



Avaya Solution & Interoperability Test Lab

Application Notes for Voice4net SPPS with Avaya IP Office – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate Voice4net SPPS (Screen Pop Pro Server) with Avaya IP Office. Voice4net SPPS provides a framework for implementing custom applications such as softphone and screen-pop applications. In this compliance test, two sample applications were used to verify the capabilities of Voice4net SPPS: a Salesforce.com softphone and a separate screen-pop application. Voice4net SPPS integrates with Avaya IP Office using TAPI.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1 Introduction

These Application Notes describe the configuration steps required to integrate Voice4net SPPS with Avaya IP Office. Voice4net SPPS provides a framework for implementing custom applications such as softphone and screen-pop applications. In this compliance test, two sample applications were used to verify the capabilities of Voice4net SPPS: a Salesforce.com (SFDC) softphone and a separate screen-pop application. Voice4net SPPS integrates with Avaya IP Office using TAPI.

The SFDC softphone uses the Salesforce CTI Connector, which is a standard component of Voice4net SPPS, and uses TAPI drivers to Avaya IP Office. The Salesforce CTI Connector implements connectivity between the Salesforce softphone and the TAPI drivers to Avaya IP Office. Part of the functionality of the softphone is to provide screen-pops into the SFDC application, but it is also used as a softphone. The SFDC softphone requires an account on Salesforce.com and the importing of a configuration XML file provided by Voice4net. In addition, the SFDC CTI Connector must be installed and running on the user's desktop PC.

The sample custom screen-pop used for this test displays caller data from a sample database in a screen-pop window when an incoming call is received. This sample application requires SPPS Client software to be installed and running on a user's desktop PC, the SPPS server, and Avaya IP Office TAPI drivers on the SPPS server.

2 General Test Approach and Test Results

The feature test cases were performed manually. Two applications were used to verify the functionality of the Voice4net SPPS framework: a Salesforce.com (SFDC) softphone and a sample screen-pop application.

The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet cable to the SPPS server and by rebooting the server.

2.1 Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. The feature testing focused on verifying the following on Voice4net SPPS:

- Outbound calls from the SFDC softphone to local stations and the PSTN.
- Inbound calls to the SFDC softphone from local stations and the PSTN.
- Blind and supervised call transfers from the SFDC softphone.
- Conference calls from the SFDC softphone.
- Verified that the corresponding hardphone reflected the proper call status on the SFDC softphone.
- Changed availability status on the SFDC softphone and verified proper state on hardphone.
- Call transfers from SFDC softphone to busy station.
- Placed calls on hold from SFDC softphone and hardphone.

- Verification of SFDC softphone call log.
- G.711 mu-law codec support.
- Verified the sample screen-pop application displayed caller data for incoming calls, when available.

The serviceability testing focused on verifying the ability of Voice4net SPPS to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet cable and rebooting the server.

2.2 Test Results

All test cases passed.

2.3 Support

Contact Voice4net at (214) 237-7600 for SPPS technical support. The Voice4net website is <http://www.voice4net.com>.

3 Reference Configuration

In the compliance testing, the Avaya IP Office and Voice4net SPPS interface used TAPI. The Voice4net SPPS Server was used for the sample screen-pop application along with Voice4net SPPS Client software running on a desktop PC. Salesforce.com and the Voice4net SFDC CTI Connector running on the desktop PC were used for the SFDC softphone application. An extension on IP Office was used by both Voice4net applications.

