Avaya Solution & Interoperability Test Lab

Application Notes for Komutel SIT with Avaya IP Office - Issue 1.0

Abstract

These Application Notes describe the steps required to integrate the Komutel SIT (**S**olution for **I**ntegrated **T**elecommunications) Console with Avaya IP Office. The SIT Console provides a desktop communications center with enhanced control of call handling features. It provides the ability to handle a high volume of calls and offers tools designed to manage telephony functions and Presence Management to monitor the availability of users.

In the compliance test, the SIT Console successfully controlled an already existing IP Office desktop phone using TAPI. The SIT Console established calls with other telephones, and executed telephony features such as Hold, Transfer, and Conference. In addition, an optional component of the SIT to monitor other telephones that are connected to the IP Office was also successfully verified. This feature requires the use of a TAPI link to obtain status information of monitored stations on Avaya IP Office.

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.

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1. Introduction

These Application Notes describe the steps required to integrate the Komutel SIT Console (**S**olution for **I**ntegrated **T**elecommunications) with Avaya IP Office. The SIT Console provides a PC based communications center with enhanced control of call handling features. It provides the ability to handle a high volume of calls and offers tools designed to manage telephony functions and Presence Management to monitor the availability of users.

In the compliance test, the SIT Console successfully controlled an already existing IP Office desktop phone using TAPI, established calls with other telephones, and executed telephony features such as Hold, Transfer, and Conference. In addition, an optional component of the SIT Console to monitor other IP Office extensions was also successfully verified. This feature requires the use of a TAPI link to obtain status information of monitored stations on Avaya IP Office.

2. General Test Approach and Test Results

To verify interoperability of the SIT Console with IP Office, calls were made between the SIT Console and Avaya H.323 and digital stations while also exercising common telephone features. The telephony features were tested by activating and deactivating phone buttons and SIT Console. In addition, the SIT Console imported other available IP Office extensions and these extensions were monitored via a TAPI link.

2.1. Interoperability Compliance Testing

Interoperability compliance testing covered the following features and functionality:

- Successful connection of the SIT Console with IP Office via TAPI.
- Calls between SIT Console and Avaya H.323 and digital stations.
- Caller ID display on Avaya and SIT Console.
- Sending of DTMF.
- Basic telephony features including Hold, Mute, Transfer, Forwarding and Conference.
- Buttons to monitor user availability of other IP Office extensions, which requires a TAPI link.
- Proper system recovery after a restart of the SIT Console and loss of IP connectivity.

2.2. Test Results

Basic test cases were executed and passed with the following observations:

- If the SIT Console calls an invalid extension, display on the physical phone shows "Incompatible".
- Pressing the keypad on the SIT Console to send DTMF sends the correct DTMF, however beep tone is not heard.
- When the SIT Console calls another extension the Call Display only shows the extension after the recipient has answered the call. Result is similar when an extension makes a call to the SIT Console.

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- Each monitored extensions need to be logged in before SIT Console starts to monitor its user name status.

