Avaya Solution & Interoperability Test Lab

Application Notes for MedTel Services OMNIWorks with Avaya IP Office 9.0 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for MedTel Services OMNIWorks to interoperate with Avaya IP Office 9.0. MedTel Services OMNIWorks is a multimedia contact center solution.

In the compliance testing, MedTel Services OMNIWorks used TAPI 2 from Avaya IP Office to provide routing of incoming calls to available agents and call control from the agent desktops.

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 for MedTel Services OMNIWorks to interoperate with Avaya IP Office 9.0. MedTel Services OMNIWorks is a multimedia contact center solution.

In the compliance testing, MedTel Services OMNIWorks used TAPI 2 from Avaya IP Office to provide routing of incoming calls to available agents and call control from the agent desktops.

The TAPI 2 in third party mode interface was used by the MedTel Services OMNIWorks server to monitor groups and agent users on Avaya IP Office. Incoming calls were redirected by MedTel Services OMNIWorks to available agents using the TAPI line redirect capability.

The agents were configured as users on Avaya IP Office, with ACD functionality provided by MedTel Services OMNIWorks. The agents have desktop computers running the MedTel Services OMNIWorks Agent Console client application, which used the TAPI 2 in first party mode to provide call control.

2. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of the OMNIWorks server and client applications, the applications automatically requested monitoring of devices.

For the manual part of the testing, incoming calls were made to the ACD groups. The OMNIWorks server used the TAPI event messages to track agent states, and redirected calls to available agents. Manual call controls from both the agent desktops and agent telephones were exercised where applicable to verify remaining features such as answering and dropping of calls.

The serviceability test cases were performed manually by disconnecting and reconnecting the Ethernet connection to OMNIWorks.

The verification of tests included human checking of proper states at the agent desktops and telephones, and of reviewing the TAPI log from IP Office.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following from OMNIWorks:

- Use of TAPI functions from the server to monitor groups and users, and redirect incoming ACD calls.
- Use of TAPI functions from the clients to monitor users, and support of call control.
- Proper handling of call scenarios including incoming calls to the ACD groups, answer, hold/reconnect, drop, blind/attended transfer, blind/attended conference, queue, voicemail, outgoing call, multiple agents, and multiple calls.

The serviceability testing focused on verifying the ability of OMNIWorks to recover from adverse conditions, such as disconnecting and reconnecting the Ethernet connection to the OMNIWorks server and to the OMNIWorks Agent Console.

2.2. Test Results

All test cases were executed and verified. The following were observations on OMNIWorks from the compliance testing:

- The agent PC clock needs to be synced with the OMNIWorks server clock down to the second level, or else the Oldest and Queue statistics displayed on the Agent Console may be off.

- Conference-from agent was placed into the Wrap state as soon as the conference complete action took place.

- When the agent was active on an ACD call and a personal call came in, the Agent Console was updated with actions applicable to the personal call, and the agent has to use the telephone to control the ACD call at this point.

- This release of Agent Console does not support mixed use of desktop and telephone for the transfer and conference scenarios.

- After an agent in the manual answer mode handled an ACD call, a personal call to the agent will be displayed with the calling party number from the previous ACD call. The workaround is to consult the display on the agent telephone.

- Input of DTMF for account codes is not supported by Agent Console, and therefore needs to be entered from the agent telephone.

- If a call is in process of being redirected to an agent that's experiencing an Ethernet disruption, then the call can get stuck in the queue. This can be managed by configuring voicemail or overflow treatment for the group.

2.3. Support

Technical support on OMNIWorks can be obtained through the following:

- **Phone:** (800) 444-7434
- **Email:** techsupport@medtelservices.com
- **Web:** www.medtelservices.com

3. Reference Configuration

OMNIWorks can be configured on a single server or with components distributed across multiple servers. The compliance test configuration used a single server configuration.

The detailed administration of general contact center devices such agent and supervisor users are assumed to be in place, and are not covered in these Application Notes.

In the compliance testing, the OMNIWorks Agent Console application was running on the agent desktops.

