the main URL. To open a new Contact object in the example above, you need this part of the URL: 003/e.

Fill out new record data

Once you have established the URL to open a new record, you can define the fields that you want to prefill with data. Defining the fields can be complicated because each field name can be cryptic and hard to identify. There are several tools available to help you identify the field names within the form. One of the tools is the Web Developer add-on for Firefox.

You can search the source code behind the Contact Edit page for the field names. Specifically, identify the "id" tag for the HTML input box.

Follow these steps, using First Name as an example:

- To display the HTML code for that page, right-click the webpage, and then click View Source.
- 2. Search for First Name, because that is the label next to the field within the Contact record. You see something like this label element:
 - <label for="name_firstcon2">First Name</label>
- 3. Search for the code for the First Name text box, which closely follows the label in the previous step and also follows the code for the Salutation drop-down list:

```
<input id="name_firstcon2" maxlength="40" name="name_firstcon2" size="12"
tabindex="2" type="text" />
```

Note: The "id" attribute for the input element is the most crucial piece of information (name_firstcon2). Using this field, you can add parameters to the URL to prefill data for the First Name field.

Note: Salesforce.com reserves the right to change the field IDs at any time. This approach to page manipulation is not a standards-based API that Salesforce guarantees won't change over time. However, there are currently no other alternatives from Salesforce.

Format the URL

The format for setting data as part of the screen pop is: <3 Character Code>e?<field id1>=<field value 1>&<field id2>=<field value 2>&<field id N>=<field value N>.

See the following table for a description of the individual data elements.

Format element	Description
<3 Character Code>	The Salesforce object to screen pop
e?	"e" indicates a new object
<field id="" x="">=<field id="" x=""></field></field>	Zero to many fields with prefilled values can be sent on the URL. Each field is delimited by an ampersand (&). This portion of the URL must be HTML-encoded. You can use the Escape URL handler toolstep to escape this portion of the string.

Put it all together

Using the information you have gathered, you can now create a full URL that creates a new Contact with numerous pieces of data.

URL:

003/e?name_firstcon2=Michael&name_lastcon2=Jones&con19street=7601%20Interactive% 20Way&con19city=Indianapolis&con19state=1N&con19zip=46278

This URL indicates that when the interaction is delivered to the agent's desktop, the agent has a newly created contact "Michael Jones" at 7601 Interactive Way, Indianapolis, IN 46278.

This example uses a Salesforce contact, but you can use this same approach to screen pop literally any Salesforce object.

Use Interaction Attributes to define how interactions screen pop

Now that you understand what defines the URL string, this section describes how to use the capability within the Customer Interaction Center platform. Use the following three attributes together on all support interaction types to define how the URL-based screen pop executes.

SF_URLPop	Set of URLs for screen popping a new Salesforce Entity (Case, Contact, Account, Lead, and so on) with default values. This URL is relative to the base domain URL for the specified site. For example, "003/e?name_firstcon2=Michael" indicates that, when popped, it opens a new Contact and populates the First Name field with "Michael." The URL does not contain any part of the base HTTP address.
	This attribute can contain more than one URL if an interaction needs more than one screen pop definition. Each URL must be pipe-delimited (" ").
	Use this attribute with SF_URLPopLink and SF_URLShouldAutomaticallyScreenPop. The SF_URLPop and SF_URLPopLink attributes must contain the same number of pipe-delimited elements.
SF_URLPopLink	Set of link names within the Salesforce SIP Soft Phone. The "link" text appears in a hyperlink that the agent clicks to execute the screen pop. This attribute defines the text for the link, for example, "New Contact."
	This attribute can contain more than one link if an interaction needs more than one screen pop definition. Each link name must be pipe-delimited (" ").
	Use this attribute with SF_URLPop and SF_URLShouldAutomaticallyScreenPop. The SF_URLPop and SF_URLPopLink attributes must contain the same number of pipe-delimited elements.

SF_URLShouldAutomaticallyScreenPop

Use this attribute with SF_URLPop and SF_URLPopLink. This attribute is a pipe-separated ("|") list of ones and zeros. If the value is 1, the integration automatically pops the link. This pipe-separated list gives the user the flexibility to provide multiple links but only pop a subset of them. The other links are added to the CTI.