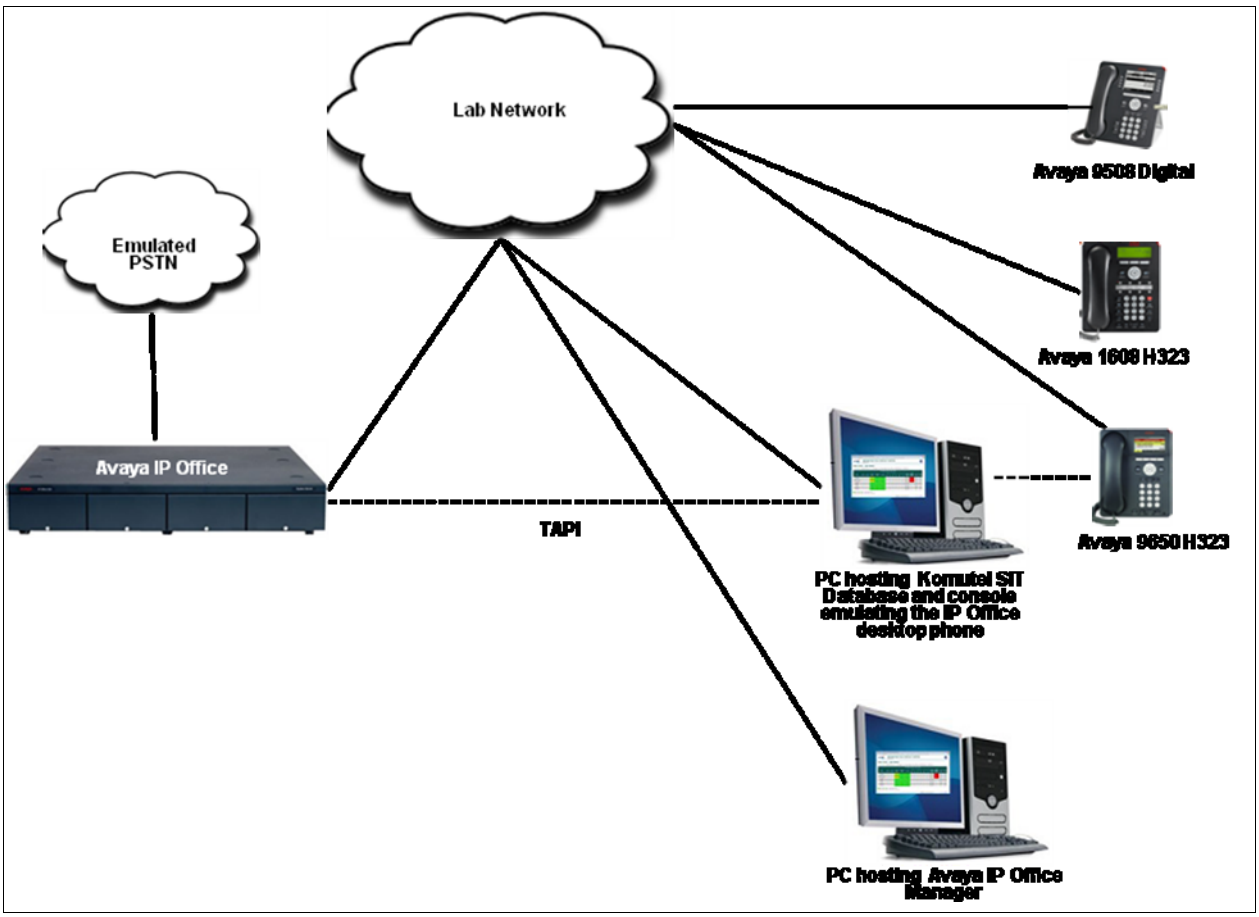
2.3. Support

For technical support on the SIT Console, contact Komutel Support via phone, email, or website.

- **Phone:** (877) 225-9988
- **Email:** service@komutel.com
- **Web:** www.komutel.com

3. Reference Configuration

The figure below illustrates the lab configuration that was used for compliance testing.



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4. Equipment and Software

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

Hardware Component	Version
Avaya IP Office 500	8.0 (16)
Avaya IP Office Manager	10.0 (16)
Avaya 9650 IP Telephone (H.323)	3.186a
Avaya 1608 IP Telephone (H.323)	1.300B
Avaya 9508 Digital Telephone	N/A
Avaya TAPI Driver	3.2.23.0
Komutel SIT Console	2.0.0.7932
Komutel modTelephony_Avaya_IPOffice.dll	1.0.0.8214

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5. Configure Avaya IP Office

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

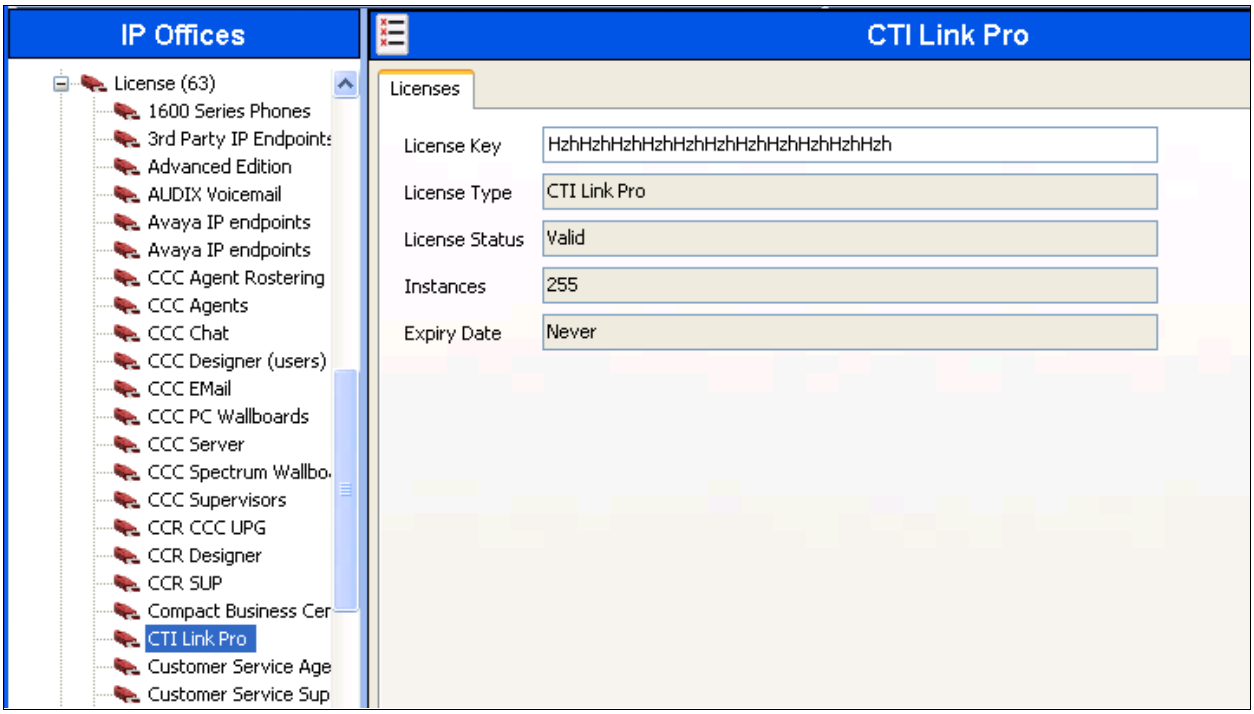
- Verify IP Office license
- Obtain LAN IP address
- Administer H323 extensions
- Administer H323 users

For detailed information on installation and configuration for IP Office, refer to **Section 9 [1]**.

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 Manager** screen is displayed. From the configuration tree in the left pane, select **License > CTI Link Pro**, to display the **CTI Link Pro** screen in the right pane. Verify that the **License Status** is "Valid".



