



IP Office Contact Center Advanced Installation Task Based Guide

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Table of Contents

Legal	2
Table of Contents.....	7
ICI Connector	11
Overview	11
Requirements.....	13
Supported SAP Versions	13
Supported Operating Systems.....	13
Supported Languages.....	13
Assignment SAP User – Agent	13
System variables	13
Free Seating	16
Assignment Topic – default agent group	16
Forced order code / FOC	16
Dialer with assignment to topic	16
IP Office	16
Scope of services.....	17
Mapping Agent State and SAP Workmode.....	17
SAP Workmode.....	17
Use of Item Attached Data / TaskTags by external connected components..	18
Installation	19
Installation of the Avaya License Client	19
Installation of the ICI Connector on the IP Office Contact Center Server	20
Installing the IP Office contact Center ICI Connector	20
Adding the ICI Connector to the IPOCC Watchdog to Auto Start the connector	25
Configuration of the ICI Connectors.....	36
Secured connection with SSL/TLS	43

Language-dependent Text block.....	45
Settings for Telephony devices	45
Call number normalization	45
Incoming numbers	45
External Call Numbers.....	46
Dialing from SAP	46
Configuration Check	50
IP Office Contact Center Settings.....	51
SAP Settings	57
Configure SAP	57
Test the connection.....	62
Error Analysis.....	63
TTraceConsole	63
TTrace prompts and their meaning:	64
Additional commands	65
Connection to the Contact Center.....	66
Connection to SAP System.....	67
Trace in SAP System (SOAP Messages)	67
TestTool TestUITabs.....	69
Use of License	75
Salesforce	76
Introduction	76
Planning Checklist	76
How to check your Salesforce Service Cloud license	77
Supported Browsers	77
Supported Features	77
CRM Connector Deployment on IP Office Contact Center Server	78
Install the CRM Salesforce application onto the IP Office Contact Center Server	78
Configure the CRMConnector properties file	82
Installing ISA	88
Configuring ISA.....	89
Custom Console Component	89
Salesforce Console Features.....	89
Adding a Custom logo to the Salesforce Console.....	89
Creating the Console App.	92
Configuring Contact Centre	98
Configuring the Softphone Layout	104

Screen Pop Settings	106
---------------------------	-----

Logging into ISA 109

Accepting the IP Office Contact Center Certificate prior to Logging into ISA 109

Login to ISA	110
--------------------	-----

ISA UI Controls	112
-----------------------	-----

Receiving Calls	114
-----------------------	-----

Hold/UnHold	115
-------------------	-----

Drop Call	115
-----------------	-----

Outbound Call	116
---------------------	-----

Consult	117
---------------	-----

Transfer	120
----------------	-----

Conference	120
------------------	-----

Job Codes	121
-----------------	-----

Wrap-Up	122
---------------	-----

Logout	122
--------------	-----

Screen Pop	123
------------------	-----

Uninstalling the ISA Application	124
--	-----

Troubleshooting the CRM Connector 126

Other Troubleshooting Considerations	126
--	-----

ICI Connector

Overview

ICI (Integrated Communication Interface) is an interface specified by SAP that can connect to a SAP System.

The ICI Connector utilizes a SOAP HTTP (Simple Object Access Protocol) server to provide features of the Contact Center to SAP Applications.

The ICI Connector implements an interface defined by SAP. At the time of writing this is SAP Integrated Communication Interface Version 3.07.

Agent Features

- Login/Logoff
- Sign In/Out of Agent Groups
- Pause
- Wrap Up/After Call Work

Telephony Features

- Answer ringing call
- Make Call
- Drop Call
- Consultation
- Conference
- DTMF generation
- Hold
- Retrieve
- Transfer
- Deflect / Call Forward (not in ringing state)

Implemented Features

Feature	Availability	Notes
Base Telephony	yes	Accept a call, hold a call, toggle between a hold and a connected call, consultation call, transfer a call to another destination w/o consultation, conference, dial pad, end a call
Call Center Telephony	yes	Log on / log off, set ready or not ready, automatic wrap up and finish (display of wrap up status only for agent state)
Pause codes	no	Supporting pause state / ready / not ready, but no special pause codes
Agent Free Seating	yes	
ANI Lookup / DNIS Identification	yes	Automatic Number Identification (ANI) Identify call number of incoming caller. Find customer record based on ANI Dialed Number Identification Service (DNIS) to identify the call number, which caller has dialed. Used e.g. to assign a call to a campaign
Screen Transfer	yes	Via Item attached Data to transfer a call – and customer data – from one agent to another
Presence Information	yes	Only for agents connected via ICI Connector and for Queues/Topics
Order Code Input	yes	Contact Center order code
Auto Registration of Extensions	no	
Auto Deregistration of Extensions	yes	Deregistration can occur by: a) Timeout in SAP (Inactivity of the WebGui) b) Configurable timeout in Contact Center ICI Connector
Sending DTMF tones	yes	
Simple CTI	yes	
Number correction during dialing	yes	

Feature	Availability	Notes
Number correction for display	yes	
Item- / Call Attached Data Handling	optional	Additional service effort : Select data from a Contact Center Calltag and attach it to a call User-User-Info (UUI) User-Entered-Code (UEC) Universal Call Id (UCID)

Requirements

Supported SAP Versions

The ICI Connector supports SAP CRM 7.0 EHP3.

Supported Operating Systems

ICI Connector is supported with the following operating systems.

- Microsoft Windows 2008 R2 SP2
- Microsoft Windows 2012 R2 SP2

Supported Languages

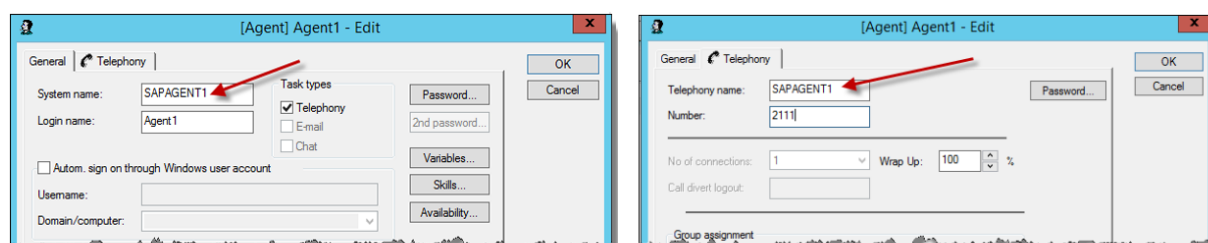
- English
- German

For the IP Office Contact Center ICI Connector to function there are a number configuration features that have to be considered. These include:

Assignment SAP User – Agent

The assignment of a SAP User to an IP Office Contact Center telephony agent is associated via their IP Office Contact Center Login Name.

The agents defined IP Office Contact Center Agent **System Name** and the **Telephony Name** must be entered in capital letters.



System variables

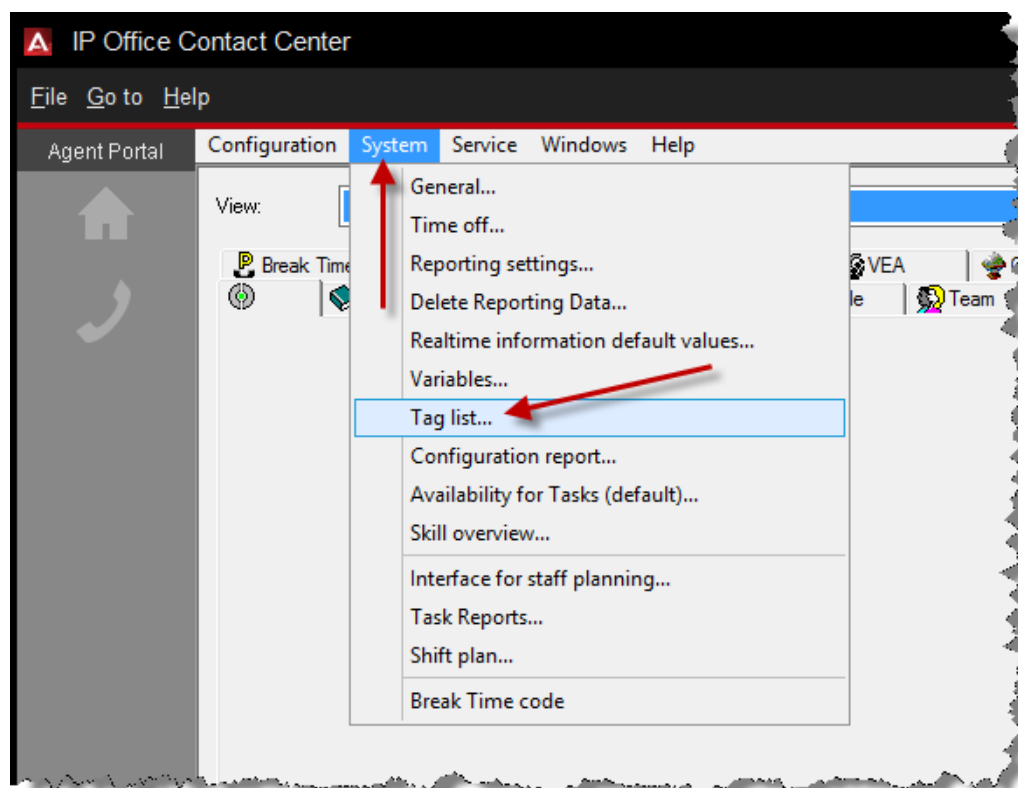
Following IP Office Contact Center CallTags must be configured:

- **Name:** SAPCALLHANDLE
Type: System
Data Type: String
- **Name:** SAPCALLTAG
Type: System
Data Type: String

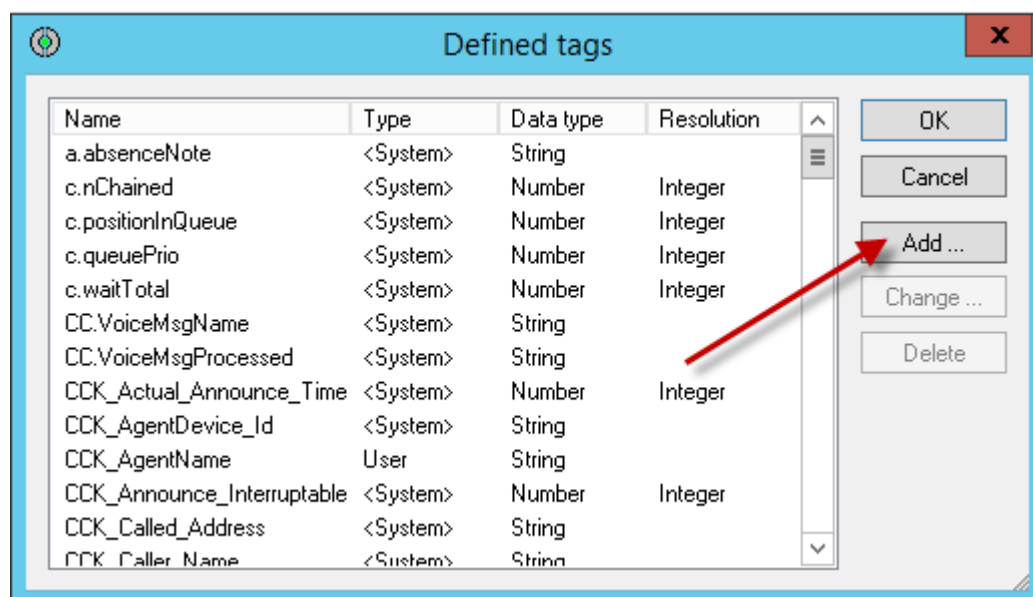
The Call Tags are inherited during Transfer and Conference call sequences. Consequently Tags for consultation calls will be ignored.

Following screen capture illustrates a configuration example for the Call Tags **SAPCALLHANDLE**.

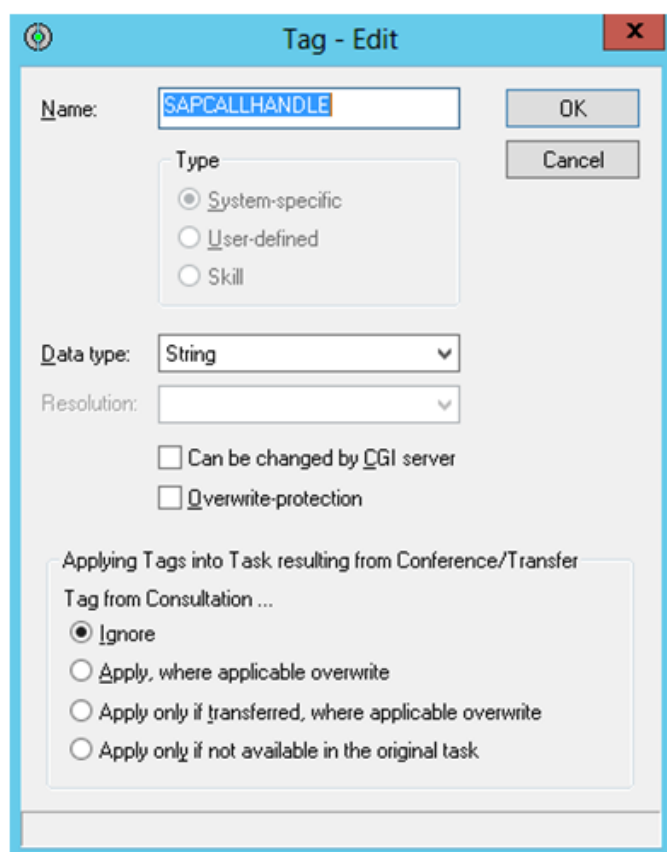
1. To define a Call tag, from the IP Office Contact Center's administrative interface, select **System** followed by **Tag list...**



2. Click the **Add** button.



3. Configure the **Tag** as illustrated below:



4. Repeat this process to create the SAPCALLTAG

Free Seating

The agent data has to be configured in Contact Center.

If no Free Seating is offered (SAP Work Center Type 0), then each Contact Center Agent has to be assigned a System Call Tag with the information of the predefined extension number.

The name of the Tag (for example SAPAgentDefaultDevice as default) can be configured in the ICI Connector.

Assignment Topic – default agent group

For each IP Office Contact Center Topic an agent group has to be configured. The assignment between Topic and Agent Group is utilized by the ICI Connector.

Forced order code / FOC

The feature forced order code of the Contact Center System is not supported.

Dialer with assignment to topic

You have to configure a system variable.

Example: SAPAgentOutboundDialTopic(default value)

You have to configure the system variable also in the ICI Connector configuration.

With the system variable you can configure a topic for each agent individually.

IP Office

Calls directed to the SAP system from IP Office Contact Center, must be in canonical format for Customer Recognition to take place.

IP Office must distribute external call numbers in a format that includes the country code.

For example: +Country/RegionCode (AreaCode) SubscriberNumber

Scope of services

The ICI Connector provides the Telephony interface for IP Office Contact Center agents.

Note: there is a differentiation between the SAP terms **Queue** and **Agent Group** and the IP Contact Center Contact Center terms **Topic** and **Agent Group**.

A SAP user can logon/off from a group in the SAP interface. This simulates a logon/-off from queues, as Topics in the Contact Center have an agent group assigned by default.

IP Office Contact Center Topics numbers are configured in SAP and calls can be routed via Queue Presence Information in the corresponding Topics.

Mapping Agent State and SAP Workmode

Following table shows the transformation of Contact Center agent states and the SAP Workmode

Note: the SAP User **Workmode** is a build state similar to the Telephony, E-Mail and Chat states of IP Office Contact Center.

Agent State	SAP User Workmode
NotReady	Logged on - not ready
Undefined	Logged on - not ready
Pause	Pause
Ready	Logged on – ready
Busy	Logged on - not ready
BusyACD	Logged on - not ready
PostWorking	Logged on - not ready
PostWorking	Extended Logged on - not ready
ForcedOrderCode	Logged on - not ready
Other states	Logged off

SAP Workmode

SAP User Workmode	Agent State
Logged on - not ready	Pause
Logged on – ready	Ready
Logged off	Sign off from agent group

Use of Item Attached Data / TaskTags by external connected components

In the IP Office Contact Center any data can be transported by the task via the TaskTag mechanism.

Project-specific recorded data from an IVR can be delivered by this mechanism to the SAP System. The data is transferred in the attachedData with the

IciEvent_phoneCallChanged messages under the token

<Application id="Avaya_Contact_Center"> .

The data has to be utilized in the SAP System by a special implementation.

SAP Workcenter Types

In the Contact Center System you configure the assignment workstation to the telephone.

The ICI Connector supports following SAP Workcenter Types.

Number	Status	Explanation
0	No free seating	User-based workcenter identification
1	Fully qualified domain name	Example: raptor.pal.sap.corp
2	Hostname	Example: raptor
3	IP address	Example: 12.14.48.23

MakeCall via Topic

Outgoing calls initiated by the agent can be marked by an agent-specific topic-ID for statistical reporting purposes in the Contact Center.

The caller number can be delivered to the called subscriber with an agent-independent call number.

Installation

The following components must be installed on the server:

- Avaya License Client
- ICI Connector

Installation of the Avaya License Client

To install the Avaya license client:

1. Start the **License Client**
2. Click on **Install**. The dialog **License Client** opens.
3. Click on **Next**. The dialog **WebLM Parameter** opens.
4. Enter the following data:

Field	Explanation
License Server	Enter the host name or the TCP/IP address of the license server on which the license is to be installed
Port	Enter the port number of the Tomcat Web-Server's which the license server (WebLM) uses. Normally you can use the default port 8080

5. Optional: ☒ Additional Master License Server (only for two server mode)

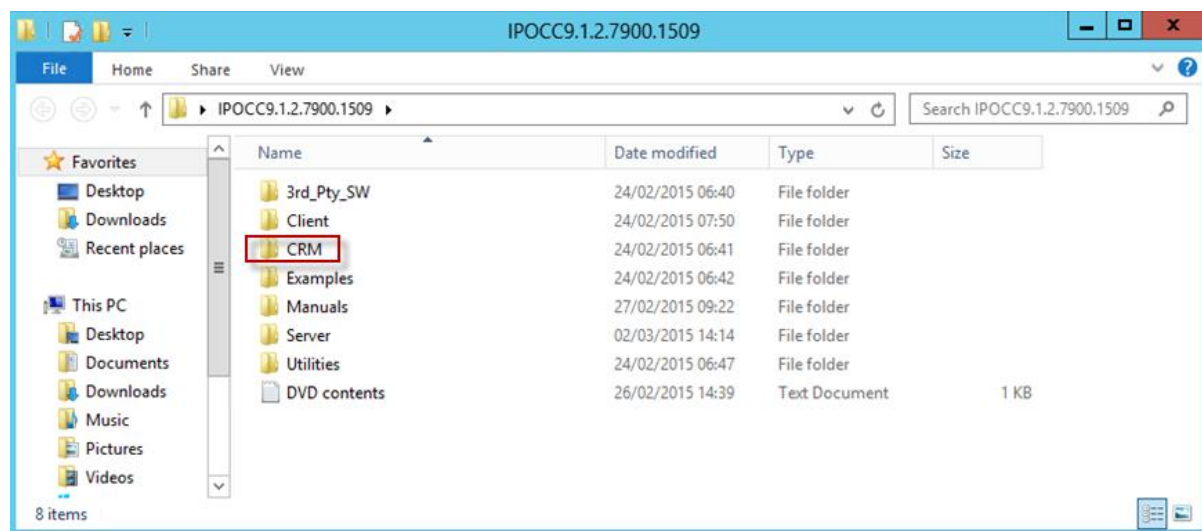
Field	Explanation
Master License Server	Optionally a master license server (WebLM) can be configured. Enter the host name or the TCP/IP address of the master license server
Port	Enter the port number of the Tomcat Web-Server's which the master license server (WebLM) uses. Normally you can use the default port 8080

5. Click on **Next**. The **Ready to Install the Program** dialog box appears.
6. Click **Install**. The installation takes approximately 5 seconds.
7. Click the **Finish** button.

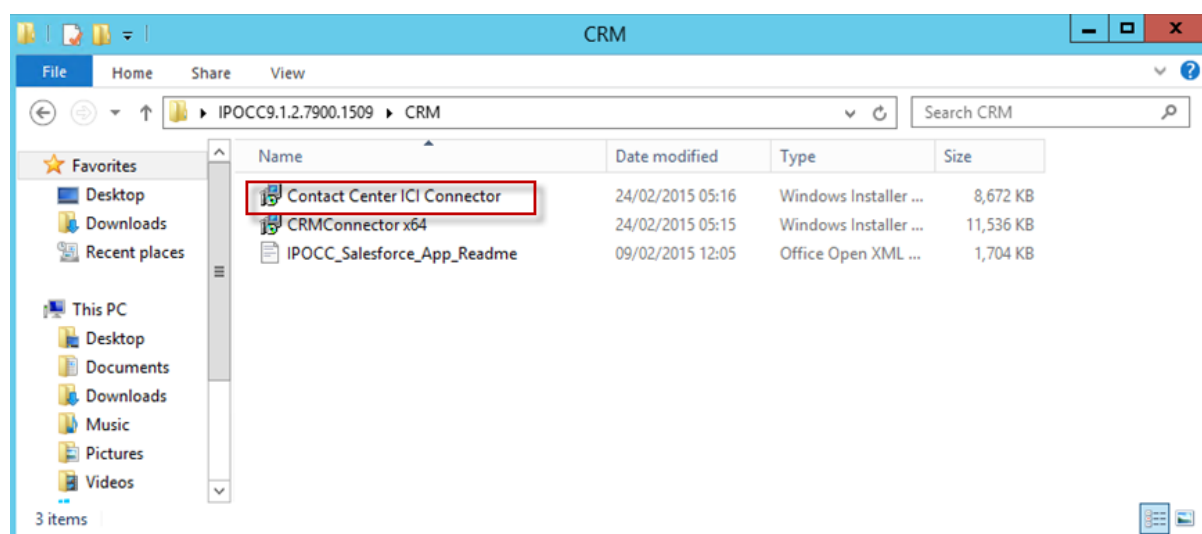
Installation of the ICI Connector on the IP Office Contact Center Server

Installing the IP Office contact Center ICI Connector

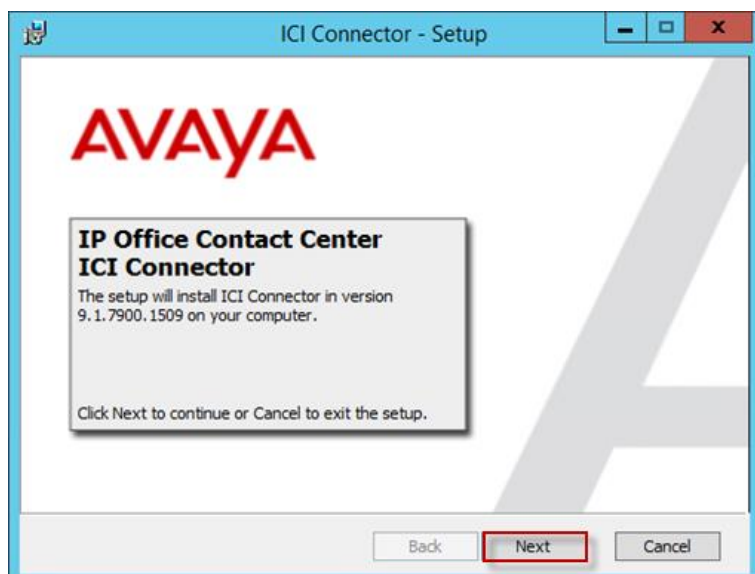
1. Open the IP Office contact Center software folder and click the **CRM** folder.



2. Click the **Contact Center ICI Connector**.



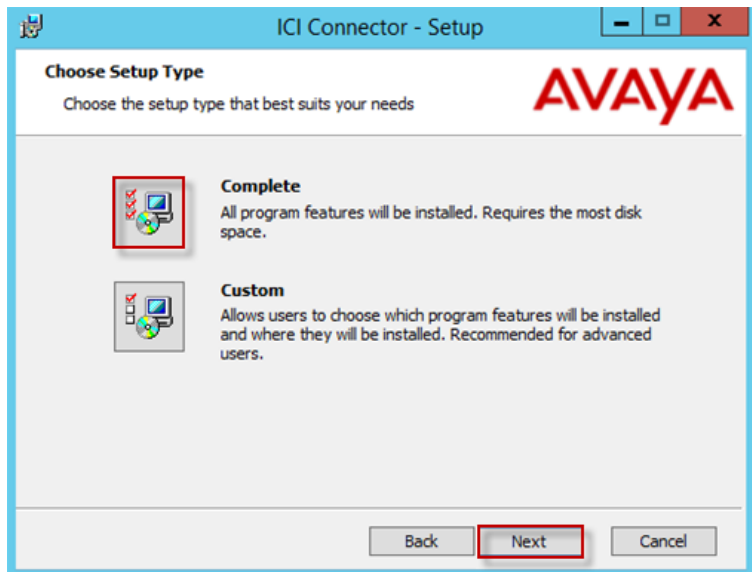
3. Click the **Next** button.



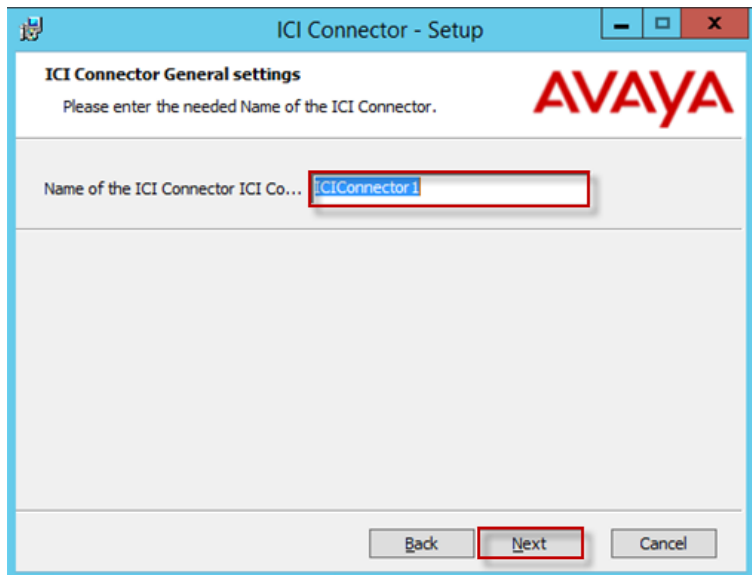
4. Read and **accept** the License agreement and then click the **Next** button.



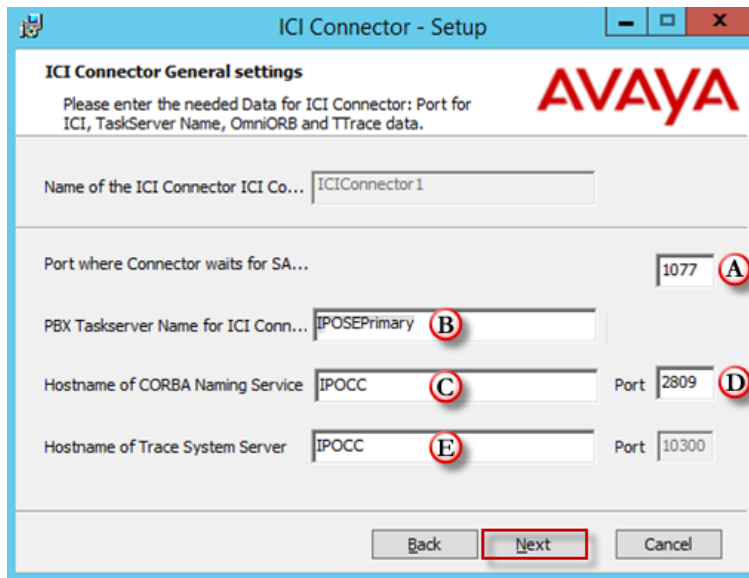
5. Click the **Complete** option and then select the **Next** button.



6. Type in the **Name of the ICI Connector** field **ICIConnector** and then select the **Next** button.



7. Type in the required fields and then click the **Next** button.
- A. ICI Connector port (Default 1077).
 - B. Enter the PBX Taskserver name.
 - C. Enter the host name where the ICI Connector has been installed.
 - D. CORBA connection port (Default 2809).
 - E. Enter the host name or the TCP/IP address of the server where the Trace system is running.

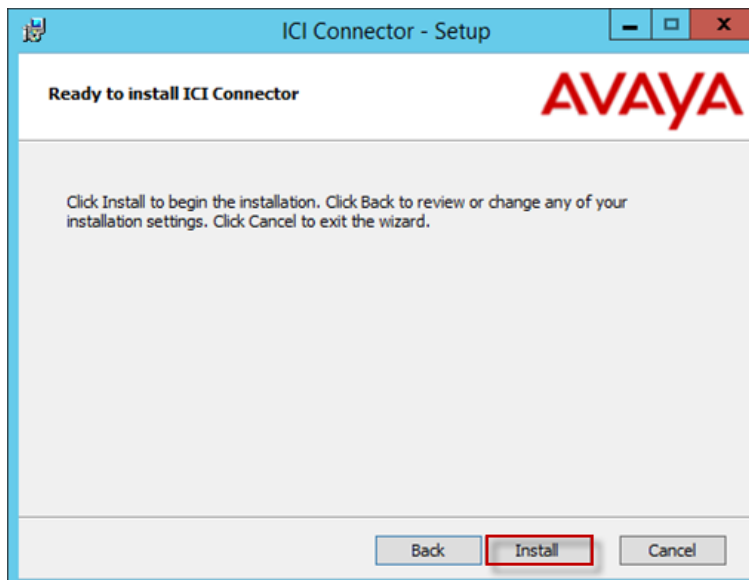


The screenshot shows the 'ICI Connector - Setup' window with the 'General settings' tab selected. The window title is 'ICI Connector - Setup'. The AVAYA logo is in the top right. The text 'ICI Connector General settings' is followed by 'Please enter the needed Data for ICI Connector: Port for ICI, TaskServer Name, OmniORB and TTrace data.' The settings are as follows:

Field	Value	Port
Name of the ICI Connector ICI Co...	ICIConnector1	
Port where Connector waits for SA...		1077
PBX Taskserver Name for ICI Conn...	IPOSEPrimary	
Hostname of CORBA Naming Service	IPOCC	2809
Hostname of Trace System Server	IPOCC	10300

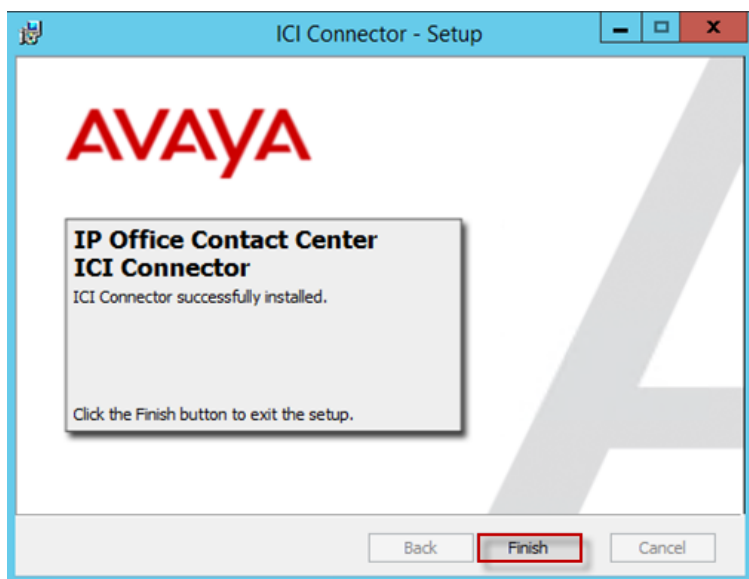
At the bottom, there are three buttons: 'Back', 'Next' (highlighted with a red box), and 'Cancel'.

8. Click the **Install** button.



The screenshot shows the 'ICI Connector - Setup' window with the 'Ready to install ICI Connector' screen. The window title is 'ICI Connector - Setup'. The AVAYA logo is in the top right. The text 'Ready to install ICI Connector' is followed by 'Click Install to begin the installation. Click Back to review or change any of your installation settings. Click Cancel to exit the wizard.' At the bottom, there are three buttons: 'Back', 'Install' (highlighted with a red box), and 'Cancel'.

9. Click the **Finish** button.

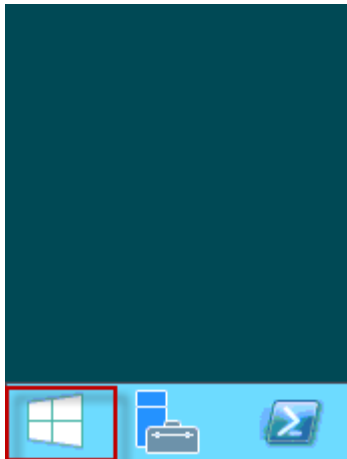


Adding the ICI Connector to the IPOCC Watchdog to Auto Start the connector

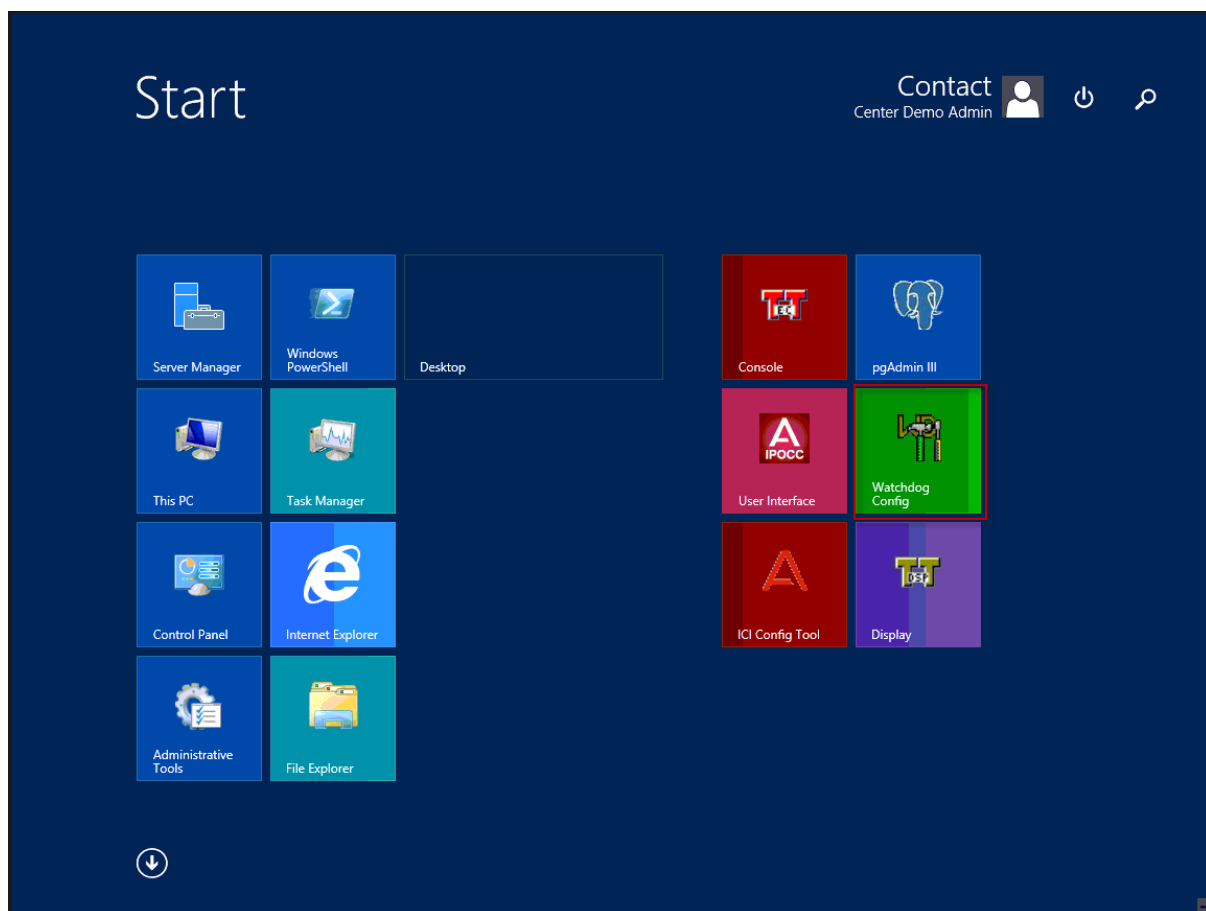
The new ICI Connector must be added to the IP Office Watchdog to ensure that the ICI Connector starts whenever the IP Office Contact Center is rebooted.

Note: The user which starts the ICI Connector must have administrator rights (writing registry access)

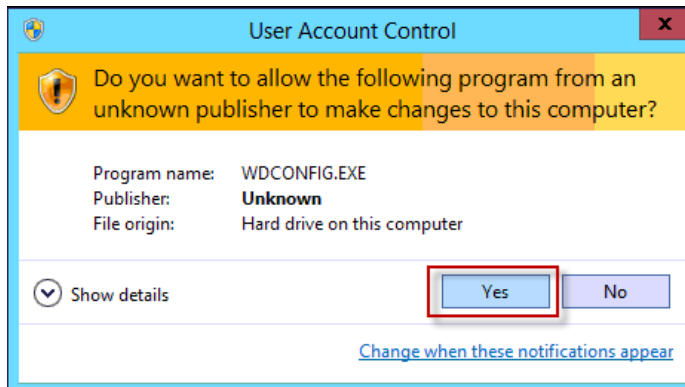
1. Click the **Windows** icon.



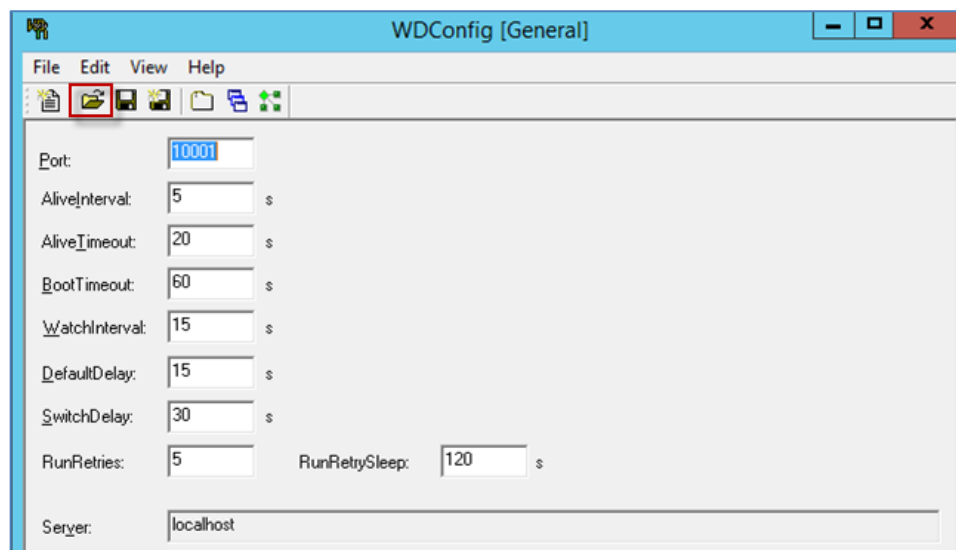
2. Click the **Watchdog Config** button.