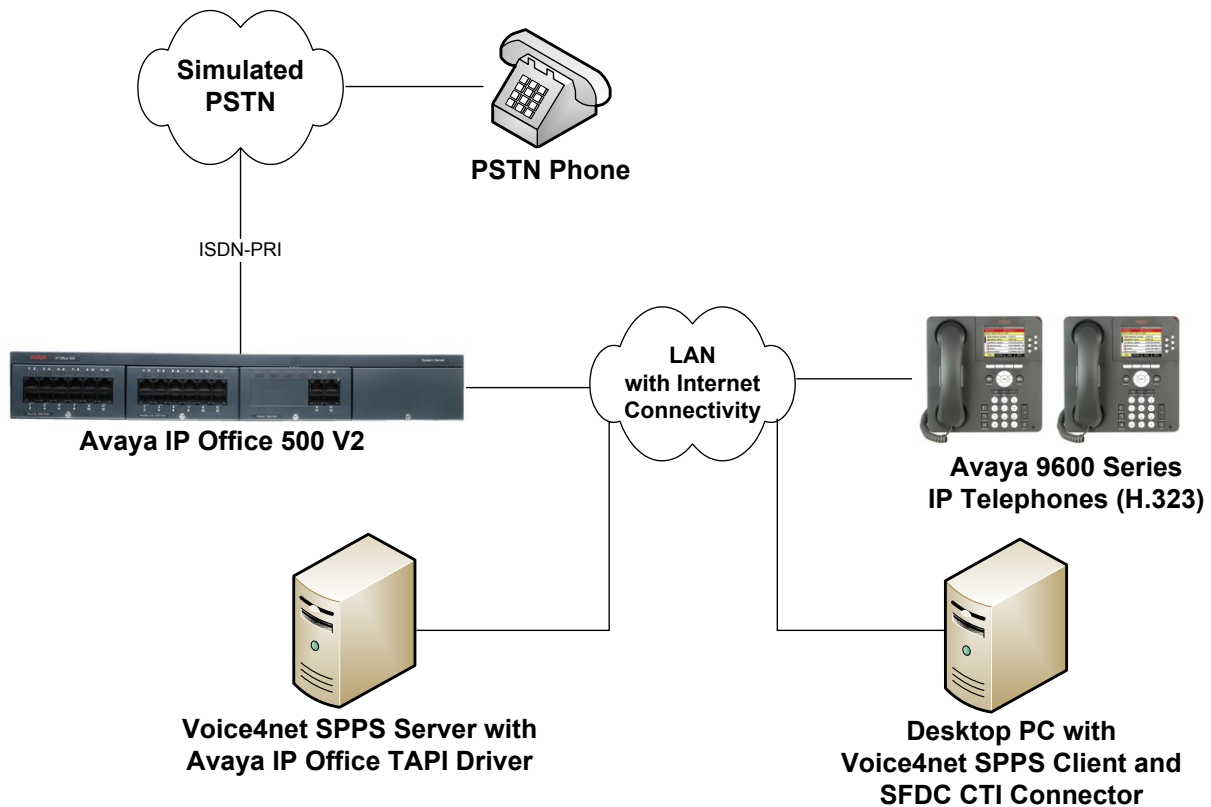


Figure 1: Voice4net SPPS with Avaya IP Office using TAPI

4 Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment	Software
Avaya IP Office 500 V2	8.0 (16)
Avaya 9600 Series IP Telephones	3.1 SP 2 (H.323)
Voice4net SFDC CTI Endpoint Connector	2.0.0.1
Voice4net SPPS Client	6.1.1.10111
Voice4net SPP Server	6.0.0.0
Avaya IP Office TAPI	Available from IP Office User CD 4.2.43

5 Configure Avaya IP Office

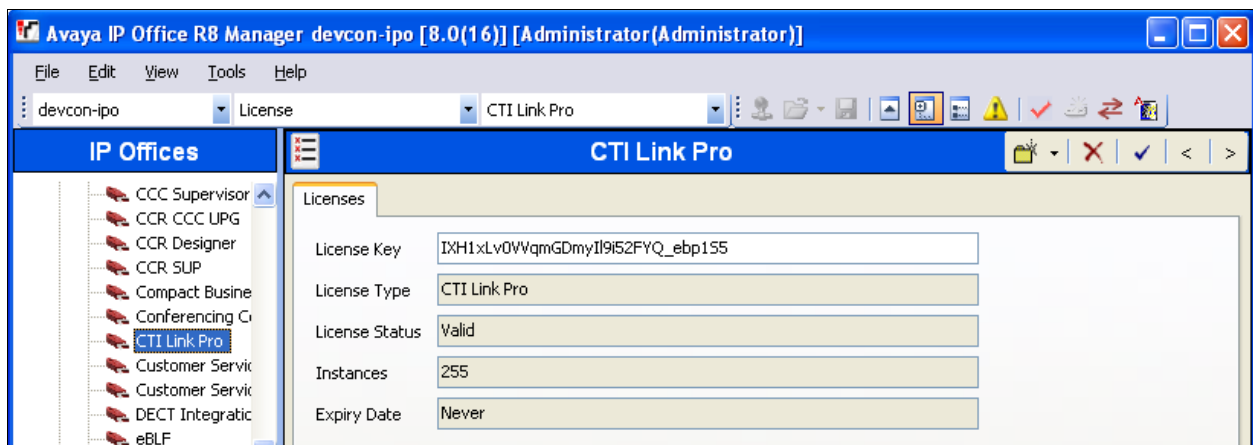
This section provides the procedures for configuring Avaya IP Office. The procedures include the following areas:

- Verify IP Office license
- Administer SFDC softphone extension (also associated with a 9600 H.323 phone)