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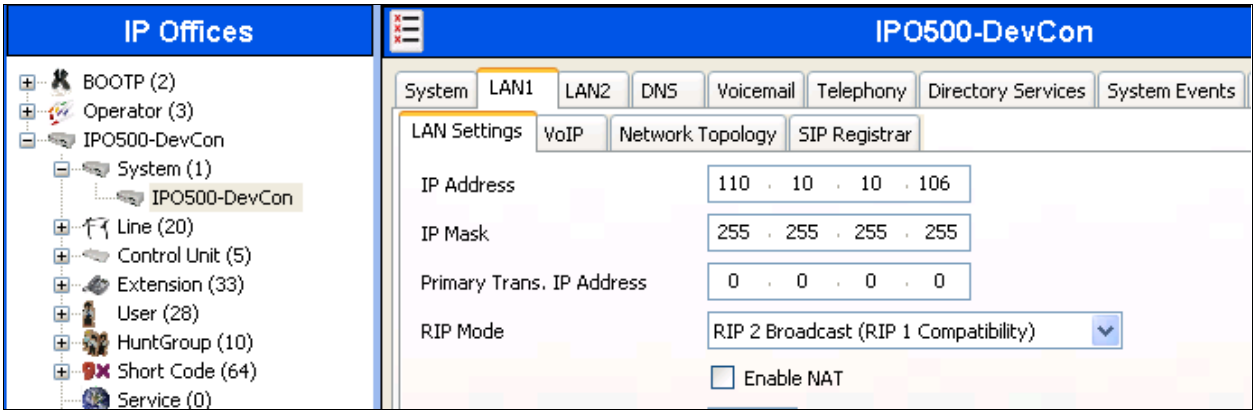
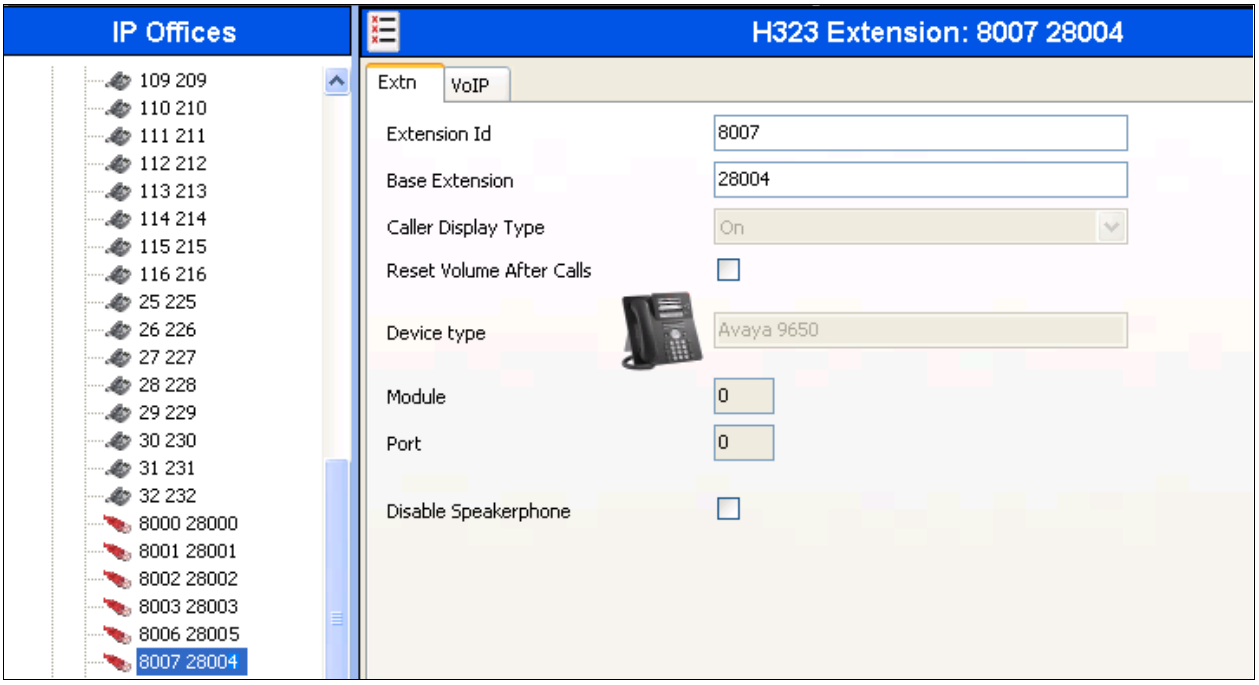
5.2. Obtain LAN IP Address

From the configuration tree in the left pane, select the IP Office of interest under **System** (it was **IP500-DevCon** for the compliance test). Select the **LAN1** tab, followed by the **LAN Settings** sub-tab in the right pane. Make a note of the **IP Address**, which will be used later to configure the TAPI. Note that IP Office can support LAN1 and/or LAN2 interfaces and the compliance testing used the LAN1 interface.



5.3. Administer H323 Extensions

From the configuration tree in the left pane, right-click on **Extension**, and select **New > H323 Extension** (not shown) from the pop-up list to add a new H323 extension. Enter the desired digits for **Base Extension**, and retain the default values in the remaining fields. The screen below shows the H323 extension that was added during compliance testing.



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5.4. Administer H323 Users

From the configuration tree in the left pane, right-click on **User**, and select **New** from the pop-up list (not shown). For **Name** and **Full Name**, enter the relevant information. For **Extension**, enter the first H323 base extension from **Section 5.33**. The **Password** and **Confirm Password** fields can be used if required. The screen below shows the H323 user that was added during compliance testing.