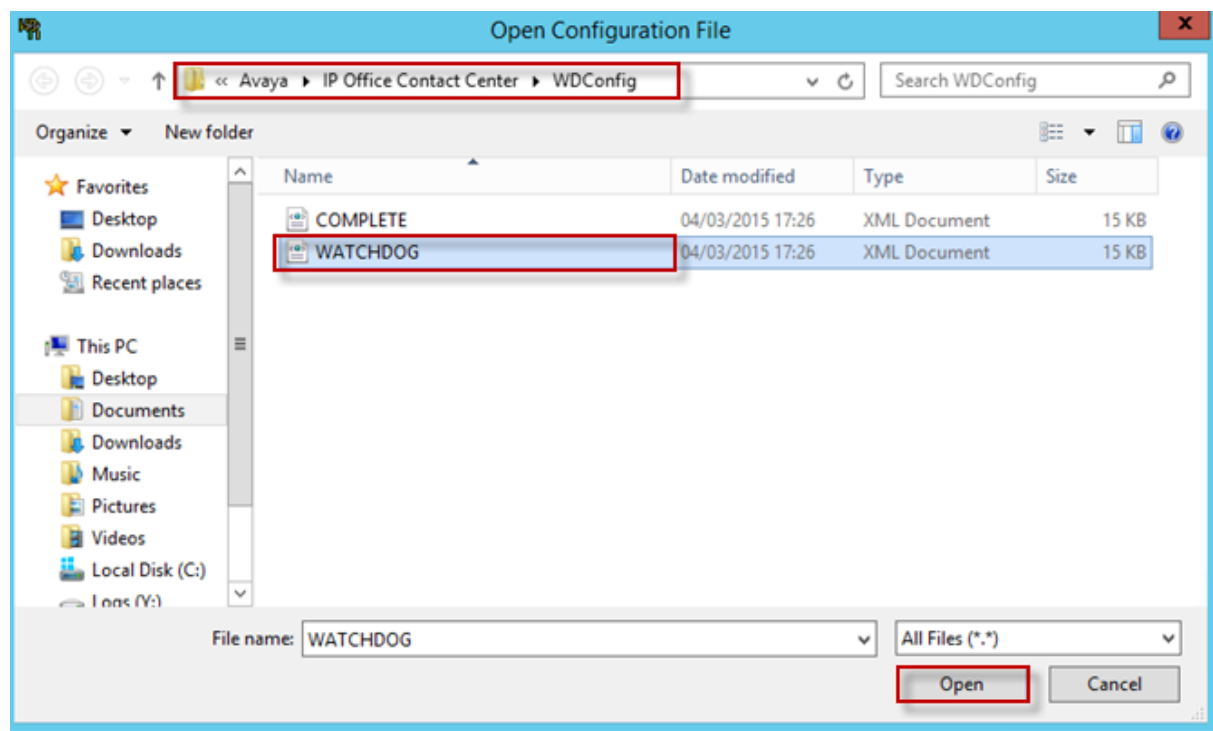
3. Click the **Yes** button.



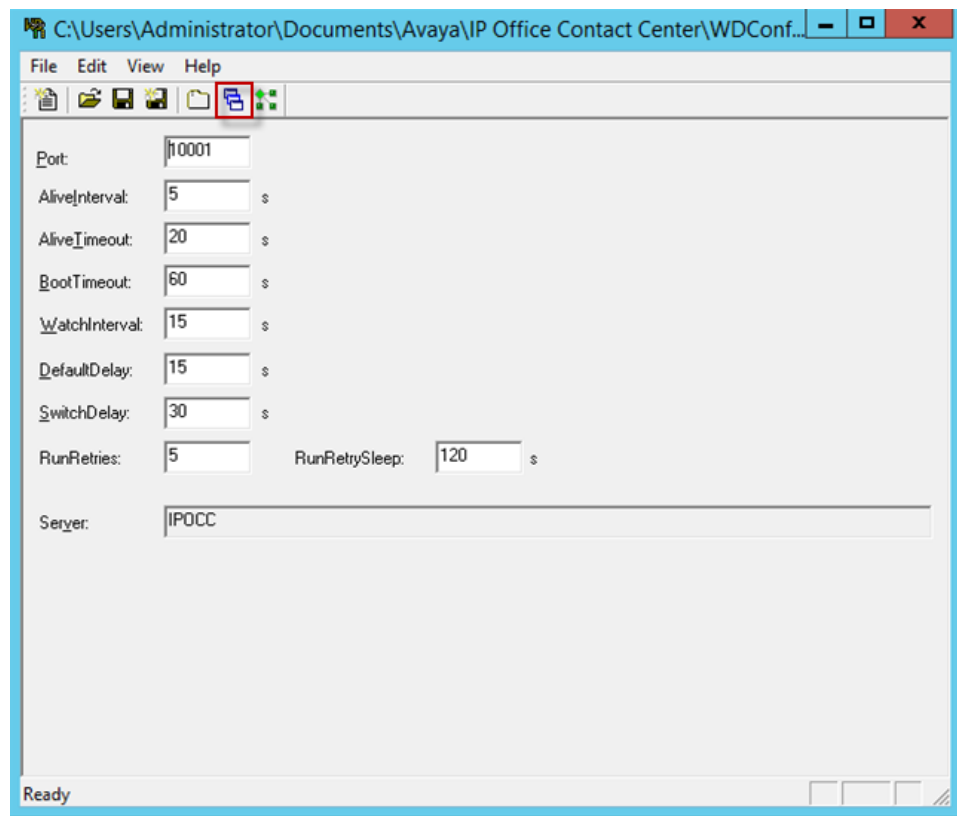
4. Click the **Open** button.



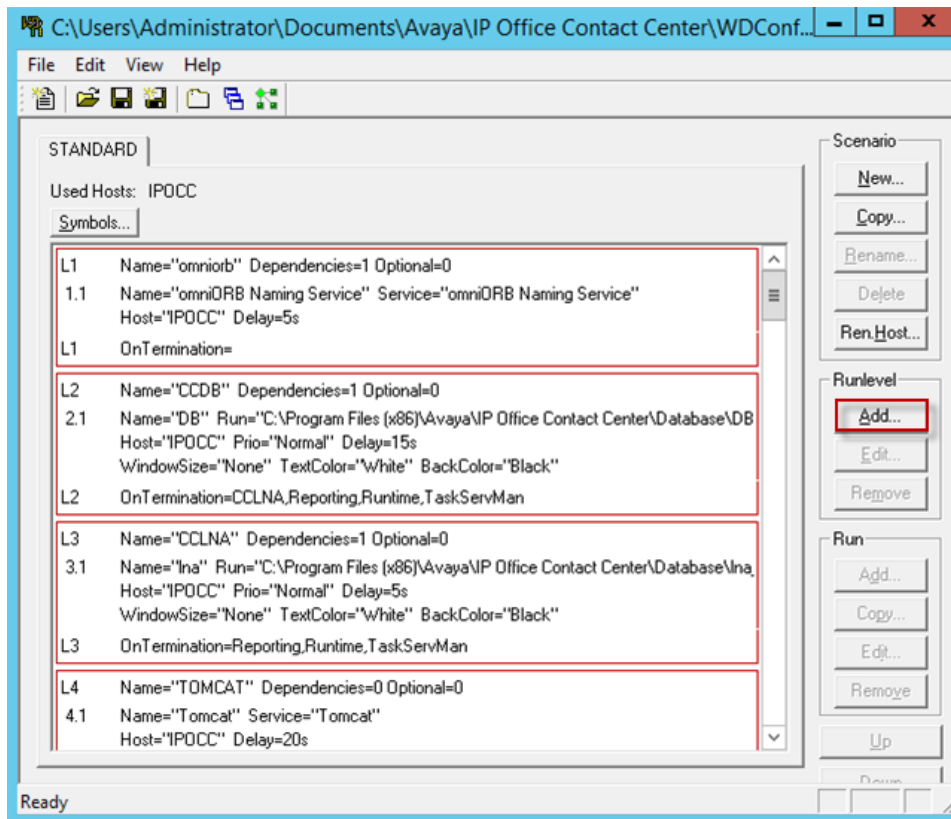
5. Browse to **C:\Users\Administrator\Documents\Avaya\IP Office Contact Center\WDConfig** and then click the **WATCHDOG.xml** file and select the **Open** button.



6. Click the **Scenarios** button.



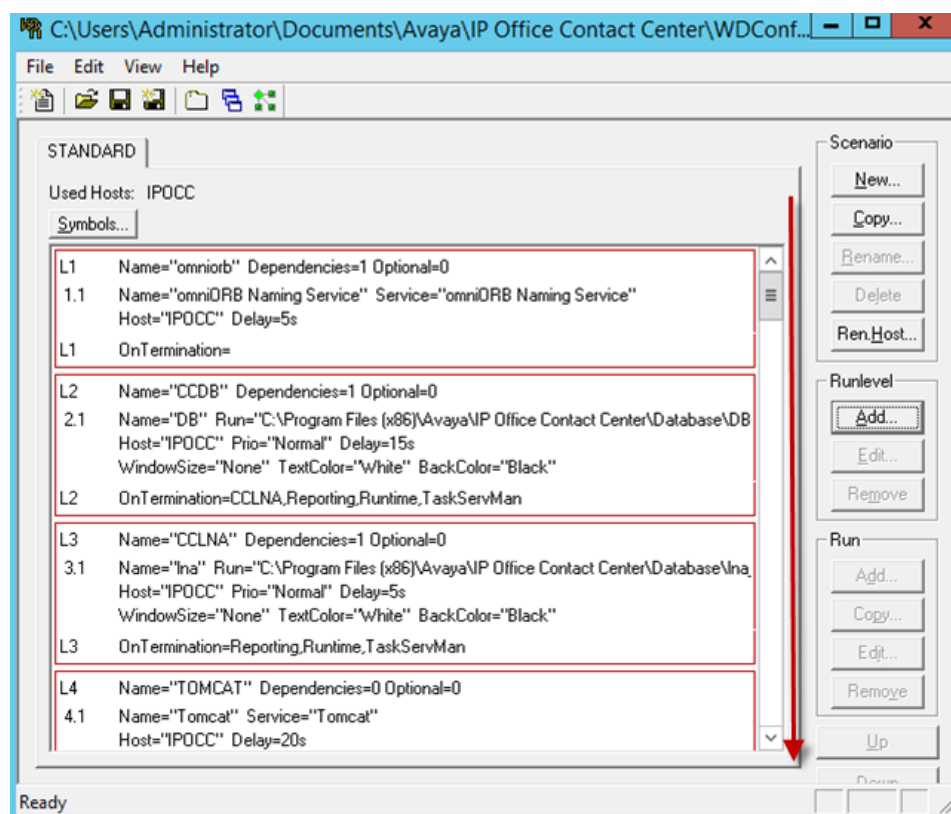
7. From the Runlevel panel click the **Add** button.



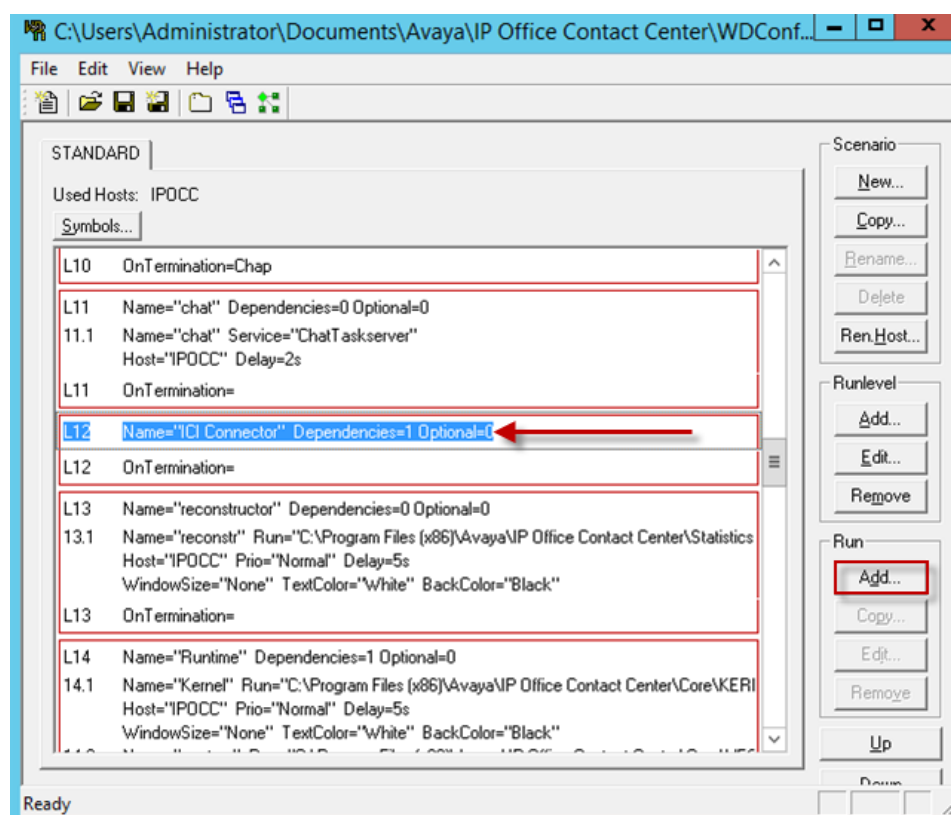
- Change the **As level** to **12** using the pull down and type in the **Name** field **ICI Connector**. Then click the **OK** button.



- Scroll down until you can see **L12**.



10. Click **L12 Name="CCI Connector"** and then click the Run- **Add** button.

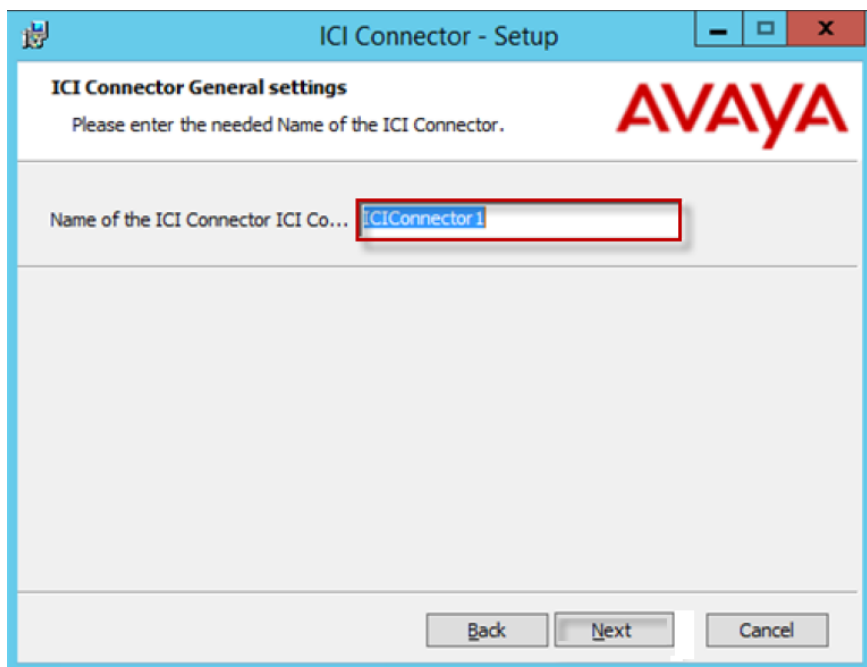


11. Fill out the fields and then click the **OK** button.

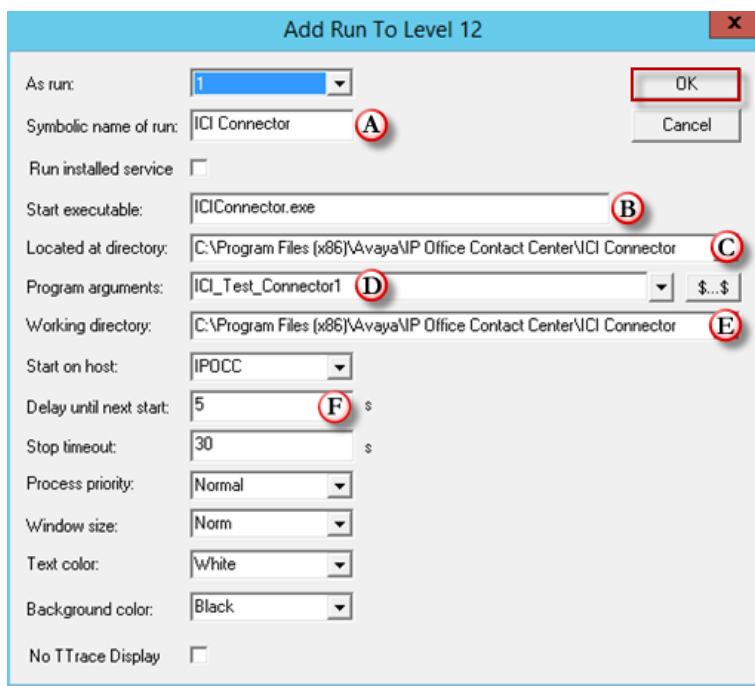
A. Type CCI Connector

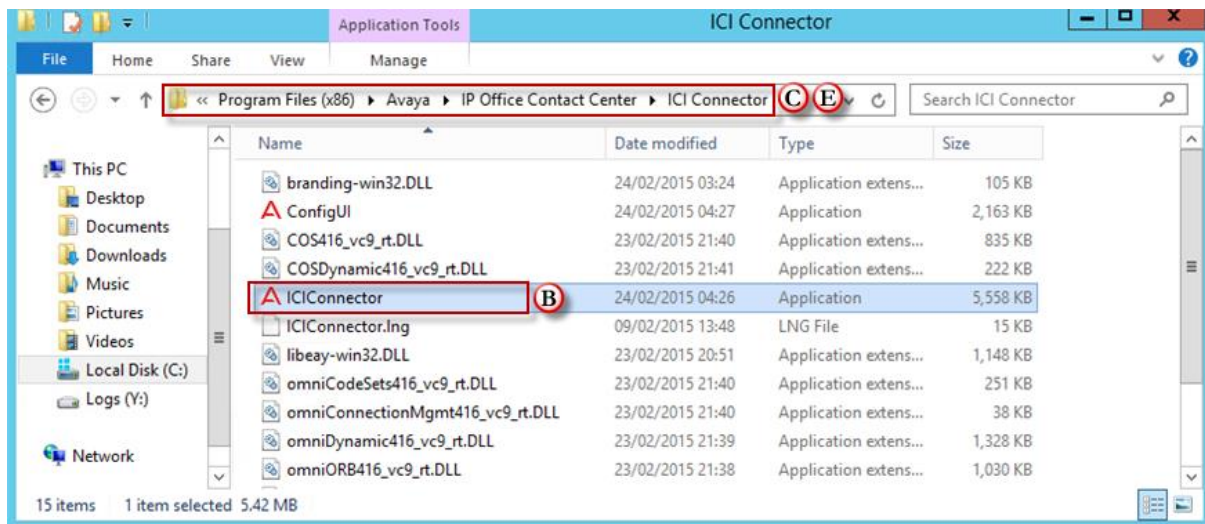
- B. Type ICIConnector.exe
- C. Enter the location directory of the ICIconnector.exe (for example C:\Program Files (x86)\Avaya\IP Office Contact Center\ICI Connector
- D. Enter the ICI Connector name.

This is the name of the ICI Connector as defined during the Setup process

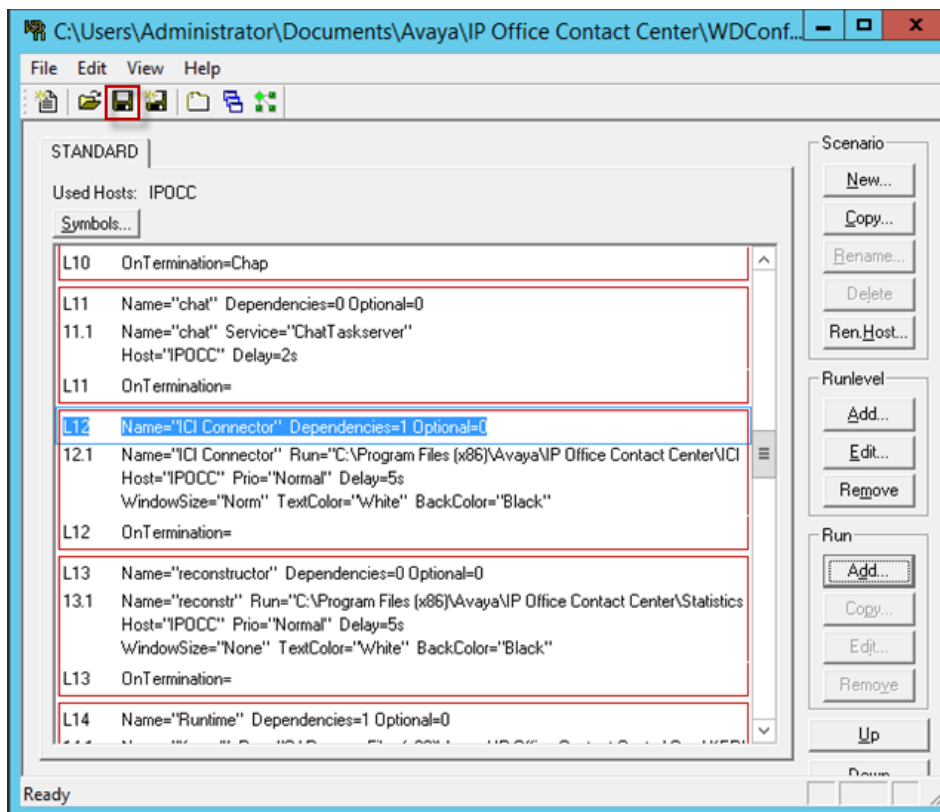


- E. Type the location directory of the ICIconnector.exe (for example C:\Program Files (x86)\Avaya\IP Office Contact Center\ICI Connector
- F. Change the Delay until next start to 5

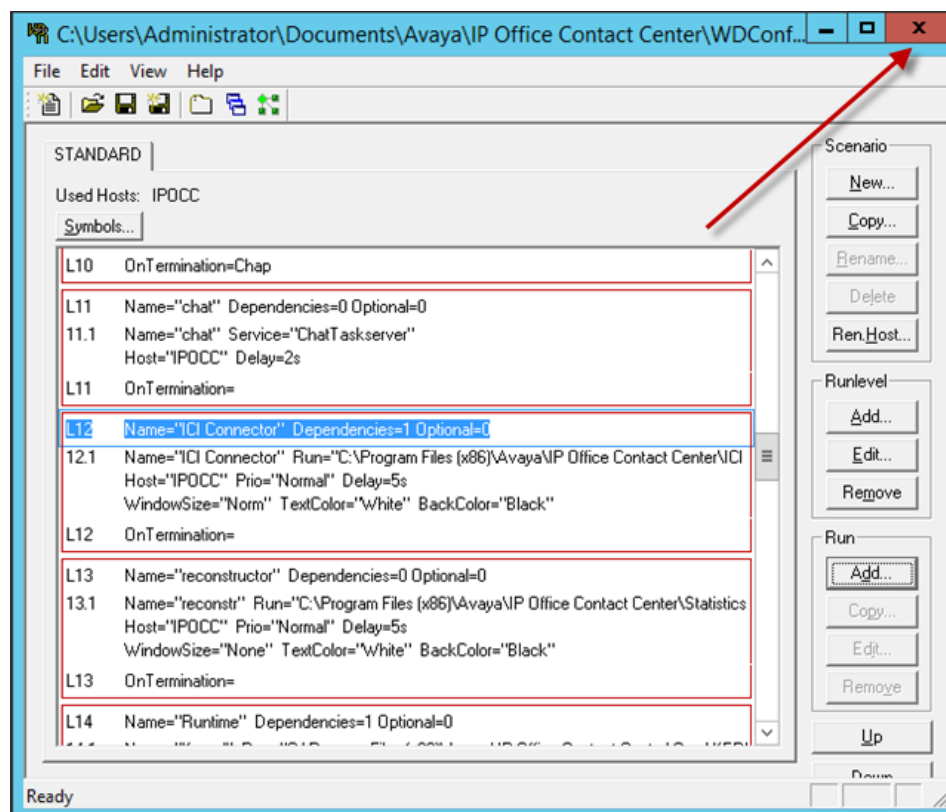




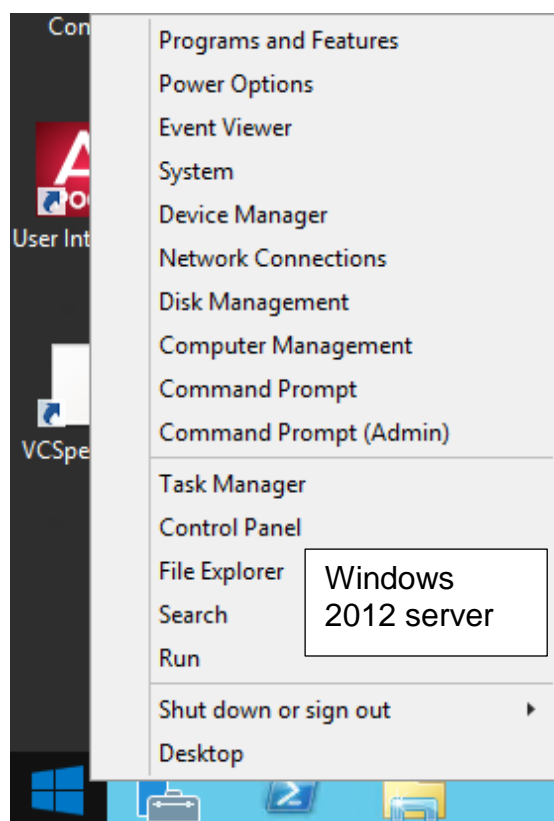
12. Click the **Save** button to update the file.



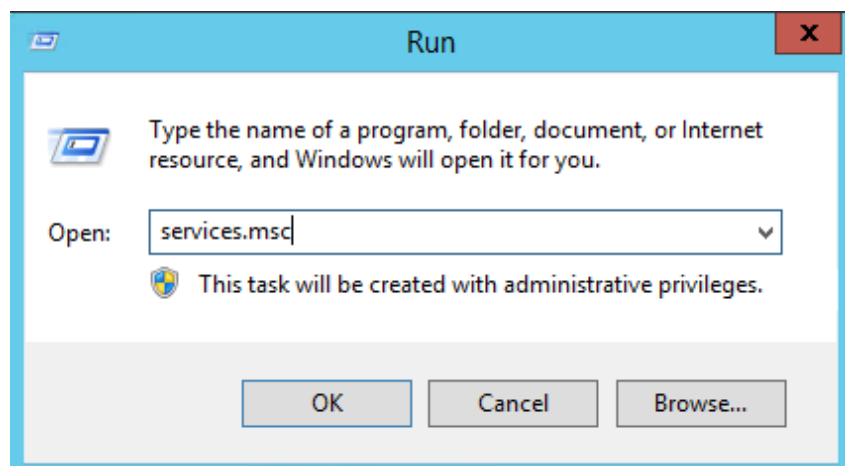
13. Click the **X** button to close.



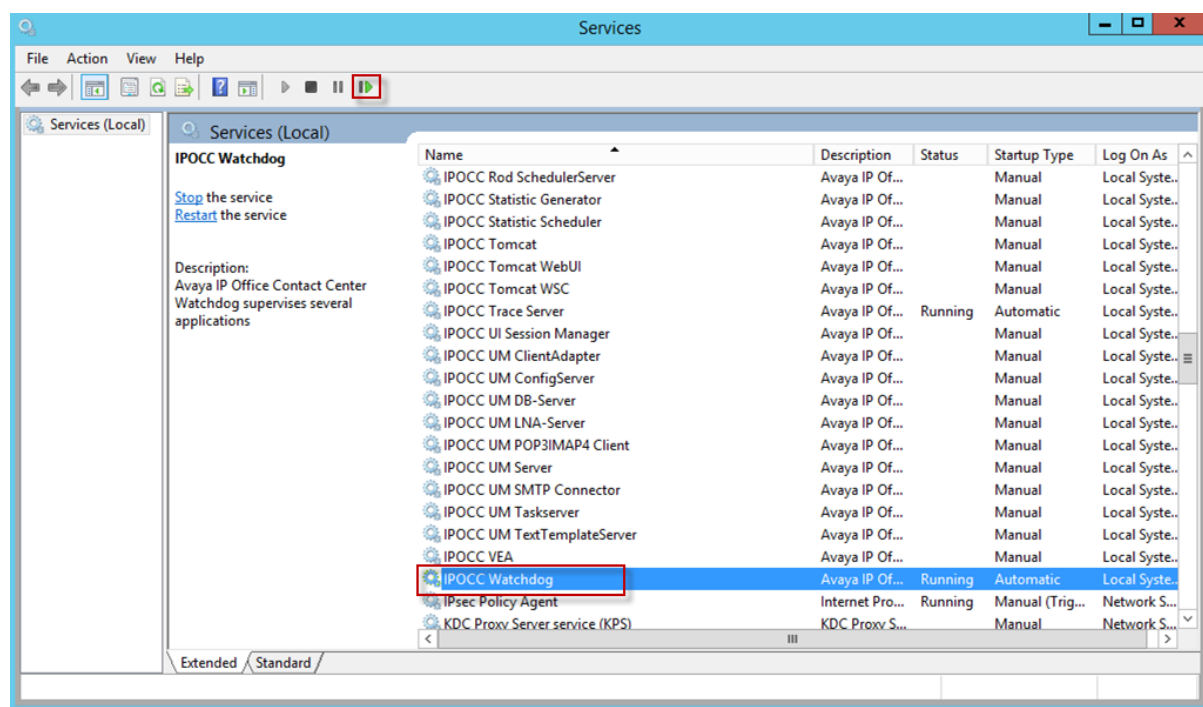
14. The IP Office Contact Center Watchdog must now be restarted (**Note:** This will stop all contact Center Services). With the **Right Mouse button** click the **Windows icon** and select **Run**.



15. Type **services.msc** and then click the **OK** button.



16. Scroll down until you can see the IPOCC Watchdog Service. Click the **IPOCC Watchdog** and then select the **Restart** button. It waits for 1 minute to disconnect all the existing connections with IPOCC processes and IPOffice.



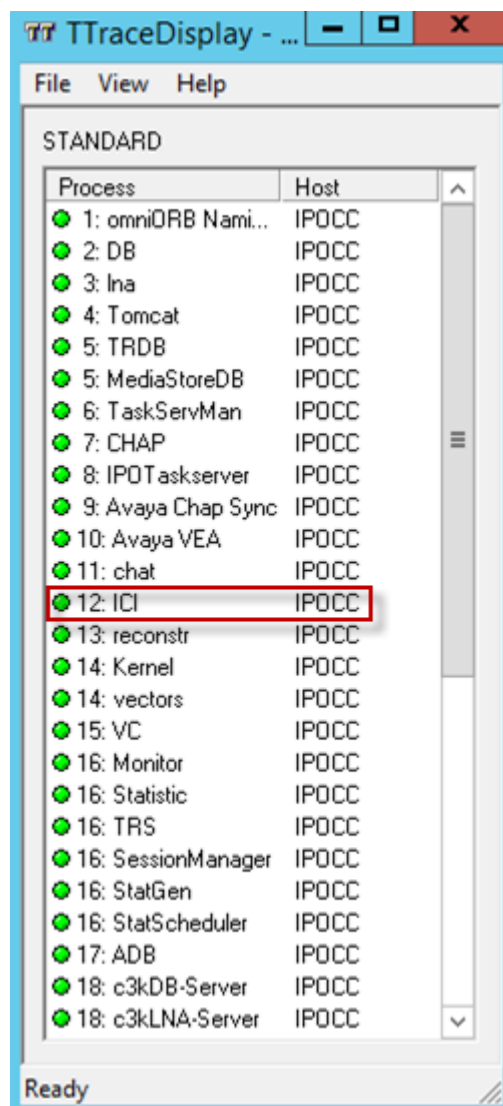
17. Click the **Windows Icon**.



18. Click **TTdisplay**.



19. You should now see at Step 12 the **ICI** connector starting.

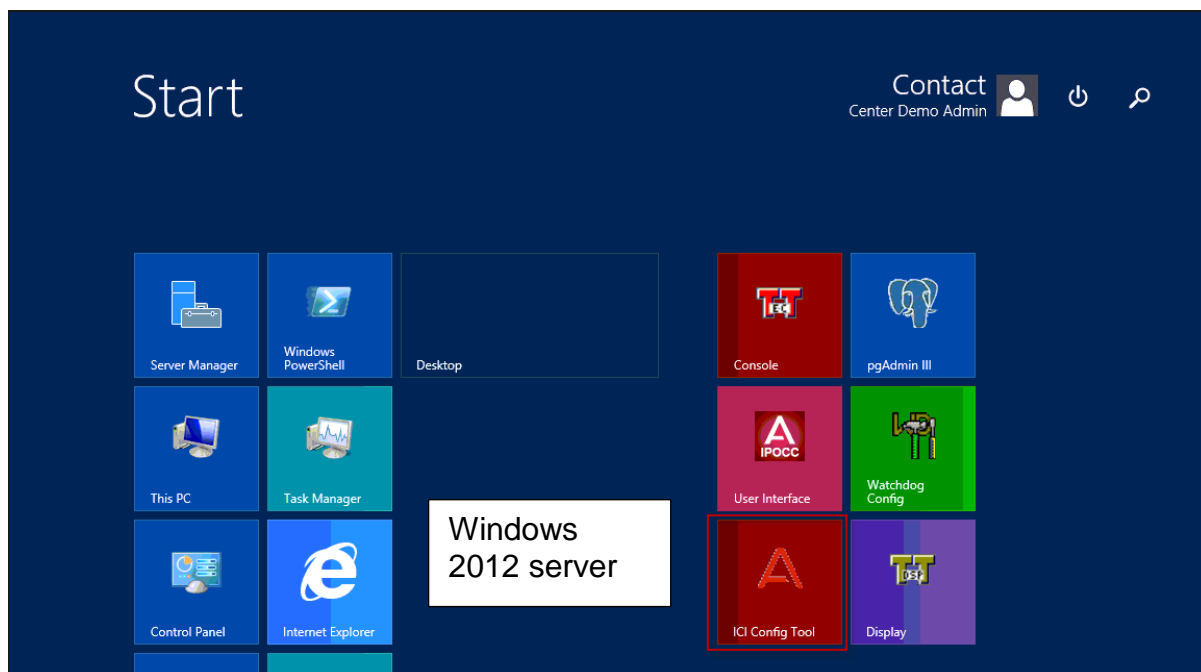


Configuration of the ICI Connectors

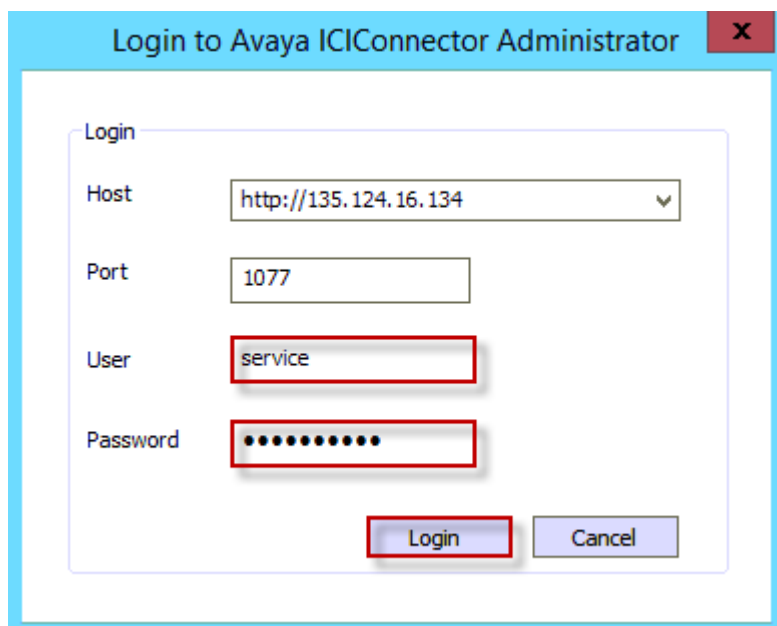
1. Click the **Windows** icon.



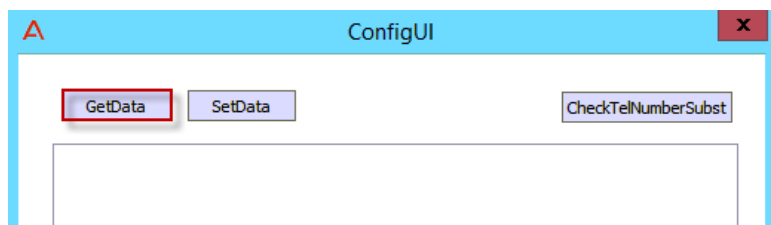
2. Click the **ICI Config Tool**.



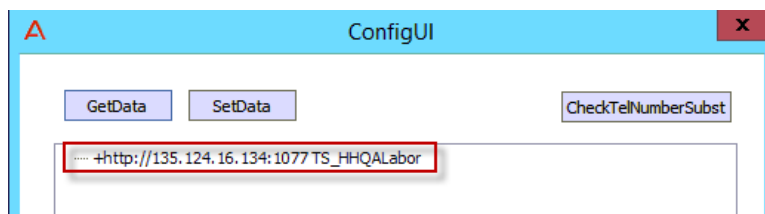
3. Enter the user **service** and the **service password** and then click the **Login** button.



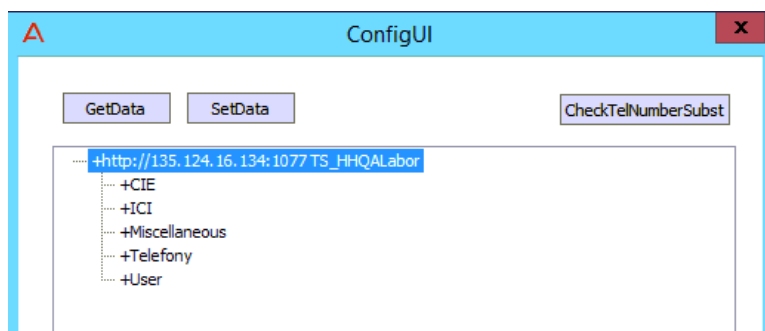
4. Click **GetData**.



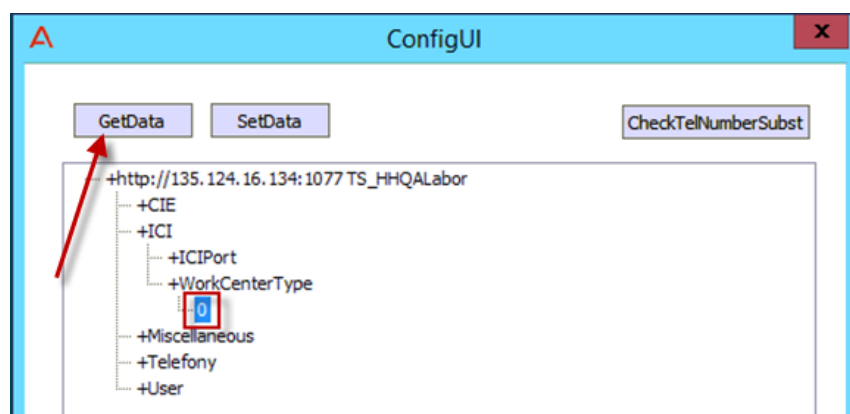
5. Click the **+http://** field.