5.1 Verify IP Office License

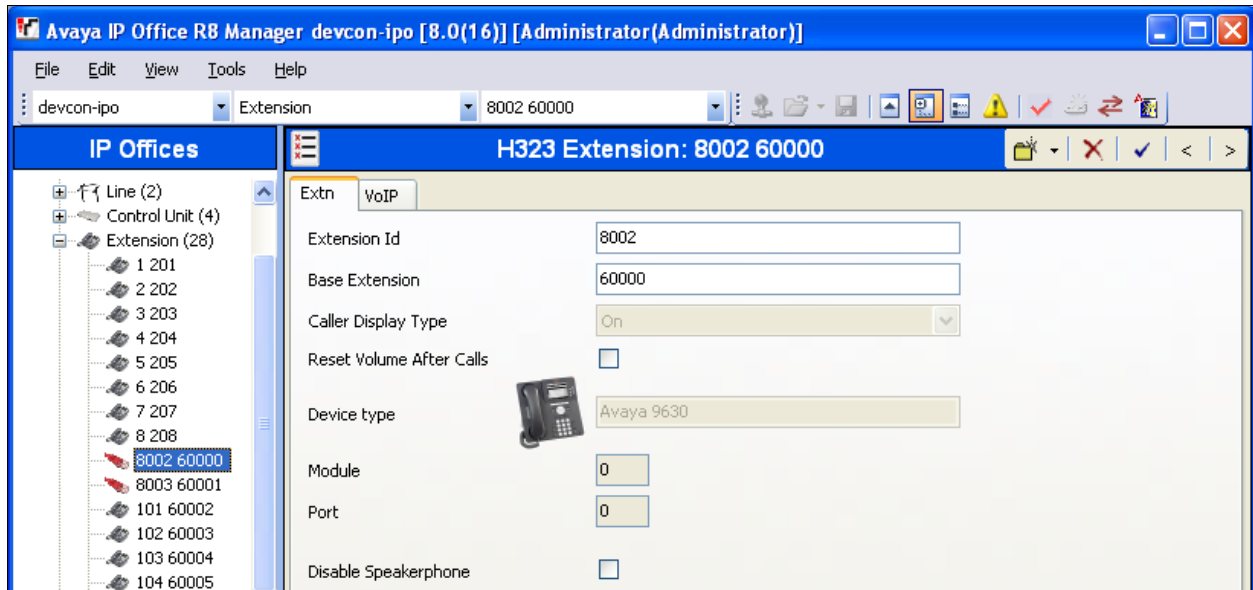
From a PC running the Avaya IP Office Manager application, select **Start → Programs → IP Office → Manager** to launch the Manager application. Select the proper IP Office system and log in with the appropriate credentials.

The **Avaya IP Office R8 Manager** screen is displayed. From the configuration tree in the left pane, select **Licence → CTI Link Pro** to display the license screen in the right pane. Verify that the **Licence Status** is “Valid”.