In the Contact example, each of the attributes is set as follows:

- SF_URLPop =
 O03/e?name=firstcon2=Michael&name_lastcon2=Jones&con19street=7601%20Interac
 tive%20Way&con19city=Indianapolis&con19state=IN&con19zip=46278
- SF_URLPopLink=New Contact
- SF_URLShouldAutomaticallyScreenPop=1

Using either Interaction Attendant or handlers in Interaction Designer to set these attributes results in an inbound screen pop. The SF_URLPopLink attribute defines the text for the underlined link. The SF_URLShouldAutomaticallyScreenPop attribute contains a pipe-separated ("|") list of ones and zeros. If the value is 1, it automatically pops that link. This pipe-separated list gives the user the flexibility to provide multiple links but only pop a subset of them.

When the agent clicks the "New Contact" link in the example, the result is a new, prefilled contact record in the Salesforce workspace area.



Appendix A: Attribute reference

The integration uses numerous standard call attributes and attributes that are defined specifically for this integration. This section describes, in detail, all of the custom attributes used in the integration and some of the standard Eic_ attributes.

Custom attributes:

Attribute name	Description of usage
SF_LabelNames	Set of names to display on the left side of the Salesforce SIP Soft Phone. The use of these names gives the agent more information about the interaction than the standard fields (Caller ID, Dialed Number, Id, and so on). For example, you can show the customer's "Level" with a value of "Gold," "Silver," or "Bronze."
	The attribute can have one or more values delimited by a pipe (" "). Each value shows as a separate row in the Salesforce SIP Soft Phone. For more information, see Create custom call attributes .
	Use this attribute with SF_LabelValues. Both attributes must have the same number of pipe-delimited parameters.
SF_LabelValues	Set of values to display next to the label name defined in the previous parameter within the Salesforce SIP Soft Phone. The use of these values gives the agent more information about the interaction than the standard fields (Caller ID, Dialed Number, Id, and so on). For example, you can show the customer's "Level" with a value of "Gold," "Silver," or "Bronze."
	The attribute can have one or more values delimited by a pipe (" "). Each value shows as a separate row in the Salesforce SIP Soft Phone. For more information, see Create custom call attributes .
	Use this attribute with SF_LabelNames. Both attributes must have the same number of pipe-delimited parameters.
SF_URLPop	Set of URLs for screen popping a new Salesforce entity (Case, Contact, Account, Lead, and so on) with default values. This URL is relative to the base domain URL for the specified site. For example, "003/e?name_firstcon2=Michael" indicates that when popped, the integration opens a new Contact and populates the First Name field with "Michael". The URL does not contain any part of the base HTTP address.
	This attribute can contain more than one URL if an interaction needs more than one screen pop definition. Each URL must be pipe-delimited (" "). For more information, see <u>Configure screen pops to create new objects</u> .
	Use this attribute with SF_URLPopLink and SF_URLShouldAutomaticallyScreenPop. The SF_URLPop and SF_URLPopLink attributes must contain the same number of pipe-delimited elements.

Attribute name	Description of usage
SF_URLPopLink	Set of link names within the Salesforce SIP Soft Phone. The link text appears as a hyperlink that the agent clicks to perform the screen pop. This attribute defines the text for the link, for example, "Create Contact."
	This attribute can contain more than one link if an interaction needs more than one screen pop definition. Each link name must be pipe-delimited (" "). For more information, see Configure screen pops to create new objects.
	Use this attribute with SF_URLPop and SF_URLShouldAutomaticallyScreenPop. The SF_URLPop and SF_URLPopLink attributes must contain the same number of pipe-delimited elements.
SF_URLShouldAutomatic allyScreenPop	Use this attribute with SF_URLPop and SF_URLPopLink. This attribute is a pipe-separated (" ") list of ones and zeros. If the value is 1, the integration automatically pops the link. This pipe-separated list gives the user the flexibility to provide multiple links but only pop a subset of them. The other links are added to the CTI.
SF_SearchValue	A value used to search for the record to pop. The value can be, for example, the case number, account ID, phone number, or contact name. If you do not specify the value, the search is based on the ANI.