6. Use the **+** to expand the tree.



7. Double click to edit a field.



8. Edit the settings required and then click the **SetData** button to save the settings. The table below details the required parameters.

Field	Explanation
NameServiceHost	Enter the name of the system where the name service runs Normally this is the Contact Center Server
NameServicePort	Enter the port of the CORBA connection to the name service Input to NameServiceHost and Port is stringently required Default: 2809
StringCatalog	Enter the directory and file name of the language files If only the file name is entered(default: ICIConnector.lng), the file is searched in the working directory of the ICIConnector If a file is not found or has a wrong version, the ICI Connector starts with an error message displayed in TTrace
ICIPort	Enter the TCP port, where the ICI Connector waits for SOAP requests from the SAP system. Default 1077
PABXTSName	Enter the name of the Taskserver in the Contact Center System
SubstSeperator	see below
InboundSubstRules	Enter the rules Default 00;49
OutboundSubstRules	For every rule a set of replacing characters is required Example: SubstSeperator = ; 00;0; means leading 00 is replaced by 0

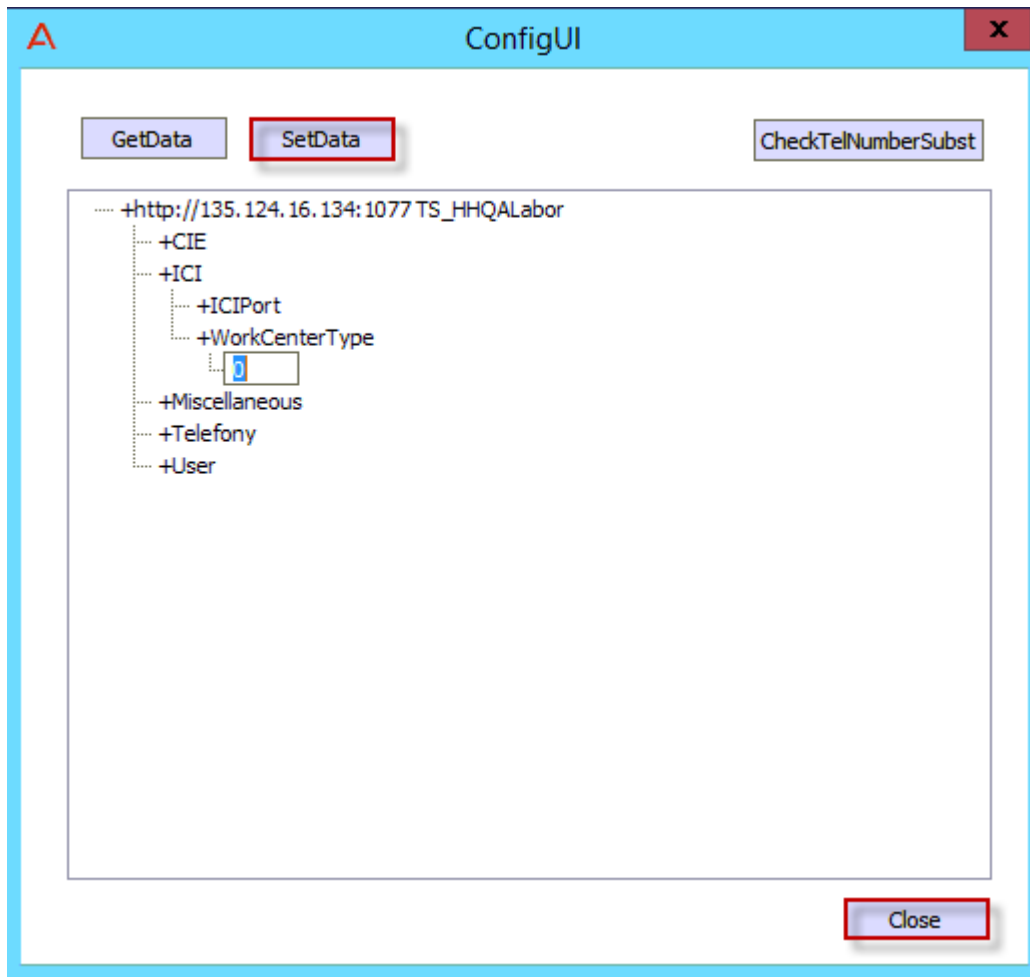
Field	Explanation
	<p>49;0; means leading 49 is replaced by 0</p> <p>00;; means leading 00 is replaced by „“ (empty string)</p> <p>You can have several rules. The rules are referenced one after another beginning on the left of the call number up to the first match</p> <p>Note: The greater the number of rules created, the longer the notification period for telephony data</p>
TelNumberHead	<p>Own call number</p> <p>For example 2392 for Avaya Hamburg</p>
TelAreaPrefix	<p>Prefix for national call number</p> <p>For example 0 in Germany</p>
TelAreaCode	<p>local area code</p> <p>For Example 40 for Hamburg</p>
TelCountryPrefix	<p>Prefix for international call number</p> <p>For example 00 in Germany</p>
TelCountryCode	<p>International country code of the own location</p> <p>For example 49 for Germany</p>
TelInternalDeviceLength	<p>Number of digits for the internal extension. If the length of the phone number to be dialed exceeds the TelInternalDeviceLength, the phone number will be transformed using OutboundSubstRules Default 4</p>
TelOutsideLineAccess	<p>Enter the external access code for outgoing calls</p>
TelInternalNumberExtensionEnabled	<p>If the value is 1 the internal call numbers are comprised of the TelCountryCode and TelNumberAreaCode and TelNumberHead in a long number format. Then customer recognition is easier in SAP System. Default 0</p>
TelInternationalCallMinLength	<p>The minimal length of international call numbers to be prepared for outgoing calls. Default 12</p>
ThreadPoolSize	<p>The number of SOAPServerthreads, which wait for requests of the SAP System which are then processed. Default 35</p>

Field	Explanation
WorkCenterType	FreeSeating setting. Default 0
EventThreadPoolSize	The number of SOAPClient-Threads, that send events (CallState Agentstate-changes) from Contact Center as requests to the SAPSystem by SOAP
WrapupDurationMinutes	The value used to manually extend the post-processing time when extended by the SAP agent A Value == 0 will be set to 5 from ICI Connector. Default 600
AgentDefaultDeviceKeyName	The name of the system variable for the individual assignment Agent to number of the telephony device (WorkcenterType 0) Default: SAPAgentDefaultDevice
AgentOutboundDialTopicKeyName	The name of the system variable for the individual assignment Agent to outbound topic Default: SAPAgentOutboundDialTopic
AgentOutboundDialDefaultTopicName	The name of the default topic, if no outbound topic is configured for the agent individually. If the setting is empty or it does not exist in the Contact Center configuration, a Makecall is completed without a Topic assignment. Default Th_ICI
RegisterDelaymSecs	Length in msec, to wait for signalling of an already registered agent when subscribing of a monitor for a device. This value is the base for further timing processes in ICI Connector. E.g. after a an EndCall command maximum 5* Register-Delay msec's. will be waited for an acknowledge from the PBX. A value < 2000 will be set to 2000 by the ICI Connector. Default 5000
SubscriptionTimeOutMinutes	This is a SAP timer SAP User Subscriptions defines the Timeout period after which subscriptions are

Field	Explanation
	<p>terminated. Once terminated, SAP GUI Web Sessions no longer burden the system</p> <p>A value == 0 will be set to 480 by the ICI Connector. Default 4800</p>
ItemIdTimeoutSecs	<p>The time frame after which Ids expire which are generated by SAP request Iciltem_create and are reported as invalid to SAP.</p> <p>A value < 5 will be set to 5 by the ICI Connector. Default 10</p>
TraceHost	The name of the server on which the TTrace Server runs.
TracePort	<p>Is the port for the connection to the TTrace Server.</p> <p>Default: 10300</p>

9. To check your Setting you can use the **CheckTelNumberSubst** button.

10. When you have finished, click the **SetData** button and then select the **Close** button.



Secured connection with SSL/TLS

The SOAP data transmission between the SAP system and the ICI Connector can be encrypted via standard mechanisms (HTTPS instead of HTTP). Thereby preventing eavesdropping and manipulation attacks. Both components act as the server role as well as the client role regarding HTTP(S), according to whether the transmission of events is to the SAP system or the provisioning of the SOAP interfaces by the ICI Connector, as defined by SAP.

The certificate management and configuration includes two server certificates, in addition to two client certificates, because SAP has defined the obligatory usage of client certificates by default. Information relating to the provisioning of server and client certificates in the SAP system, can be found in the SAP documentation (SAP Note 942093).

The provisioning of server and client certificates including private keys and trustworthy certificates for validation (root certificate authorities), are completed with certificate storage of the operating system (Windows). Therefore, the following settings are required for the ICI Connector:

ICITrustedCertsStores: This is a comma separated list of storage names for certificates where trustworthy certificates are sought. A valid list of possible storage names for Windows can be found at <https://msdn.microsoft.com/en-us/library/aa347693.aspx>. The standard value for Windows is "ROOT". This is the standard set of trustworthy root certificate authorities. Only the certificate storage of context "current user" is available.

ICIDoVerifyServerCert: Indicates whether the server certificate transmitted by the SAP system should be checked for authenticity and trustworthiness based on the above trustworthy certificates. The standard value is „1“ (= true) whereas „0“ equals false. Suppressing the validation is normally only required for analyzing specific problems during the startup procedure, rather than on completion of the installation.

ICIServerCertSubject: The name of the server certificate, which is transmitted for connections initiated by the SAP system. Please note that in addition to the certificate, the private key has to be installed and has to be available for the ICI Connector process, too. If this is empty, the service is started without encryption.

ICIServerCertStore: The name of the certificate storage for the server certificate. The standard value is "MY".

ICIServerCertStoreFlags: Special criteria for the selection of the certificate storage and respectively the discovery of the server certificate. 1 equals "local computer", standard is "current user".

ICIServerAcceptedClientCertSubjects: The fully qualified names of the client certificates which will be accepted by the ICI Connector, provided that the validity could be checked before. Typically, this will be the name of just one certificate, which will be transmitted by the SAP system upon connection build up that represents a "service

user", that is especially setup for this purpose. If this field is empty, then ICI Connector does not request a client certificate from the SAP system and a certificate which is nevertheless transmitted will be checked only for validity.

The names (Subjects) of the certificates must be written in RFC2253 notation. Multiple names are separated by "|".

NOTE: If you have problems with the syntax notation, you can inadvertently have an incorrect wrong name for the connection build up. This will fail, but the log of the ICI Connector includes the name of the transmitted certificate in correct notation.

ICIClientCertSubject: This is the name of the client certificate, which is transmitted for connections initiated by the ICI Connector (Events). Please note that in addition to the certificate, the private key has to be installed and has to be available for the ICI Connector process. If this is unavailable, the client certificate is not transmitted. Depending on the configuration of the SAP system, this will normally cause connection attempts to fail.

ICIClientCertStore: This is the name of the certificate storage for the client certificate. Standard value is "MY".

ICIClientCertStoreFlags: Special criteria for the selection of the certificate storage and respectively the discovery of the client certificate. 1 means "local computer", standard is "current user".

Language-dependent Text block

For messages and status displays in the SAP GUI the ICI Connector uses text blocks.

During the process of logging into the SAP System the user determines which language is used for the text blocks.

The Text blocks are contained within the file ICIConnector.lng which are loaded by the ICI Connector.

The following languages are supported:

- DE (German)
- EN (English)

Settings for Telephony devices

The devices used should be configured in Contact Center.

Call number normalization

Incoming numbers

Call numbers transferred to SAP have to be in the canonical format. For example, for a German location the following data has to be configured.

TelInternalDevLength (length of internal extension)

e.g. 5 (four-digit extension, five-digit topic number)

TelNumberHead (line number)

e.g. 2392 Avaya (Hamburg)

TelAreaCode (prefix)

e.g. 40 Hamburg

TelCountryCode (country code)

e.g. 49 Deutschland

InboundSubstRules

e.g. 0049;49;000;;049;49;

For an internal extension of an agent for example 4711 494023924711 is transferred to SAP (see configuration of TelInternalNumberExtensionEnabled).

External Call Numbers

External call numbers have to be transferred in canonical format by IPO.

For example 069 7505 4711 (call number Avaya Frankfurt) has to be 49 69 7505 4711 from IPO.

External call numbers can be adapted by configuring InboundSubstRules.

When the call number presented from the IP Office is 00049403924711 by using 00;;0;; it can be converted in 49403924711.

Dialing from SAP

To dial correctly from SAP (Dial, Consult) following data have to be configured.

TelInternationalCallMinLength (minimal length of international call numbers)

For example 11

TelInternalDevLength

For example 5

TelCountryPrefix (international prefix)

For example 00

TelAreaPrefix (national prefix)

For example 0

TelOutSideLineAcces (external access code)

For example 0

OutboundSubstRules

For example 49;00;1;0001;2;0002;3;0003;4;0004;5;0005;6;0006;7;0007;8;0008;9;0009;

The general process of call number normalization:

For the call numbers to dial the outbound subst rules and the TelInternalDeviceLength are used.

a) Internal number

SAP GUI DialPad input +12345

Check on internal call number (length <= TelInternalDeviceLength=5)

Yes, no further action

=> 12345 is dialed

The screenshot shows a dialog box titled "CheckTelNumberSubstitution". It has a close button (X) in the top right corner. Inside the dialog, there is a label "InputNumber" followed by a text box containing "1234" and a dropdown arrow. To the right of the text box is a checkbox labeled "Internal" which is checked. Below the input field are two buttons: "CheckInbound" and "checkOutbound". Below these buttons is a label "OutputNumber" followed by a text box containing "1234".

b) Local area (without area code)

SAP GUI DialPad input +012345

Check on internal call number (length <= TelInternalDeviceLength=5)

No

OutboundSubstRules

No match, number is unchanged

-> 012345 is dialed

The screenshot shows a dialog box titled "CheckTelNumberSubstitution". It has a close button (X) in the top right corner. Inside the dialog, there is a label "InputNumber" followed by a text box containing "012345" and a dropdown arrow. To the right of the text box is a checkbox labeled "Internal" which is unchecked. Below the input field are two buttons: "CheckInbound" and "checkOutbound". Below these buttons is a label "OutputNumber" followed by a text box containing "012345".

c) National call number

DialPad input +005715049208

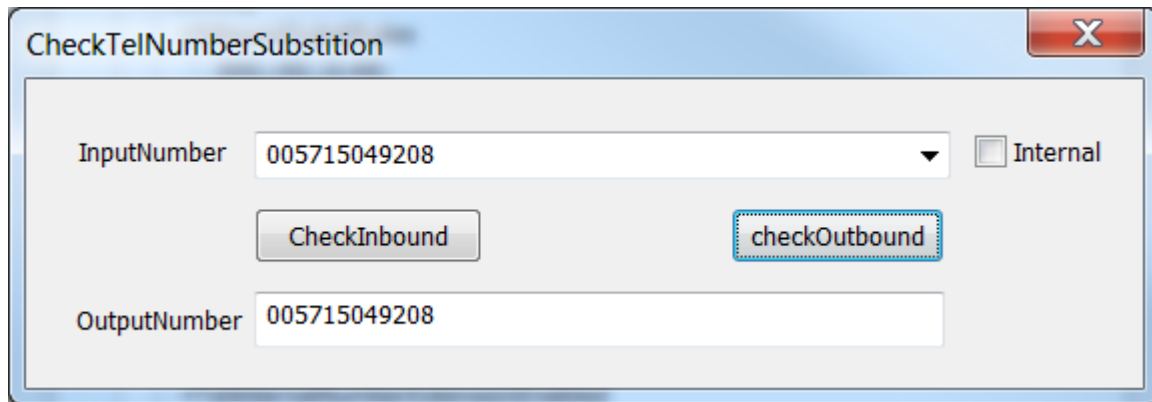
Check on internal call number (length <= TelInternalDeviceLength =5)

No

OutboundSubstRules

No match, number is unchanged

-> 005715049208 is dialed



The screenshot shows a Windows-style dialog box titled "CheckTelNumberSubstitution". It has a standard Windows title bar with a close button (X) in the top right corner. The dialog contains two text input fields: "InputNumber" and "OutputNumber", both containing the value "005715049208". To the right of the "InputNumber" field is a checkbox labeled "Internal", which is currently unchecked. Below the "InputNumber" field are two buttons: "CheckInbound" and "checkOutbound". The "checkOutbound" button is highlighted with a blue dashed border. The "OutputNumber" field is located below the "CheckInbound" button.

2) national call number (to own local area)

DialPad input +004012345678

Check on internal call number (length <= TelInternalDeviceLength=5)

No

OutboundSubstRules

No match, number is unchanged

-> 004012345678 is dialed

d) International call number

DialPad input 000 41 44 878 14 14 (Switzerland)

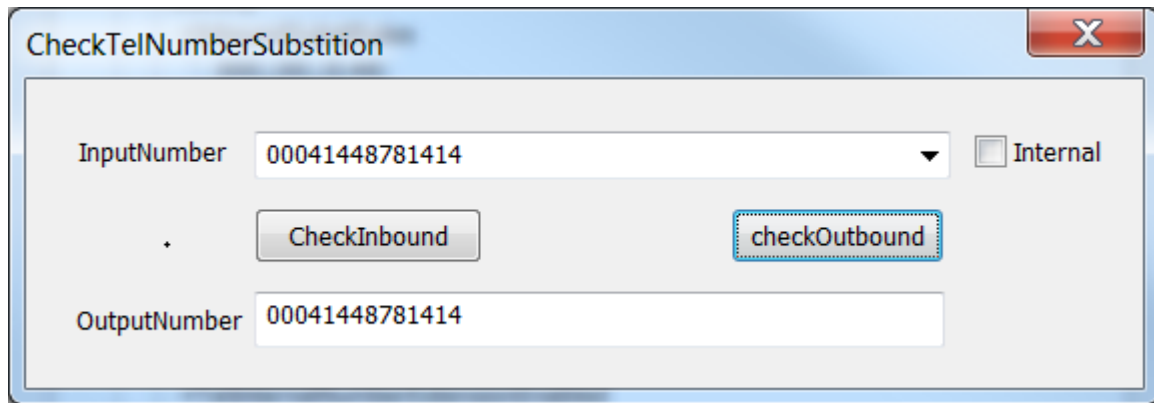
Check on internal call number (length <= TelInternalDeviceLength=5)

No

OutboundSubstRules

No match, number is unchanged

-> 000 41 44 878 14 14 is dialed



CheckTelNumberSubstitution

InputNumber 00041448781414 ☐ Internal

• CheckInbound checkOutbound

OutputNumber 00041448781414

This means as rules for user in DialPad of SAP GUI:

Internal call number: without external access code

Local area number: with external access code e.g. prefix „0“

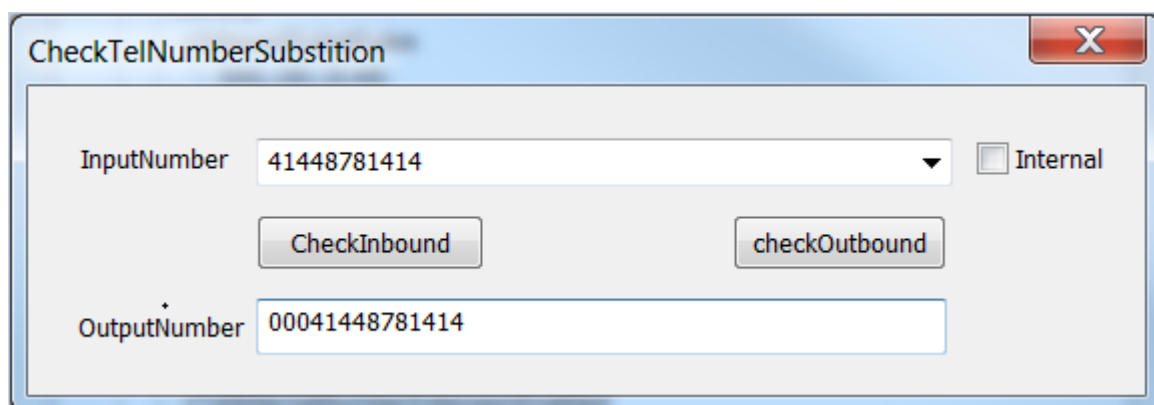
National call number: (also to local area with prefix of local area) with external access code + „0“ so with leading „00“

International call number: with leadingr „000“

Call numbers directly from SAP database are always in format + 41 44 878 14 14 (Avaya CH)

For this call numbers by OutboundSubstRules always „000“ is the prefix (4=> 0004)

A German call number +49402392 4711 is dialed as 0040 2392 4711 (49=>00).



CheckTelNumberSubstitution

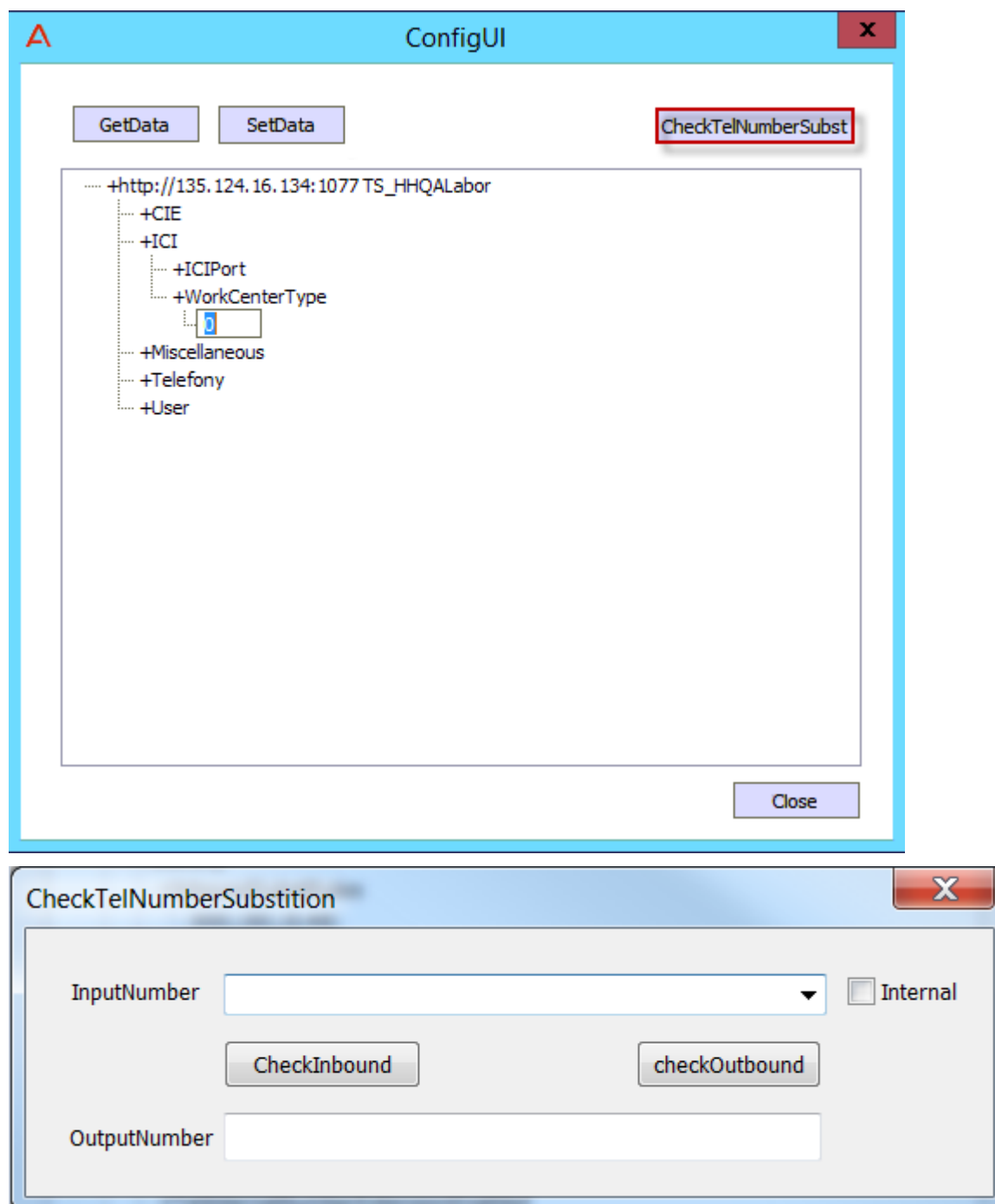
InputNumber 41448781414 ☐ Internal

• CheckInbound checkOutbound

OutputNumber 00041448781414

Configuration Check

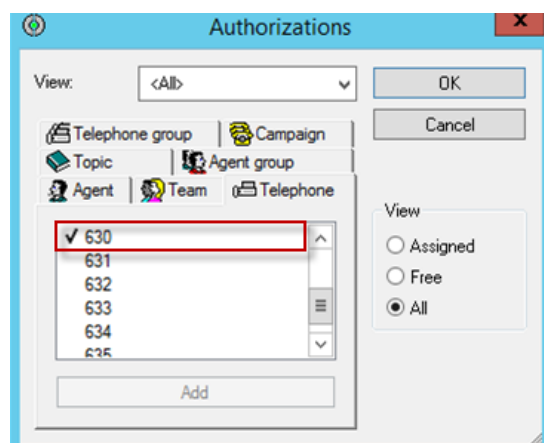
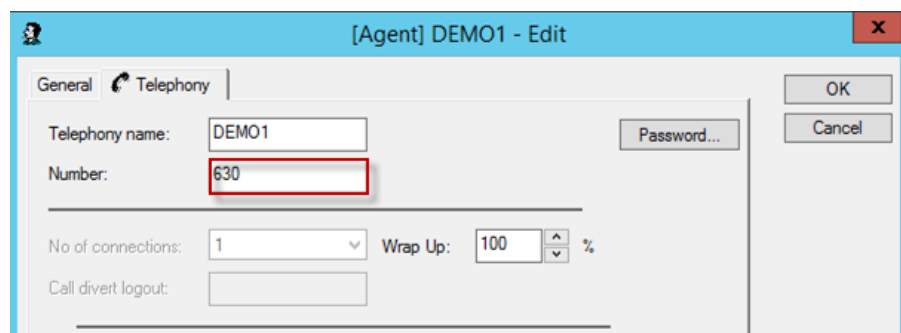
In the configuration tool ConfigUI.exe you can check the configuration for call number normalization by **CheckTelNumberSubst**.



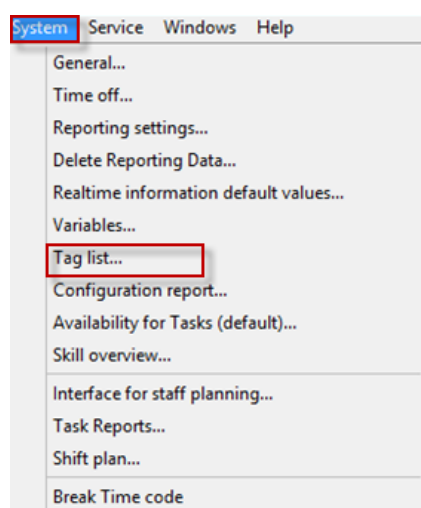
IP Office Contact Center Settings

It is necessary to create a Tag on each user that identifies each User to the SAP connector. Therefore each Agent will only be able to use the defined Extension number.

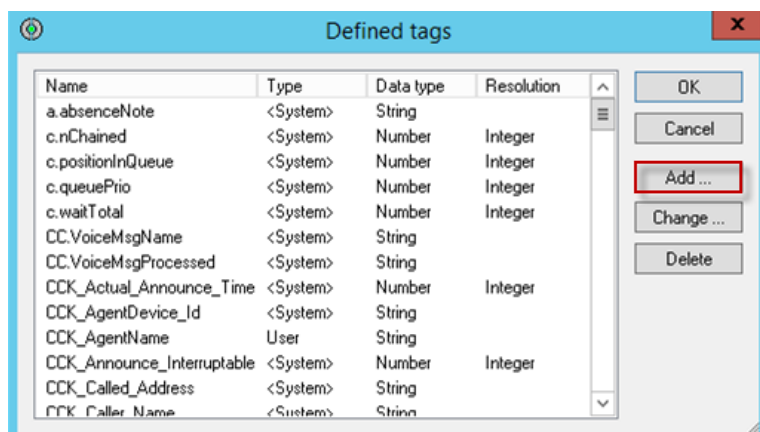
Note: Each required user should be limited to their dedicated Extension number in IP Office Contact Center.



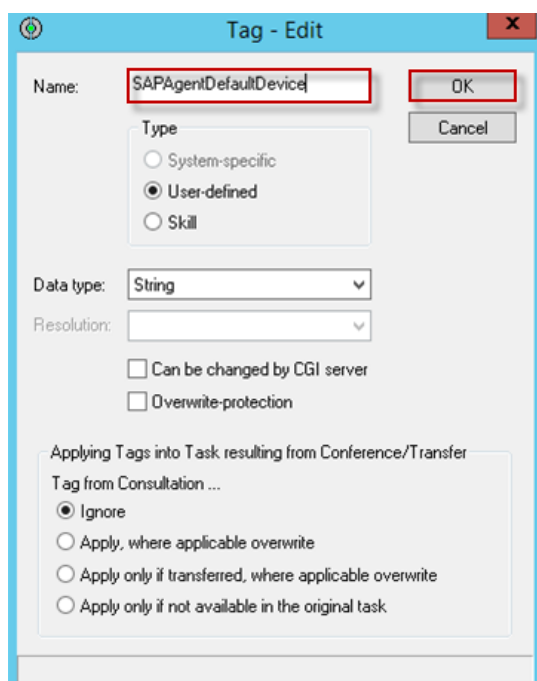
1. Click **System** and then select **Tag list**.



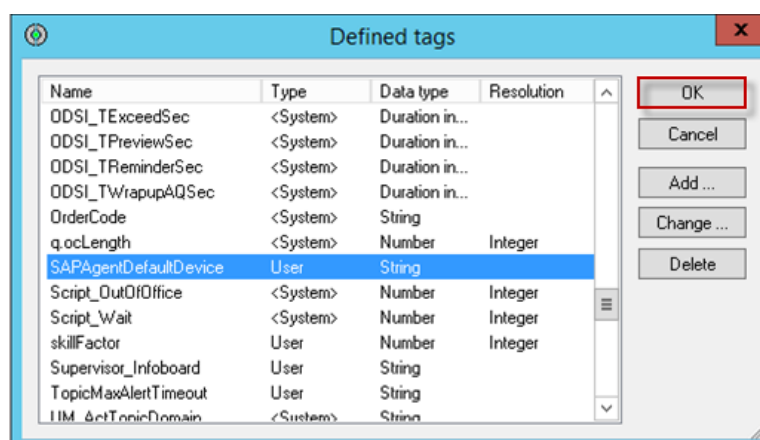
2. Click the **Add** button.



3. In the Name field type **SAPAgentDefaultDevice** and then click the **OK** button.



4. The New tag is displayed, click the **OK** button.



5. The Tag must now be assigned to each Agent. Click an **Agent** and then select the **Edit** button.

IP Office Contact Center Installation

Break Time code
PBX
CHAP server
VEA
Country
Queue device
Telephone
Telephone group
Chat server
Chat script
Topic
Agent group
Agent
Profile
Team
Customer
External destination
Workplace
Announcement
Announcement script
IVR

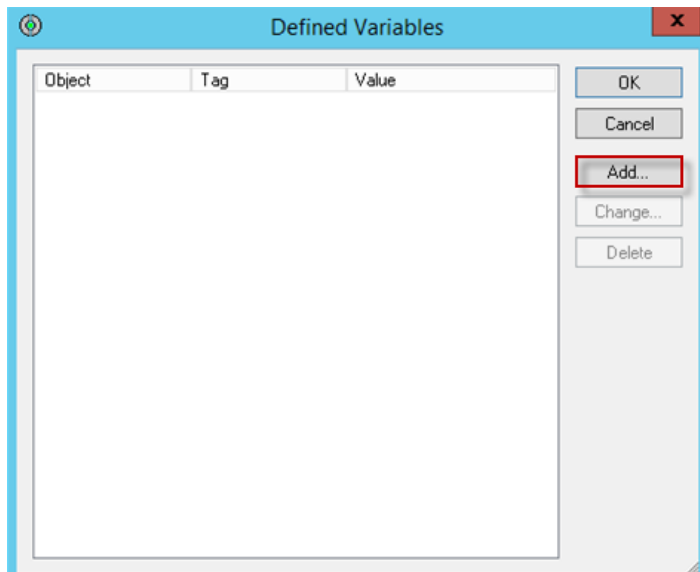
Name	Tel	E-mail	Chat	Number	PBX	E-mail address
Administrator					HHQALabor	
DEMO1	X				HHQALabor	
DEMO2	X				HHQALabor	

Edit...
Create...
Copy...
Delete

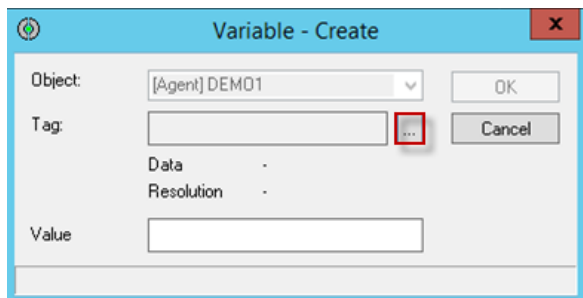
6. Click the **Variables** button.

The screenshot shows the 'General' tab of the '[Agent] DEMO1 - Edit' dialog. The 'System name' is 'DEMO1' and the 'Login name' is 'DEMO1'. Under 'Task types', 'Telephony' is selected. There are buttons for 'Password...', '2nd password...', 'Variables...', 'Skills...', 'Availability...', 'Privileges...', and 'Authorization...'. The 'Variables...' button is highlighted with a red rectangle. The 'Title' section has 'Ms.' selected. The 'Last name', 'First name', 'Employee ID', and 'Cost center' fields are empty. The 'Predefined profile' is '<None>'. The 'Address book' is set to 'Standard'. The 'OK' and 'Cancel' buttons are at the top right.

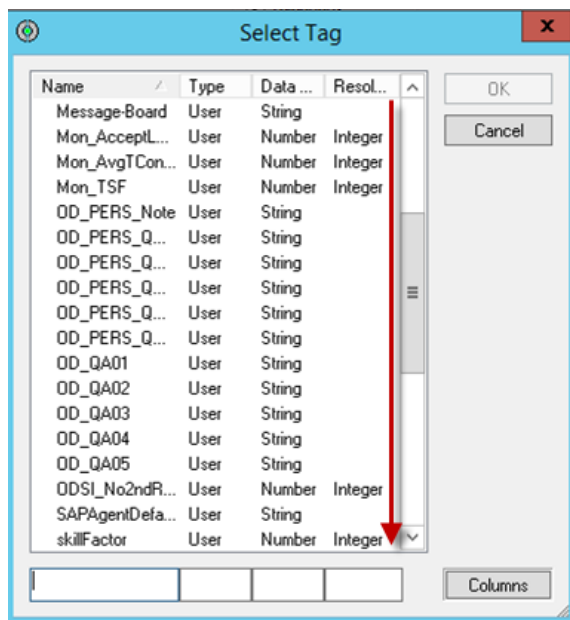
7. Click the **Add** button.



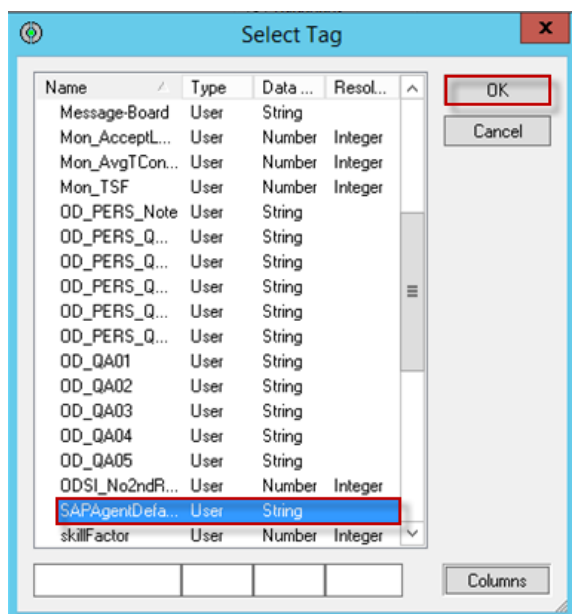
8. Click the **builder** button.



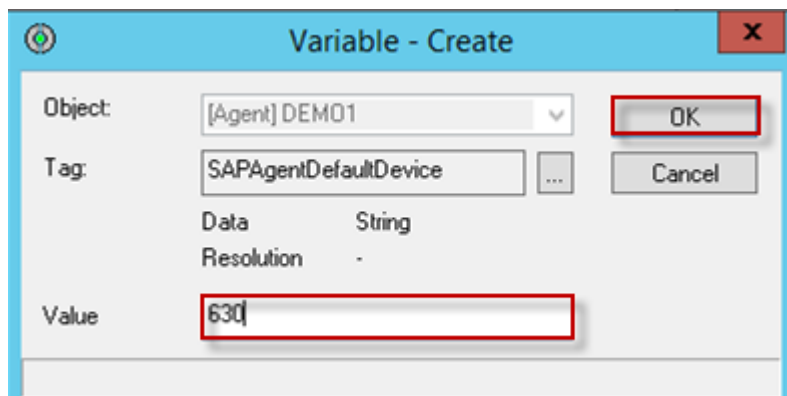
9. **Scroll** down until you can see the tag **SAPAgentDefaultDevice**.



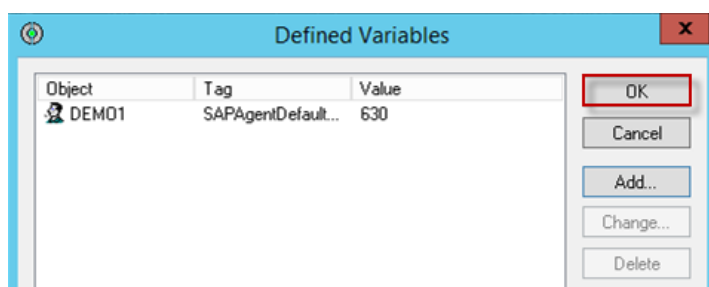
10. Click the Tag **SAPAgentDefaultDevice** and then select the **OK** button.



11. In the Value field, type the Extension number of the User and then select the **OK** button.



12. Click the **OK** button.



13. Click the **OK** button.

[Agent] DEMO1 - Edit

General | Telephony

System name: DEMO1

Login name: DEMO1

☐ Autom. sign on through Windows user account

Username:

Domain/computer:

Task types

☒ Telephony

☐ E-mail

☐ Chat

Password...

2nd password...