Device Type	Extension
Supervisor User	20035
Agent Users	20031, 20032

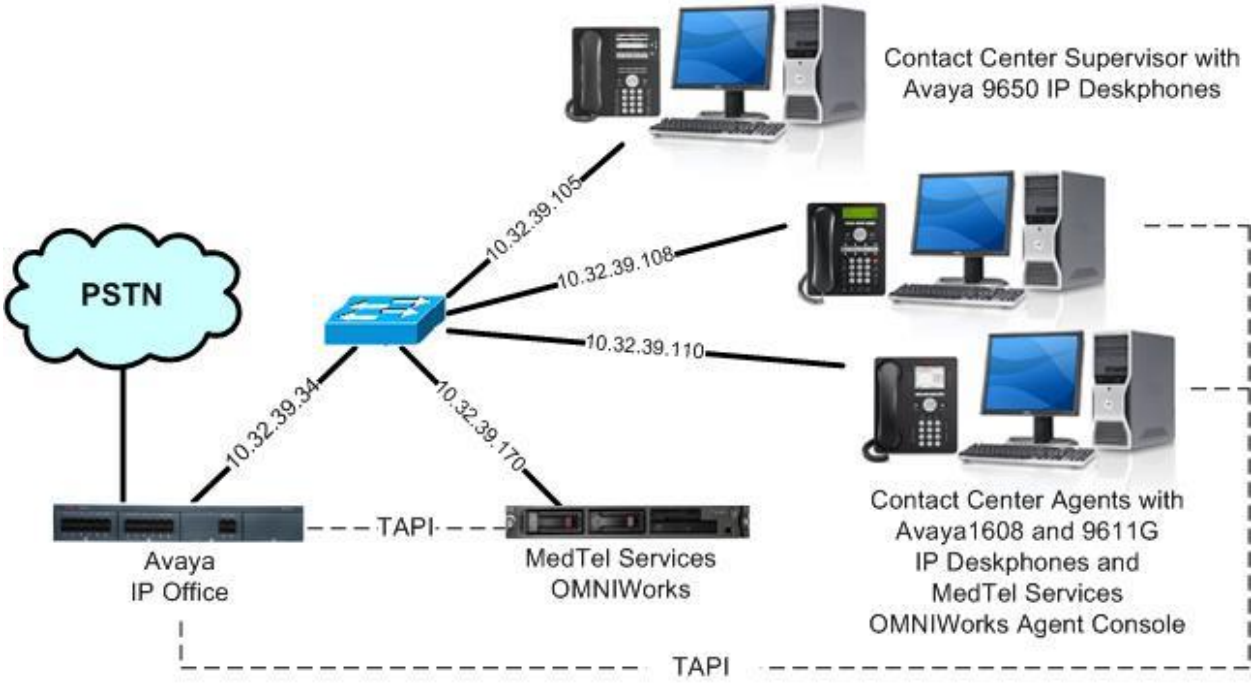


Figure 1: Compliance Testing Configuration

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya IP Office on IP500V2	9.0 SP1 (9.0.100.845)
Avaya 1616 IP Deskphone (H.323)	1.343A
Avaya 9611G IP Deskphone (H.323)	6.3037
Avaya 9650 IP Deskphone (H.323)	3.212A
MedTel Services OMNIWorks on Windows 2012 R2 Standard • OWAvayaProvider • Avaya IP Office TAPI2 Driver (tspi2w_64)	7.1.0.28 1.0.3.0 1.0.0.38
MedTel Services OMNIWorks Agent Console on Windows 7 Enterprise • Avaya IP Office TAPI2 Driver (tspi2w_64)	7.1.0.35 SP1 1.0.0.38

Testing was performed with IP Office 500 V2 R9.0, but it also applies to IP Office Server Edition R9.0. Note that IP Office Server Edition requires an Expansion IP Office 500 V2 R9.0 to support analog or digital endpoints or trunks. IP Office Server Edition does not support TAPI Wave or Group Voicemail.