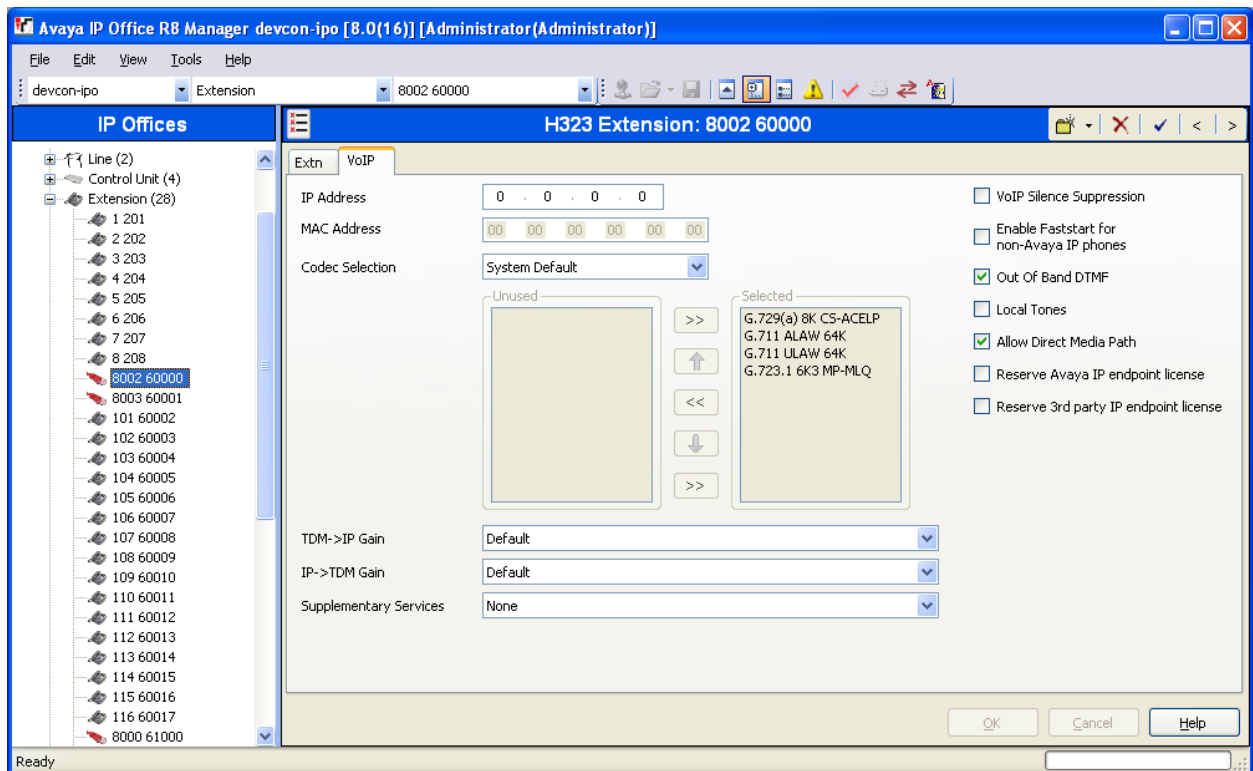


5.2 Administer SFDC Softphone Extension

From the configuration tree in the left pane, right-click on **Extension** and select **New → H.323 Extension** from the pop-up menu. Enter the desired extension for the **Base Extension** field. In this example, SFDC softphone was assigned extension *60000*.



The default settings for the VoIP tab were used.