Variables...

Skills...

Availability...

OK

Cancel

14. Repeat this process for all other SAP users.

[Agent] DEMO1 - Edit

General | Telephony

Telephony name: DEMO1

Number: 630

No of connections: 1

Wrap Up: 100 %

Call divert logout:

Password...

OK

Cancel

Authorizations

View: <All>

OK

Cancel

Telephone group | Campaign

Topic | Agent group

Agent | Team | Telephone

630

631

632

633

634

635

Add

View

☐ Assigned

☐ Free

☒ All

Topic | Agent group | Agent | Profile | Team | Customer | External destination | Workplace | Announcement | Announcement script | IVR

Break Time code | PBX | CHAP server | VEA | Country | Queue device | Telephone | Telephone group | Chat server | Chat script

Number	PBX
630	HHQALabor
631	HHQALabor
632	HHQALabor
633	HHQALabor
634	HHQALabor

Edit...

Create...

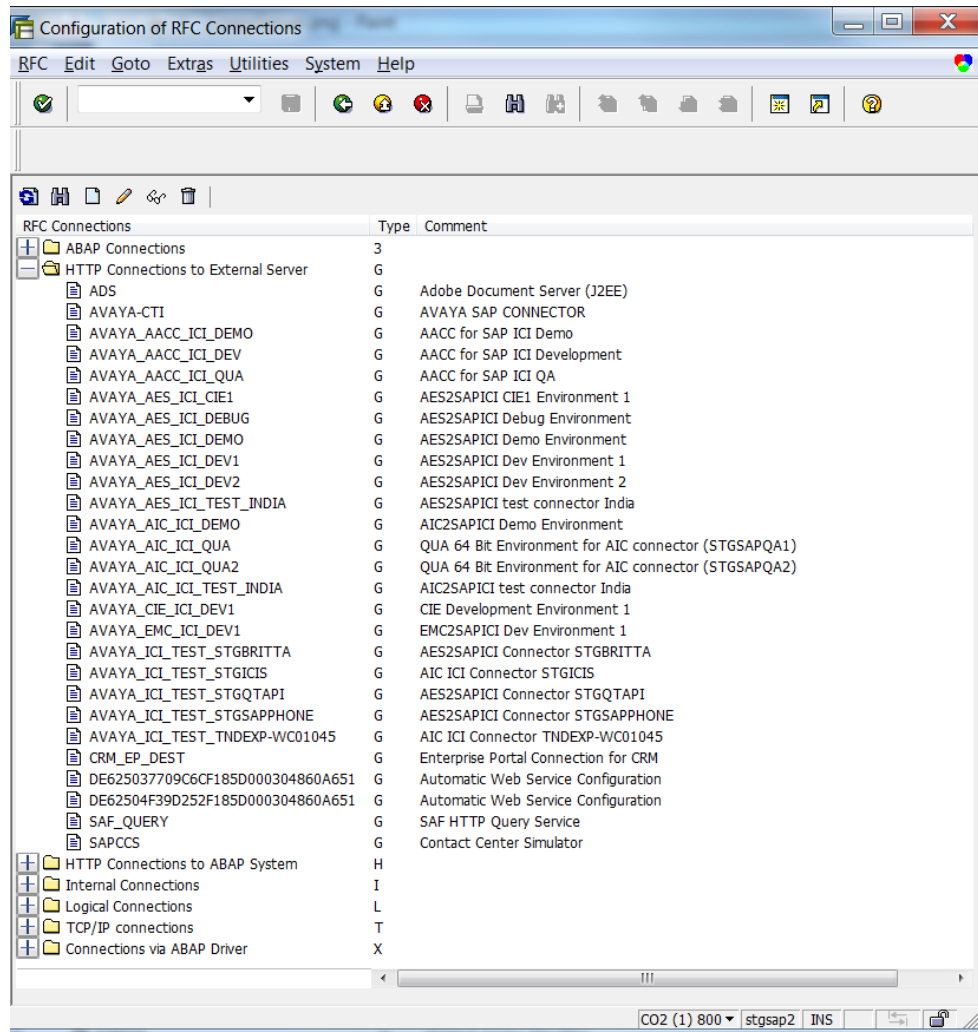
Delete

SAP Settings

The following settings must be defined in the SAP System.

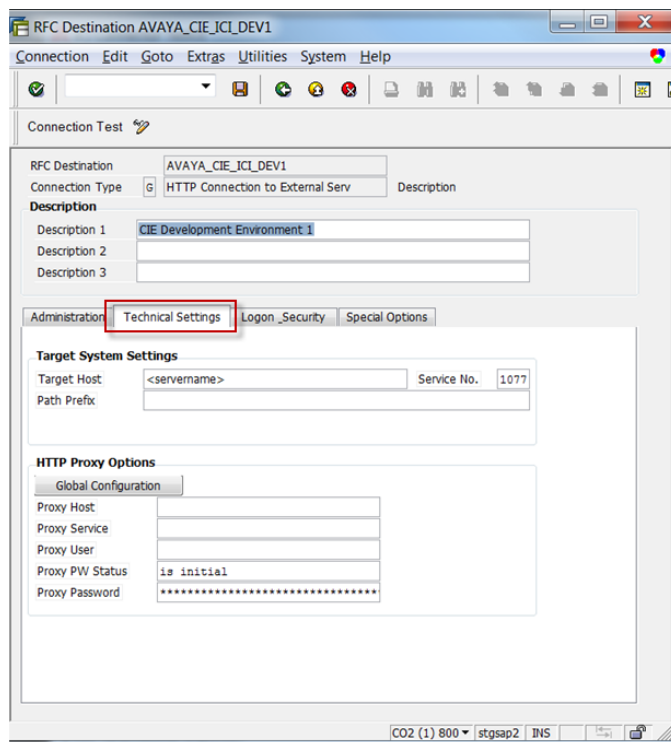
Configure SAP

Transaction sm59

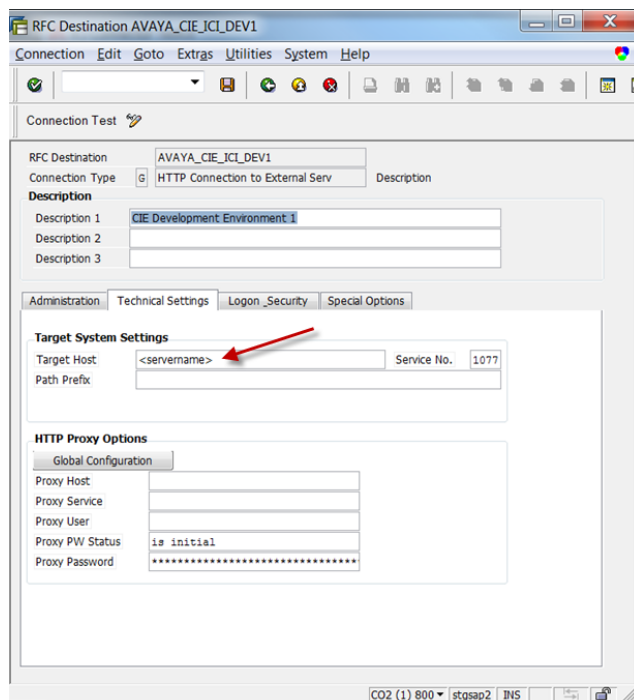


Create a connection with the type **HTTP Connection to External Serv.**

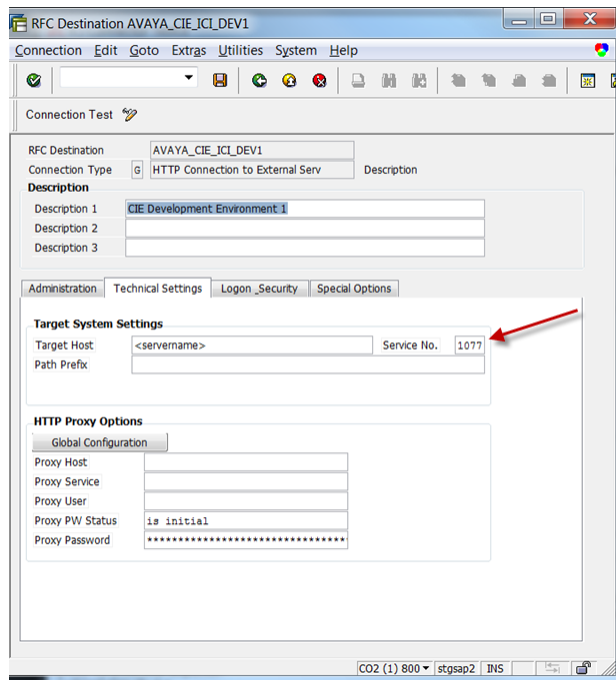
1. From the **Technical Settings** tab, enter the data for the connection to the ICI Connector.



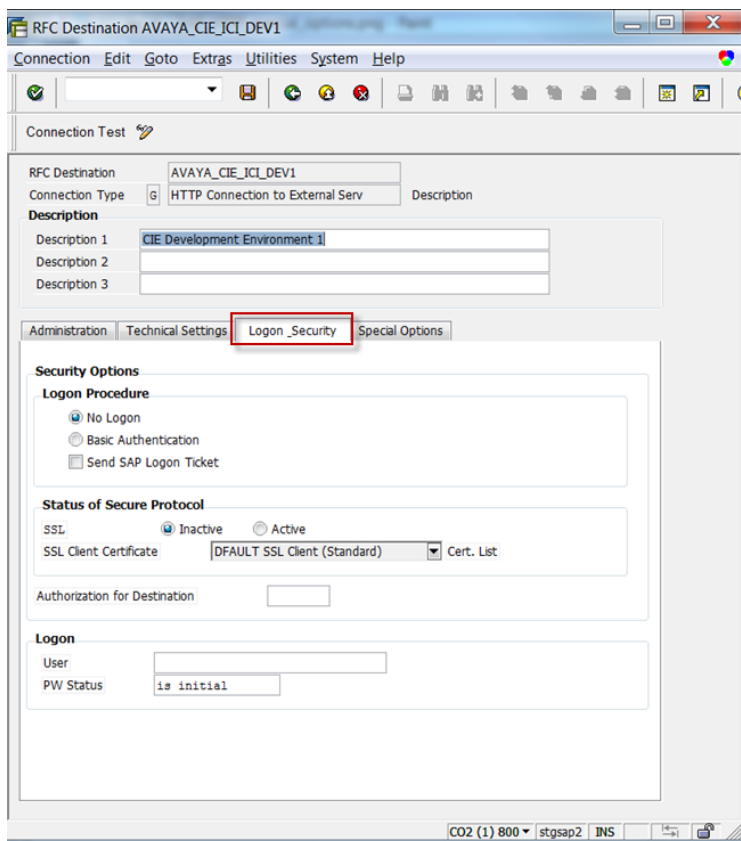
2. In the **TargetHost** field, enter the name or the IP address of the system where the ICI Connector runs.



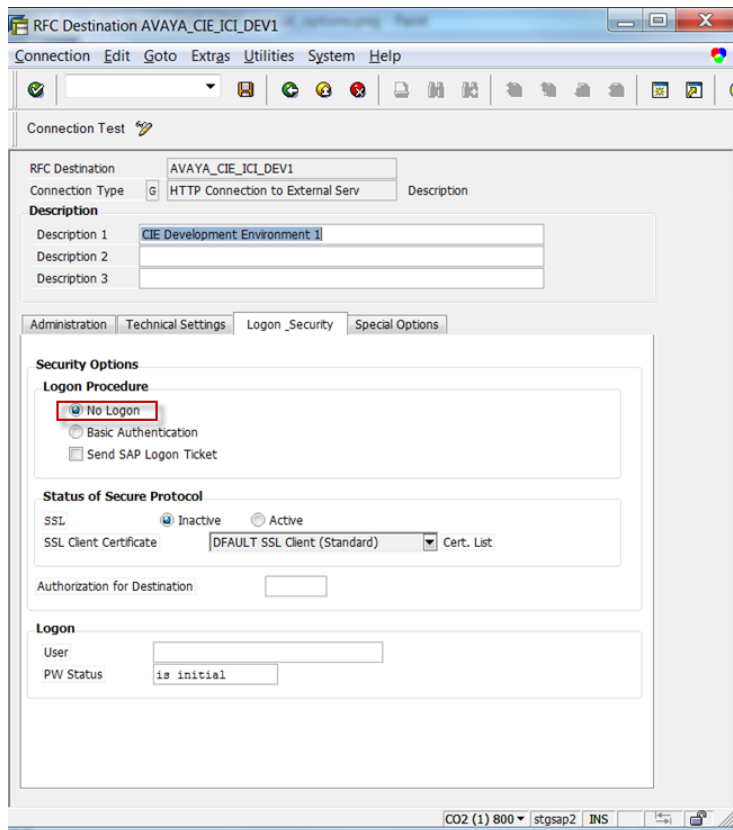
3. In the **ServiceNo** field, enter the ICI Port (see configuration ICI Connector)



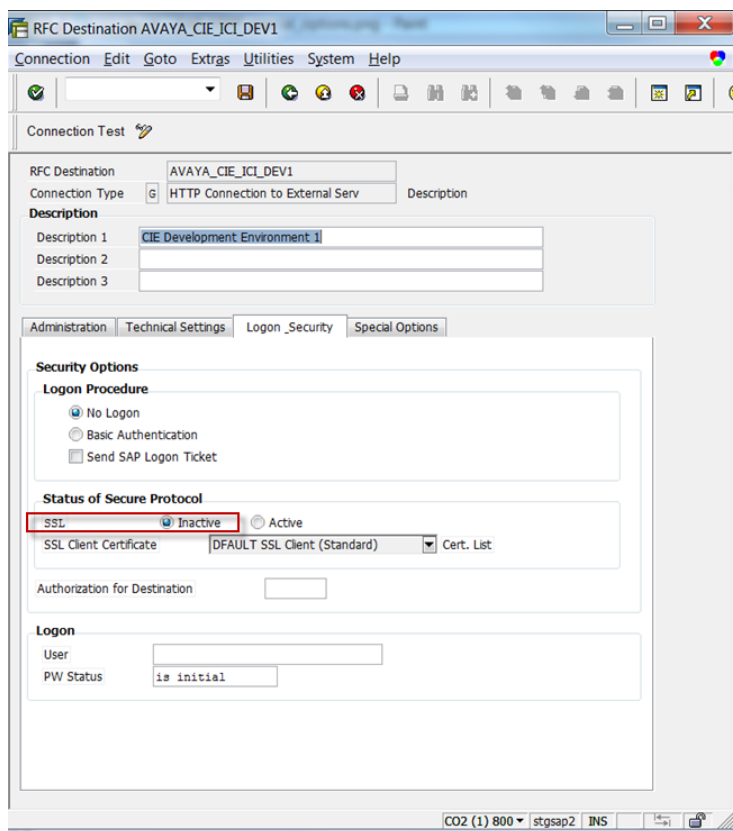
5. From the **Logon Security** tab, enter the security settings.



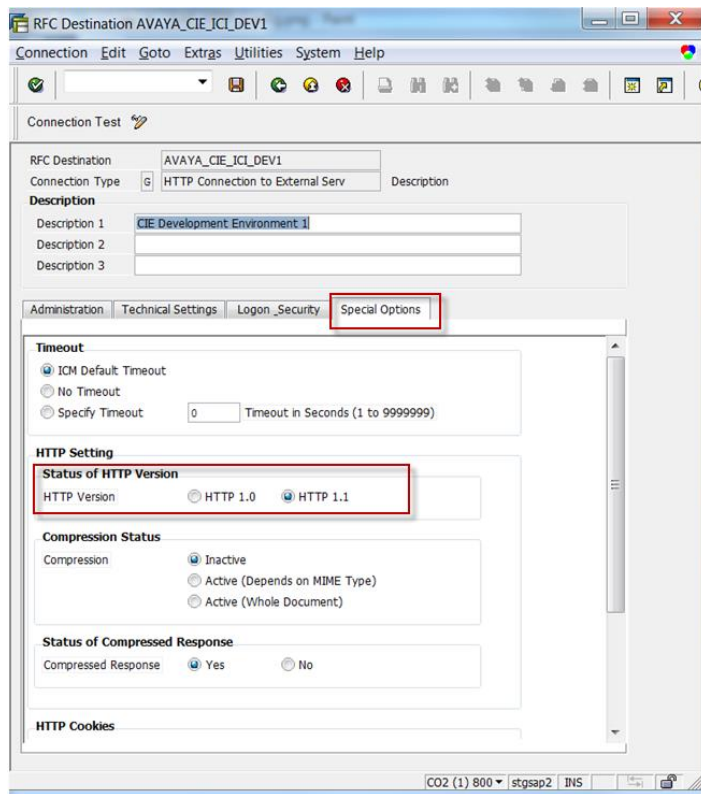
6. Check **No Logon**.



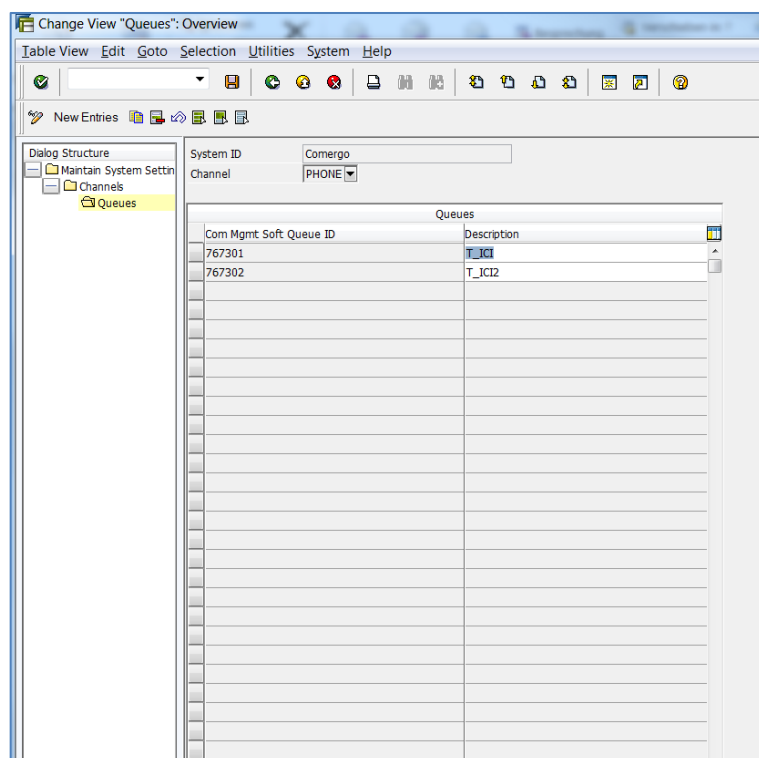
7. Check SSL Inactive.



8. From the **Special options** tab enter the HTTP protocol version.



9. To display a correct QueuePresence in the SAP GUI with the transaction CRMM_IC_MCM_CCADM, the topics used in the Contact Center along with their name and call number have to be configured.

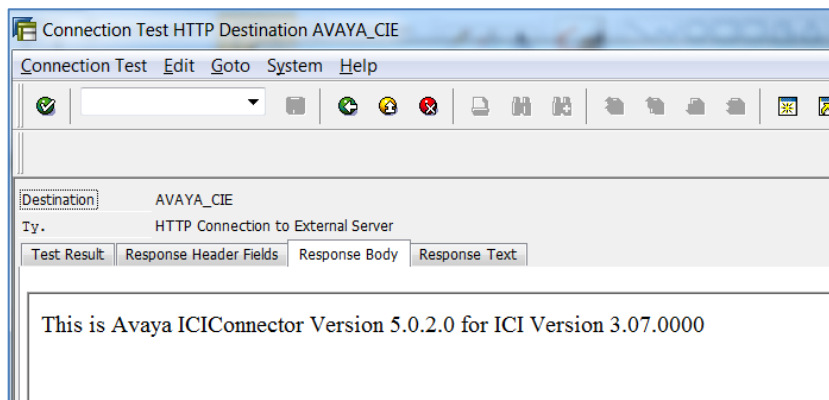
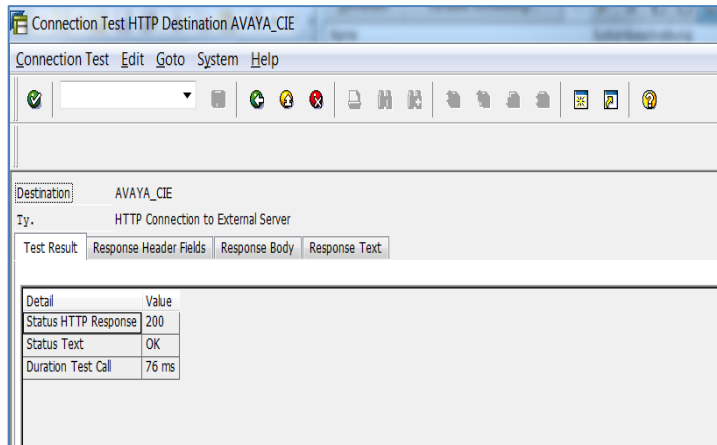


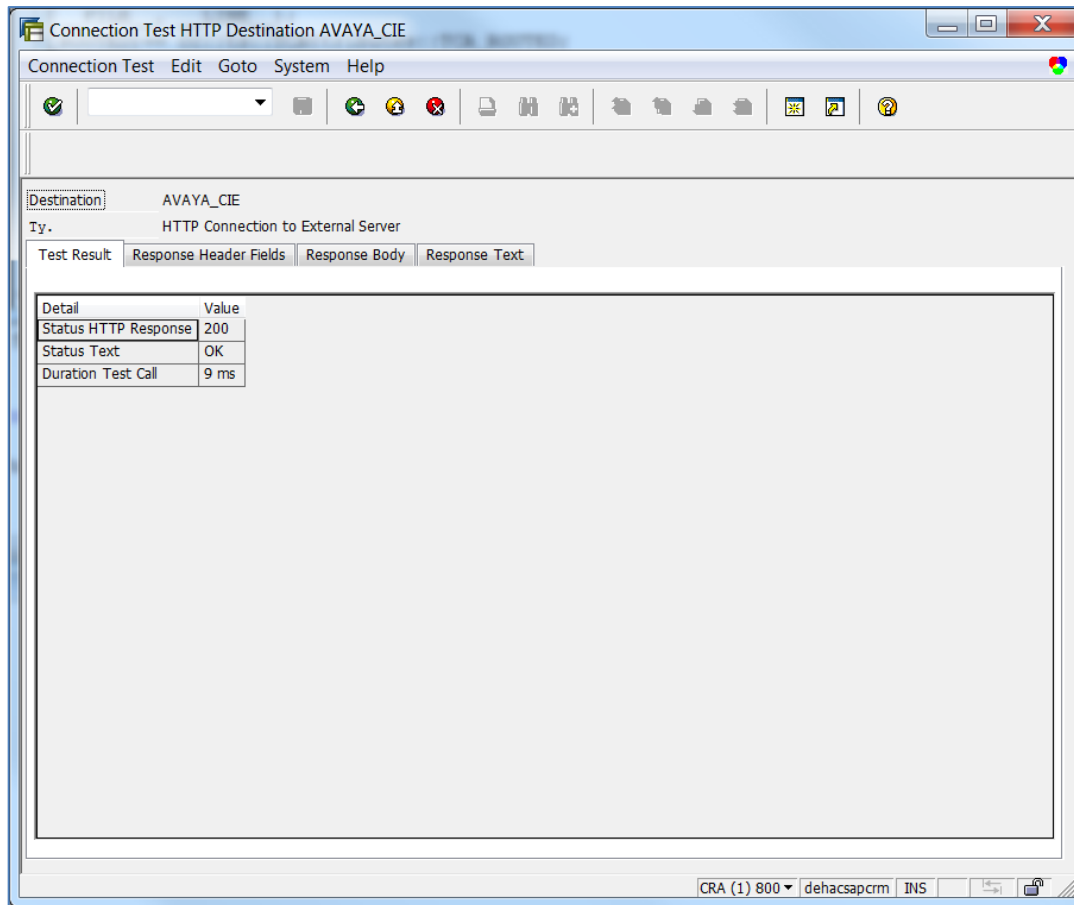
Test the connection

The connection between SAP System and ICI Connector can be tested by clicking the **Connection Test** button.

To test the connection, the SAP System sends a SOAP request to the ICI Connector. The ICI Connector receives the request and sends a response.

When the connection is verified, the following message is displayed.





No connection

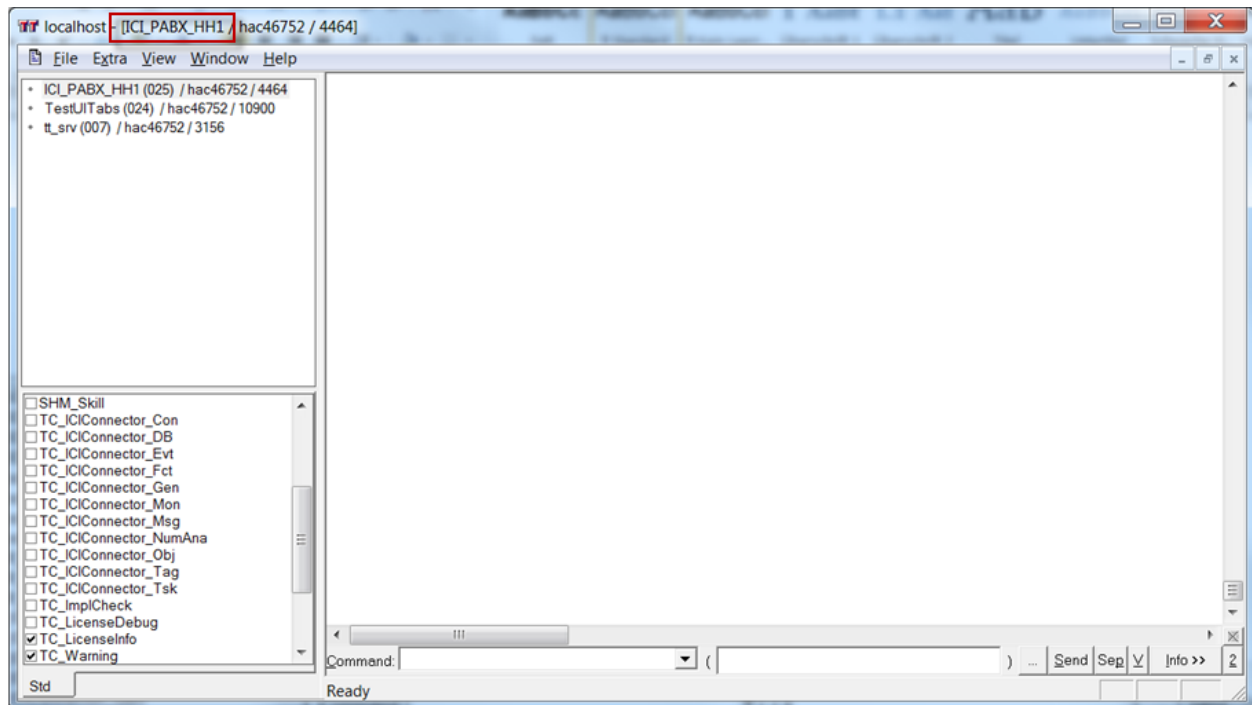
If no connection is established the following message is displayed in the status line.

CM_HTTP_CONNECTION_FAILED

Error Analysis

TTraceConsole

When using TTraceConsole the ICI Connector name is displayed under which the configuration data is saved (In this example, ICI_PABX_HH1)



TTrace prompts and their meaning:

TC_ICIConnector_Gen

Trace GeneralInfos - general Information

TC_ICIConnector_Obj

Trace Objects - logs the creation and deletion of data structures

TC_ICIConnector_Fct

Trace Functioncalls, logs protokolliert function calls and their parameters

TC_ICIConnector_Tsk

Trace TaskList – provides additional information on Contact Center Task Objects

TC_ICIConnector_Msg

Trace Soap Messages - logs the replaced XML coded SOAP messages

TC_ICIConnector_Evt,

Trace Events - logs the events from TaskServer (Agent-,CallStates)

TC_ICIConnector_Con

Trace Re/Connect - provides information regarding connections/reconnections to the Contact Center

TC_ICIConnector_Tag

Trace TaskTags - provides detailed information on Call Tags transferred with the Contact Center

TC_ICIConnector_NumAna

Trace PhoneNumberAnalyzer – provides information on call number replacement/normalization

TC_ICIConnector_DB

Trace DatabaseInterface provides log access to the DBServer and reported changes to configuration data

TC_ICIConnector_Mon

Trace MonitorInfos - logs events from StatMonServer

Additional commands

PrintTaskByCCId,"CCId of a task, '*' or empty parameter = list of available datasets")

- Provides detailed information on known tasks

PrintTaskByCallHandle, "ICICallHandle of a task, '*' or empty parameter = list of available datasets")

- Provides detailed information on known tasks

KillTaskByCallHandle,"enter ICICallHandle of a task to remove it from the system")

- Kills the task identified by the CallHandle

KillTaskByCCId, "enter CCId of a task to remove it from the system")

- Kills the task identified by the CCId

PrintMonitoredPep,"enter Devicenumber of PEP , '*' or empty parameter = list of all monitored Peps")

- Provides detailed information regarding monitored extensions

PrintContainer,"enter ICIContainerId, i.e. DeviceNumber with leading '+' , '*' or empty parameter = list of all Container")

- Provides detailed information regarding the Container subscribed by SAP

PrintUser,"enter ICIUserId, i.e. LoginName , '*' or empty parameter = list of all User")

- Provides detailed information regarding subscribed user (Contact Center agents) by SAP

PrintConfig,"Print ConfigData"

- Provides detailed information regarding the configuration of the ICI Connector and the data in the Contact Center configuration database

Connection to the Contact Center

By using TTraceConsole the status of the ICI Connector can be established.

If the connection to the Contact Center (TaskServer, DBServer, StatMonServer) is broken or not established, the log is generated as follows.

The screenshot shows the TTraceConsole application window. The menu bar includes File, Extra, View, Window, and Help. The main window displays a log of events. On the left, there is a tree view showing the following items:

- ICI_PABX_HH1 (021) / hac4
- TestUITabs (019) / hac467
- tt_srv (007) / hac46752 / 315

The log itself is a table with three columns: Time, Event, and Message. The messages are as follows:

```

000.0007 [0x0000123C] TSDBSession::open: CORBA exception while connect to db_srv IDL:omg.org/CORBA/INV_OBJREF:1.0 COMPLE
11:52:53.574 TC_Error
000.0007 No Connection to DataBase
11:52:53.574 TC_Error
000.0007 [0x0000123C] DBConnector got no dbSession
11:52:53.574 TC_Error
000.0007 No Connection to DataBase
11:52:53.574 omniORB
omniORB: ERROR -- the application attempted to invoke an operation
on a nil reference.
11:52:53.574 omniORB
[0x0000123C] TSDBSession::close: CORBA exception IDL:omg.org/CORBA/INV_OBJREF:1.0 COMPLETED_NO minor: INV_OBJREF_Invoked
11:52:53.584 TC_Warning
(AbsOrbNaming::resolve) unable to contact the naming service. Ex: IDL:omg.org/CORBA/TRANSIENT:1.0 COMPLETED_NO minor: TR
11:52:58.584 TC_Error
[0x00002124] TaskServerProxy(TS_BGL)::pGetCorbaTaskServerByName(): CORBA::is_nil(pCorbaTaskServerManager)
11:52:58.584 TC_Warning
[0x00002124] TaskServerProxy(TS_BGL)::zReconnect() CorbaTaskServer=NULL
11:52:58.594 TC_Error
(AbsOrbNaming::resolve) unable to contact the naming service. Ex: IDL:omg.org/CORBA/TRANSIENT:1.0 COMPLETED_NO minor: TR
11:52:58.594 omniORB
omniORB: ERROR -- the application attempted to invoke an operation
on a nil reference.
11:52:58.594 omniORB
000.0007 [0x0000123C] TSDBSession::open: CORBA exception while connect to db_srv IDL:omg.org/CORBA/INV_OBJREF:1.0 COMPLE
11:52:58.594 TC_Error
000.0007 No Connection to DataBase
11:52:58.594 TC_Error
000.0007 [0x0000123C] DBConnector got no dbSession
11:52:58.594 TC_Error
000.0007 No Connection to DataBase
11:52:58.594 omniORB
omniORB: ERROR -- the application attempted to invoke an operation
on a nil reference.
11:52:58.594 omniORB
[0x0000123C] TSDBSession::close: CORBA exception IDL:omg.org/CORBA/INV_OBJREF:1.0 COMPLETED_NO minor: INV_OBJREF_Invoked
11:53:03.584 TC_Error
004.0008 no license-server found; http://berlin:8080/WebIM/LicenseServer; Problem with connection to server:berlin http:
11:53:03.584 TC_Warning
(AbsOrbNaming::resolve) unable to contact the naming service. Ex: IDL:omg.org/CORBA/TRANSIENT:1.0 COMPLETED_NO minor: TR
11:53:03.584 TC_Warning
[0x00002124] TaskServerProxy(TS_BGL)::pGetCorbaTaskServerByName(): CORBA::is_nil(pCorbaTaskServerManager)
11:53:03.584 TC_Warning
[0x00002124] TaskServerProxy(TS_BGL)::zReconnect() CorbaTaskServer=NULL
11:53:03.594 TC_Error
(AbsOrbNaming::resolve) unable to contact the naming service. Ex: IDL:omg.org/CORBA/TRANSIENT:1.0 COMPLETED_NO minor: TR
11:53:03.594 omniORB
omniORB: ERROR -- the application attempted to invoke an operation
on a nil reference.
11:53:03.594 TC_Error
000.0007 [0x0000123C] TSDBSession::open: CORBA exception while connect to db_srv IDL:omg.org/CORBA/INV_OBJREF:1.0 COMPLE
11:53:03.594 TC_Error
000.0007 No Connection to DataBase
11:53:03.594 TC_Error
000.0007 [0x0000123C] DBConnector got no dbSession
11:53:03.594 TC_Error
000.0007 No Connection to DataBase
11:53:03.594 omniORB
omniORB: ERROR -- the application attempted to invoke an operation
on a nil reference.
11:53:03.594 omniORB
[0x0000123C] TSDBSession::close: CORBA exception IDL:omg.org/CORBA/INV_OBJREF:1.0 COMPLETED_NO minor: INV_OBJREF_Invoked
11:53:08.594 TC_Error
(AbsOrbNaming::resolve) unable to contact the naming service. Ex: IDL:omg.org/CORBA/TRANSIENT:1.0 COMPLETED_NO minor: TR
11:53:08.594 TC_Warning
(AbsOrbNaming::resolve) unable to contact the naming service. Ex: IDL:omg.org/CORBA/TRANSIENT:1.0 COMPLETED_NO minor: TR
11:53:08.594 omniORB
[0x00002124] TaskServerProxy(TS_BGL)::pGetCorbaTaskServerByName(): CORBA::is_nil(pCorbaTaskServerManager)
11:53:08.594 TC_Warning
omniORB: ERROR -- the application attempted to invoke an operation
[0x00002124] TaskServerProxy(TS_BGL)::zReconnect() CorbaTaskServer=NULL
11:53:08.594 omniORB
on a nil reference.
11:53:08.594 TC_Error
000.0007 [0x0000123C] TSDBSession::open: CORBA exception while connect to db_srv IDL:omg.org/CORBA/INV_OBJREF:1.0 COMPLE
11:53:08.594 TC_Error
000.0007 No Connection to DataBase
11:53:08.594 TC_Error
000.0007 [0x0000123C] DBConnector got no dbSession
11:53:08.594 omniORB
omniORB: ERROR -- the application attempted to invoke an operation
on a nil reference.
11:53:08.594 omniORB
[0x0000123C] TSDBSession::close: CORBA exception IDL:omg.org/CORBA/INV_OBJREF:1.0 COMPLETED_NO minor: INV_OBJREF_Invoked
11:53:13.604 TC_Error
(AbsOrbNaming::resolve) unable to contact the naming service. Ex: IDL:omg.org/CORBA/TRANSIENT:1.0 COMPLETED_NO minor: TR
11:53:13.604 TC_Warning
[0x00002124] TaskServerProxy(TS_BGL)::pGetCorbaTaskServerByName(): CORBA::is_nil(pCorbaTaskServerManager)
11:53:13.604 TC_Warning
[0x00002124] TaskServerProxy(TS_BGL)::zReconnect() CorbaTaskServer=NULL
11:53:13.604 TC_Error
(AbsOrbNaming::resolve) unable to contact the naming service. Ex: IDL:omg.org/CORBA/TRANSIENT:1.0 COMPLETED_NO minor: TR
11:53:13.604 omniORB
omniORB: ERROR -- the application attempted to invoke an operation
on a nil reference.
11:53:13.604 omniORB

```

Connection to SAP System

The connection between SAP and ICI Connector can be checked within the SAP system by utilizing transaction sm59.

Trace in SAP System (SOAP Messages)

Enable TraceFunktion for the user with transaction su01 and the parameter CRM_ICI_TRACELEVEL

The screenshot shows the SAP 'Display Users' (SU01) transaction. The user 'KOHNKE1' is selected. The 'Parameters' tab is active, displaying a list of parameters for this user.

Set/Get parameter ID	Parameter value	Short Description
CRM_ICI_TRACELEVEL	XXX	user parameter for settings in ICI trace
CRM_UI_PROFILE	Z_IC_AGENT	CRM UI Profile

With the transaction `crm_ici_trace` the SOAP dialog between SAP and the ICI Connector can be displayed for user, where SAPTrace is enabled.

Eintrag 000239 von 000292 Einträgen
Zeitstempel: 29.10.2014 13:24:42 643ms
Trace-Typ: eingehender SOAP-Request

```
POST /sap (bd1FT1zjPTgwMCZpPTEmZT1TMD1JVGt0Rk1WOW2YMT1mTVRs2k5Uqm2BQXdwN051dEh0U1g3Y1ly2V14QX1BJTNkJTN
host: 135.124.16.58:8000
user-agent: gSOAP/2.8
content-type: text/xml; charset=utf-8
content-length: 2427
connection: close
soapaction: "http://ingmy.com/soapdispatcher/rpc/bcbici/IciEventBean"
```

- <IciEvent:phoneCall>
 <IciEvent:dialedNumber>+767301</IciEvent:dialedNumber>
 <IciEvent:lineNumber>+1123</IciEvent:lineNumber>
 - <IciEvent:callStatus>
 <IciEvent:description>connected</IciEvent:description>
 <IciEvent:id>101</IciEvent:id>
 </IciEvent:callStatus>
 - <IciEvent:capabilityList>
 <IciEvent:item>3</IciEvent:item>
 <IciEvent:item>4</IciEvent:item>
 <IciEvent:item>6</IciEvent:item>
 <IciEvent:item>7</IciEvent:item>
 <IciEvent:item>8</IciEvent:item>
 <IciEvent:item>102</IciEvent:item>
 <IciEvent:item>103</IciEvent:item>
 <IciEvent:item>104</IciEvent:item>
 <IciEvent:item>105</IciEvent:item>
 <IciEvent:item>107</IciEvent:item>
 <IciEvent:item>109</IciEvent:item>
 <IciEvent:item>110</IciEvent:item>
 <IciEvent:item>113</IciEvent:item>
 </IciEvent:capabilityList>
 <IciEvent:internal>true</IciEvent:internal>
 - <IciEvent:remoteNumbers>
 <IciEvent:item>+494077771181</IciEvent:item>
 </IciEvent:remoteNumbers>
 <IciEvent:callHandle>6073426847147098949</IciEvent:callHandle>
 <IciEvent:trunkId>xsi:nil="true"</IciEvent:trunkId>

TestTool TestUITabs

By using the TestUITabs.exe the connection and interaction of the ICI Connectors with the Contact Center can be tested. The Test Tool uses the same SOAP dialogs as the SAP System.