5. Configure Avaya IP Office

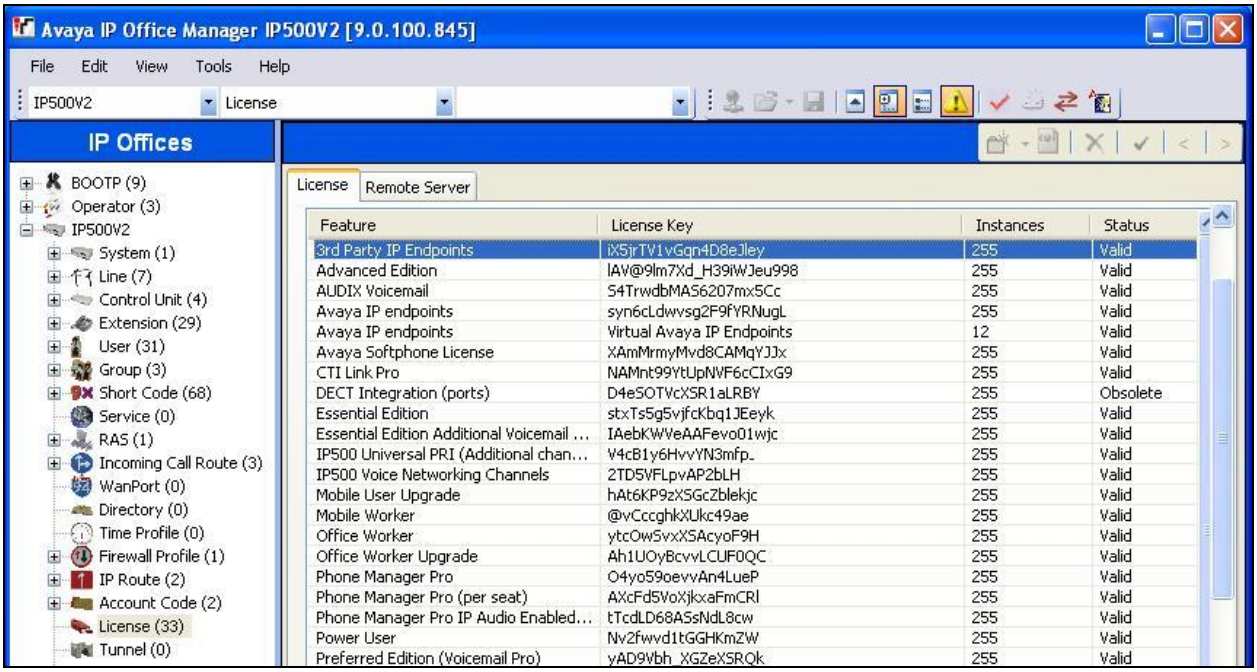
This section provides the procedures for configuring IP Office. The procedures include the following areas:

- Verify license
- Administer group
- Obtain user information

5.1. Verify License

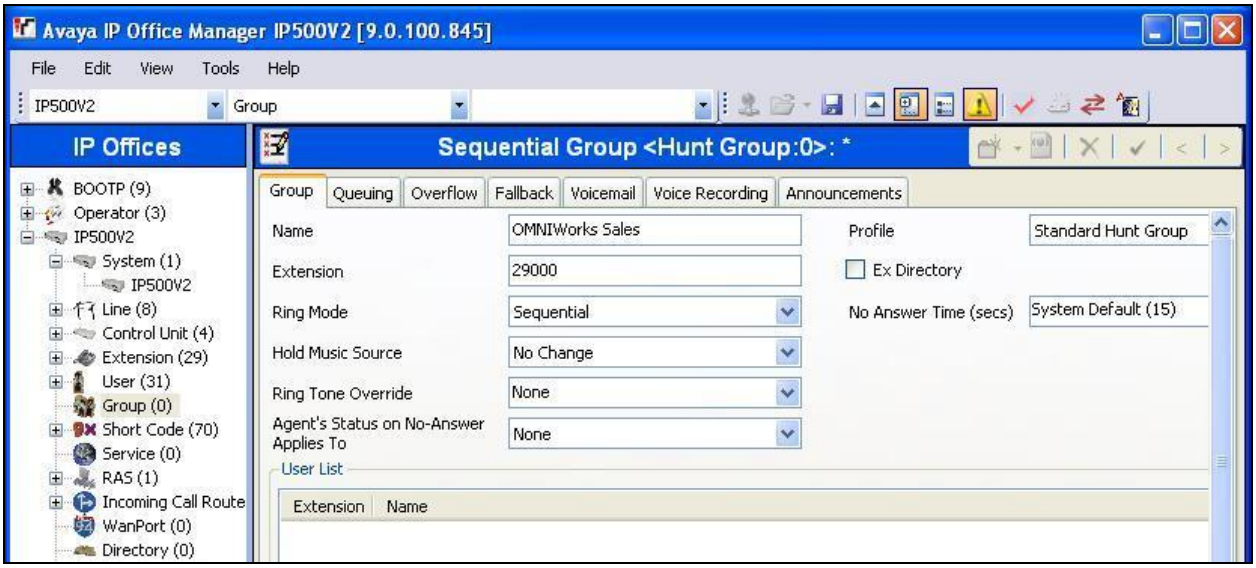
From a PC running the IP Office Manager application, select **Start → All Programs → IP Office → Manager** to launch the application. Select the proper IP Office system, and log in with the appropriate credentials.