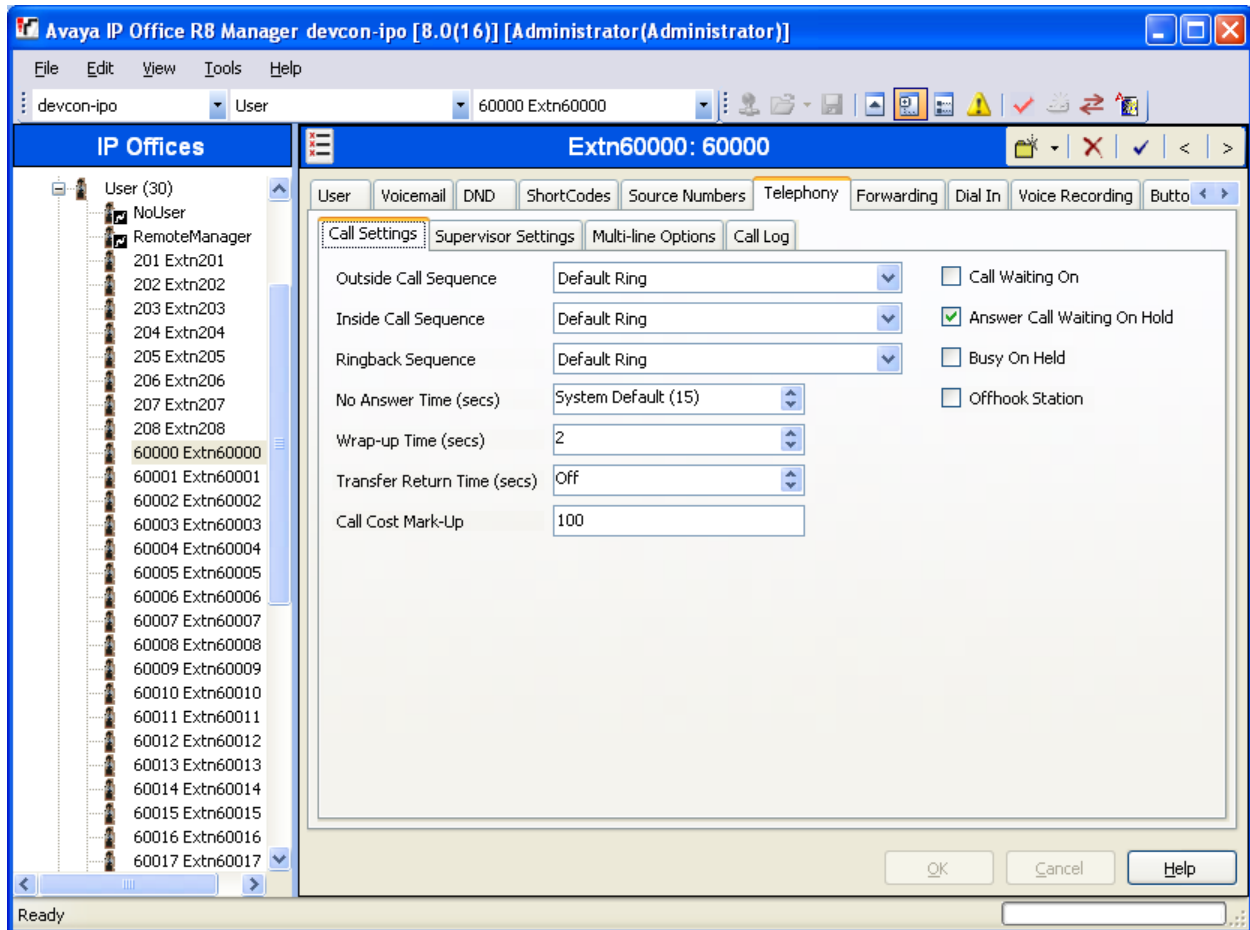
5.3 Administer SFDC Softphone User

From the configuration tree in the left pane, right-click on **User** and select **New** from the pop-up menu. Enter desired values for the **Name** and **Full Name** fields. For the **Extension** field, enter the extension created in **Section 5.2**.

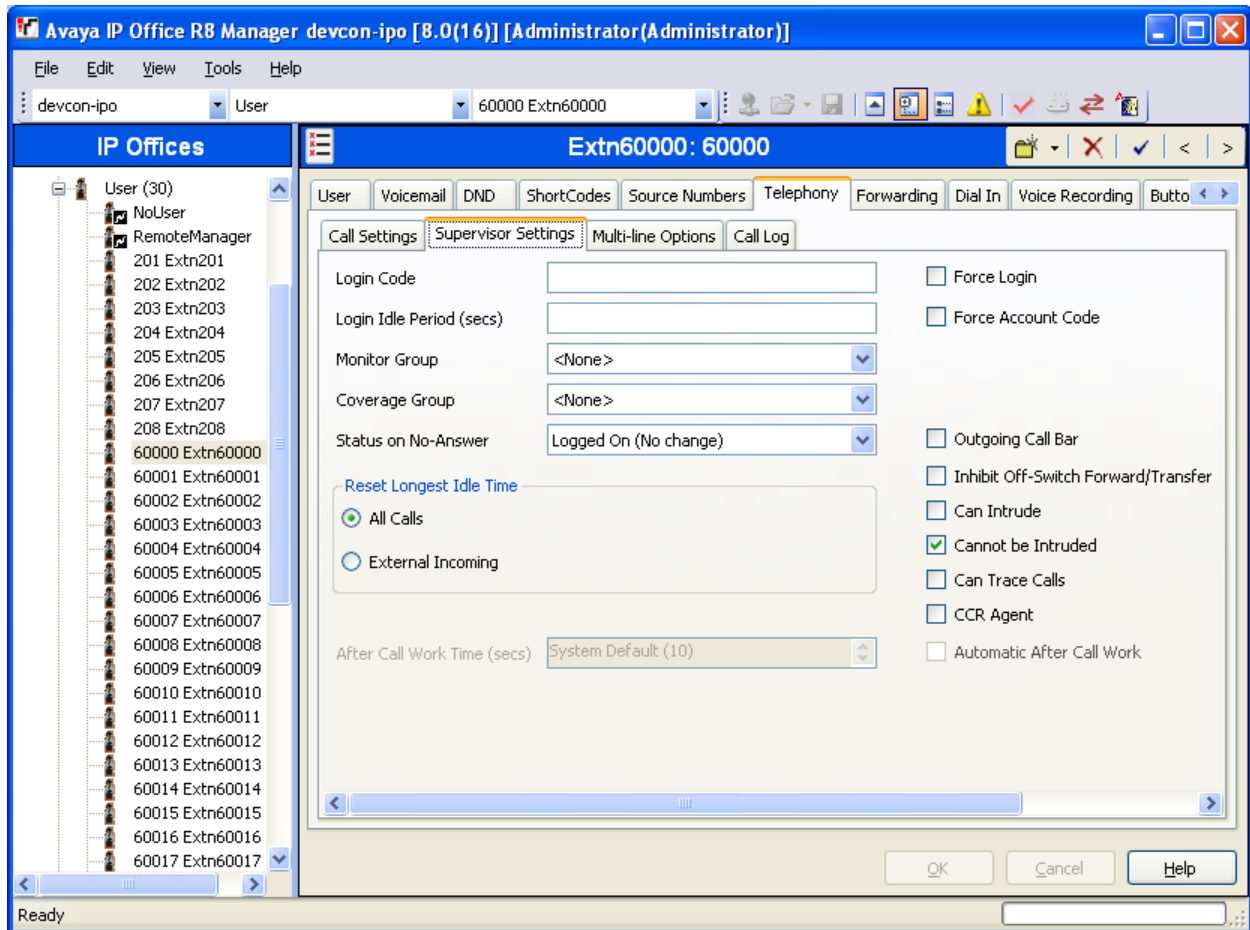
The screenshot shows the Avaya IP Office R8 Manager configuration window. The title bar reads "Avaya IP Office R8 Manager devcon-ipo [8.0(16)] [Administrator/Administrator]". The menu bar includes File, Edit, View, Tools, and Help. The toolbar contains various icons for file operations and system management. The left pane, titled "IP Offices", shows a tree structure with "User (30)" selected. The right pane, titled "Extn60000: 60000", displays the configuration form for a new user. The form includes fields for Name, Password, Confirm Password, Full Name, Extension, Locale, Priority, System Phone Rights, and Profile. Below these fields are checkboxes for "Receptionist", "Enable Softphone", "Enable one-X Portal Services", "Enable one-X TeleCommuter", "Enable Remote Worker", and "Ex Directory". The "Device Type" is set to "Avaya 9630". The "User Rights" section includes dropdowns for "User Rights view", "Working hours time profile", "Working hours User Rights", and "Out of hours User Rights". The status bar at the bottom indicates "Ready".