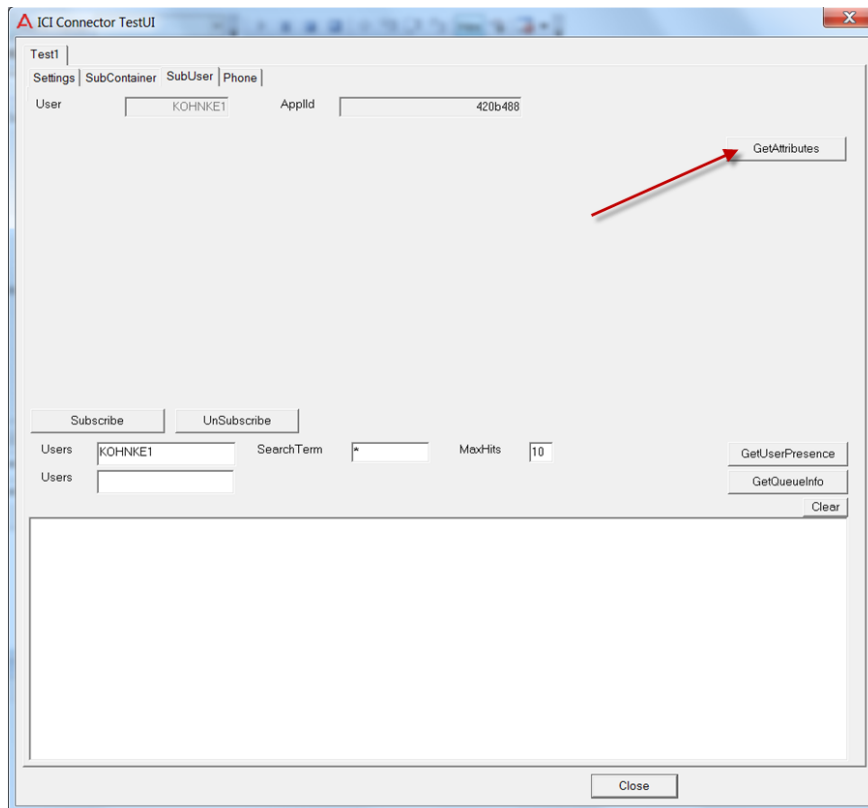
The screenshot shows the 'ICI Connector TestUI' application window. It has a title bar with a red 'X' button. Below the title bar is a tabbed interface with 'Test1' selected. Under 'Test1', there are sub-tabs: 'Settings', 'SubContainer', 'SubUser', and 'Phone'. The 'Settings' sub-tab is active and contains two main sections: 'CIE Agent Settings' and 'HTTP/SOAP Connection Settings'. The 'CIE Agent Settings' section has three input fields: 'User' (containing 'KOHNKE1'), 'Phone' (containing '+1122'), and 'Language' (containing 'EN'). The 'HTTP/SOAP Connection Settings' section has three input fields: 'Server where ICIConnector runs' (containing 'http://135.124.19.50'), 'Port' (containing '1077'), and 'LocalSOAPListenPort' (containing '1091'). Below these sections is a button labeled 'StartLocalSOAPServer'. At the bottom right of the settings area is a 'Clear' button. Below the settings area is a large empty rectangular box. At the very bottom of the window is a 'Close' button.

Note: When several instances of the Test Tool software are used, the LocalSoapListenPort has to be unique for each instance.

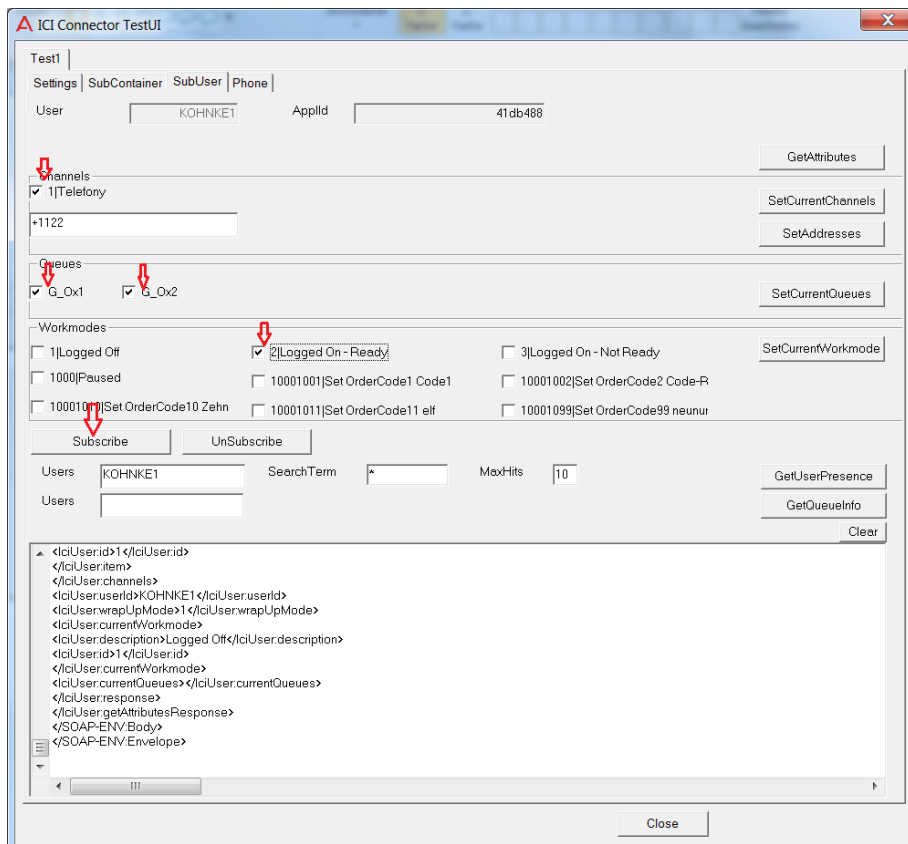
The screenshot shows the 'ICI Connector TestUI' window. It has a title bar with a red 'X' button. Below the title bar is a tab bar with 'Test1', 'Settings', 'SubContainer', 'SubUser', and 'Phone'. The 'Settings' tab is selected. Inside the 'Settings' tab, there are two main sections: 'CIE Agent Settings' and 'HTTP/SOAP Connection Settings'. The 'CIE Agent Settings' section has three input fields: 'User' (containing 'KOHNKE1'), 'Phone' (containing '+1122'), and 'Language' (containing 'EN'). The 'HTTP/SOAP Connection Settings' section has two input fields: 'Server where ICIConnector runs' (containing 'http://135.124.19.50') and 'Port' (containing '1077'). Below these is a 'LocalSOAPListenPort' input field containing '1091'. There is a 'StartLocalSOAPServer' button below the 'LocalSOAPListenPort' field. A 'Clear' button is located at the bottom right of the settings area. A 'Close' button is at the bottom center of the window. Red arrows point to the 'Server where ICIConnector runs' field, the 'Port' field, the 'LocalSOAPListenPort' field, and the 'StartLocalSOAPServer' button.

The FreeSeating feature can be tested from the SubContainer tab.

By clicking the **GetAttributes** button within the **SubUser** tab, the attributes from the Contact Center configuration are requested and displayed for the user. In this example user **KOHNKE1** who was previously defined from within the **User** field of the **Settings** tab.



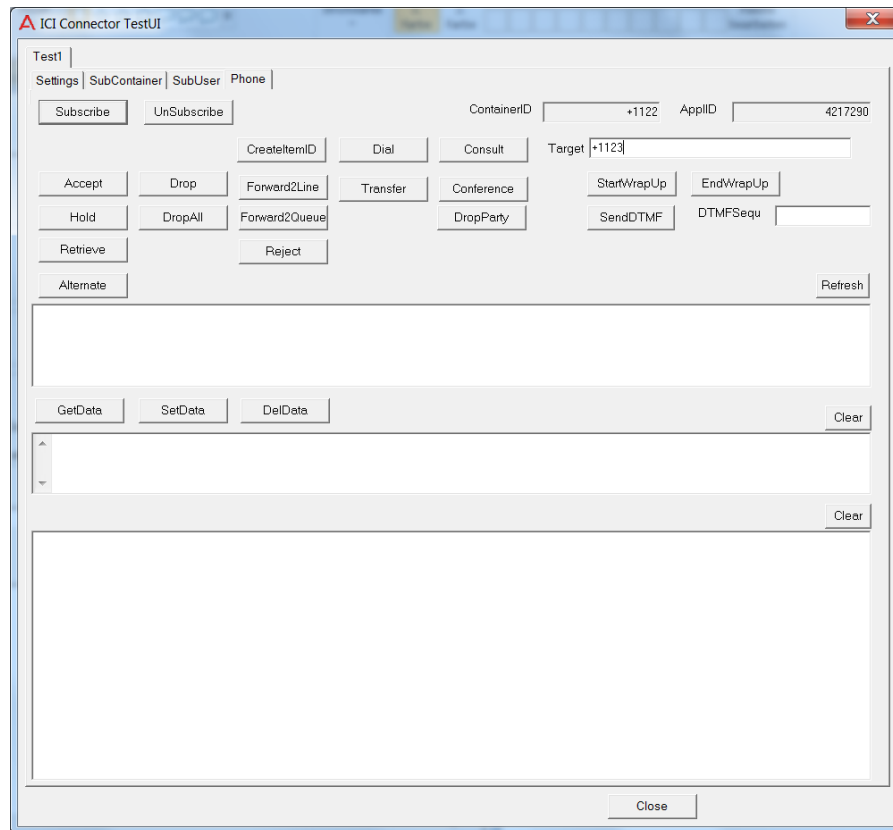
The results are displayed as illustrated below.

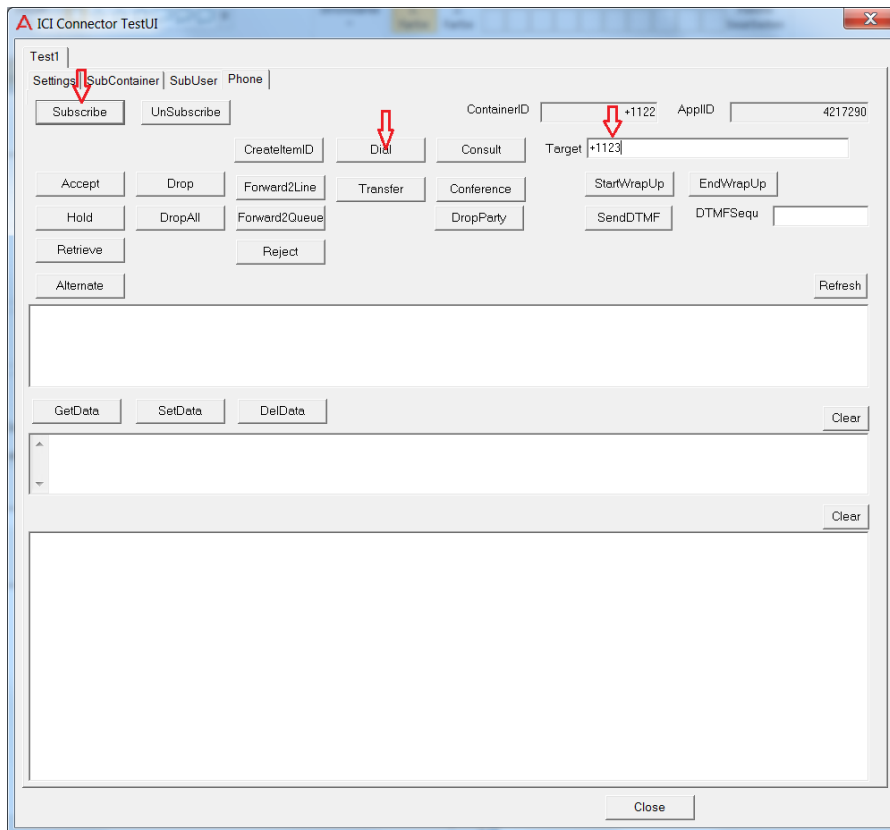


By selecting the check boxes as illustrated above, entering the devices number and clicking the **Subscribe** button, the agent can be logged into the Contact Center. In this example, the device address +1122 has been entered under the 'Telephony' field.

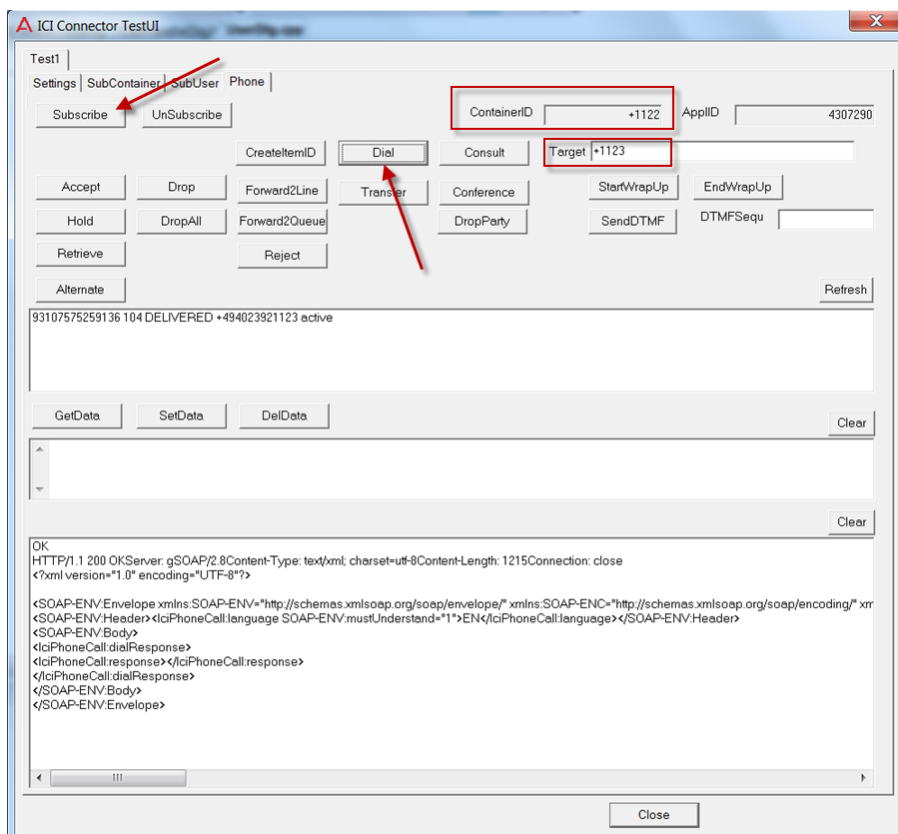
Note: Each 'Telephony' call numbers requires a leading +

From the **Phone** tab, Telephony functions can be tested.





By clicking the **Subscribe** button, the device defined in the **ContainerId** field in this example +1122 is monitored. By clicking the **Dial** button, the number entered as the target for example +1123, is dialed.



The results are displayed:

The screenshot shows the ICI Connector TestUI window. The 'Test1' tab is active. The 'Settings' section includes 'ContainerID' (+1122) and 'AppID' (4307290). The 'Target' field is set to '+1123'. The 'Dial' button is highlighted. The 'Status' section shows '93107575259136 104 DELIVERED +494023921123 active'. The 'Log' section displays the following XML response:

```

OK
HTTP/1.1 200 OKServer: gSOAP/2.8Content-Type: text/xml; charset=utf-8Content-Length: 1215Connection: close
<?xml version="1.0" encoding="UTF-8"?>
<SOAP-ENV:Envelope xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/" xmlns:SOAP-ENC="http://schemas.xmlsoap.org/soap/encoding/" xrr:
<SOAP-ENV:Header><ciPhoneCall:language SOAP-ENV:mustUnderstand="1">EN</ciPhoneCall:language></SOAP-ENV:Header>
<SOAP-ENV:Body>
<ciPhoneCall:dialResponse>
<ciPhoneCall:response></ciPhoneCall:response>
</ciPhoneCall:dialResponse>
</SOAP-ENV:Body>
</SOAP-ENV:Envelope>

```

1123 is an internal call number and due to the substitution rules of the used test system, 1123 has been converted to 49 40 2392 1123.

This screenshot is identical to the previous one but includes red rectangular annotations. One box highlights the 'Target' field containing '+1123'. Another box highlights the status text '+494023921123' in the status line.

Use of License

As defined within WebLM.

<https://<WebImServerName>:8443/WebLM/webImviewstandardlic.jsp?product=CIE&id=webIm.pagesidebar.main.menu.licensedproducts|{standard.product.name}>

Salesforce

Introduction

The IP Office Contact Center Salesforce Application (ISA) integrates the Salesforce CRM Application with IP Office Contact Center. By using ISA, contact center agents can use the Salesforce CRM application as their primary user interface. Therefore an agent can handle voice calls, even if there is no IP Office Contact Center User interface installed on the agents desktop.

ISA will be installed and configured on Salesforce, while CRM Connector is installed and configured on the IP Office Contact Center Server. The agent will access the Salesforce CRM application via their web browser. ISA can be deployed as a Console App, or as a standard App.

Note: Some features such as screen popping, are not supported in standard mode. Additionally, the standard mode app has limitations, therefore ISA should be deployed in Console mode only.

Term	Description
CRM	Customer Relationship Management
IPOCC	IP Office Contact Center
CTI	Computer-Telephony Integration
ISA	IP Office Contact Center Salesforce Application
WSC	Web Services Collection

Planning Checklist

#	Task	Description	Notes	✓
1	Ensure that a Salesforce login account is created to access Salesforce.	This is required to allow the IP Office Contact Center agent to login to the Salesforce platform.	Supported editions of Salesforce are Enterprise Edition, Unlimited Edition, Performance Edition and Developer Edition. "Service cloud" capability must be available to agents.	
2	Ensure that the IP Office Contact Center is running version 10.0.0.0 server (with working Web Service Collection and CRM Connector (CRM Connector setup is show below).	IP Office Contact Center version 10.0.0.0 is required	If the customer has an existing 9.0.X system or 9.1.X system, the server will require upgrading to IP Office Contact Center 10.0.0.0. Please refer to the IP Office 9.1.7 Maintenance Task Based Guide.	
3	Web Service Collection and CRM Connector in service		The details relating to these services are included within this guide.	

How to check your Salesforce Service Cloud license

Check under **Administer - Company Profile – Company information**. Then under the **Feature License** section check that there is a “**Service Cloud User**” field. This will show how many service cloud licenses are available and how many are currently consumed.

Whether Agents/User have been granted that capability can be checked under **Administer – Users**. Choose any user and check the “**Service Cloud User**” check box.

User Detail		Edit	Sharing	Change Password
Name	San ForceA	Role	CEO	
Alias	Gmail	User License	Salesforce	
Email	sanforcea@gmail.com	Profile	System Administrator	
Username	sanforcea@gmail.com	Active	<input checked="" type="checkbox"/>	
Nickname	sanforcea1.4111111227733027E12 i	Marketing User	<input checked="" type="checkbox"/>	
Title		Offline User	<input checked="" type="checkbox"/>	
Company	Avaya	Knowledge User	<input checked="" type="checkbox"/>	
Department		Force.com Flow User	<input type="checkbox"/>	
Division		Service Cloud User	<input checked="" type="checkbox"/>	
Address	411013 IN	Site.com Contributor User	<input type="checkbox"/>	
Time Zone	(GMT+05:30) India Standard Time (Asia/Kolkata)	Site.com Publisher User	<input type="checkbox"/>	
Locale	English (United States)	Work.com User	<input type="checkbox"/>	

Supported Browsers

- Firefox 32+
- Chrome 39+

Supported Features

The following agent functionality is provided in ISA:

- Login
- Logout
- Changing Agent State to Available/Not Available.
- Sign-In/Sign-Out to Agent Groups
- Answer Call
- Release(Drop)
- Hold/UnHold
- Make Outbound Call
- Consult
- Transfer
- Conference
- Job Codes
- Wrap-Up

The following Salesforce functionality is provided in ISA:

- Call Log
- Screen Pop
- Click To Dial

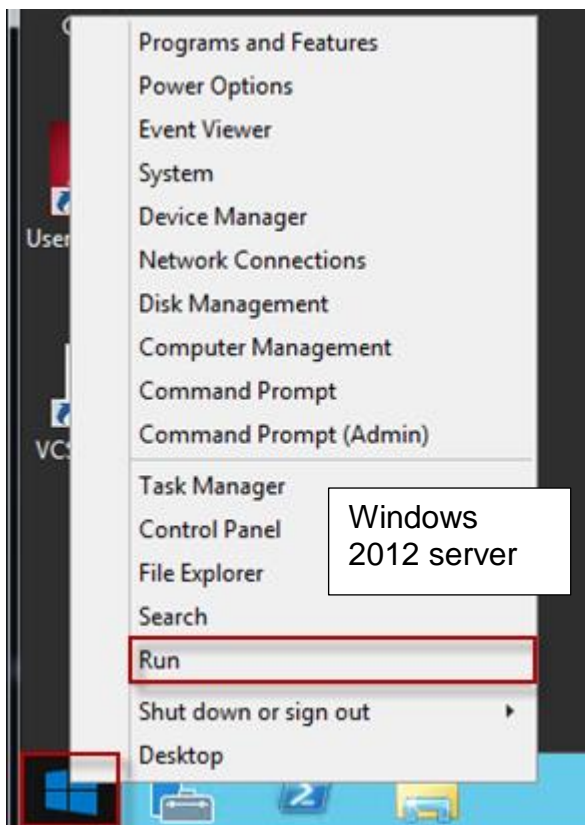
CRM Connector Deployment on IP Office Contact Center Server

The following section describes the three main steps required to deploy the CRM Connector:

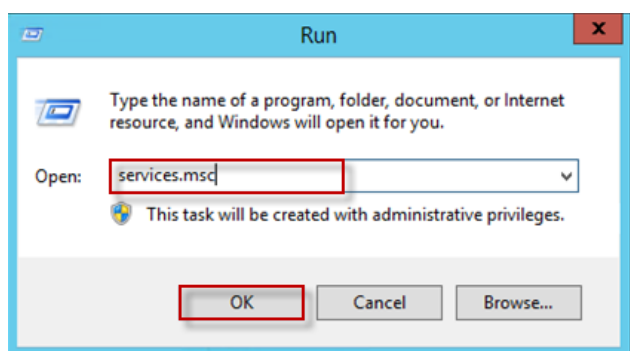
- Install the CRM Salesforce application onto the IP Office Contact Center Server
- Configure the CRM Connector properties file
- Restart the IP Office Contact Center Watchdog

Install the CRM Salesforce application onto the IP Office Contact Center Server

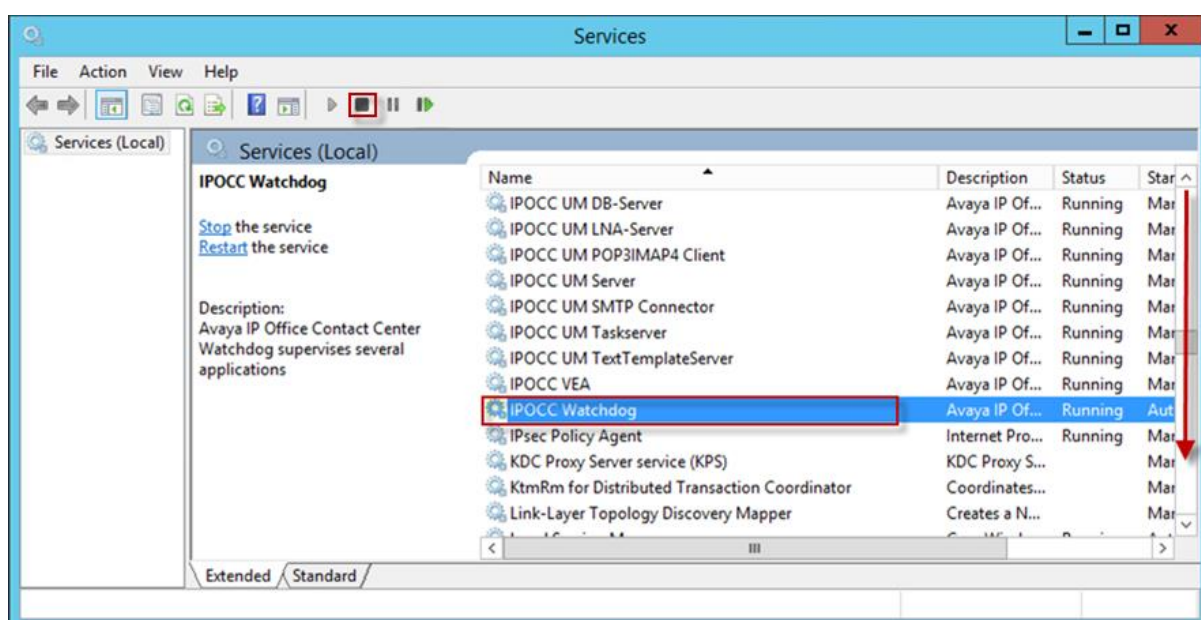
1. Prior to Salesforce CRM being installed, the IP Office Contact Center Watchdog must be stopped. Click the **Windows icon** and select **Run**.



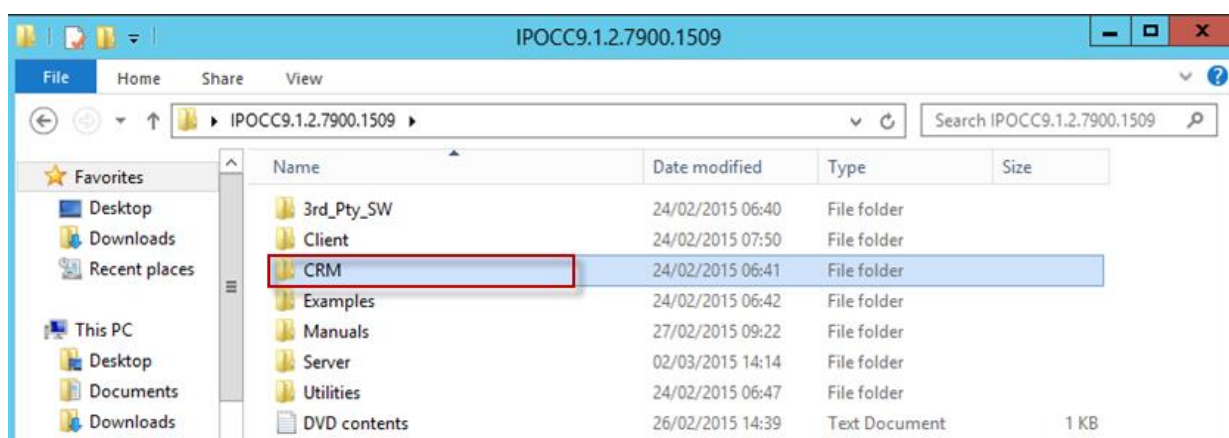
2. Type **services.msc** and then click the **OK** button.



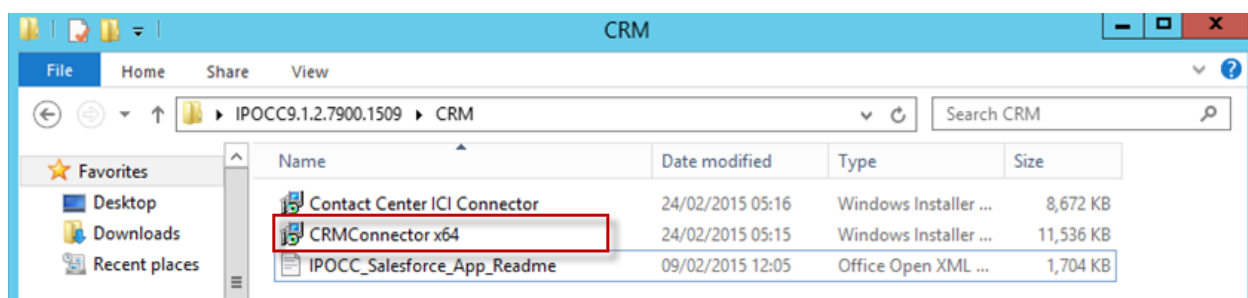
3. Scroll down until the **IP Office Contact Center Watchdog** service is displayed. Click the service and then select the **Stop** link.



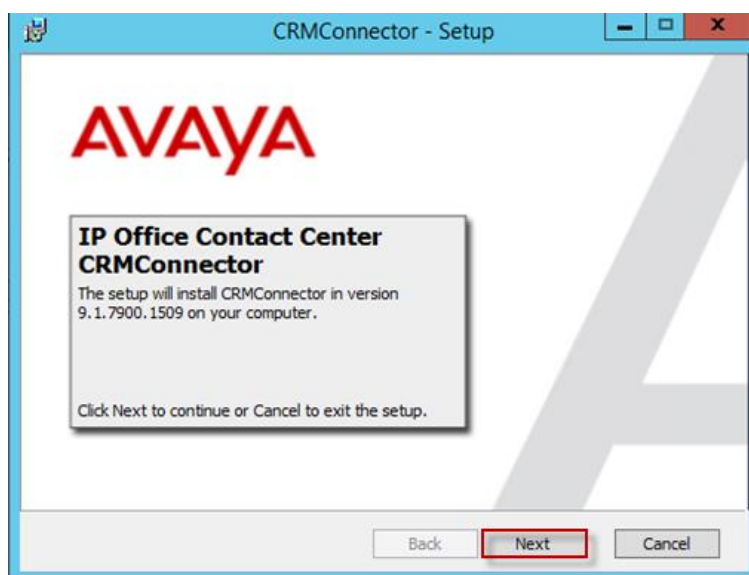
4. Open the Install folder followed by the **CRM** folder.



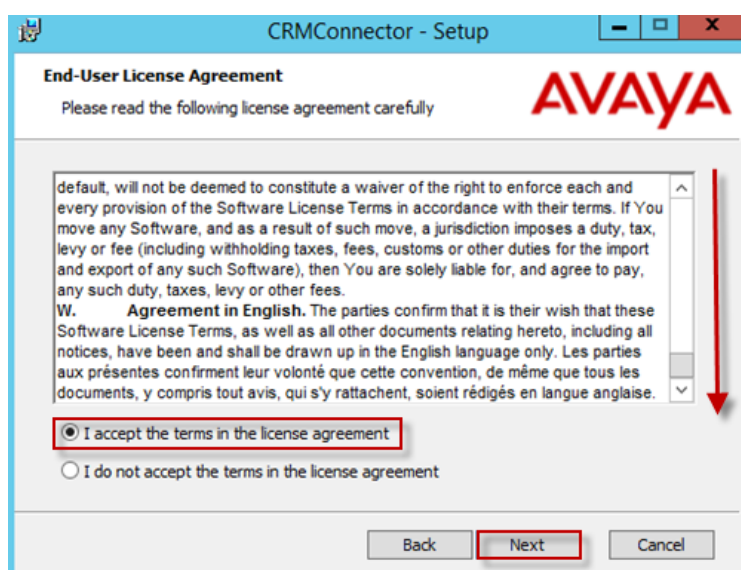
5. Click the **CRMConnector x64**



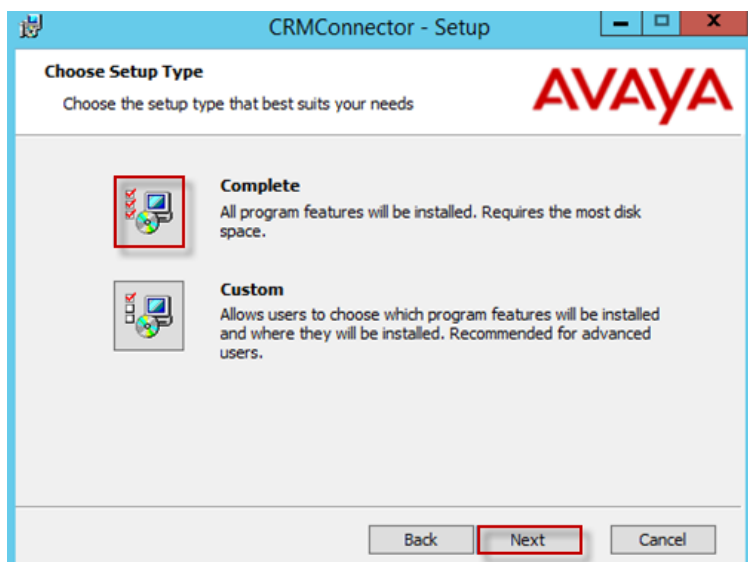
6. Click the **Next** button.



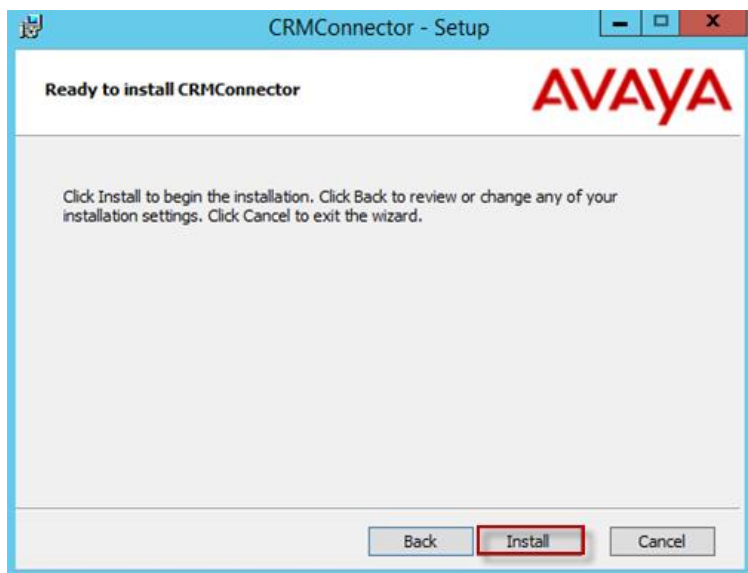
7. Read the End-User License Agreement and click **I accept the terms in the license agreement** and then select the **Next** button.



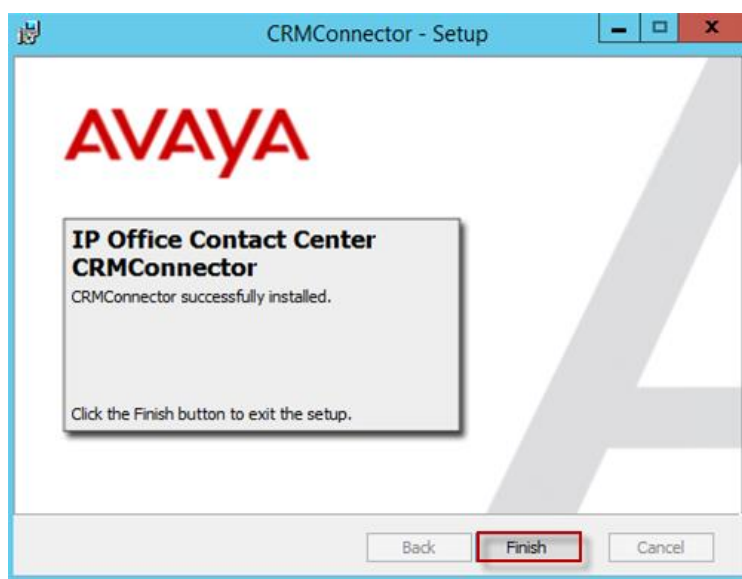
8. Click **Complete** and then select the **Next** button.



9. Click the **Install** button.



10. Click the **Finish** button.



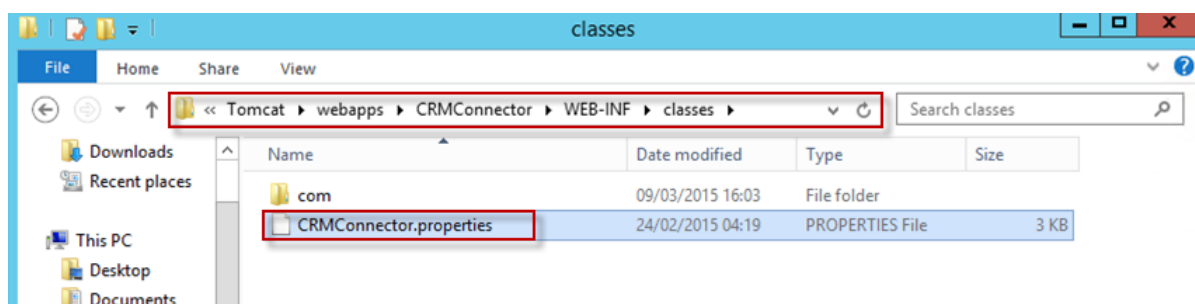
Configure the CRMConnector properties file

1. Browse to the location of the CRMConnector.properties file. The path is dependent on where the TomcatWWW is installed

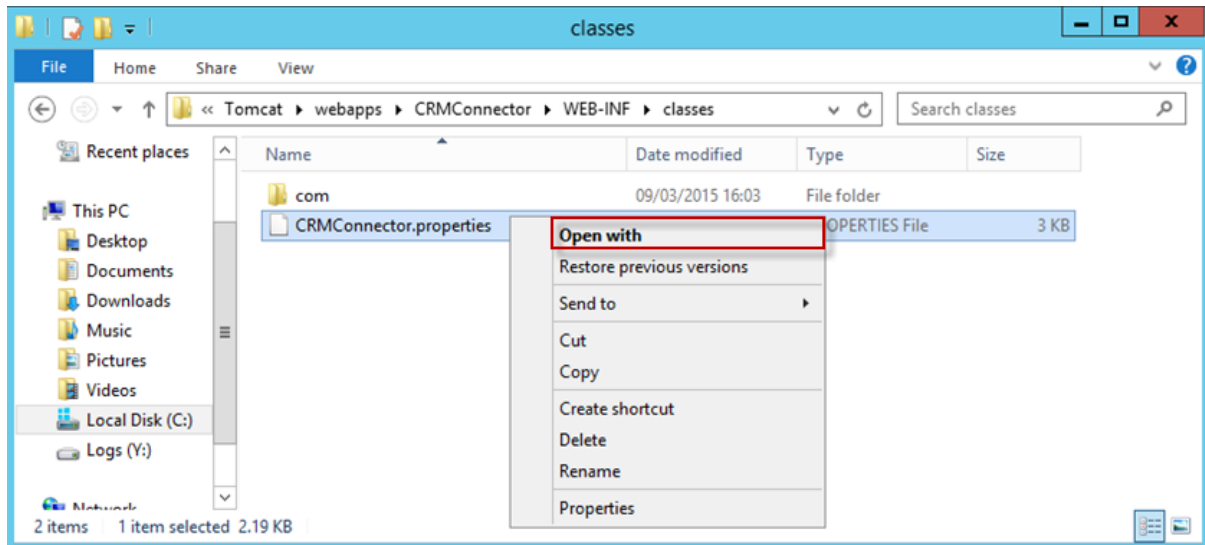
C:\Program Files (x86)\Avaya\IP Office Contact Center\Tomcat WWW webapps\CRMConnector\WEB-INF\classes.