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6. Configure Komutel SIT Console

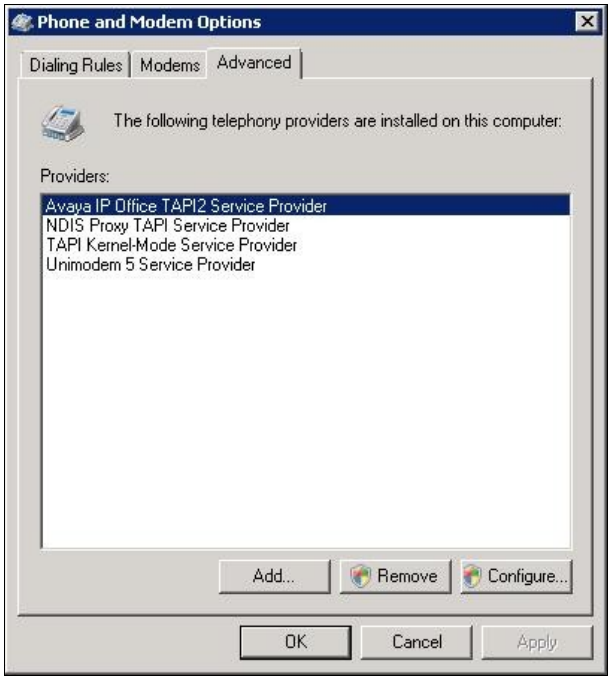
This section provides the procedures for configuring the SIT Console. The procedures include the following areas:

- Administer TAPI Driver.
- Configure the SIT Console.
- Configure the SIT Console to monitor other desktop phones.

For detailed information on installation and configuration of SIT Console refer to **Section 9 [2]**.

6.1. Administer TAPI Driver

From the PC hosting the SIT Console, select **Start > Control Panel**, and click on the **Phone and Modem** icon (not shown below). In the **Phone and Modem Options** screen, select the **Advanced** tab. Select the **Avaya IP Office TAPI2 Service Provider** entry, and click **Configure**.



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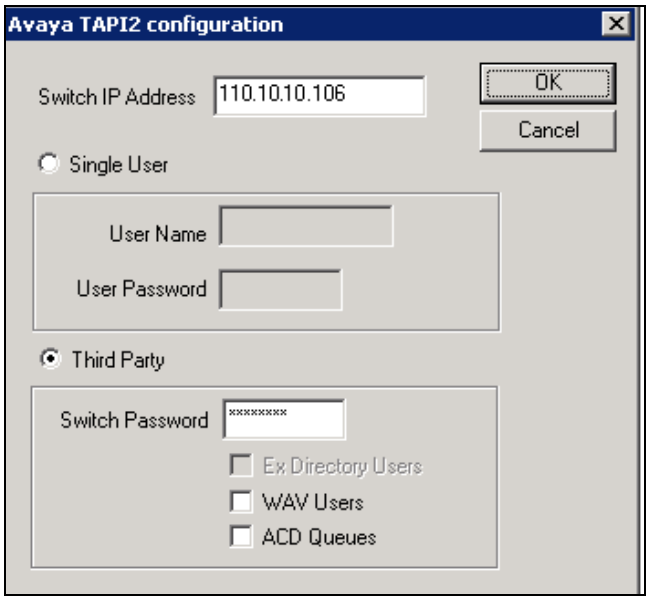
The **Avaya TAPI2 configuration** screen is displayed as shown below**.** For **Switch IP Address**, enter the IP address of Avaya IP Office as noted in **Section 5.2**. Select the radio button for **Third Party**, and enter the IP Office password into the **Switch Password** field. Reboot the PC for the changes to take effect.