Attribute name	Description of usage
SF_ApexBeforeScreenPop	Setting this attribute causes an Apex method to run before producing a screen pop. Running an Apex method before producing a screen pop is useful in situations where you want to update a record before it pops to the agent.
	Complete the following steps:
	 Create an Apex class and Apex method.
	For more information about Apex classes and methods, see the Salesforce Help.
	<pre>2. For example: global class CtiWebMethods{ webService static String getuserName (String name){return 'EIC_RemoteName=' + name + UserInfo.getUserName();} }</pre>
	 Where you created the Apex class and method in Salesforce, click Generate WSDL. Clicking Generate WSDL exposes the method and class. Third-party SIP Soft Phone can then call the method and class.
	 Set the value of the call attribute SF_ApexBeforeScreenPop to CtiWebMethods getuserName name=Test.
	The method returns a query-string list, a string of call attributes, and values for the attributes. In the example, the attribute EIC_RemoteName is set to Test+the current Salesforce user.

System attributes used:

Attribute name	Description of usage
Eic_CallIdKey	Used to refer to the interaction when communicating with Salesforce.
Eic_ConferenceId	Used to represent conference calls within the Salesforce SIP Soft Phone.
Eic_Recorders Eic_RecordersSupv	Used to determine if an interaction in Interaction Recorder is recording a call.
Eic_Muted Eic_State Eic_CallStateString	Used to represent State within the Salesforce SIP Soft Phone.
Eic_CallPurpose	Used to determine if an interaction is an Interaction Dialer-based interaction so that it pops appropriately.
Eic_CallType	Used to determine if an interaction is Intercom or not, which is important when deciding whether to screen pop and/or create the call log within Salesforce. Intercom calls do not do either by default UNLESS you set attributes on the interaction requesting a screen pop.
Eic_LocalTnRaw Eic_LocalTn Eic_RemoteTn Eic_RemoteId Eic_RemoteAddress Eic_RemoteName	Used in calculating Caller ID (ANI) and Dialed Number (DNIS). The values for ANI and DNIS change depending on the call direction. For example, set Eic_RemoteTn to log ANI for inbound calls and set Eic_LocalTn to log ANI for outbound calls.
Eic_CallDirection	Used to ensure that the interaction shows the correct direction in Salesforce (inbound vs. outbound).
Eic_AssignedWorkgroup	Used to determine if an interaction is an ACD-based interaction. Use this attribute to prevent a screen pop if the user is using the Business User (non-ACD) Salesforce license.
Eic_AccountCode	Used to both retrieve the current account code defined for the current interaction and to set the account code if the code is enabled within Interaction Administrator.
Eic_WrapUpCode	Used to set wrap-up codes for ACD-based calls that require a wrap-up code.
Eic_WrapUpCodeSet	Used to sync wrap-up codes.
Eic_CallbackPhone	For callback interactions, this attribute contains the phone number to be used for the phone callback.

Attribute name	Description of usage
Eic_Subject	Contains the subject about callback interactions; limited to 255 characters.
Eic_ObjectType	Defines the interaction type. The Salesforce SIP Soft Phone displays different attributes for different interaction types. Currently supported interaction types are calls, emails, web chats, callbacks, and generic objects.

Change log

Change log date	Changes made
2013-02-14	Initial document created for the integration with Interaction Client Web Edition.
2014-03-11	Corrected installation instructions for Interaction Client Web Edition.
2014-07-14	Added information about Chrome to the Requirements section.
2014-09-02	Updated documentation to reflect changes required in the transition to CIC 2015 R1, such as updates to product version numbers, system requirements, installation procedures, references to Interactive Intelligence Product Information site URLs, and copyright and trademark information.
2014-12-10	Added information about call logging.
2015-01-22	Added requirement of CIC 2015 R2.
2015-02-03	Updated the format for setting data for the screen pop in the Formatting the URL section.
2015-04-07	Updated the "Using Interaction Attributes to define how interactions screen pop" and "Appendix A" sections to clarify that three attributes (SF_URLPop, SF_URLPopLink, and SF_URLShouldAutomaticallyScreenPop) must be used together to perform a screen pop.
2015-04-16	Updated for 2015 R3.
2015-06-23	Updated for 2015 R4.
2015-09-16	Updated for 2016 R1.
2015-12-21	Added links to documentation library. Updated for 2016 R2.