Or

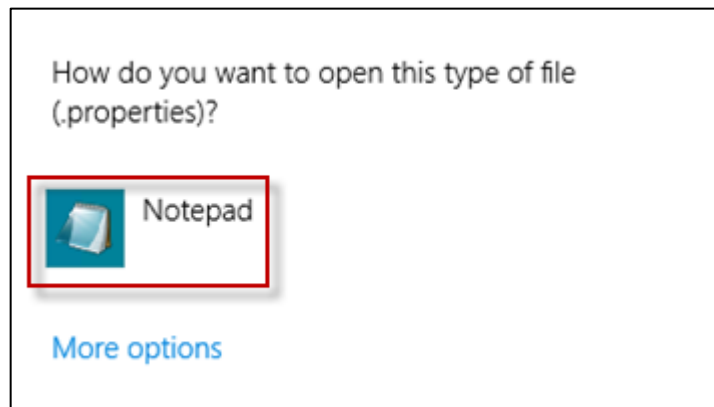
C:\Program Files \Avaya\IP Office contact Center\TomcatWWW\webapps\CRMConnector\WEB-INF\classes.



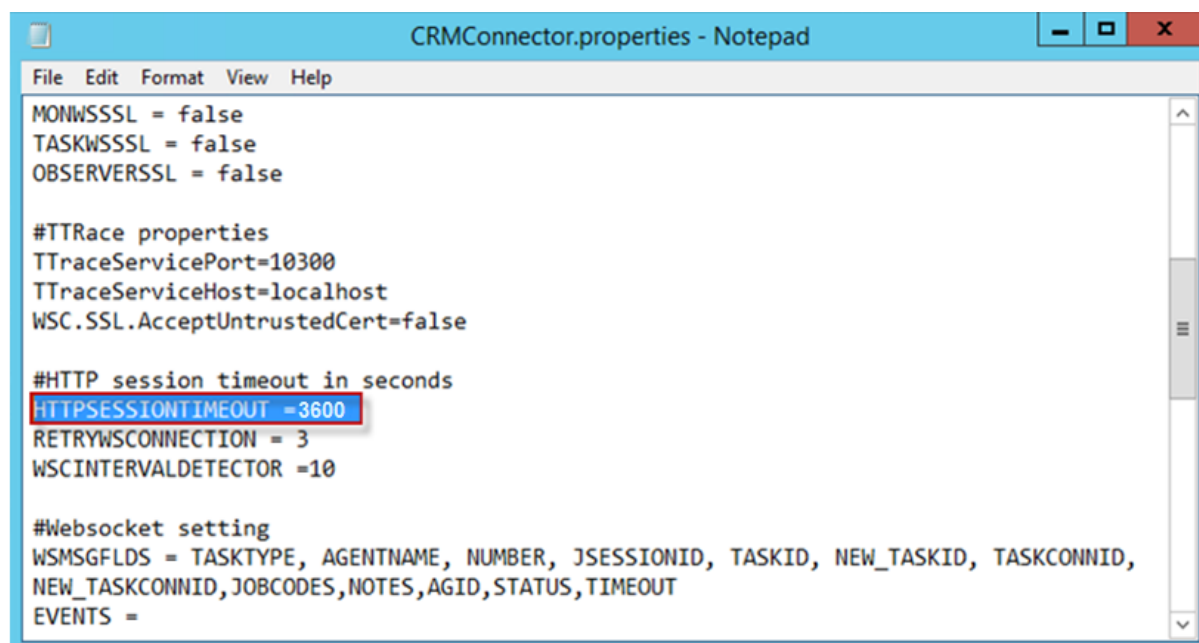
1. Using the right mouse button, click to **Open with** on the file.



2. Click the option to open the file with **Notepad**.

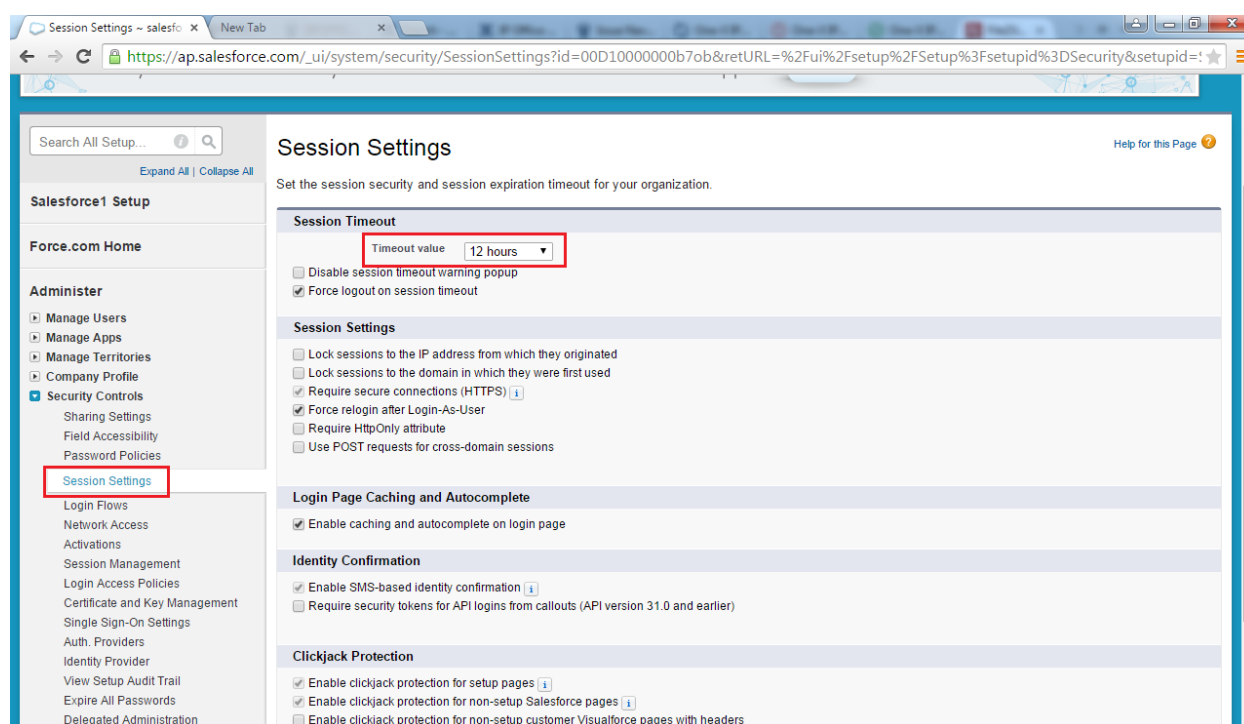


3. Edit the **HTTPSESSIONTIMEOUT** field to match. This value should be in sync with Salesforce session timeout (in case CRMConnector is accessed from Salesforce) and 3600 as a minimum. The Default figure is 3600.

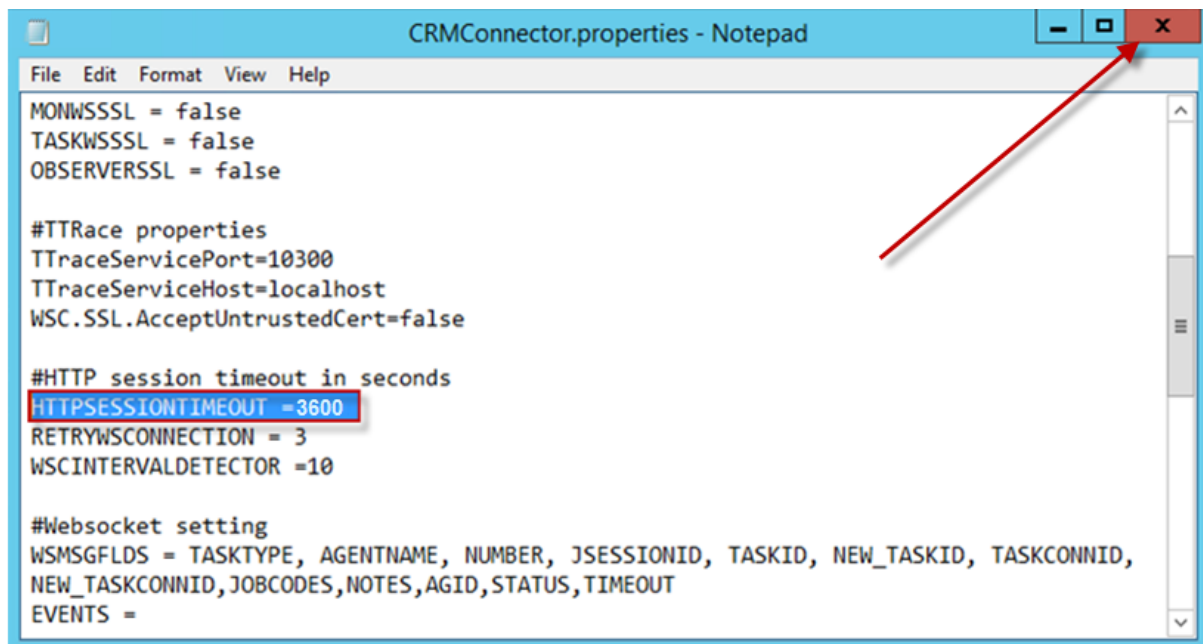


Note: The Salesforce session time out value can be obtained by logging into Salesforce, and navigating to **Setup>Security Controls>Session Settings>Timeout value**

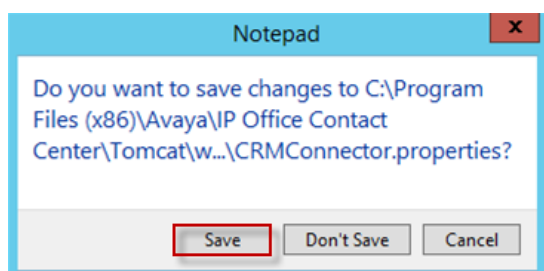
The Salesforce session timeout value is specified in hours. The default Salesforce Session timeout value is 2 hours. The Salesforce Session time out value should be greater than or equal to the CRMConnector HTTPSESSIONTIMEOUT value.



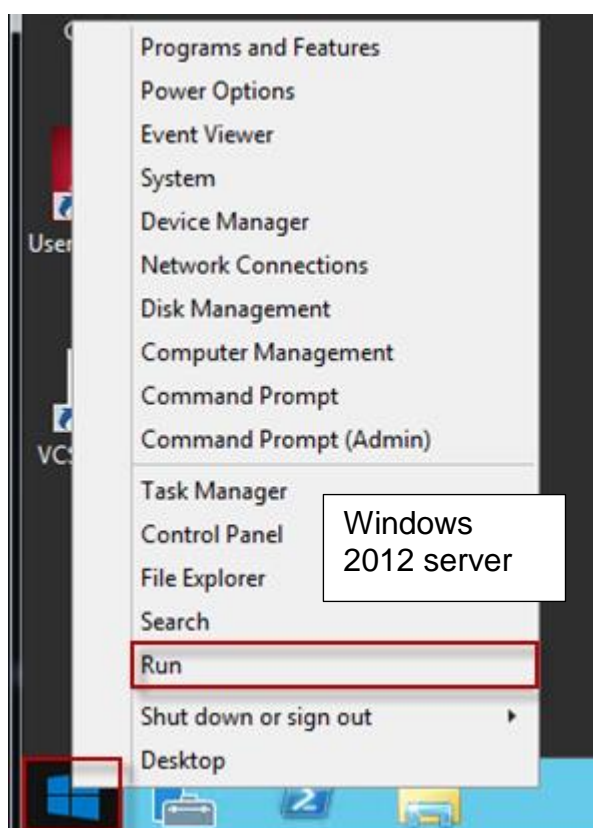
4. Click the **X** button to close.



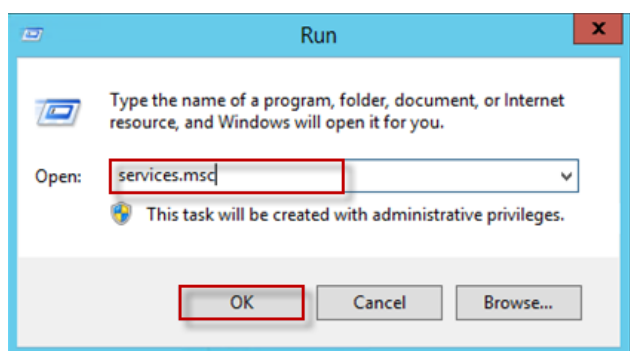
5. Click **Yes** to save the updated file.



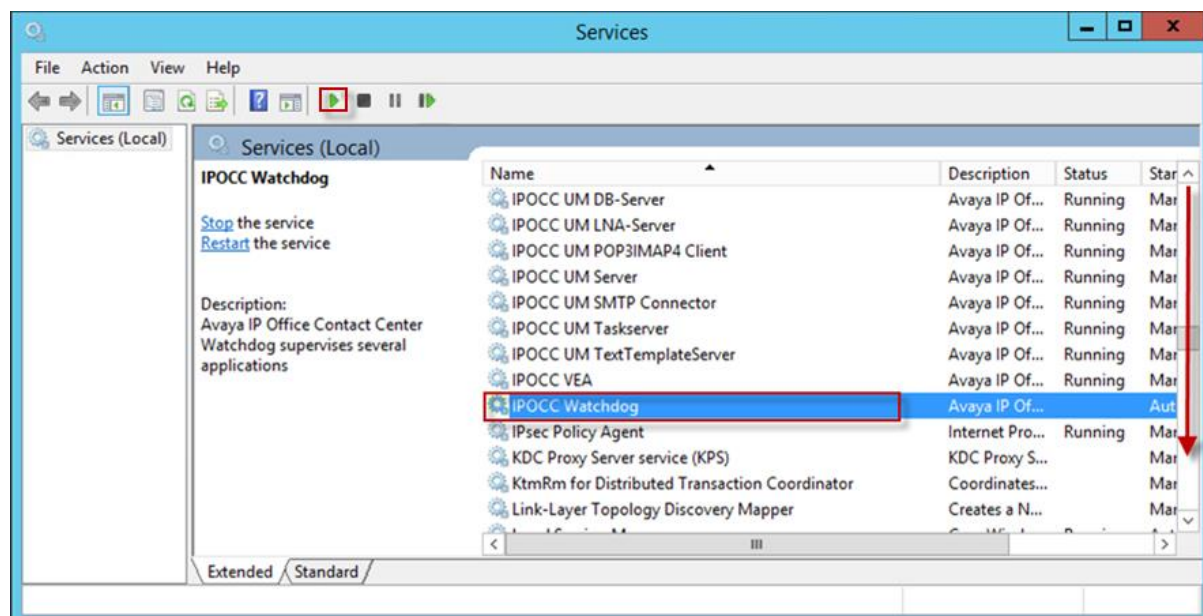
6. For the new Salesforce CRM connector to start, the IP Office Contact Center Watchdog must be started. Click the **Windows icon** and select **Run**.



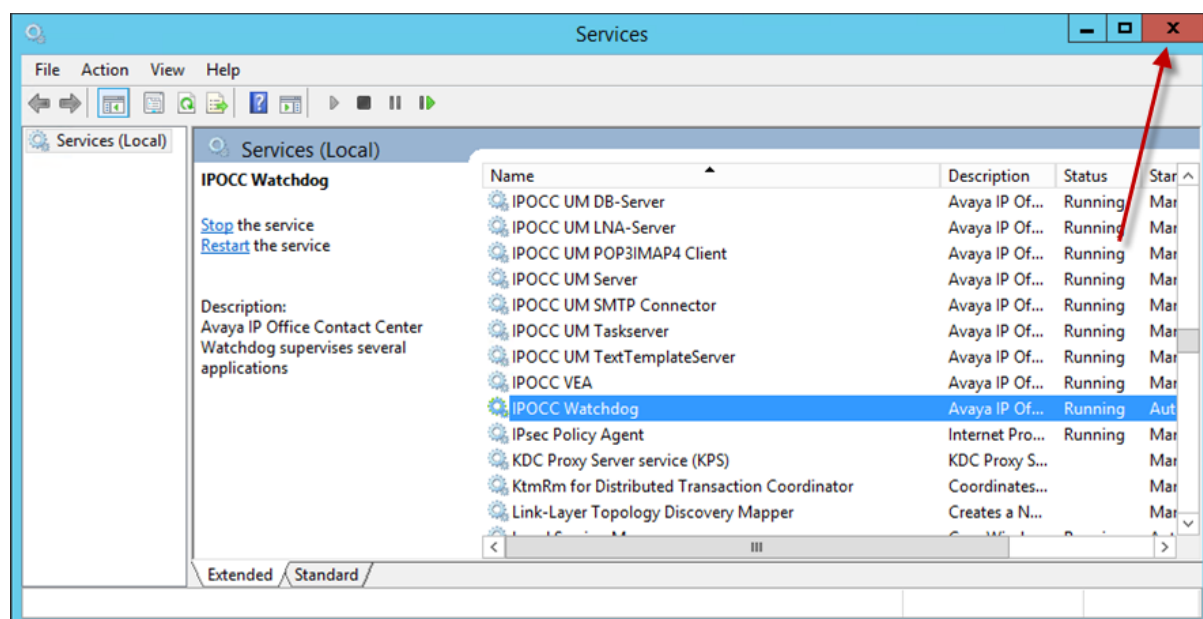
7. Type **services.msc** and then click the **OK** button.



8. Scroll down until you can see the IP Office Contact Center Watchdog service. Click the service and then click the **Start** button.



9. Click the **X** button to close.



Installing ISA

1. Ensure you are logged into Salesforce. The ISA package link is provided in the release notes shipped with the IP Office Contact Center software.
2. Once you access the package URL, click the **Continue** button.

Package Installation Details

Package Name	IPOCC_SFConnector
Version Name	20150224
Version Number	1.4
Publisher	Avaya
Description	20150224 (Build 7900)

[Continue](#)
[Cancel](#)

Package Components

▼ Pages (1)

Action	Component Name	Parent Object	Component Type	Installation Notes
Create	iccAppUI		Visualforce Page	This is a brand new

▼ Resources (24)

Action	Component Name	Parent Object	Component Type	Installation Notes
Create	icc_outbound		Static Resource	This is a brand new
Create	icc_inbound		Static Resource	This is a brand new

3. Approve Package API Access. Then click **Next**.
4. Click **Security Level**. Select **Grant access to all users**. All internal custom profiles receive full access or select the option according to your organization's security policy.
5. To install the Package, click **Install**. The package is installed and the following screen is displayed.

Package Details
IPOCC_SFConnector (Managed)

[← Back to List: Installed Package](#)

Install Complete

Follow any remaining steps in the app install guide to complete deployment.

Installed Package Detail [Uninstall](#) [View Components](#) [View Dependencies](#)

Package Name	IPOCC_SFConnector	Version Number	1.4
Language	English	First Installed Version Number	1.4
Version Name	20150224	Package Type	Managed
Namespace Prefix	avaya_ipocc_sfc	API Access	Unrestricted [Enable Restrictions]
Publisher	Avaya	Modified By	Sandesh Chopdekar 2/24/2015 5
Description	IPOCC SFConnector integrates Salesforce CRM Application with IPOCC. Using IPOCC SFConnector app contact center agent CRM application as their primary user interface as IPOCC agent desktop. IPOCC SFConnector is preferred to be used as a co		

Configuring ISA

The following steps are required for the configuration of ISA:.

1. Configure a Console app.
2. **Call Center** configuration and Agent assignment.
3. **Directory Numbers**.
4. Configure Softphone layouts for screen popping (Optional).

Custom Console Component

Salesforce Console Features

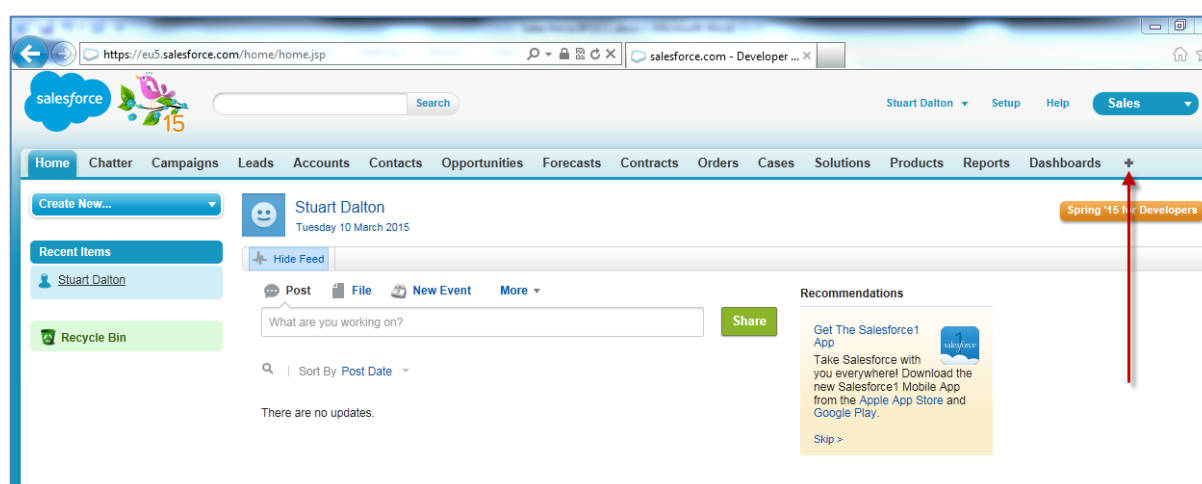
- Salesforce Console provides a dashboard interface that includes a navigation tab.
- The ISA window can be minimized and resized as required.
- Using the **Phone** icon, the application can be minimized or restored.
- Step by Step instructions relating to enabling the service console are available from the following link:
https://help.salesforce.com/apex/HTViewHelpDoc?id=console2_define_app.htm&language=en

Adding a Custom logo to the Salesforce Console

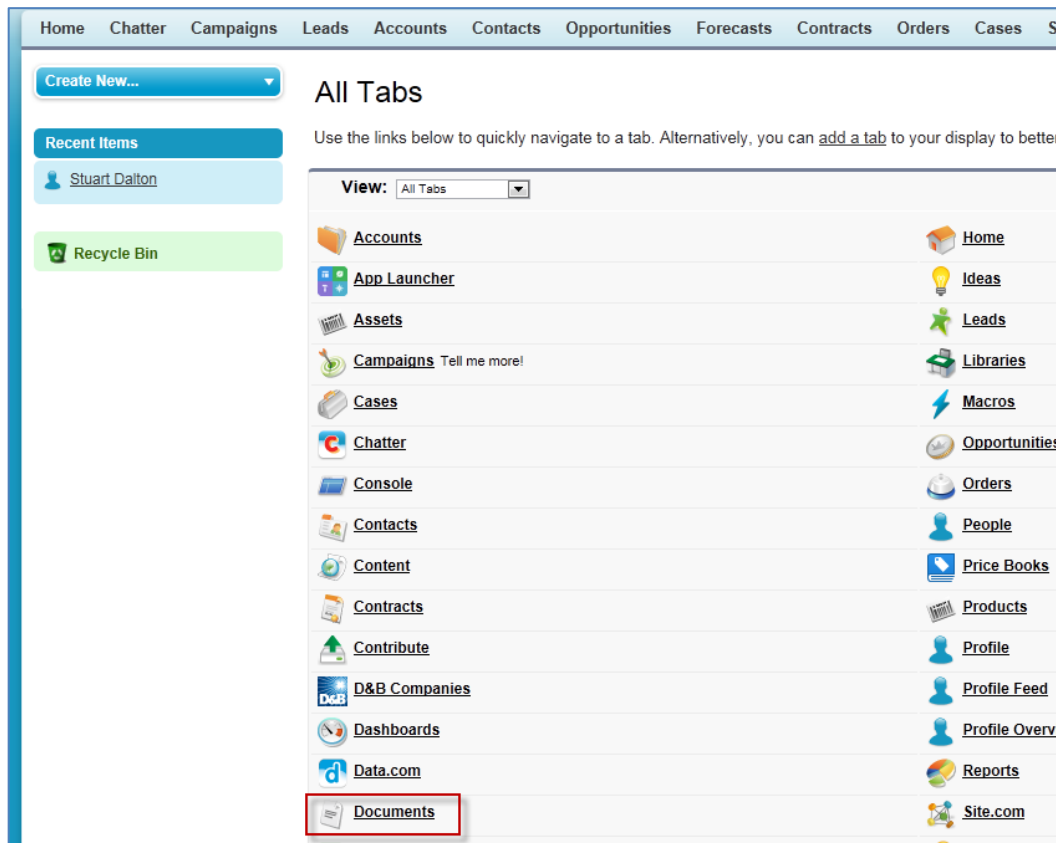
1. If you wish to add a custom company logo to your new Salesforce application, the document (image file) must first be added to Salesforce. If the image file is already present, please continue from step 9.

Note: The supported image size and format is (gif or jpeg 20KB 275x35 pixels maximum).

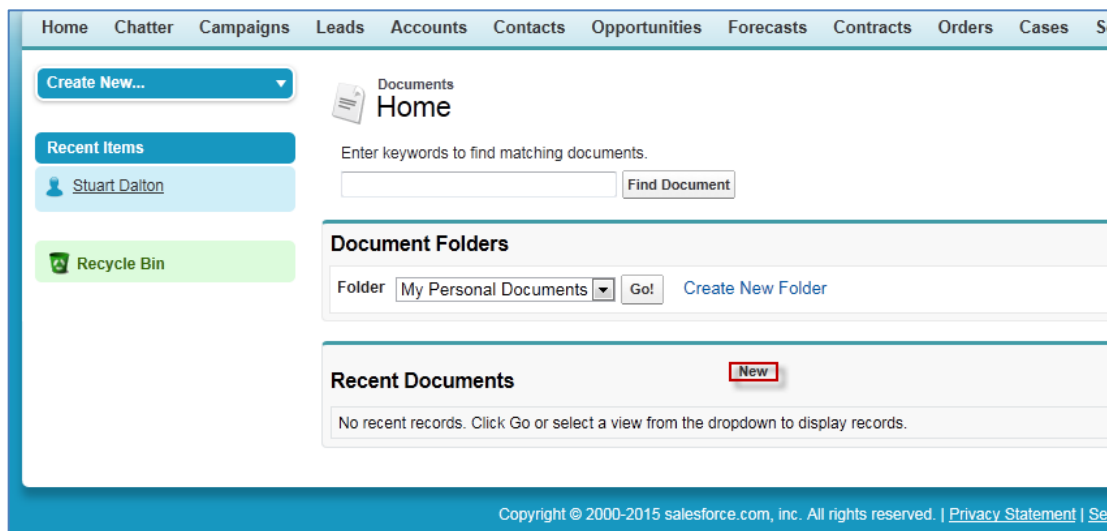
2. Once logged into salesforce with your System Administrator account, click the + button to display All Tabs.



3. Click the **Documents** tab.



4. Click the **New** button.



5. Parameters relating to the New Document must be defined. Therefore:
 - A. Enter a document name.
 - B. Enter a unique document Name.
 - C. Click the **Externally Available Image** check box.
 - D. Enter a description for the logo

6. Then click the **Browse** button.

Home Chatter Campaigns Leads Accounts Contacts Opportunities Forecasts Contracts Orders Cases Solutions Pro

Create New...

Recent Items

Stuart Dalton

Recycle Bin

Upload New Document

1. Enter details

Document Name: Logo for Avaya Application (A)

Document Unique Name: Logo_for_Avaya_Application (B)

Indicate Document is Internal: ☐

Externally Available Image: ☒ (C)

Folder: My Personal Documents

Description: Logo for Avaya Application (D)

Keywords:

2. Select the File

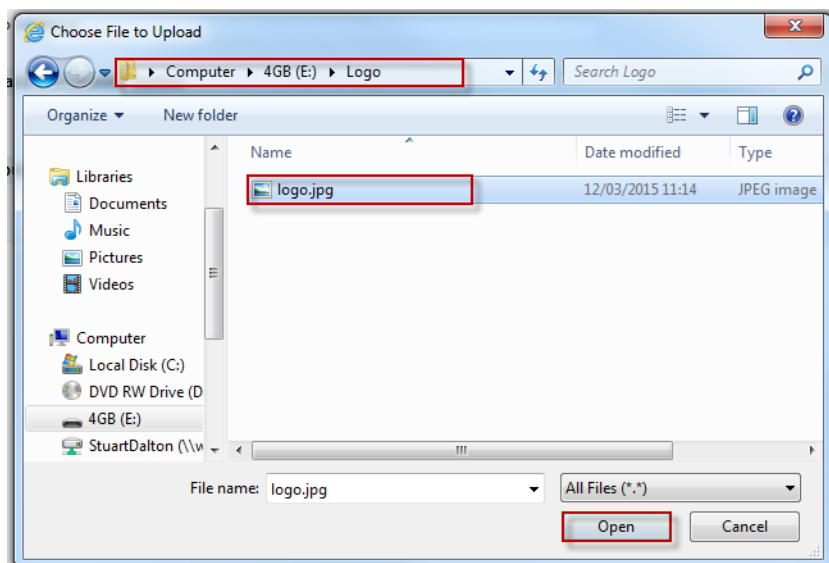
☒ Enter the path of the file or click browse to find the file.

File to upload: **Browse...**

Or:

☐ Create a reference link to the file. Enter a file location that others can access.

7. **Browse** to the logo file's location, select the file and then click the **Open** button.



8. Click the **Save** button. The document (image file) has been uploaded.

The screenshot shows the Salesforce 'Upload New Document' interface. The browser address bar indicates the URL: <https://eu5.salesforce.com/p/doc/DocumentUploadUi?retURL=%2F015%2Fo>. The page title is 'Upload New Document'. The left sidebar shows the user 'Stuart Dalton' and a 'Recycle Bin' link. The main content area has three sections:

- 1. Enter details**: This section contains fields for 'Document Name' (Logo for Avaya Application), 'Document Unique Name' (Logo_for_Avaya_Application), 'Indicate Document is Internal' (checked), 'Externally Available Image' (unchecked), 'Folder' (My Personal Documents), 'Description' (Logo for Avaya Application), and 'Keywords'.
- 2. Select the File**: This section has two options: 'Enter the path of the file or click browse to find the file.' (selected) with a 'Browse...' button, and 'Or: Create a reference link to the file. Enter a file location that others can access.' with a 'Path/URL to reference' field.
- 3. Click the "Save" button**: This section contains a 'Save' button, which is highlighted with a red box, and a 'Cancel' button.

At the bottom of the page, there is a copyright notice: Copyright © 2000-2015 salesforce.com, inc. All rights reserved. | [Privacy Statement](#) | [Security Statement](#) | [Terms of Use](#) | [508 Compliance](#)

Creating the Console App.

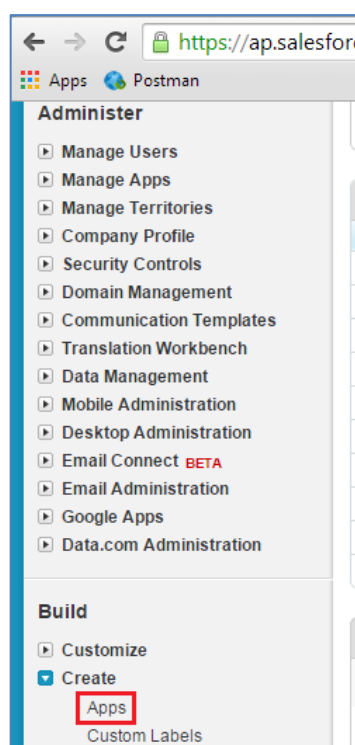
1. Click the **Setup** button.

The screenshot shows the Salesforce 'Document Detail' page for the document 'Logo for Avaya Application'. The browser address bar indicates the URL: <https://eu5.salesforce.com/015240000001518>. The page title is 'Document: Logo for Avaya Application'. The left sidebar shows the user 'Stuart Dalton' and a 'Recycle Bin' link. The main content area shows the document details:

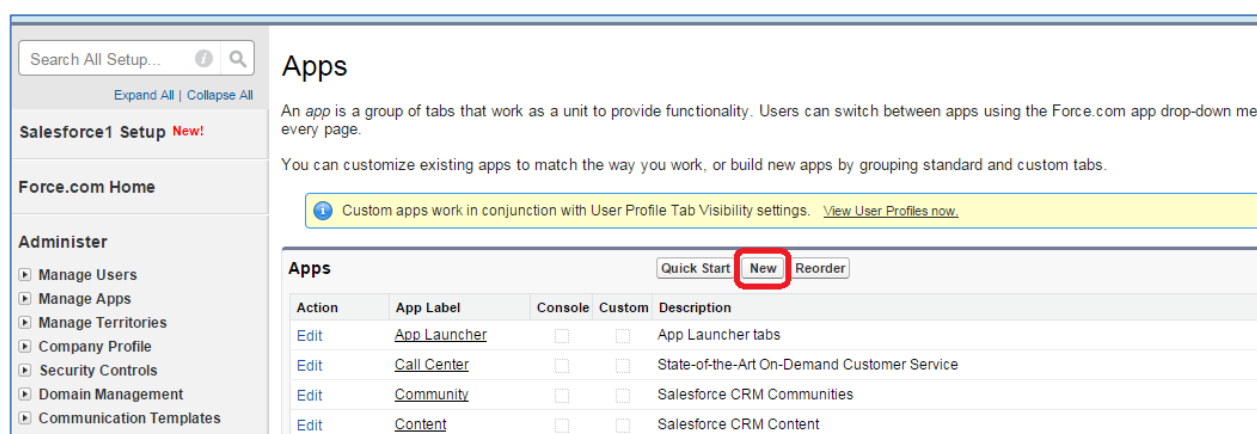
- Document Name**: Logo for Avaya Application
- Document Unique Name**: Logo_for_Avaya_Application
- Internal Use Only**: ☒
- Externally Available Image**: ☐
- Document Content Searchable**: ☐
- Folder**: My Personal Documents
- Author**: Stuart Dalton (Change)
- File Extension**: jpg
- MIME Type**: image/jpeg
- Size**: 5KB
- Description**: Logo for Avaya Application
- Keywords**: AVAYA *Empower* The Power of We™
- Image**: AVAYA *Empower* The Power of We™
- Created By**: Stuart Dalton, 10/03/2015 10:43
- Modified By**: Stuart Dalton, 12/03/2015 11:22

A red arrow points to the 'Setup' button in the top right corner of the page. At the bottom of the page, there is a copyright notice: Copyright © 2000-2015 salesforce.com, inc. All rights reserved. | [Privacy Statement](#) | [Security Statement](#) | [Terms of Use](#) | [508 Compliance](#)

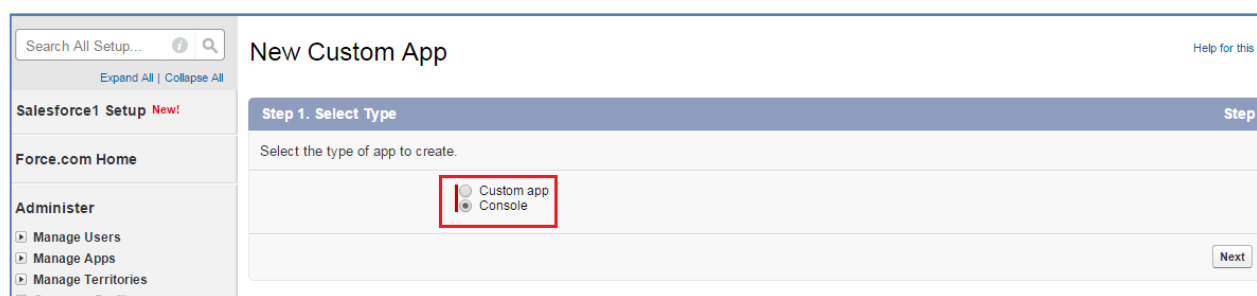
2. Under **Setup**, navigate to **Build -> Create -> Apps**, as illustrated below.



3. When **Apps** is selected, the following screen is displayed. Click the **New** button.



4. Select **Console** then click **Next**.



5. Enter an **App Label** and **App Name** for the Console App as per the conventions of your organization.

New Console Help for this Page ?

Step 2. Enter the Details Step 2 of 6

Fill in the fields below to define the console.

Console Information ! = Required Information

App Label Example: HRforce, Financeforce, Bugforce

App Name i

Description

Previous Next Cancel

6. To provide a logo for the app, click **Insert an Image**. This is not mandatory. If a logo is not required at this time, go to step 16.

New Console Help for this Page ?

Step 3. Choose the Image Source for the Console Logo Step 3 of 6

Optionally, specify a logo for this console. To do so, choose an image file from the document library.

i The file size of a console logo must be smaller than 20 KB. (For comparison, the salesforce.com logo is about 3 KB). To upload an image file, add a new document to the Documents tab. Image dimensions should be a maximum of 275 pixels wide by 35 pixels high for best results. Larger images will be resized and may appear distorted.

Insert an Image

Previous Next Cancel

7. Select the **uploaded document** for your logo. If the logo document is not displayed, please recheck the format of your document.

Attach File - Windows Internet Explorer

https://eu5.salesforce.com/widg/filepicker_fs.jsp?lktp=015&mode=3&otype=3&fpimg=1&st

File Location Go! [Search in Documents](#)

Only files 20K or smaller are shown.


Name	Author	Size	Internal Use Only
<u>Logo for Avaya Application</u>	SDalt	5KB	<input type="checkbox"/>

8. The logo is displayed. Click the **Next** button.


New Console Help for this Page

Step 3. Choose the Image Source for the Console Logo Step 3 of 6

Optionally, specify a logo for this console. To do so, choose an image file from the document library.

 The file size of a console logo must be smaller than 20 KB. (For comparison, the salesforce.com logo is about 3 KB). To upload an image file, add a new document to the Documents tab. Image dimensions should be a maximum of 275 pixels wide by 35 pixels high for best results. Larger images will be resized and may appear distorted.

Insert an Image | Reset to Default



Previous **Next** Cancel

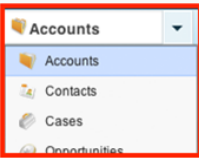
9. Select the **Navigation Tab** items to be displayed in console mode, then click the **Next** button.


Step 4. Choose Navigation Tab Items Step 4 of 6

Select the objects to include in this console's navigation tab. The navigation tab:

- Lets users go to objects' home pages from one tab
- Saves screen space by combining standard tabs into a small component

Choosing items for the navigation tab is like choosing which tabs display for standard Salesforce.com apps.



 Items marked with an asterisk (*) haven't been fully adapted for the console. See the [Salesforce Console Limitations](#) for more information.