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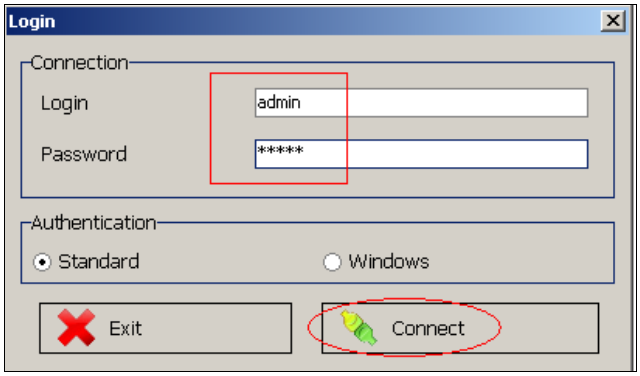
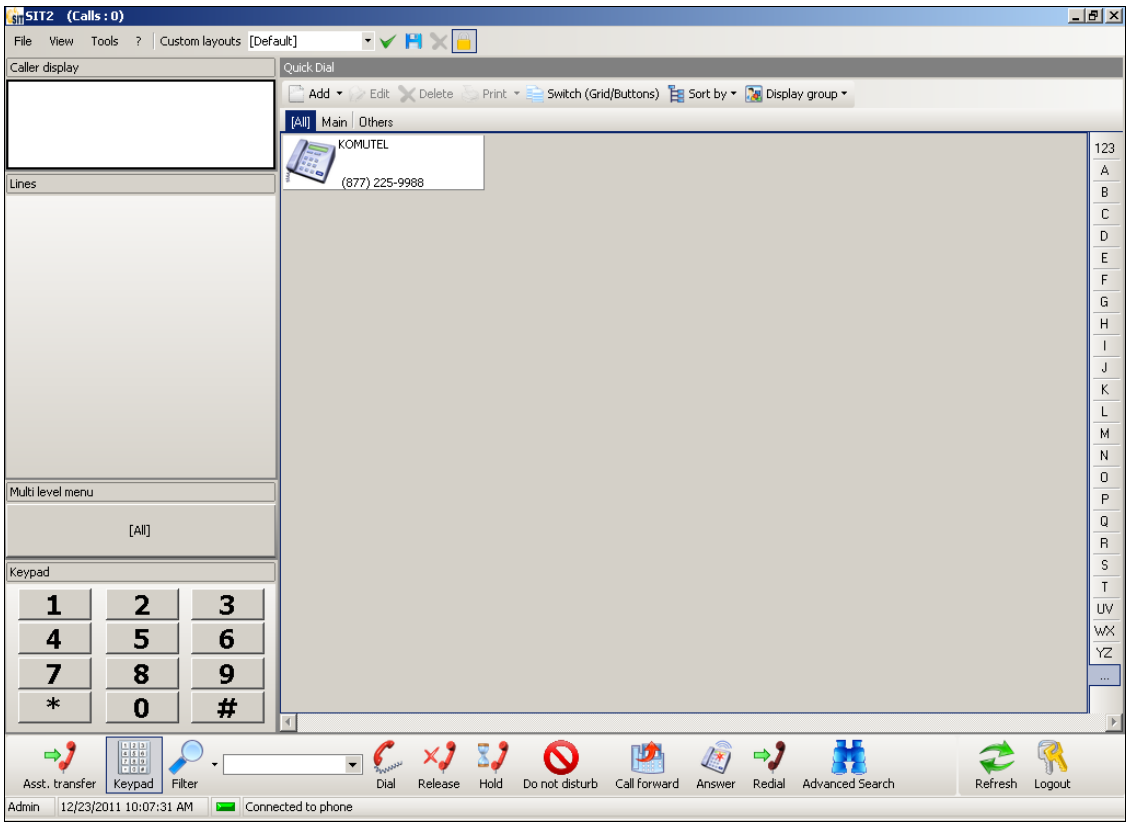
6.2. Configure SIT Console

This section explains the configuration required on the SIT Console so that it can control an already existing IP Office desktop phone on the PC. It is assumed that the SIT Console application and database was successfully installed on the PC.

Launch the SIT console on the PC and enter the login credentials as shown in the figure below and click on **Connect**.



The main SIT Console screen is shown below.



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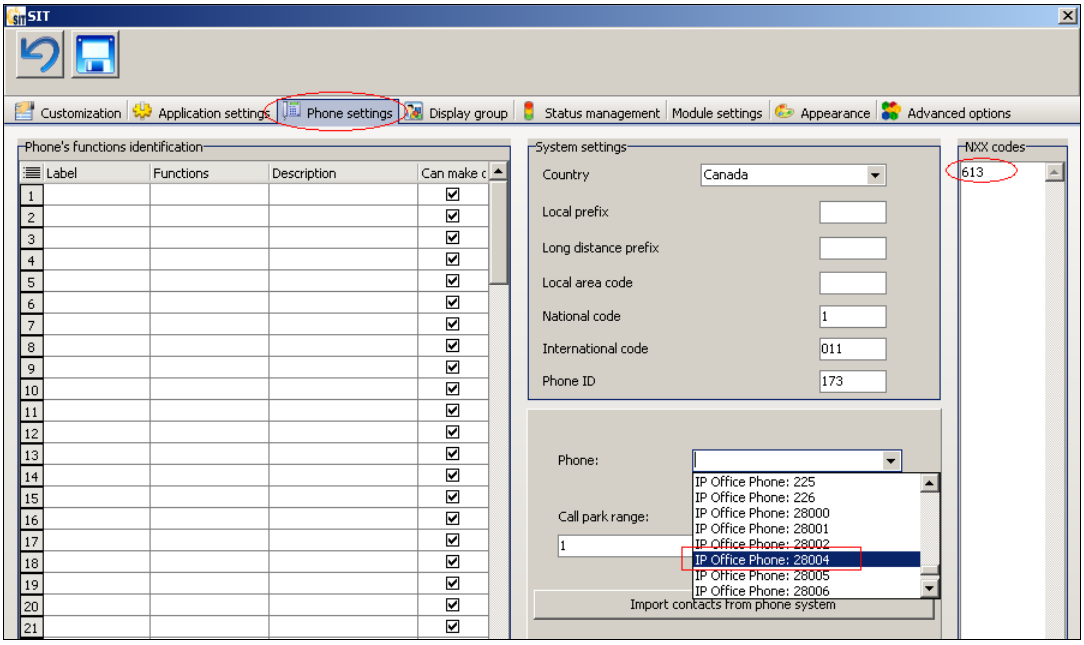
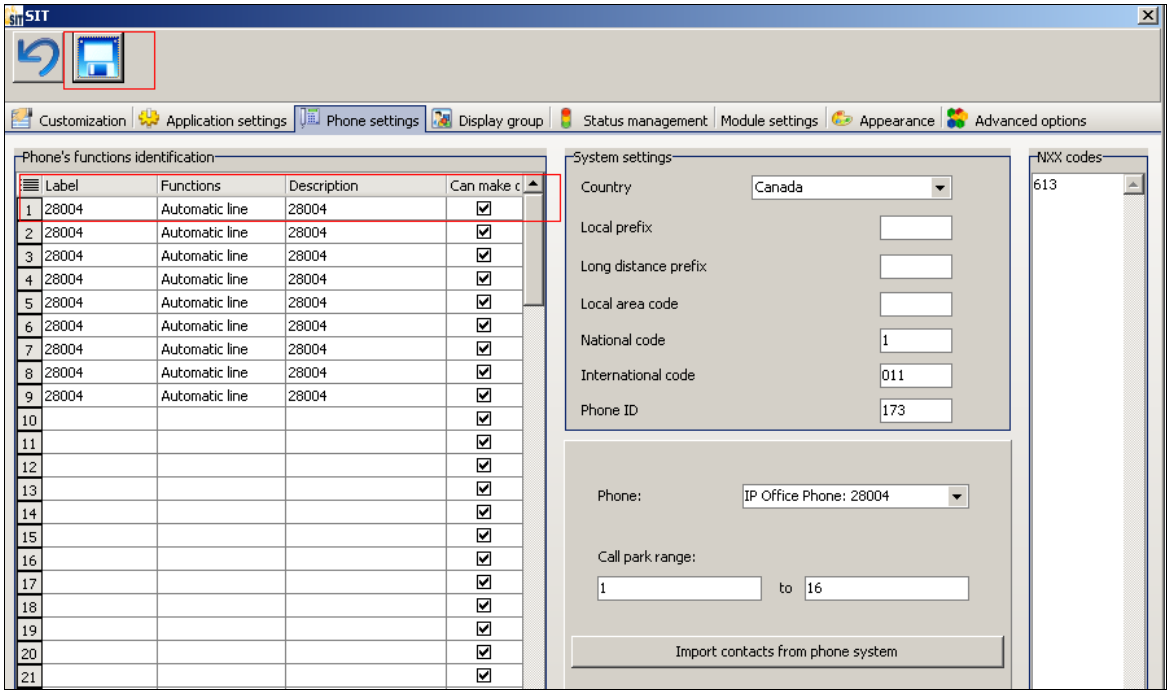
To control an IP Office desktop phone via SIT Console, navigate to **Tools > Options** (not shown) from the screen above to display the SIT Console **Options** screen. From the **Phone settings** tab select an IP Office desktop phone that will be controlled by SIT Console. During compliance testing **28004** was selected. Also during compliance testing **613** was used as NXX codes. The rest of the values are left at default.