The **Avaya IP Office Manager** screen is displayed. From the configuration tree in the left pane, select **License** to display the licenses in the right pane. Verify that the **License Status** for **CTI Link Pro** is "Valid", as shown below.



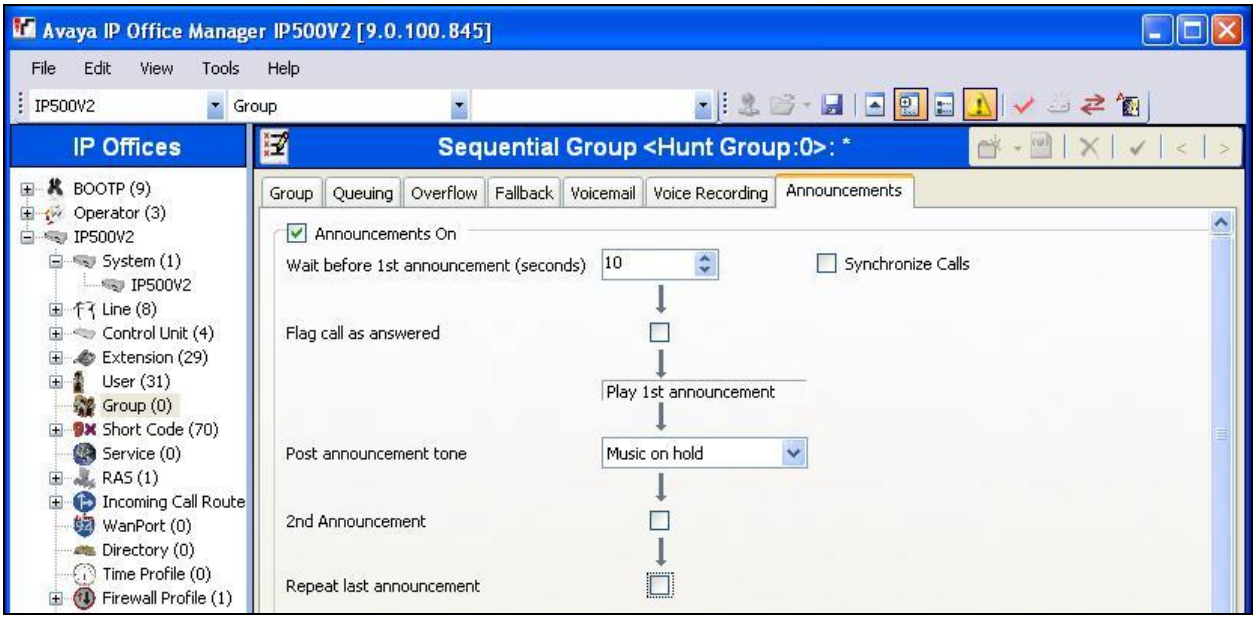
5.2. Administer Group

From the configuration tree in the left pane, right-click on **Group** and select **New** from the pop-up list to add a new group. Enter desired values for **Name** and **Extension**. Do not add any user to this group, and retain the default values in the remaining fields



Select the **Announcements** tab, and configure announcement treatments as desired. Below are the settings used in the compliance testing.