Available Items		Selected Items	
Price Books		Cases	Top
Contracts*		Home	Up
Dashboards*		Accounts	
Documents*		Contacts	Down
Orders*		Leads	Bottom
Products	Add	Opportunities	
Reports*	Remove	Campaigns	
Solutions		Ideas	
Libraries*			
Content*			
Subscriptions*			
Profile*			
People*			
Groups*			

Previous **Next** Cancel

Chat

10. Click the required radio buttons to determine how records will be displayed and then click the **Next** button.

Step 5. Choose How Records Display
Step 5 of 6


The Console displays all records as tabs so that users can quickly find, update, and create records on one screen.

- Primary tabs display the main record to work on, like an account
- Subtabs display related records, like cases or contacts on an account

All items selected on a primary tab display as subtabs. This lets you work with related items in the context of their records.

On this page, choose how records display when they're selected from *outside* of primary tabs or subtabs. For example, when users select cases from list views, search results, or screen pops, you can select cases to display as primary tabs or as subtabs on parent records, such as accounts.

Additional Resources



Watch a Demo (2 minutes)

Choose how the following display:

Record Type	Default Display	Options
Case	records open	<input checked="" type="radio"/> As a primary tab <input type="radio"/> As a subtab of: ▼
Home	tab opens	<input checked="" type="radio"/> As a primary tab
Account	records open	<input checked="" type="radio"/> As a primary tab <input type="radio"/> As a subtab of: ▼
Contact	records open	<input checked="" type="radio"/> As a primary tab <input type="radio"/> As a subtab of: ▼
Lead	records open	<input checked="" type="radio"/> As a primary tab <input type="radio"/> As a subtab of: ▼
Opportunity	records open	<input checked="" type="radio"/> As a primary tab <input type="radio"/> As a subtab of: ▼
Campaign	records open	<input checked="" type="radio"/> As a primary tab <input type="radio"/> As a subtab of: ▼
Idea	records open	<input checked="" type="radio"/> As a primary tab

11. Select the Profiles to be used with the new application and then click the **Save** button.

Next assign to profiles.

Step 6. Assign to Profiles
Step 6 of 6

Choose which user profiles can access this console. Users access console apps from the Force.com app menu. You can select this console as the default app for a profile. This means that users with the profile see this console when they log in for the first time.

! If an app is set as the default for a profile, you can't make it invisible for that profile. Both the Visible and Default checkboxes will be read-only.

force.com platform as a service

Setup System Log Help & Training Logout

Home Google Adwords Setup Leads Opportunities Reports Dashboards

Search Search All

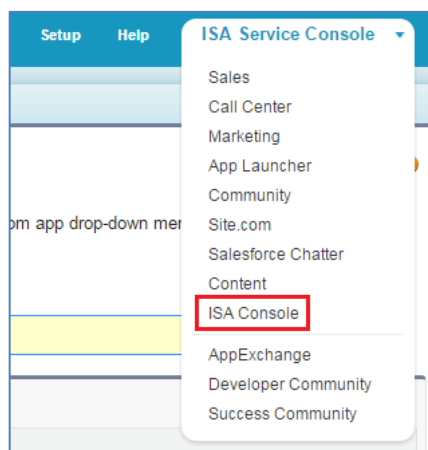
Team Tuesday, July 24, 2012

Dashboard As of 6/13/2008 11:35 AM

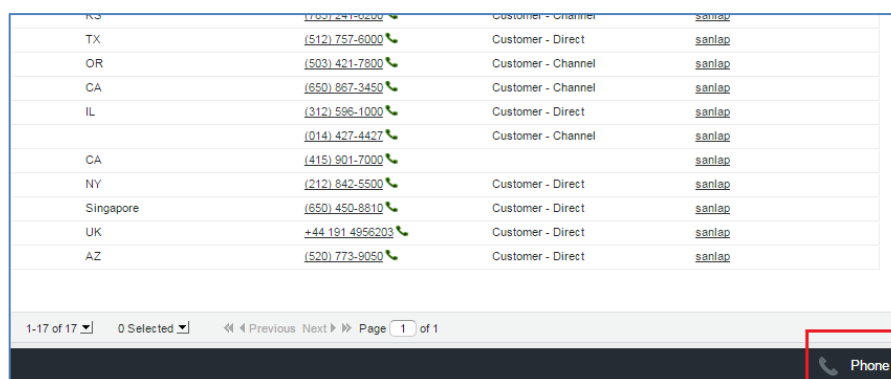
Customer Page

Profile	<input checked="" type="checkbox"/> Visible	<input type="checkbox"/> Default
Contract Manager	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cross Org Data Proxy User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Custom: Marketing Profile	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Custom: Sales Profile	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Custom: Support Profile	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Force.com - App Subscription User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Marketing User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Partner App Subscription User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Read Only	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Solution Manager	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Standard Platform User	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Standard User	<input checked="" type="checkbox"/>	<input type="checkbox"/>

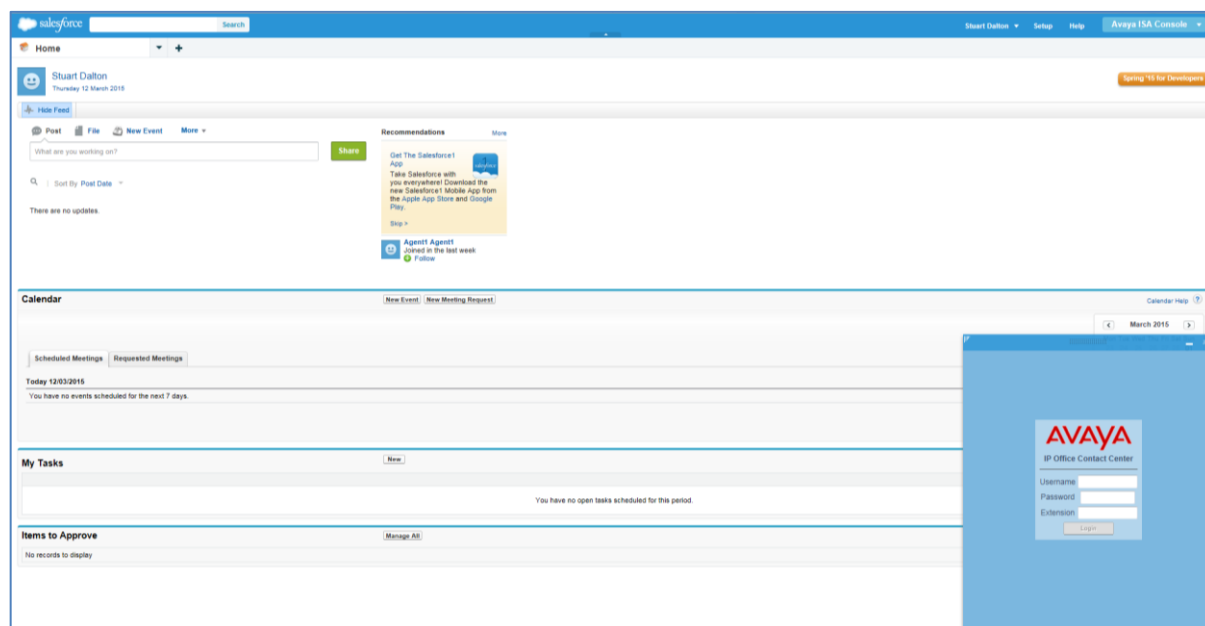
12. The App configuration data will be saved. The app can be selected from the Salesforce menu, which is available from the top right of the interface.



13. Once the console app (ISA Console in this case) is selected, your screen layout will change. Further changes to the layout will occur, if additional configuration is completed. Observe the area at the bottom right hand side. You will notice a Phone icon, with the text **Phone**.



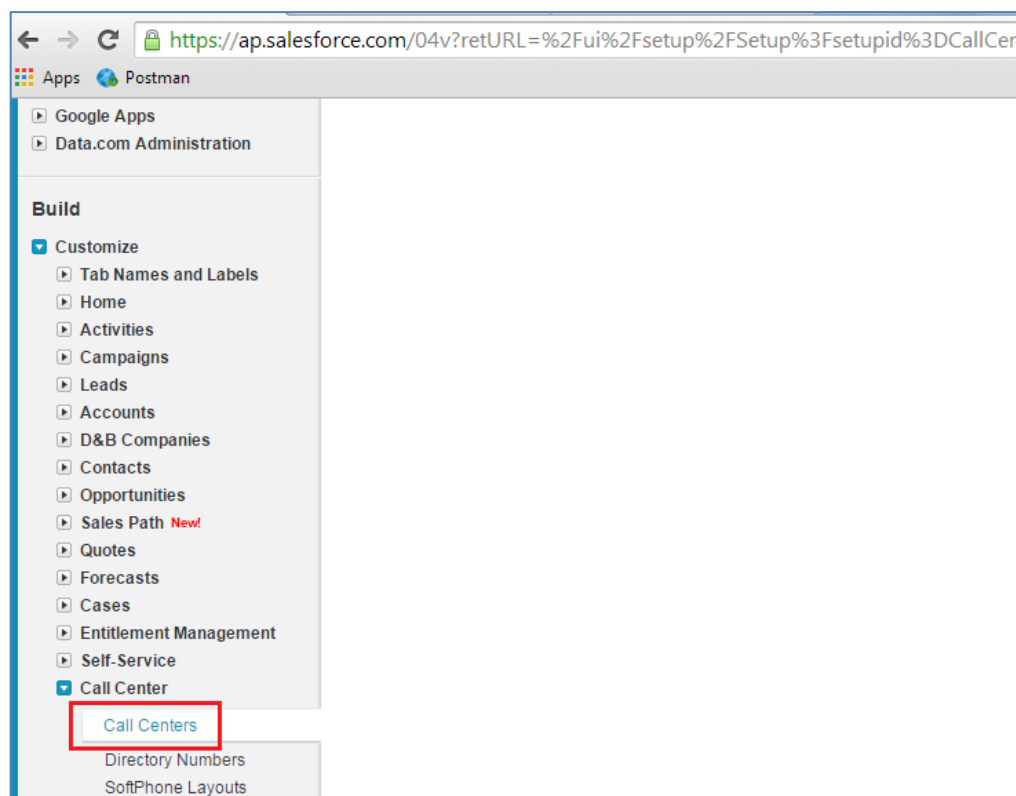
14. Click on **Phone**, the softphone will 'pop'. If IP Office Contact Center is configured, the login screen is displayed as, illustrated below.



Configuring Contact Centre

Once ISA is installed, you will need to provide the IP address and port details of the IP Office Contact Center Server.

1. Click on Salesforce. Open **Setup** followed by **Build, Customize, Call Center, Call Centers**



2. A 'getting started' screen maybe displayed. If so, click the **Continue** button.

3. The installed Call Center Application will be displayed. Click on **Edit**.

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 center before they can use any Call Center features.

Action	Name ↑	Version	Created Date	Last Modified Date
Edit Del	IPOCC Call Center Adapter		2/5/2015 6:52 PM	3/5/2015 7:50 PM

4. Edit the Field below, and the click the **Save** button.

5. Enter the IP Address of the IP Office Contact Center Server. Edit the port number, as provided in CRM Connector. The default value is 28443.

Call Center Edit

IPOCC Call Center Adapter

All Call Centers » IPOCC Call Center Adapter

Call Center Edit

Save Cancel

Salesforce Application Name

Salesforce Application Name, Enter either CIE or IPOCC

General Information

Internal Name

Display Name

CTI Adapter URL

Use CTI API

Softphone Height

Softphone Width

Server Configuration

IPOCC Server Address	<input type="text" value="7.2.3.5"/>	A
IPOCC Server Port	<input type="text" value="28443"/>	B
Refresh Timeout (seconds)	<input type="text" value="60"/>	C
On Call Keepalive (seconds)	<input type="text" value="30"/>	D
Use Directory for Contact Details ?	<input type="text" value="true"/>	E
Access code for external OutCC	<input type="text" value="9"/>	F
Digits to Trim for external Incoming	<input type="text" value="0"/>	G

Save

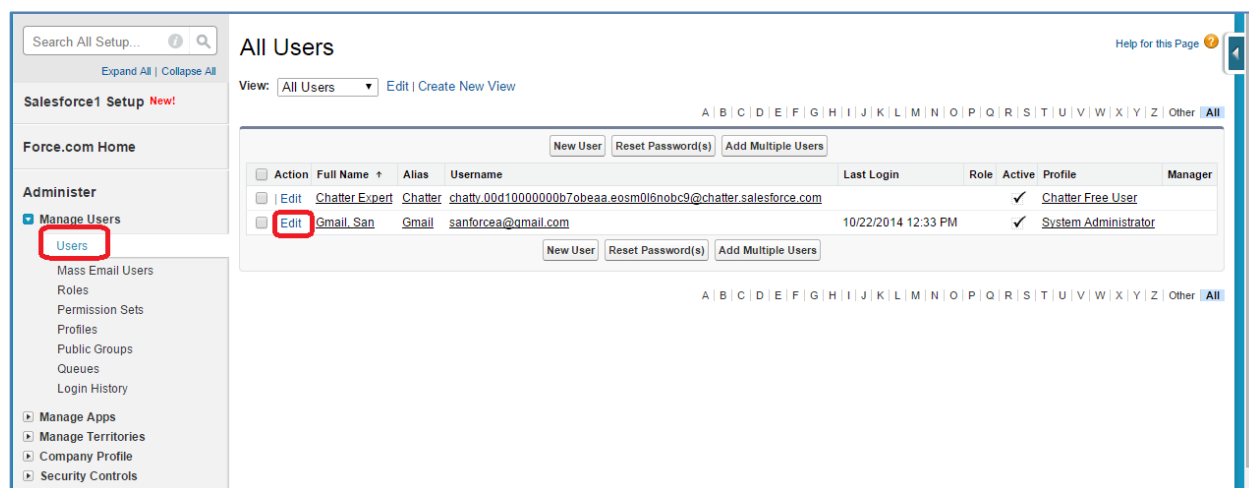
Cancel

- A. IP Address to that of your IP Office Contact Center Server.
- B. The port number, as provided in CRM Connector. Default value is 28443.
- C. **Refresh Timeout (seconds)** is the time in seconds, which defines for how long during a page refresh, the connection with the server will be maintained. If the page refresh takes longer than this timeout, the Agent will be logged out. By Default the value is 60 seconds.

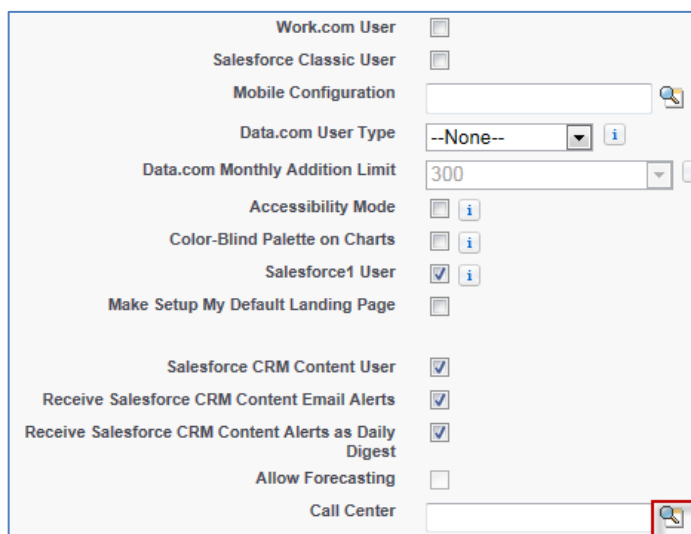
- D. **On Call Keepalive (seconds)** defines the interval time in seconds, after which ISA will send a periodic keepalive message to IP Office Contact Center Server. This is intended to keep the Agent session alive. By Default, the value is 30 seconds.

Note: Care should be taking when changing these default timeout values.

- E. **Use Directory for Contact Details.** When enabled for internal calls, ISA will display contact information, by searching the Contact Center Directory. Directory Numbers are required for this function to be utilized.
- F. **Access code for external OutCC.** This code is used for outbound dialing.
- G. **Digits to Trim for external incoming:** This number is used to trim digits from incoming external call. The trimmed number will be used for lookup in salesforce database. For e.g. If this number is configured to be 1, and an external incoming number is 9123456. ISA will do a lookup for "123456". i.e it will trim the 1 digit from the beginning of the incoming number.
If this number is configured to be 2, and an external incoming number is say 77123456. ISA will do a lookup for "123456" i.e. it will trim 2 digits from the beginning of the incoming number.
6. Each agent who requires access to the ISA must be defined. From the **Administer** interface, click **Manage Users** followed by **Users**.
7. Click the **Edit** button adjacent to the required user.

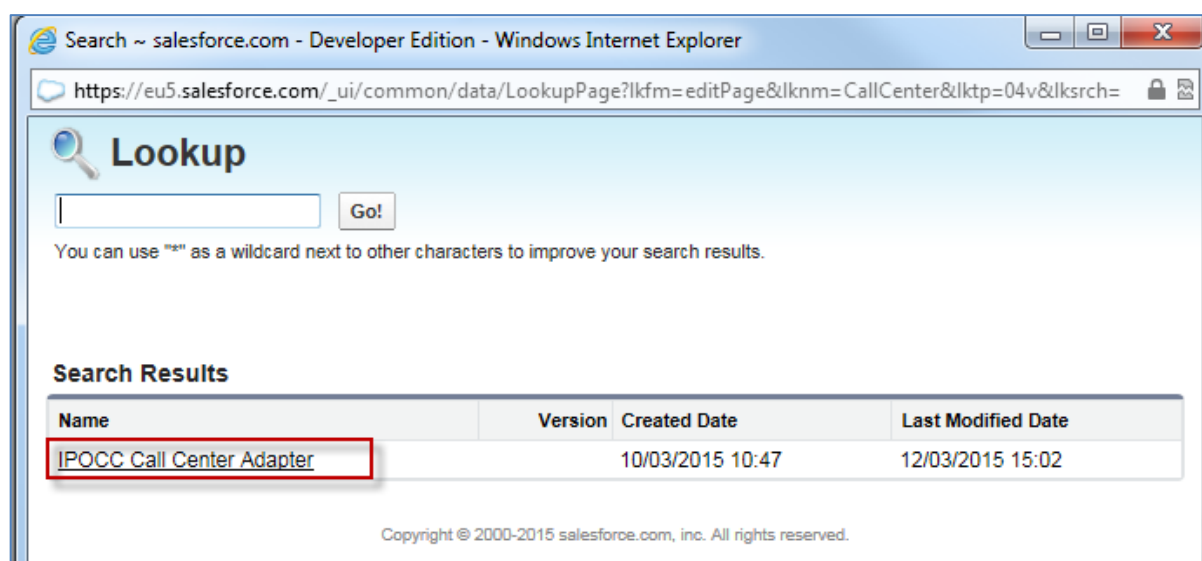


8. To make the application available to that user, in the user configuration interface, edit the **Call Center** field and select the **Call Center look up** button.



The screenshot displays a user configuration interface with the following settings:

- Work.com User: ☐
- Salesforce Classic User: ☐
- Mobile Configuration:
- Data.com User Type: --None--
- Data.com Monthly Addition Limit: 300
- Accessibility Mode: ☐
- Color-Blind Palette on Charts: ☐
- Salesforce1 User: ☒
- Make Setup My Default Landing Page: ☐
- Salesforce CRM Content User: ☒
- Receive Salesforce CRM Content Email Alerts: ☒
- Receive Salesforce CRM Content Alerts as Daily Digest: ☒
- Allow Forecasting: ☐
- Call Center: (highlighted with a red box)

9. Click the new **Call Center Adapter** link.


Search ~ salesforce.com - Developer Edition - Windows Internet Explorer

https://eu5.salesforce.com/_ui/common/data/LookupPage?lkfm=editPage&lknm=CallCenter&lktp=04v&lksrch=

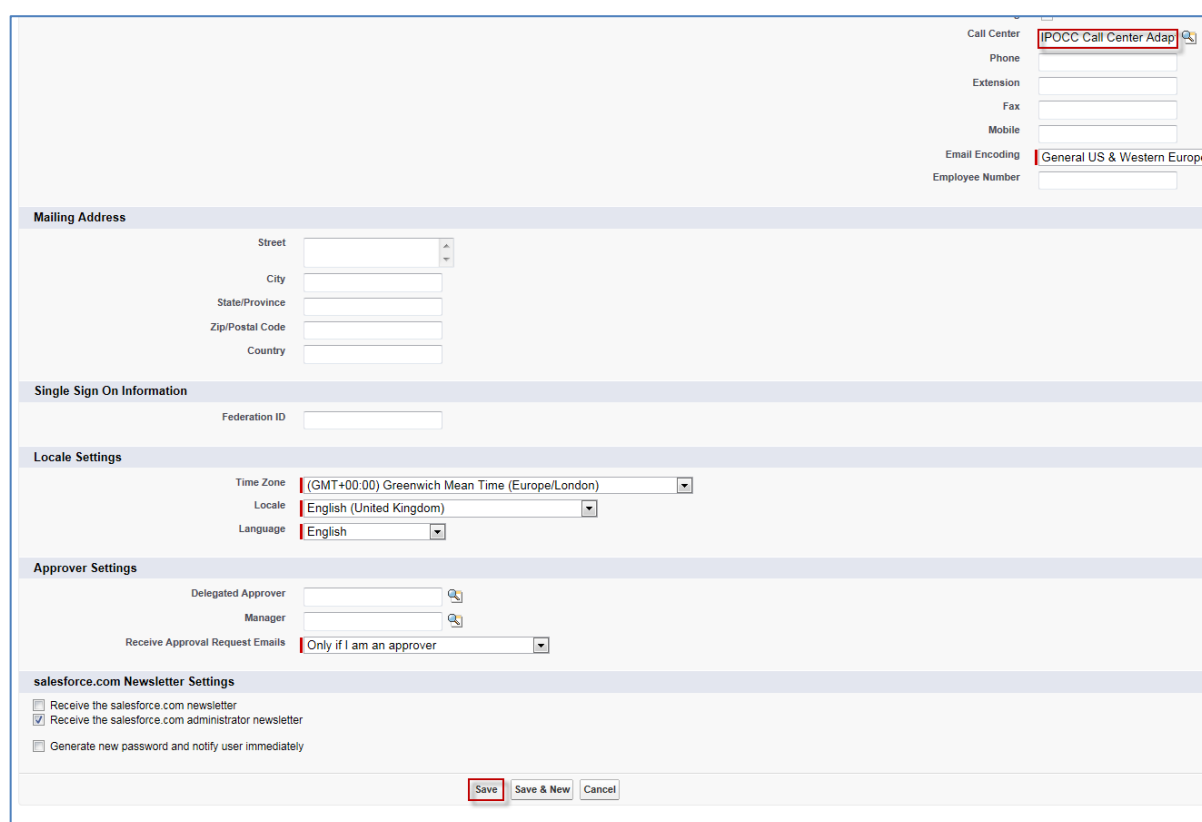
Lookup

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

Search Results

Name	Version	Created Date	Last Modified Date
<u>IPOCC Call Center Adapter</u>		10/03/2015 10:47	12/03/2015 15:02

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10. The Adaptor is now added, click the **Save** button.


Call Center [IPOCC Call Center Adap](#)

Phone

Extension

Fax

Mobile

Email Encoding [General US & Western Europe](#)

Employee Number

Mailing Address

Street

City

State/Province

Zip/Postal Code

Country

Single Sign On Information

Federation ID

Locale Settings

Time Zone [\(GMT+00:00\) Greenwich Mean Time \(Europe/London\)](#)

Locale [English \(United Kingdom\)](#)

Language [English](#)

Approver Settings

Delegated Approver

Manager

Receive Approval Request Emails [Only if I am an approver](#)

salesforce.com Newsletter Settings

☐ Receive the salesforce.com newsletter

☒ Receive the salesforce.com administrator newsletter

☐ Generate new password and notify user immediately

Configuring the Softphone Layout

The Softphone Layout determines how the screen pop utility functions.

Additional information is available from the following link:

https://help.salesforce.com/htviewhelpdoc?id=cti_admin_phonelayoutscreate.htm&siteLang=en_US

1. Navigate to **Setup, Build, Customize, Call Center, Softphone Layouts**.

Note: Layouts are not configured by default.

2. Click the **New** button.

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 assign them to call center users based on their user profile.

Action	Name ↑	Default	Created By Alias	Created Date
New	SoftPhone Layout Assignment			

3. Select the **Is Default Layout** checkbox. From the Select **Call Type** drop down box, select Inbound.

Save Cancel

Name ☒ Is Default Layout

Select Call Type

Softphone Layout [Help about this section ?](#)

Display these call-related fields:

- ▶ Dialed Number [Edit](#)

Display these salesforce.com objects:

- ▶ Account, Contact, Lead [Add / Remove Objects](#)
- ▶ If single Account found, display: Account Name, Phone, Active, SLA, Customer Priority
if multiple matches found, only Account Name is displayed. [Edit](#)
- ▶ If single Contact found, display: Name, Salutation, First Name, Last Name, Phone, Title
if multiple matches found, only Name is displayed. [Edit](#)
- ▶ If single Lead found, display: Salutation, Name, First Name, Title, Phone, Zip/Postal Code
if multiple matches found, only Name is displayed. [Edit](#)

CTI 2.0 or Higher Settings [Help about this section ?](#)

Screen Pop Settings:

- ▶ Screen pops open within: New browser window or tab [Edit](#)
- ▶ No matching records: Pop to new Contact [Edit](#)
- ▶ Single-matching record: Pop detail page [Edit](#)
- ▶ Multiple-matching records: Pop to search page [Edit](#)

4. Click the options to be displayed for a call from **Caller ID, Dialed Number**.

Display these call-related fields:

▼ Caller ID, Dialed Number

Available		Selections	
Queue	Add ▶	Caller ID	Up ▲
Segment		Dialed Number	
	Remove ◀		Down ▼

5. Go to Add/Remove object to display which Salesforce database objects will be displayed on a successful screen pop, along with the fields contained within the object to be displayed.

Display these salesforce.com objects:

▼ Account, Contact, Lead

Available		Selections	
Campaign	Add ▶	Account	Up ▲
Case		Contact	
Event	Remove ◀	Lead	Down ▼
Opportunity			
Task			
User			

6. An Account look up only displays one account. If multiple matches are found, only the Account name is displayed. Account look up search parameters can be added from the **Available** field to the **Selections** field.

▼ If single Account found, display: Account Name

Available		Selections	
Type	Add ▶	Account Name	Up ▲
Billing Street			
Billing City	Remove ◀		Down ▼
Billing State/Province			
Billing Zip/Postal Code			
Billing Country			
Billing Latitude			
Billing Longitude			
Shipping Street			
Shipping City			
Shipping State/Province			
Shipping Zip/Postal Code			
Shipping Country			
Shipping Latitude			

If multiple matches found, only Account Name is displayed.

7. A Contact look up only displays one contact. If multiple matches are found only the contact Name is displayed. Contact look up search parameters can be added from the **Available** field to the **Selections** field.

▼ If single Contact found, display: Name

Available		Selections	
Salutation	Add Remove	Name	
First Name			
Last Name			
Other Street			
Other City			
Other State/Province			
Other Zip/Postal Code			
Other Country			
Other Latitude			
Other Longitude			
Mailing Street			
Mailing City			
Mailing State/Province			
Mailing Zip/Postal Code			
		Up	
		Down	

If multiple matches found, only Name is displayed.

8. A Lead look up only displays one Lead. If multiple matches are found only the contact lead Name is displayed. Lead look up search parameters can be added from the **Available** field to the **Selections** field.

▼ If single Lead found, display: Name

Available		Selections	
Salutation	Add Remove	Name	
First Name			
Last Name			
Title			
Company			
Street			
City			
State/Province			
Zip/Postal Code			
Country			
Latitude			
Longitude			
Phone			
Mobile			
		Up	
		Down	

If multiple matches found, only Name is displayed.

Screen Pop Settings

The Screen Pop Settings provide further definition of how screen 'screen pops' are displayed.

Screen pops open within: Existing browser window

▼ Screen pops open within: Existing browser window

☒ Existing browser window
☐ New browser window or tab

- Determines where the screen pop will occur. It can pop within the existing browser window, or it can pop into a new browser tab. (If the browser being used does not support tabs, it can pop into a new browser window).

No match records: Don't pop any screen

▼ No matching records: Don't pop any screen

☒ Don't pop any screen
☐ Pop to new --None--
☐ Pop to Visualforce page

► Single-matching record: Pop detail page

► Multiple-matching records: Don't pop any screen

- Determines what action will commence if no matches are found. The options are to have no pop at all, or to pop to a new Salesforce object (e.g. a new Contact)

Single matching record: Pop detail page

▼ Single-matching record: Pop detail page

☐ Don't pop any screen
☒ Pop detail page
☐ Pop to Visualforce page

- Determines the action to perform with a unique match. The supported options are:
 - Don't pop any screen
 - Pop detail page

Multiple matching records: Don't pop any screen

▼ Multiple-matching records: Don't pop any screen

☒ Don't pop any screen
☐ Pop to search page
☐ Pop to Visualforce page

- Determines the action to perform when multiple matches occur. The supported options are:
 - Don't pop any screen
 - Pop to search page

1. Once the required settings have been defined, click the **Save** button. ISA is now available to those agents.

SoftPhone Layout Edit

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.

Save

Cancel

Name

Avaya Softphone Layout

☒ 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 found, only Account Name is displayed.

Edit

▶ If single Contact found, display: Name
If multiple matches found, only Name is displayed.

Edit

▶ If single Lead found, display: Name
If multiple matches found, only Name is displayed.

Edit

CTI 2.0 or Higher Settings

Help about this section

Screen Pop Settings:

▶ Screen pops open within: Existing browser window

Edit

▶ No matching records: Don't pop any screen

Edit

▶ Single-matching record: Pop detail page

Edit

▶ Multiple-matching records: Don't pop any screen

Edit

Logging into ISA

Accepting the IP Office Contact Center Certificate prior to Logging into ISA

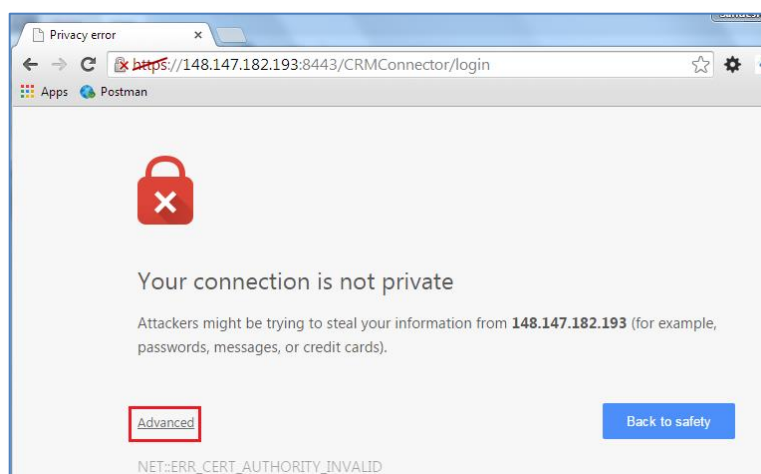
Before an agent can login to the IP Office Contact Center Salesforce App (ISA), the certificate of the IP Office Contact Center Server must be accepted.

1. In your browser, enter the following URL:

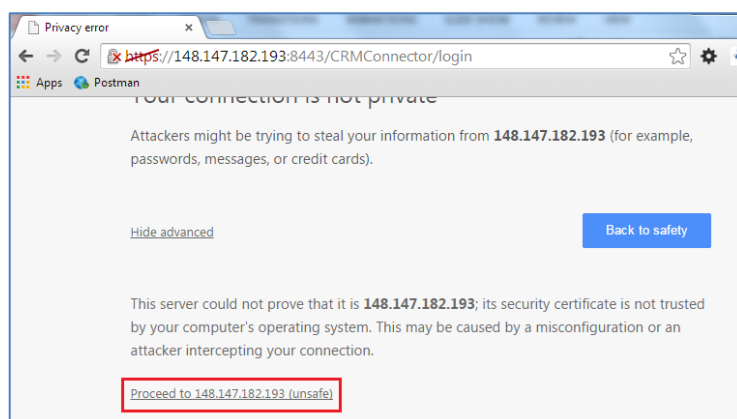
<https://<IP Office Contact Center Server IP Address>:28443/CRMConnector/>

2. Ensure the port number is the same as stated in the **CRMConnector Deployment** section.
3. Accept the certificate. If the certificate is not accepted, login to ISA will fail.

Note: When using the Chrome browser to access the URL, the following screen is displayed.



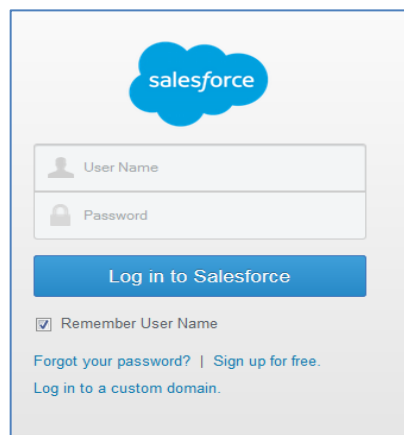
Click **Advanced**. The following screen is displayed.



Click on **Proceed to ...** The certificate will be accepted.

Note: If the internet connection is via a proxy, an exception needs to be added in the browser for IP Office Contact Center Server. Unexpected Connection failures can occur over a proxy connection.

Login to Salesforce using the Salesforce URL.



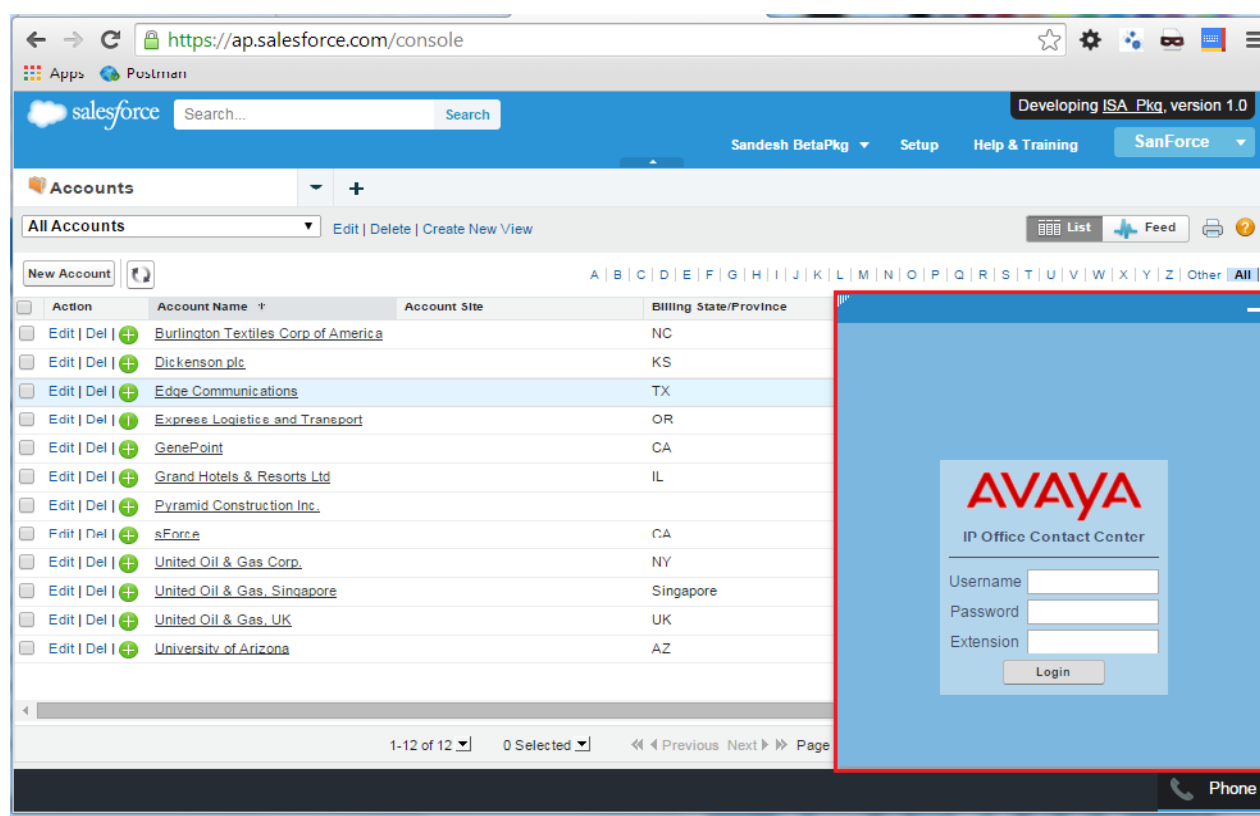
The image shows the Salesforce login page. It features the Salesforce logo at the top. Below it are two input fields: 'User Name' and 'Password'. A blue button labeled 'Log in to Salesforce' is positioned below the password field. Underneath the button is a checkbox labeled 'Remember User Name'. At the bottom, there are two links: 'Forgot your password? | Sign up for free.' and 'Log in to a custom domain.'

Login to ISA

Once the agent has logged into Salesforce, the IP Office Contact Center Salesforce App (ISA) will be loaded in the bottom right side of the browser, as illustrated below.

NOTE: Salesforce provides a variety of default 'dummy' data. Therefore a number of default records may initially be displayed, in addition to your own records.

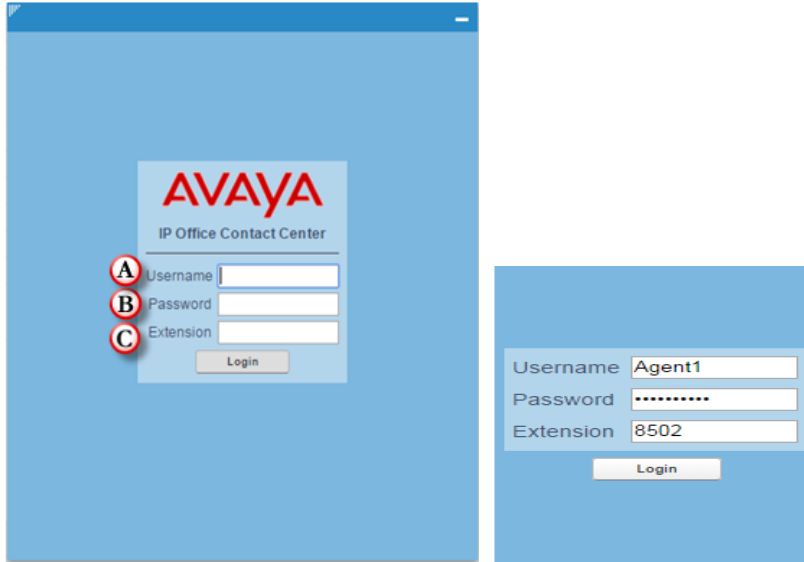
The agent must click on the **Phone** button to pop ISA.



The screenshot shows the Salesforce console interface. The top navigation bar includes the Salesforce logo, a search bar, and user information 'Sandesh BetaPkg'. The main content area displays a list of accounts under the 'Accounts' tab. The list has columns for 'Action', 'Account Name', 'Account Site', and 'Billing State/Province'. A table of accounts is visible, including Burlington Textiles Corp of America, Dickenson plc, Edge Communications, Express Logistics and Transport, GenePoint, Grand Hotels & Resorts Ltd, Pyramid Construction Inc., sForce, United Oil & Gas Corp., United Oil & Gas, Singapore, United Oil & Gas, UK, and University of Arizona. In the bottom right corner, a small window for the 'AVAYA IP Office Contact Center' is overlaid, containing fields for 'Username', 'Password', and 'Extension', along with a 'Login' button. The bottom of the console shows a 'Phone' button.