Field	Value
Name	Extn60000
Password	****
Confirm Password	****
Full Name	Extn60000 IPO
Extension	60000
Locale	[Dropdown]
Priority	5
System Phone Rights	None
Profile	Basic User
Receptionist	<input type="checkbox"/>
Enable Softphone	<input type="checkbox"/>
Enable one-X Portal Services	<input type="checkbox"/>
Enable one-X TeleCommuter	<input type="checkbox"/>
Enable Remote Worker	<input type="checkbox"/>
Ex Directory	<input type="checkbox"/>
Device Type	Avaya 9630
User Rights view	User data
Working hours time profile	<None>
Working hours User Rights	[Dropdown]
Out of hours User Rights	[Dropdown]

Select the **Telephony** tab followed by the **Call Settings** sub-tab. Note the settings below for the user.



Select the **Supervisor Settings** tab and enter a desired **Login Code**. Note that no **Login Code** is required so the SFDC softphone does not need to specify a password to log into this extension.



6 Configure Voice4net SPPS

This section provides the procedures for configuring Voice4net SPPS. The procedures include the following areas:

- Configure the SFDC Softphone
- Configure the Sample Screen-Pop Application

Note: Configuration of Salesforce.com is outside the scope of these Application Notes.

6.1 Configure Salesforce.com (SFDC) Softphone

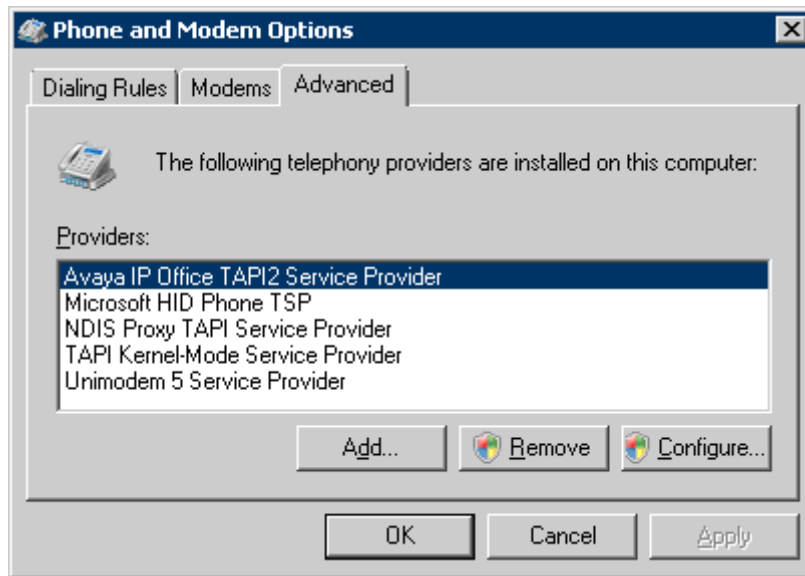
The SFDC softphone requires an account on Salesforce.com and a configuration XML file to be imported on Salesforce.com. The configuration file is provided by Voice4net. This file includes the dial prefix that's required for dialing PSTN calls. In addition, the Voice4net SFDC CTI Connector must be installed and running on the desktop PC. No additional software or configuration is required.