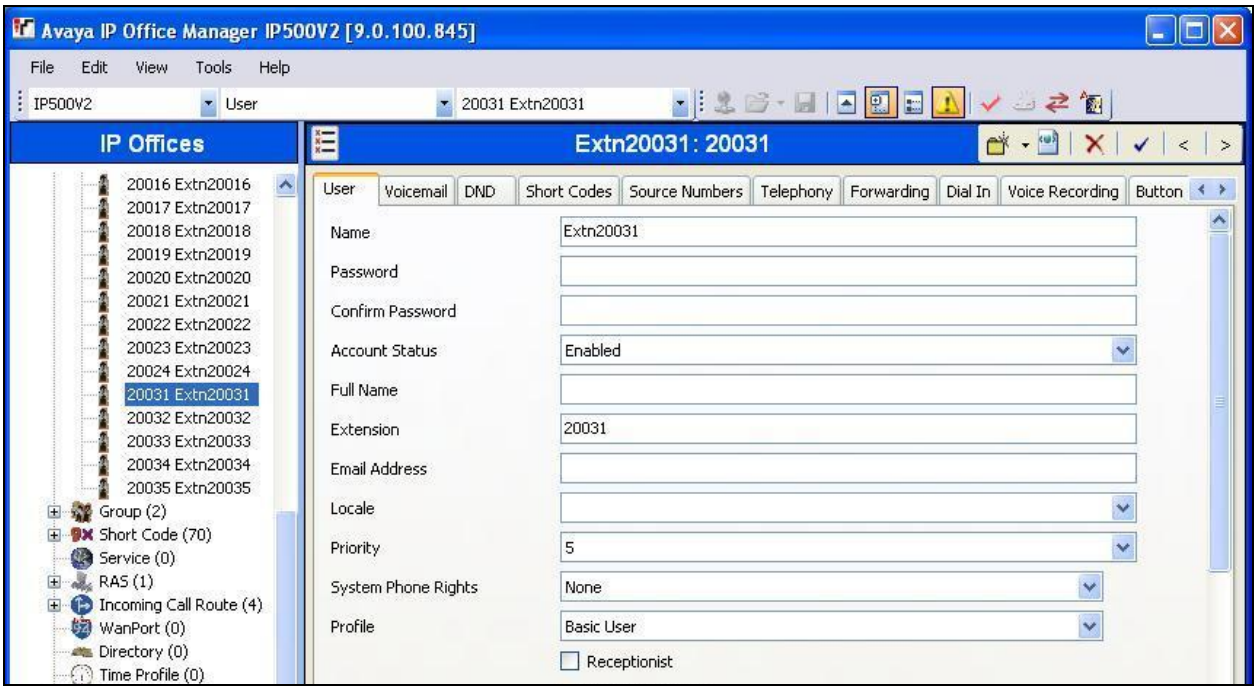
Repeat this section to create the desired number of groups. In the compliance testing, two groups with extensions of "29000" and "29001" were configured.



5.3. Obtain User Information

From the configuration tree in the left pane, select the first agent user, in this case "20031". Make a note of the **Name**, **Password**, and **Extension** field values, which will be used later to configure OMNIWorks.

Repeat this for all agent users from **Section 3**.



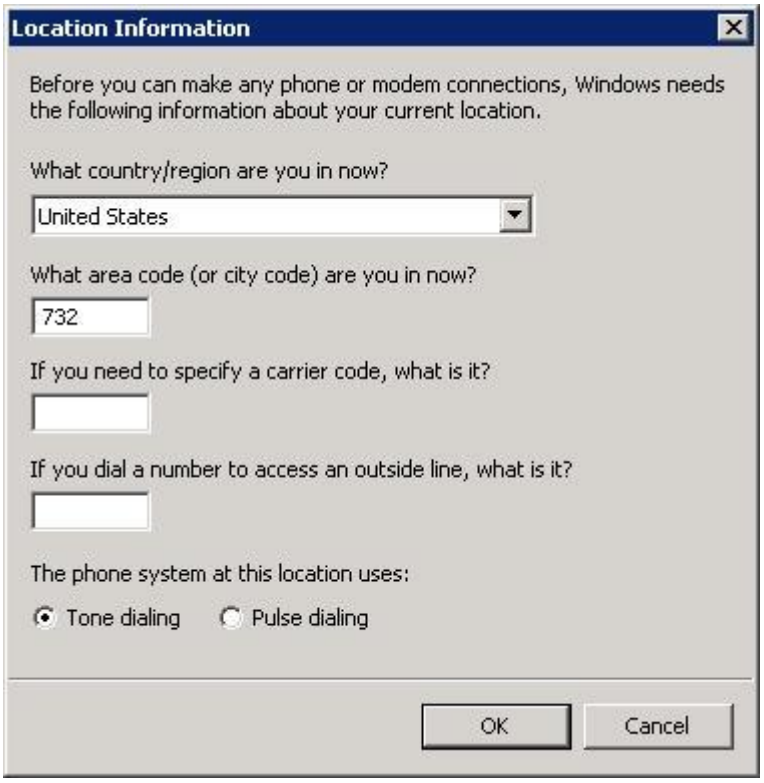
6. Configure MedTel Services OMNIWorks Server