Enter the required **Label**, **Functions** and **Description** values as required and click on the **Save** button to save the configuration as shown in figure below.



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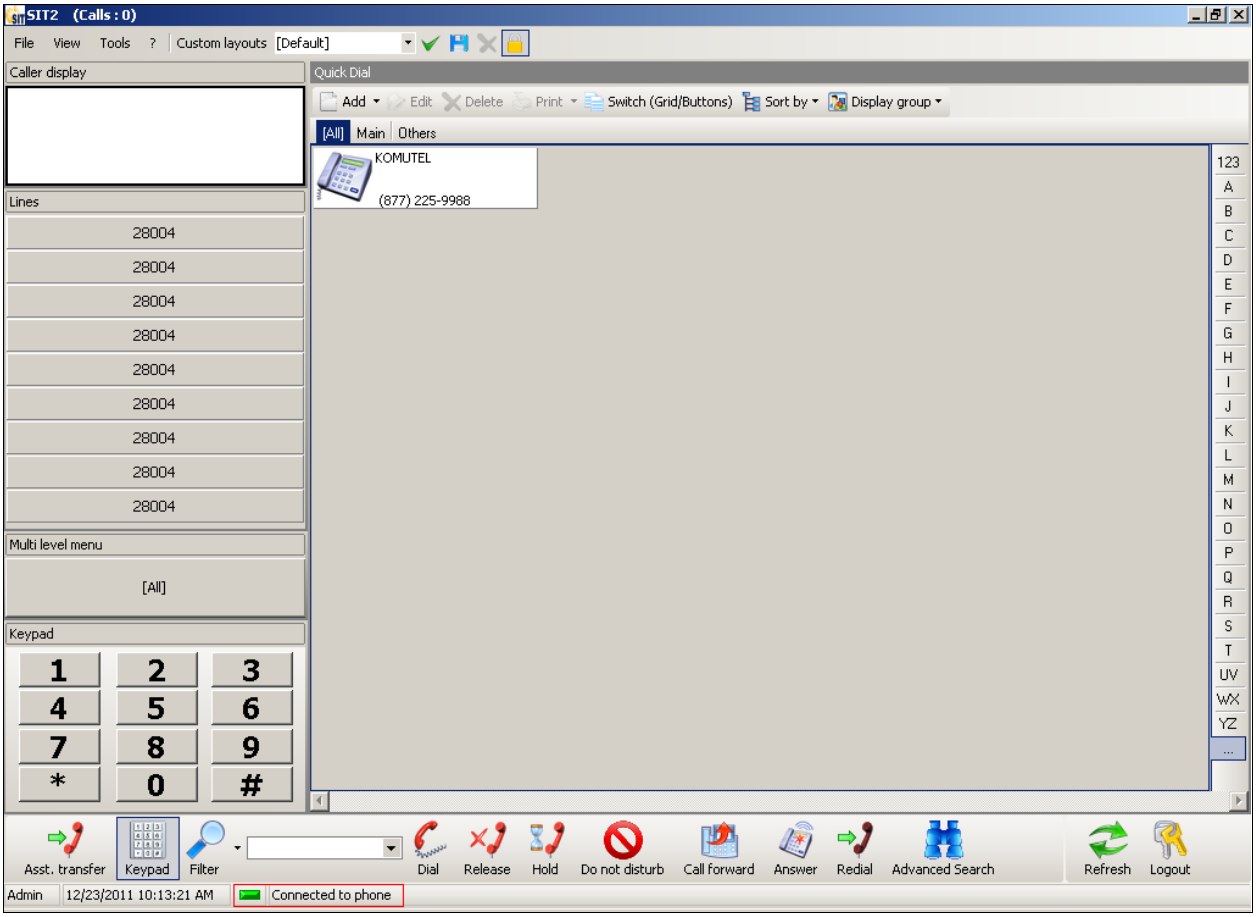
The screen below shows the IP Office 28004 desktop phone that can now be controlled via the PC using the SIT Console. Note the **Connected to phone** status on the bottom left hand of the screen. The SIT Console is now ready to make and receive calls.