The SFDC softphone is capable of originating calls on behalf of its corresponding desktop phone, transferring calls, and initiating a conference call. Furthermore, it can drop an active call. When an incoming call is received, if the caller's number is in the database, a screen-pop is provided. The SFDC softphone can also change its availability state (e.g., available or Do-Not-Disturb (DND)).

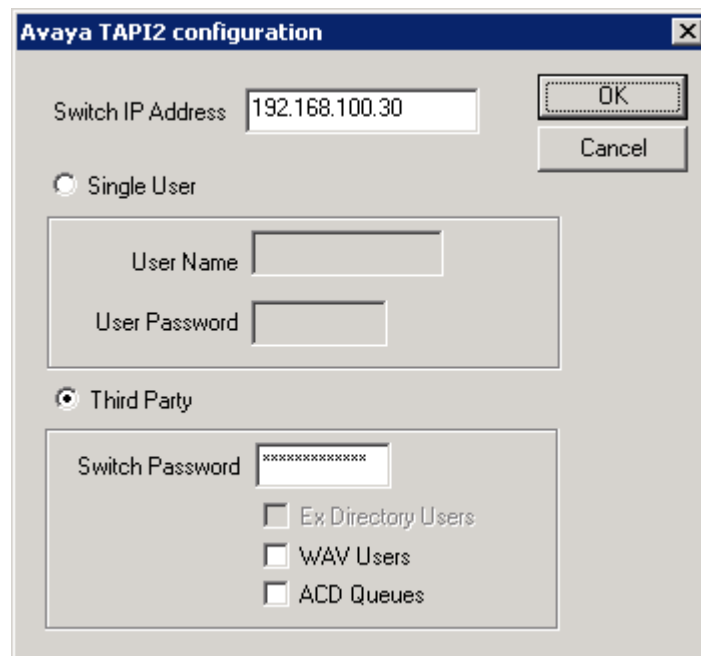
6.2 Configure Sample Screen-Pop Application

The sample screen-pop application is configured on the SPPS server by Voice4net. The Voice4net SPPS Client software is installed on a user's desktop PC and the SPPS Server software is installed on the server. Avaya IP Office TAPI driver is installed and configured on the SPPS server.

The TAPI driver on the SPPS Server must be configured with the IP Office IP address and password. To configure the TAPI driver, open the **Phone and Modem Options** under the **Control Panel** in Windows. Select the **Avaya IP Office TAPI2 Service Provider** option in the **Advanced** tab and click **Add**.



In the **Avaya TAPI2 configuration** screen, specify the IP Office IP address in the **Switch IP Address** field, select the **Third Party** option, and specify the IP Office password in the **Switch Password** field. Click **OK**.



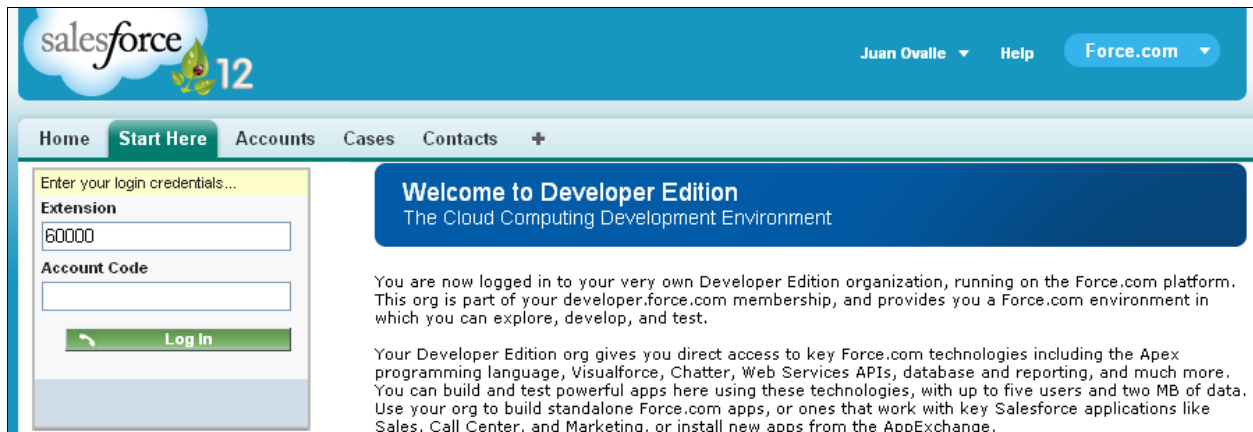
7 Verification Steps

This section provides the tests that can be performed to verify proper configuration of Voice4net SPPS.