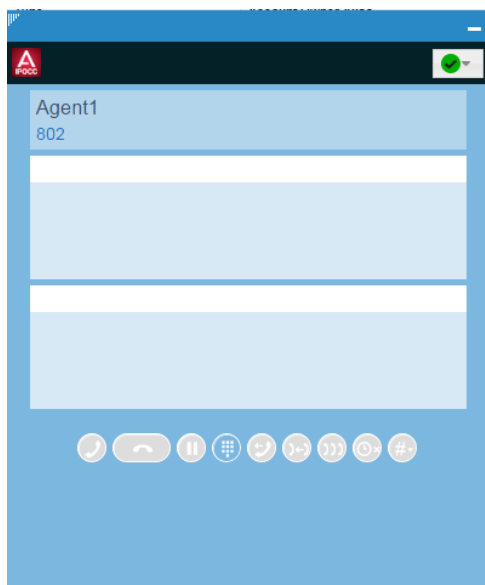
Action	Account Name	Account Site	Billing State/Province
Edit Del +	Burlington Textiles Corp of America		NC
Edit Del +	Dickenson plc		KS
Edit Del +	Edge Communications		TX
Edit Del +	Express Logistics and Transport		OR
Edit Del +	GenePoint		CA
Edit Del +	Grand Hotels & Resorts Ltd		IL
Edit Del +	Pyramid Construction Inc.		
Edit Del +	sForce		CA
Edit Del +	United Oil & Gas Corp.		NY
Edit Del +	United Oil & Gas, Singapore		Singapore
Edit Del +	United Oil & Gas, UK		UK
Edit Del +	University of Arizona		AZ

1. The ISA login screen is displayed. Enter:
 - a. The agent's IP Office Contact Center's Username
 - i. Maximum length 30 characters
 - b. The agent's IP Office Contact Center Password
 - i. Maximum length 255 characters
 - c. The agent's Extension.
 - i. Maximum length 30 characters



2. Upon successful login, the Telephony controls will be displayed as illustrated below.

Note: Unsupported UI controls will not be displayed



Note: Click-to-dial is enabled on Salesforce.com once an Agent successfully logs into the Application. Click-2-dial will be disabled on Agent log off.

Note: If an agent provides invalid credentials, an error message will be displayed stating Invalid agent credentials.

To login into the CRM App User Interface, the user has to either click on the Login button or tab to the Login button and press the Enter key or Space Bar to activate the login process. Pressing the Enter key on any of the fields (Username, Password, Extension) is not supported, as each field requires validation.

Note: If a user is logged into ISA and the network connection with IP Office Contact Center server is broken and the user then performs an operation in the User Interface (for example, dials a number), the user is automatically logged out of the User Interface. After a period of time and the following message is displayed *Connection to IPOCC Server was closed or lost unexpectedly*. Users will not be allowed to logout or change agent state from "Available" to "Breaktime", when a call is in progress.

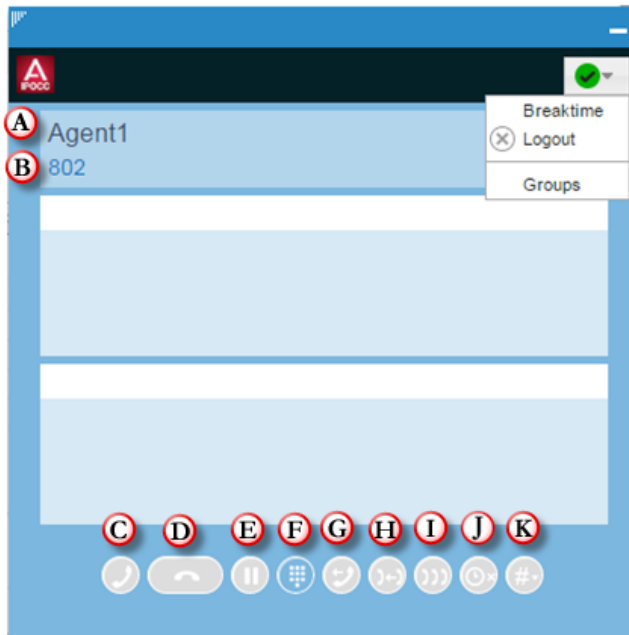
If a user is logged into ISA and is logged off from the Telephony via Supervisor console or Agent console of the IP Office Contact Center thick User Interface, the user is automatically logged off from ISA. The following message is displayed *Agent was logged off via Supervisor console or via external endpoint*.

The opposite of the above scenario is also true, i.e. if a user is logged off from the ISA App User Interface, then the user is also logged off from the Telephony in the CC UI.

ISA UI Controls

The telephony UI buttons of ISA are shown below. The alignment of these buttons may differ, if the app window is resized.

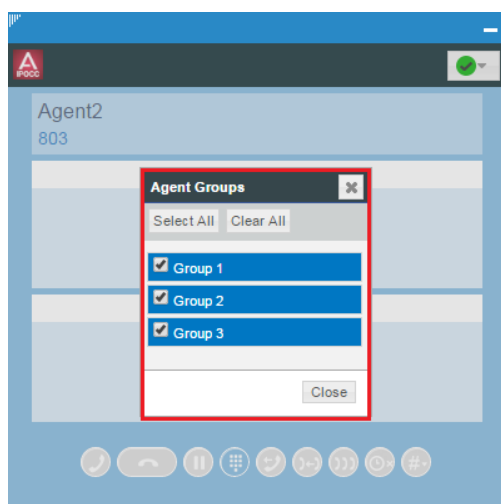
- A. Agent Name
- B. Agent Extension
- C. Answer
- D. Call Release / Drop
- E. Hold / Unhold
- F. Dial pad button
- G. Consult
- H. Transfer
- I. Conference
- J. Wrap Up
- K. Job Code



Note: The Agent State is visible on the top right, as a select option widget. The green icon indicates that the agent is available. The red icon indicates that the agent is on breaktime. The state of the agent can also be updated by the Supervisor or the Agent themselves from the IP Office Contact Center User Interface. The changes are reflected in ISA.

Agent Group Sign-On/Off

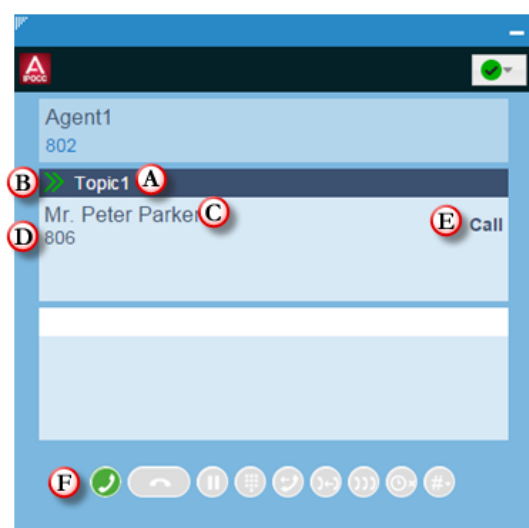
Click on Groups, to display a list of groups as illustrated below. The Agent can check, or uncheck the groups to which they are to be signed-in/off.



Receiving Calls

After successful login, Agents can receive incoming calls. When an incoming call is presented to the agent, the **Call Pickup** button will be illuminated green. It will also blink. Details about the incoming call are also displayed, as illustrated below.

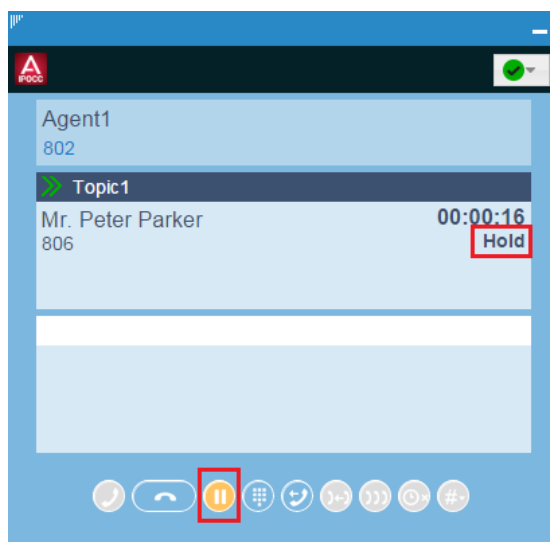
- A. Topic Name
- B. Call Direction
- C. Caller Name
- D. Phone Number
- E. Call Type
- F. Call Alert Indicator



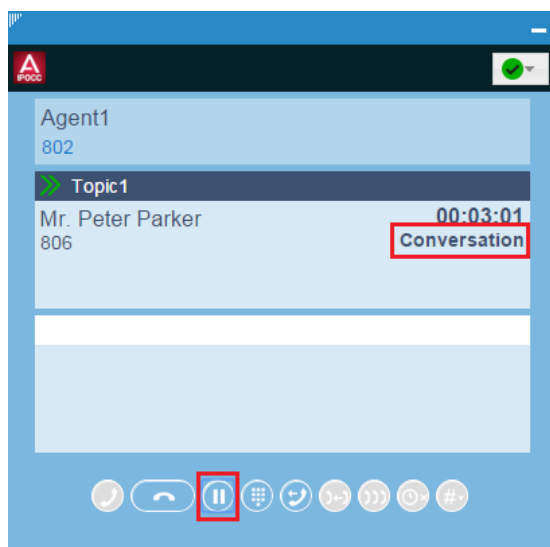
An Agent can accept a call by clicking on the **Call Pickup** button. Once the call is answered, the conversation starts and the screen is updated as illustrated. The duration and direction of the call is shown along with incoming contact details. The incoming Contact must be pre-configured in Salesforce, otherwise the contact will be shown as **Unknown**.

Hold/UnHold

A Call can be put on hold by the agent or the other party. The Agent can put the call on hold, by clicking on the **Hold** button. Once the call is placed on hold, the Hold button is illuminated. The call status will also be modified.

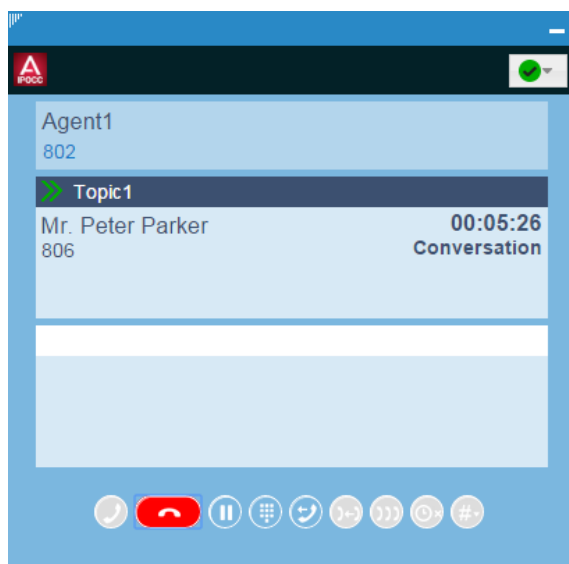


The call can be taken off hold, by once again clicking the **Hold** button. The status of the call will change accordingly.



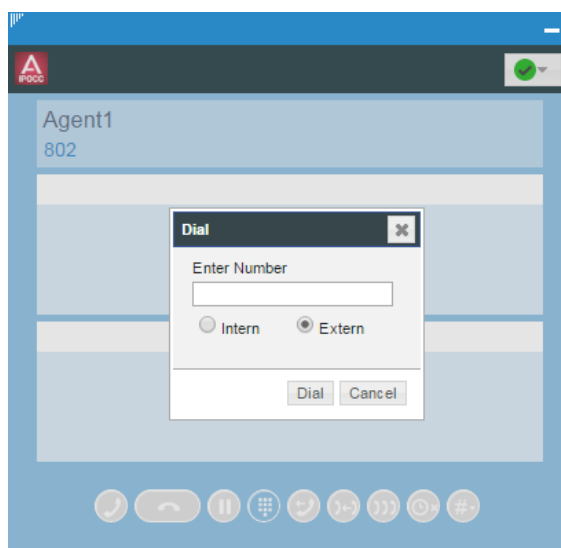
Drop Call

To drop/release a call, click on the **Call Release** button. The button's color will change to Red.

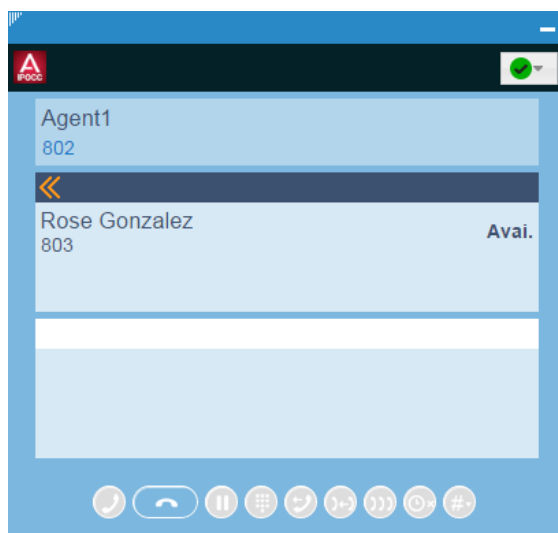


Outbound Call

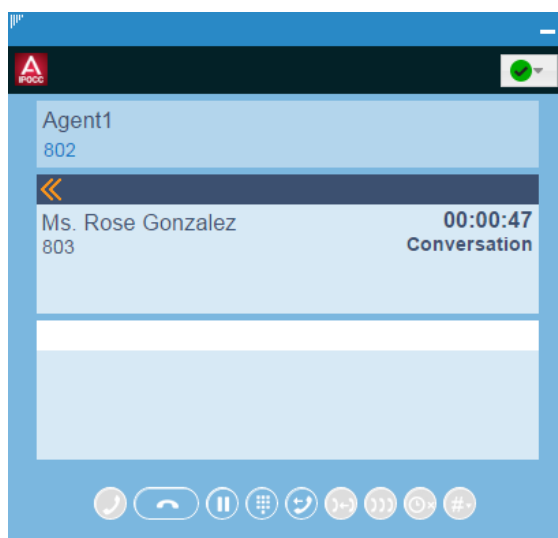
To make an outbound call, click on the **Dial Pad** button. A dialog box appears. Select whether an internal or external number is to be dialed. In the **Dial** dialog box, enter the number to be dialed, and then click the **Dial** button.



Once the **Dial** button is clicked, the dialog disappears and the status of the call and the called party is displayed.

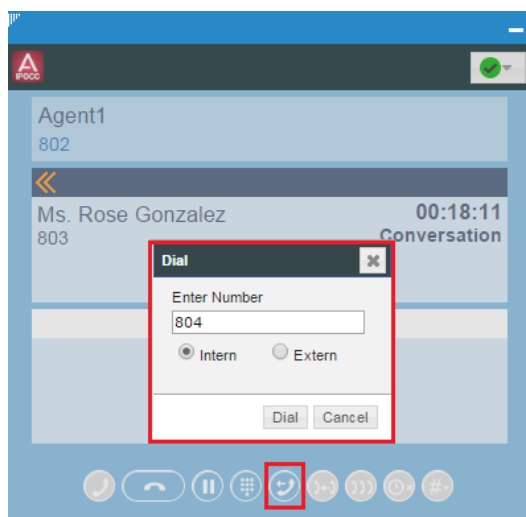


Once the other party accepts the call, the call is connected. The call status is updated to **Conversation**, as illustrated below.



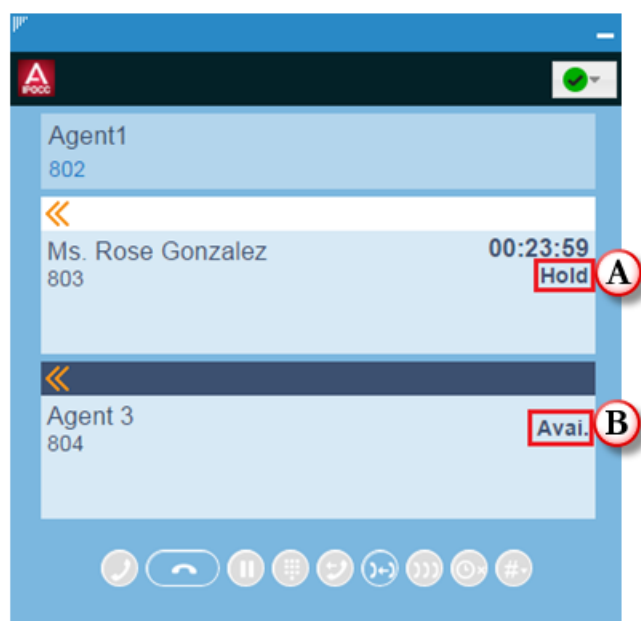
Consult

During an ongoing call, an agent may wish to discuss/consult the call with another agent. The agent clicks the **Consult** button. On clicking the consult button, a dialog box opens.

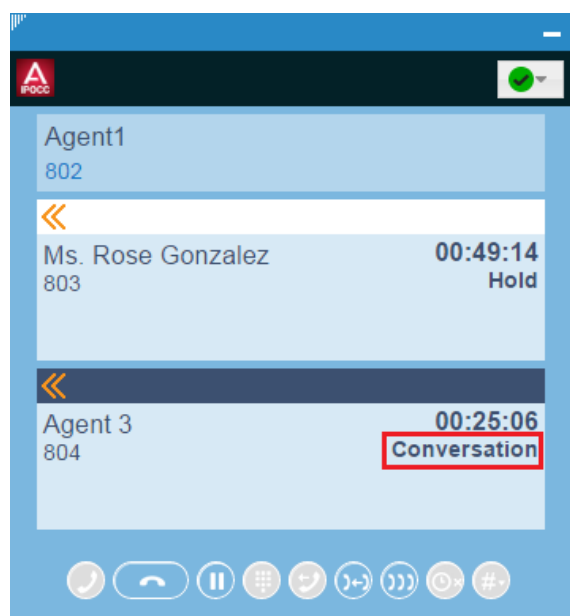


The agent enters the number of the extension to be consulted, and then clicks **Dial**. The current call is placed on **Hold**. The status of the 'consult call' is displayed.

- A. The original call is placed on hold
- B. 'Consult' call

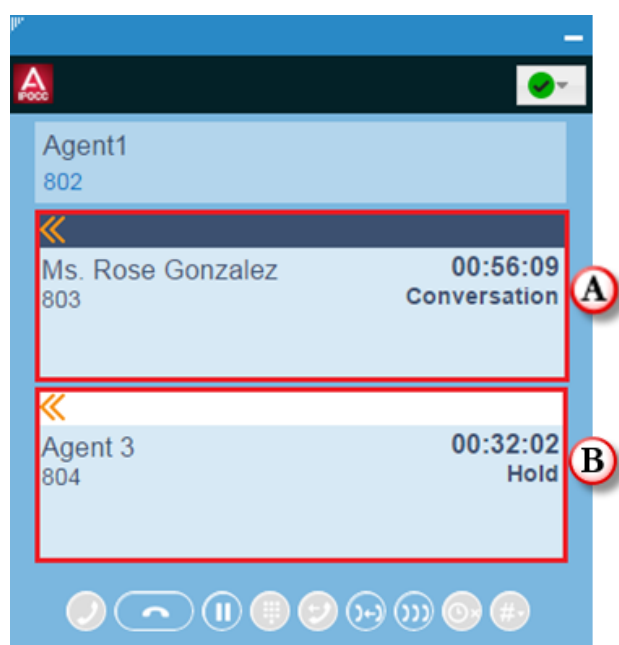


Once the other agent accepts the call, the conversation commences, as illustrated below



During the 'consult' call (or between any two calls), the agent can switch between the calls by clicking on the respective call area panel.

- A. First Call Area
- B. Second Call Area



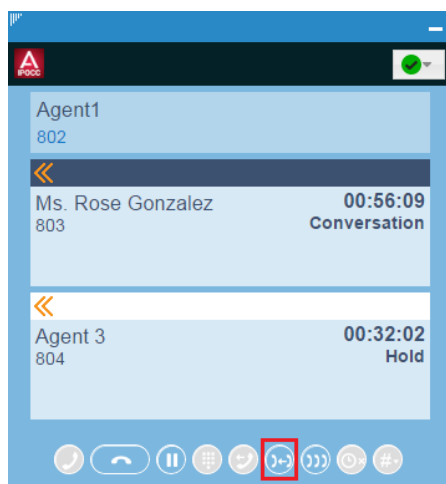
After the 'consult' call is completed, the agent clicks on the **Call Release** button. The 'consult' call is ended.

Note: Ensure that the consult call is the active call.

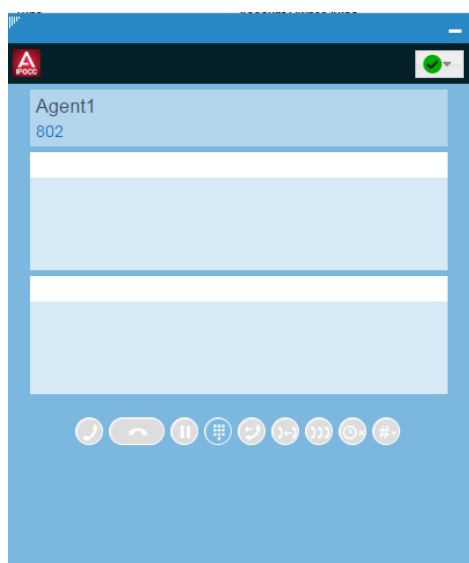
When the 'consult call' ends, the original call is still in a **Hold** state. Therefore to "unhold" the call the agent must once again click the **Hold** button. To end the call, click the **Call Release** button.

Transfer

To Transfer an existing call, the agent clicks the **Dial Pad** button, enters the number to which the call is to be transferred. The original call is automatically placed on hold. Once the other party has picked up the call, the call is connected. To complete the transfer process, click the **Transfer** button.



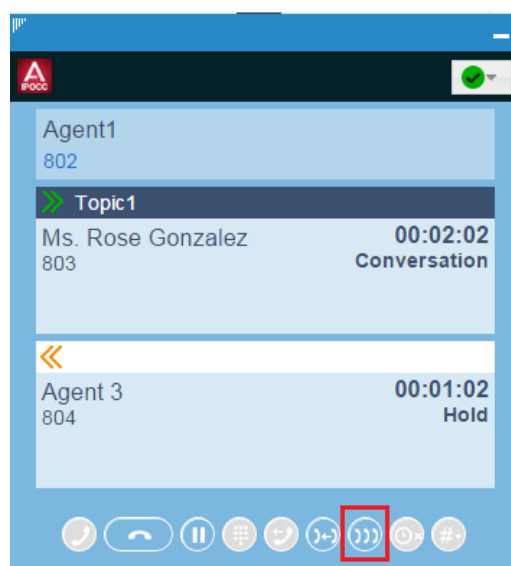
Once the transfer button is clicked, the call is transferred from the agent.



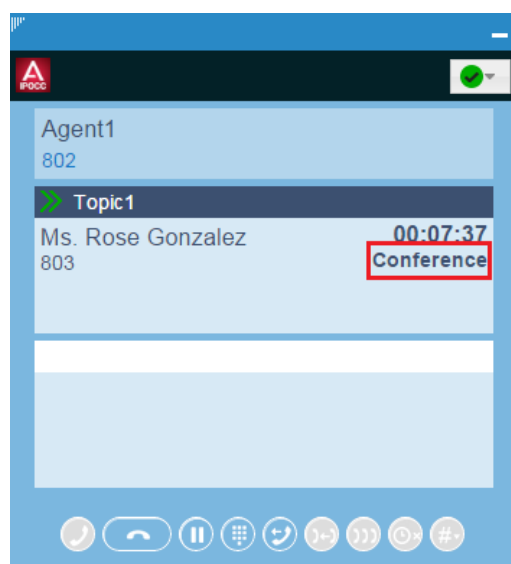
Conference

During an ongoing call, an agent can conference another agent to join the call. The agent clicks the **Dial Pad** button and dials the third party. The original call goes on **Hold**.

When the other party accepts the call, they are ready to join the conference with the original agent and the caller.



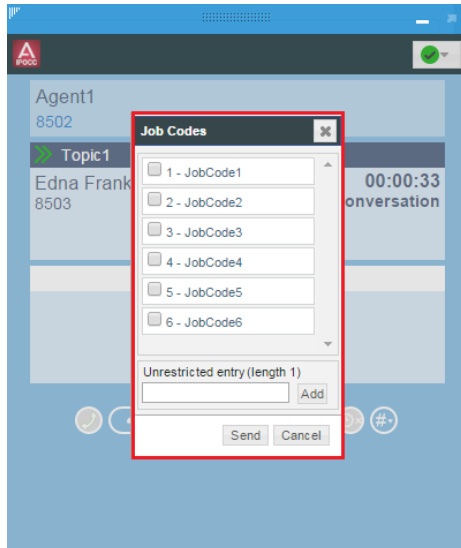
To join these two calls in a conference, the agent clicks **Conference** button.



If the agent wishes to add another party into the conference, they follow the same process. i.e. dial the number, connect the call and then click on the **Conference** button. To drop out of the conference, click the **Call Release** button.

Job Codes

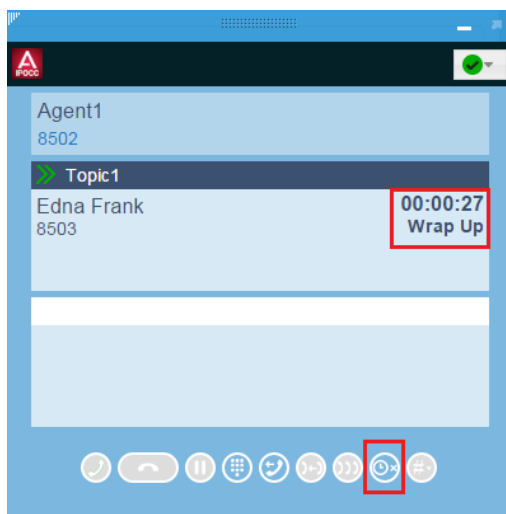
An Agent can add Job Codes relating to the call, by clicking on the **Job Code** button. After clicking on the button, the agent will see a pop-up dialog as illustrated below.



The agent can select the Job Code from the list and click **Send**. Job codes can be manually added by entering the code in the box, clicking **Add**, and then selecting the code and clicking **Send**.

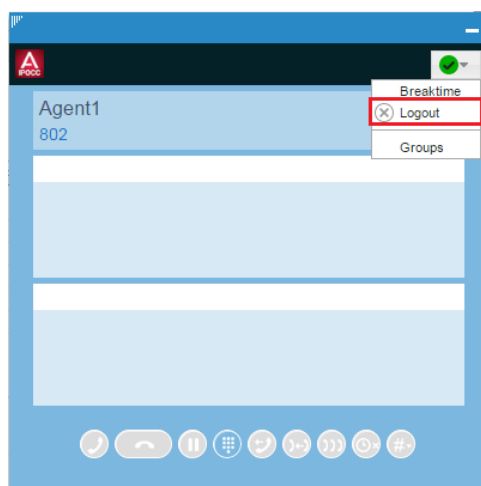
Wrap-Up

If wrap up is configured, an Agent enters the wrap-up state after the call ends. By clicking on the **wrap-up** button, the agent can end the **Wrap up**. When the agent is in wrap-up, the timer shows the period left before wrap-up will expire.



Logout

To logout, click the Logout button.



Call Log

By default, completed calls are logged and saved in Salesforce, when the corresponding contact object is available.

If the incoming contact number is present in multiple objects of same or different type, the call log will not be saved.

Calls logs for incomplete/abandoned calls will not be saved.

Call logs are saved to Salesforce “Task” object of the Contact.

The following fields are saved by ISA in Call logs.

- Contact id
- Subject (the default value "CALL" will be stored)
- Status- will always be stored as “completed” state
- Phone and email id will automatically be updated from contact
- Duration (in seconds)
- Call Type

Call Logs will always be displayed in the activity history of the contact.

Note: Call Logs are not a replacement for IP Office Contact Center call related reports. The two are independent of each other. Salesforce Call logs, saves or updates the Task object in Salesforce. Salesforce will only have information related to the current User/Agent.

Topic Call : An inbound topic call initiated from customer will be saved in call log. The topic call will be visible in comments field and will be saved in following format “Topic call - <topicnumber>”

Screen Pop

Configure the softphone layout option as given under the **Configuring Softphone Layout** section of this guide. Once the configuration is in place, the screen pop on calls feature is enabled.

Note: Screen pop will occur on Inbound, and Outbound calls. The Phone Number (Dialed or Incoming) will be used as the key to search for Salesforce objects.

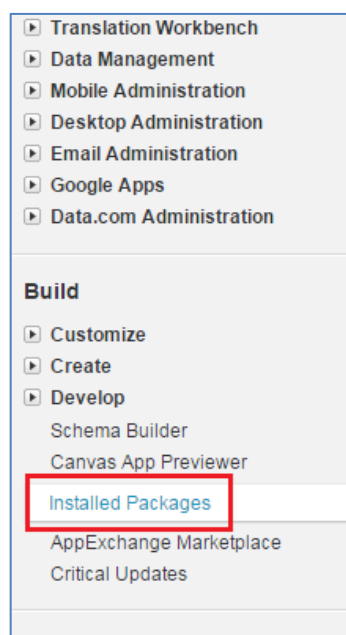
Note: Screen Pop is not supported in Standard mode.

Known Issues:

After screen pop occurs, Salesforce doesn't relinquish User Interface control to IP Office Contact Center Salesforce App. Consequently the Agent is not able to type anything in ISA dial pad. The workaround is that the Agent needs to click once in Salesforce area, and then click on ISA.
https://success.salesforce.com/issues_view?id=a1p30000000SyTGAA0

Uninstalling the ISA Application

1. To uninstall the application, click on **Setup** and navigate to **Build**, followed by **Installed Packages**.
2. Click on **Installed Packages**.



3. A list of installed packages is displayed. Identify the package to be uninstalled. Click the **Uninstall** button.

Installed Packages

On Force.com AppExchange you can browse, test drive, download, and install pre-built apps and components right into your salesforce.com environment. [Learn More about Installing Packages.](#)

Apps and components are installed in packages. Any custom apps, tabs, and custom objects are initially marked as "In Development" and are not deployed to your users. This allows you to test and customize before deploying. You can deploy the components individually using the other features in setup or as a group by clicking Deploy.

Depending on the links next to an installed package, you can take different actions from this page.

To remove a package, click **Uninstall**. To manage your package licenses, click **Manage Licenses**.

[Visit AppExchange »](#)

Action	Package Name	Publisher	Version Number	Namespace Prefix	Install Date
Uninstall	IPOCC_SFConnector	Avaya	1.6	avaya_ipocc_sfc	2/24/2015 2:44 PM
Description IPOCC SFConnector integrates Salesforce CRM Application with IPOCC. Using IPOCC SFConnector app contact center agents can use Salesforce CRM applicati...					

Uninstalled Packages

No uninstalled package data archives

4. A confirmation screen is displayed including options to save the data associated with the package. To uninstall the package, click on the checkbox adjacent to **Yes, I want to uninstall the package and permanently delete all associated components**.

Uninstalling a Package Help for this Page

Warning: Uninstalling this package will:

- Permanently delete all components in this package (listed below)
- Permanently delete all customizations you have made to these components

When you uninstall a package, by default, all its data as well as related notes and attachments are automatically saved as an export file. This file is available for 48 hours in case you need to recover the data. To reload the data, import the export file manually and recreate any relationships between objects. Some components can't be recreated and others require special treatment. You can also prevent the package data from being exported by selecting the appropriate radio button below. [Tell me more](#)

Action	Name	Parent Object	Type
	icc_consult_call		Static Resource
	icc_dial_pad		Static Resource
	iccSessionManager		Static Resource
	icc_end_wrap_up		Static Resource
	iccUIController		Static Resource
	iccAppUI		Visualforce Page
	IPOCC Call Center Definition		Call Center
	iccContactSearchController		Apex Class
	iccContactSearchControllerTest		Apex Class

☐ Save a copy of this package's data for 48 hours after uninstall
☐ Do not save a copy of this package's data after uninstall
☒ Yes, I want to uninstall this package and permanently delete all associated components

Uninstall

5. Click the **Uninstall** button. A progress screen is displayed.


Installed Packages Help for this Page


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Apps and components are installed in packages. Any custom apps, tabs, and custom objects are initially marked as "In Development" and are not deployed to your users. This allows you to test and customize before deploying. You can deploy the components individually using the other features in Setup or as a group by clicking Deploy.

Depending on the links next to an installed package, you can take different actions from this page.

To remove a package, click **Uninstall**. To manage your package licenses, click **Manage Licenses**.


[Visit AppExchange »](#)

Package Name	Publisher	Version Number	Namespace Prefix	Install Date
 SanManagedBeta1	abc	1.2 (Beta 2)	sanTest	12/29/2014 6:22 PM
Description Base ISA Managed package				

Action	Package Name	Namespace	Expiration Date	Uninstall Status	Uninstall Date
	SanManagedBeta1 (Version Name New Year Eve 0.1)	sanTest	12/31/2014 7:51 PM	In Progress	12/29/2014 7:51 PM

6. The uninstall process can take a number of minutes to complete. The status of the package is displayed in the **Uninstalled Packages** panel.

Installed Packages

On Force.com AppExchange you can browse, test drive, download, and install pre-built apps and components right into your salesforce.com environment. [Learn More about Installing Packages.](#)

Apps and components are installed in packages. Any custom apps, tabs, and custom objects are initially marked as "In Development" and are not deployed to your users. This allows you to test and customize before deploying. You can deploy the components individually using the other features in setup or as a group by clicking Deploy.

Depending on the links next to an installed package, you can take different actions from this page.

To remove a package, click **Uninstall**. To manage your package licenses, click **Manage Licenses**.

Installed Packages

No packages installed

Uninstalled Packages

Action	Package Name	Namespace	Expiration Date	Uninstall Status	Uninstall Date
Del	ISA_Pkg (Version Name 20150129)	ISA_ManagedBeta	2/5/2015 1:02 PM	Uninstall Complete	2/3/2015 1:02 PM

7. To completely remove the package, click the Del button. The package is deleted from the SFDC a/c.

Troubleshooting the CRM Connector

In case of unexpected behavior in the Salesforce Application, please supply the log files listed below to Avaya Support:

- CRM Connector logs in IP Office Contact Center TTrace
- Browser Console: This is a debugging display that is part of the user's browser.

To obtain the log from the Browser Console, the browser's debugging tools will have to be invoked. (This can be achieved in both Firefox and Chrome by pressing "F12"). Once the debugging tools are displayed, use the tools to select the **Console** display. Recreate the issue while the Console is displayed. When you have finished recreating the issue, highlight the entire contents of the Console display and send the log entries to Avaya Application Support.

Other Troubleshooting Considerations

- A User cannot logout or change their agent state from Available to Break time, when a call is in progress.
- If a user is logged into the ISA App User Interface and is logged off from the Telephony via Supervisor console or Agent console of the Contact Center User Interface, the user will automatically be logged off from ISA App User Interface. The following message is displayed: *"Agent was logged off via Supervisor console or via external endpoint."*
- If a user is logged off from the ISA App User Interface, the user is also logged off from the Telephony in the Contact Center User Interface.
- If a user is logged into the ISA App User Interface and is in idle state for a period of 60 minutes, then session timeout occurs from the CRM Connector. In this

case, the user is automatically logged off the User Interface and the following message is displayed: *"IPOCC Server session timed out for the logged in Agent."*

- If a user is logged into the ISA App User Interface and the network connection is lost and they then attempt to use the interface for example, to dial a number, the user is automatically logged out of the user Interface and the following message is displayed: *"Connection to IPOCC Server was closed or lost unexpectedly"*.
 - A user will only receive a 'connection lost' message when they perform an operation via the interface, as the web socket connection is alive and remains so for a long period, believing that connection will be restored. Therefore the App is not notified of the loss of connection, until a request is sent to server.
- If the CRMConnector is already installed and the IP Office Contact Center Server is upgraded, the CRMConnector will not be upgraded. The CRMConnector would therefore require to be manually upgraded in a similar manner to a fresh installation.

Avaya Documentation

- <http://support.avaya.com/>

Avaya IP Office Contact Center Task Based Guides

IP Office Contact Center Start Here First

IP Office Contact Center Installation Task Based Guide

IP Office Contact Center Advanced Installation Task Based Guide

IP Office Contact Center – IVR Editor Scenarios Task Based Guide

IP Office Contact Center Task-Flow Editor Telephony Task Based Guide

IP Office Contact Center Telephony User Interface Task Based Guide

IP Office Contact Center Reporting Task Based Guide

IP Office Contact Center Dialer Task Based Guide

IP Office Contact Center Contact Recorder Configuration Task Based Guide

IP Office Contact Center Email and Chat Services Task Based Guide

IP Office Contact Center Maintenance Task Based Guide

Please note, only the IP Office Contact Center Task Based Guides listed above are available from Avaya. Further IP Office Task Based Guide documentation as listed below is available directly from ITEL. <http://www.iteluk.com/>

ITEL IP Office Task Based Guides

Initial Installation

1. IP Office Configuration Maps
2. IP Office Hardware Installation
3. IP Office Initialisation
4. IP Office Manager
5. IP Office Voicemail Pro Initial Installation Guide
6. IP Office Small Community Networking
7. IP Office Customer Call Reporter Initial Installation Guide
8. IP Office Server Edition Configuration
9. IP Office Security Policies

UCM

10. IP Office Unified Communications Module

Core Telephony

11. IP Office Telephony and Call Routing
12. IP Office Short Codes Summary
13. IP Office Hunt Group Setup and Operation
14. IP Office Conferencing
15. IP Office IP Telephony Guide
16. IP Office Computer Telephony Integration – 1st Party

Users, Telephone & Softphone Configuration

17. IP Office Configuring IP Office Phones and User Accounts
18. IP Office Call Handling
19. IP Office Configuring the IP Office Softphone

Auto Attendant & Voicemail

20. IP Office Embedded Voicemail (Intuity Mode) Flowchart
21. IP Office Auto-Attendant Setup and Operation
22. IP Office Embedded Voicemail
23. IP Office Embedded Voicemail Flowchart

Voicemail Pro

24. IP Office Voicemail Pro Summary Guide
25. IP Office Voicemail Pro – Voicemail User Guide

One X Portal & IP Office Applications

- 26. IP Office One X Portal Guide
- 27. IP Office One X Mobile Preferred Implementation
- 28. IP Office Plug-in for Microsoft® Outlook®
- 29. IP Office MS Lync Plugin
- 30. IP Office Avaya Flare
- 31. IP Office One X Mobile Essential

Customer Call Reporter – CCR

- 32. IP Office Customer Call Reporter Configuration Guide
- 33. IP Office Customer Call Reporter Wallboard Guide

Contact Store & Receptionist Console

- 34. IP Office Contact Store
- 35. IP Office Receptionist Console

Maintenance

- 36. IP Office Backup and Restore
- 37. IP Office System Status Application
- 38. IP Office Upgrade Guide