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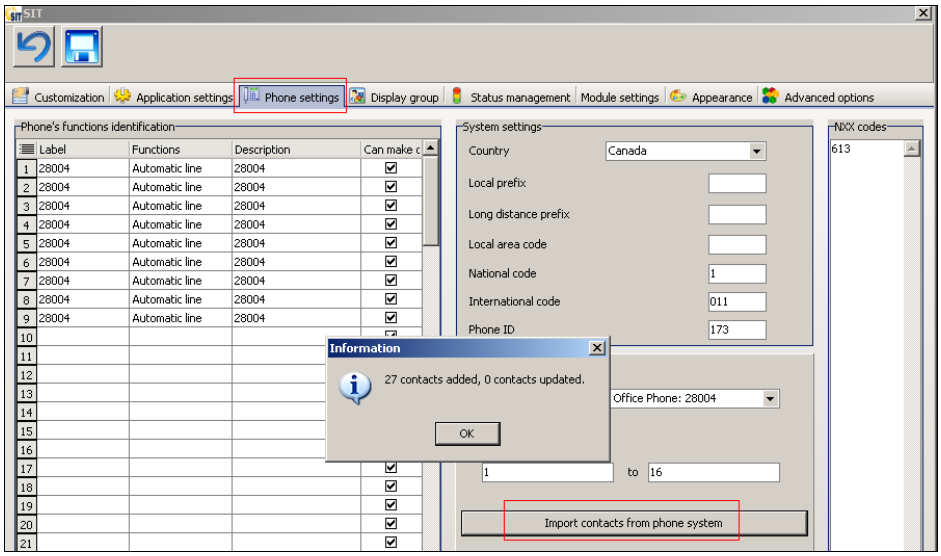
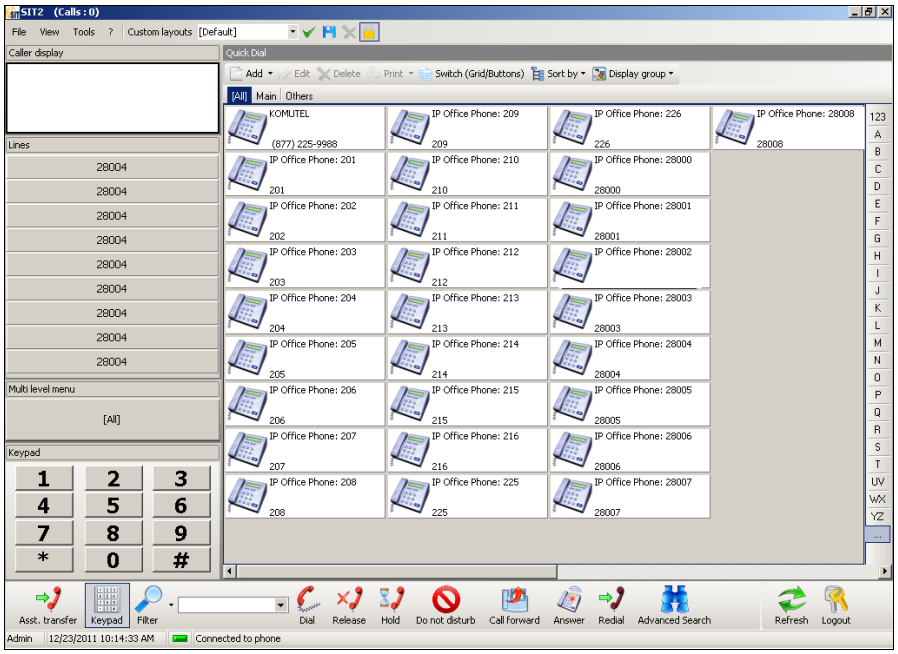
6.3. Configure SIT Console to monitor other desktop phones

This section explains the configuration required on the SIT Console to monitor other available IP Office desktop phones.

From the SIT Console main screen navigate to **Tools > Options** (now shown). The Options screen is shown below. From the **Phone settings** tab, click on the **Import contacts from phone system** button and all the configured IP Office desktop phone contacts will be imported into the SIT Console. During compliance testing 27 contacts were added.



The below shows the SIT Console for 28004 with presence of other IP Office desktop phones that are available.