7.1 Verify SFDC Softphone

To verify that the SFDC softphone is properly configured, follow these steps:

1. Go to <https://login.salesforce.com> and log in with the appropriate credentials.
2. Once logged into Salesforce.com, the following screen will be displayed. Log into the SFDC softphone using extension 60000 as shown below. No **Account Code** is required. Click **Log In**.



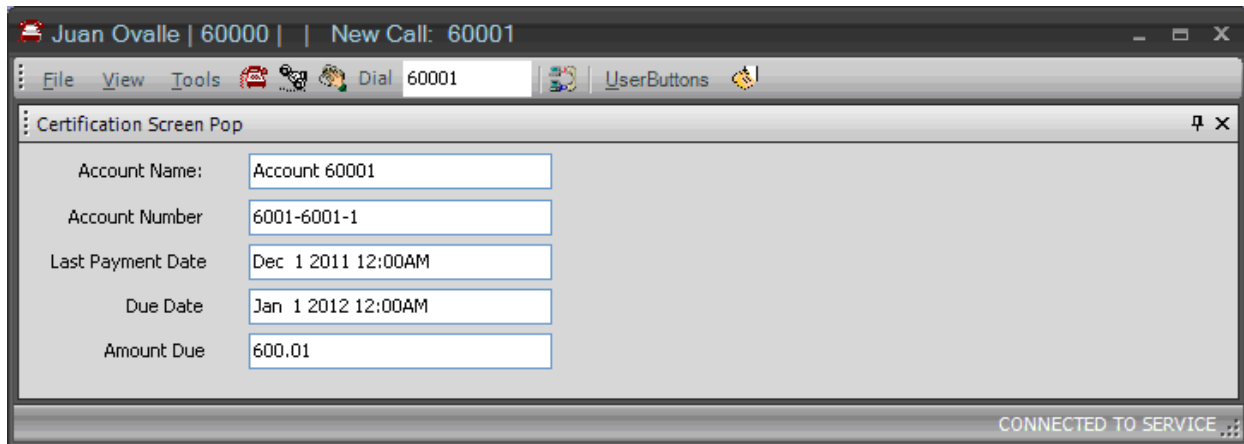
The screenshot shows the Salesforce Developer Edition login interface. At the top, the Salesforce logo is on the left, and the user name 'Juan Ovalle' and 'Force.com' dropdown are on the right. Below the navigation bar, there is a 'Welcome to Developer Edition' banner. To the left, there is a login form with fields for 'Extension' (containing '60000') and 'Account Code' (empty), and a 'Log In' button. To the right of the form, there is a welcome message and a paragraph of text about the Developer Edition organization.

3. From the SFDC softphone, place a call to a local station and verify that the call can be answered.
4. Verify that the Avaya 9600 H.323 phone also reflects an active call.
5. Drop the call from the SFDC softphone and verify that the call is dropped successfully.

7.2 Verify Sample Screen-Pop Application

To verify that the sample screen-pop application is properly installed and configured, follow these steps:

1. Start the SPPS Client on the desktop PC and the SPPS server.
2. Log into the sample screen-pop application using extension 60000.
3. Place an incoming call to extension 60000 and verify that the screen-pop window shown below displays the appropriate caller data derived from the database.



The screenshot shows a software window titled 'Certification Screen Pop'. The window has a menu bar with 'File', 'View', 'Tools', and 'Dial'. Below the menu bar is a toolbar with icons for a phone, a dial pad, and a 'UserButtons' button. The main area of the window displays a form with the following fields:

Account Name:	Account 60001
Account Number	6001-6001-1
Last Payment Date	Dec 1 2011 12:00AM
Due Date	Jan 1 2012 12:00AM
Amount Due	600.01

At the bottom right of the window, there is a status bar that reads 'CONNECTED TO SERVICE'.

8 Conclusion

These Application Notes describe the configuration steps required to integrate Voice4net SPPS with Avaya IP Office using TAPI. Two applications were used to verify the Voice4net SPPS functionality: a Salesforce.com softphone and a sample screen-pop application. All feature and serviceability test cases were completed and passed.

9 Additional References

This section references the product documentation relevant to these Application Notes.

1. *IP Office 7.0 Documentation CD*, March 2011, available at <http://support.avaya.com>.

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