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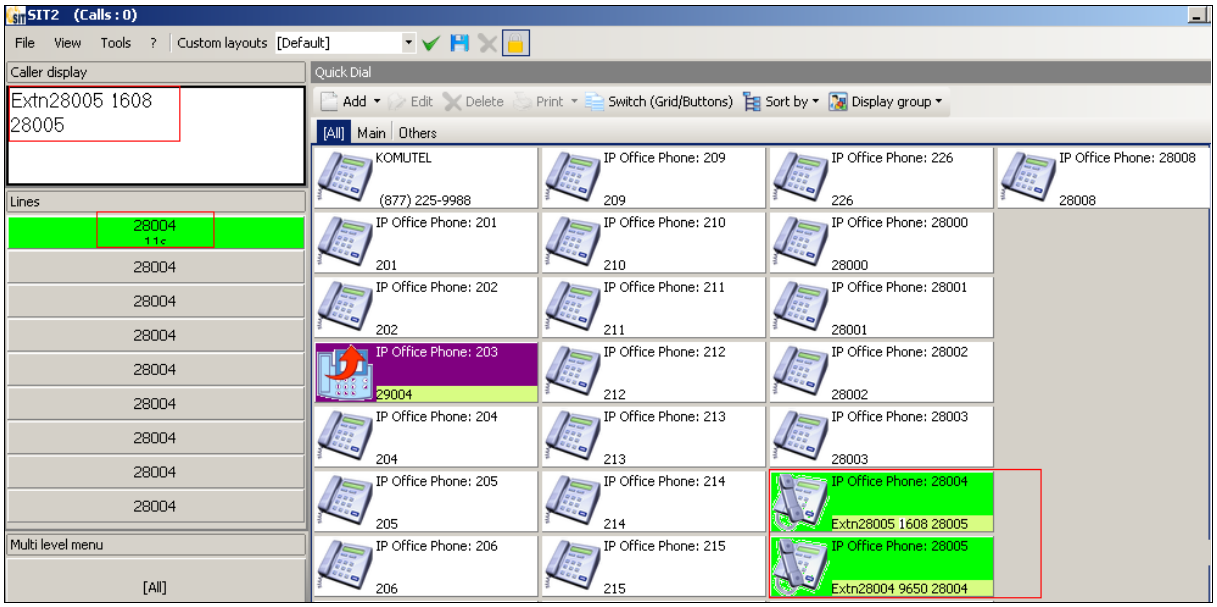
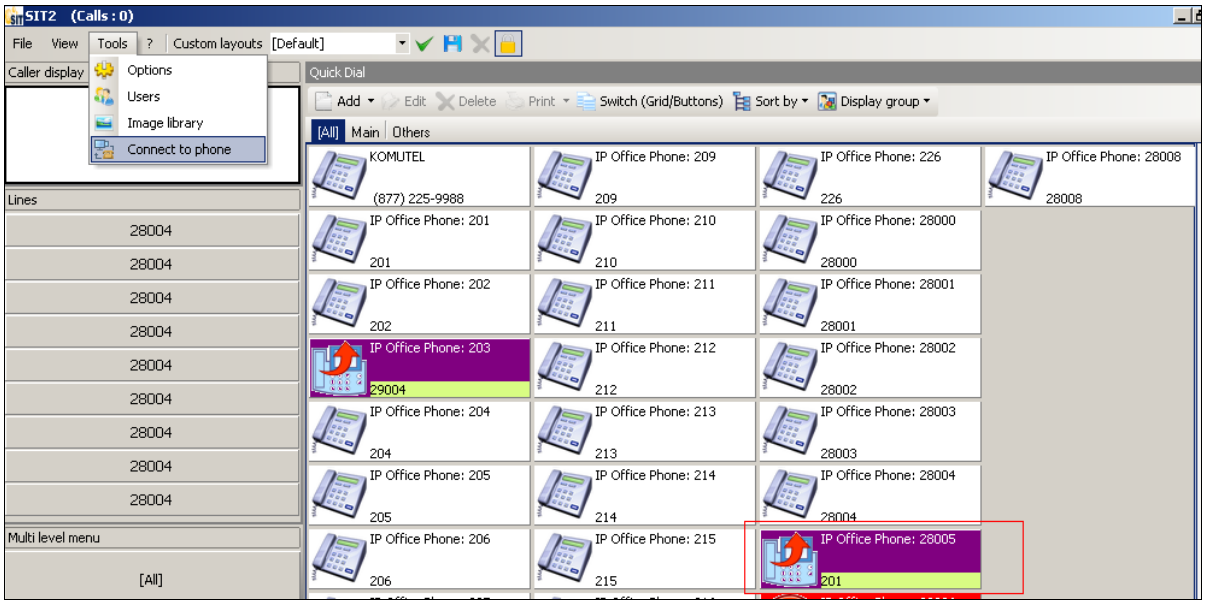
7. Verification Steps

This section provides the tests that can be performed to verify that the SIT Console can control an existing IP Office desktop phone via the PC.

During compliance testing SIT Console was configured to control IP Office desktop extension 28004. The screen below shows the call being made from the SIT Console 28004 to another IP Office desktop phone 28005.



The screen below shows the status of sets that are being monitored from the SIT Console 28004. For example status of IP Office desktop phone 28005 shows that it has been forwarded to another IP Office desktop phone 201.



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Other basic telephony functionalities like Transfer, Assisted Transfer, Link (Conference), Hold, Redial, Release, Do not Disturb, Call Forward, Call Park and DTMF were also verified.

8. Conclusion

These Application Notes describe the configuration steps on a SIT Console to control an already existing desktop phone of IP Office via PC. The SIT Console was able to successfully control the IP Office desktop phone using TAPI and execute the basic telephony features. In addition, the SIT Console was able to monitor the availability and status of other desktop phones that are registered to the IP Office, also using the TAPI Link. All basic test cases passed.

9. References

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

[1] *IP Office 8.0 Documentation CD,* December 2011, available at http://support.avaya.com.

[2] *Komutel Manager's and User Guide for SIT PC Attendant Console,* available by contacting Komutel.

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