This section provides the procedures for configuring the OMNIWorks server. The procedures include the following areas:

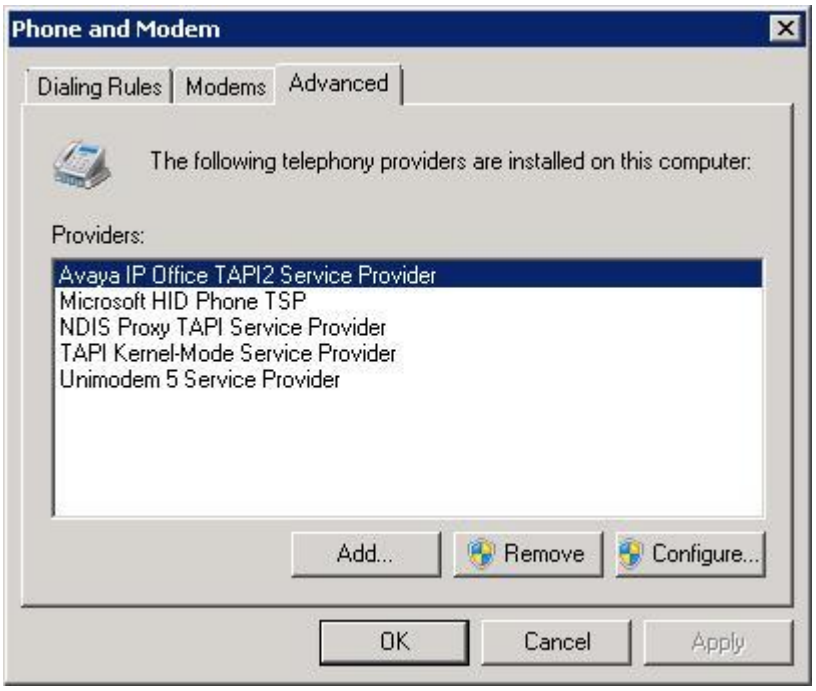
- Administer TAPI driver
- Launch Manager
- Verify license
- Administer hunt group
- Administer user

6.1. Administer TAPI Driver

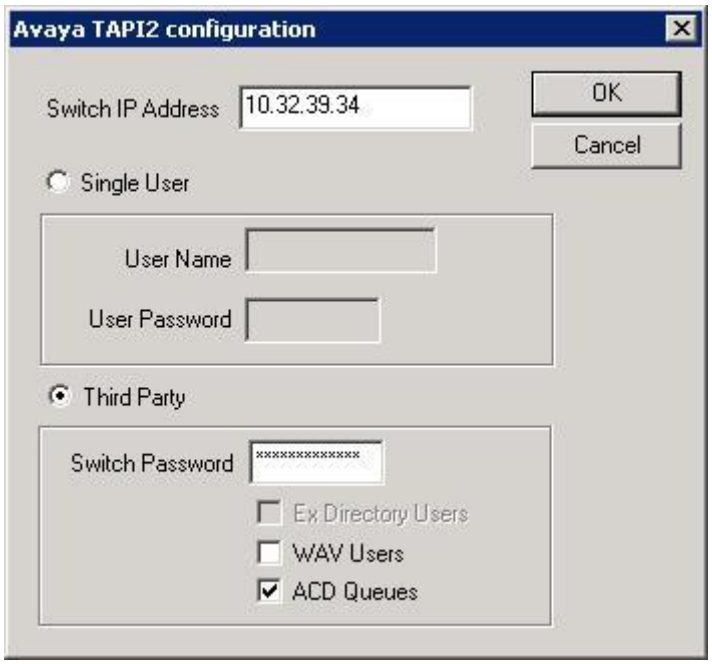
From the OMNIWorks server, select **Start → Control Panel → Phone and Modem**, to display the **Location Information** screen below. Enter the proper area code and any other pertinent data.



The **Phone and Modem** screen is displayed. Select the **Advanced** tab, followed by **Avaya IP Office TAPI2 Service Provider**, and click **Configure**.

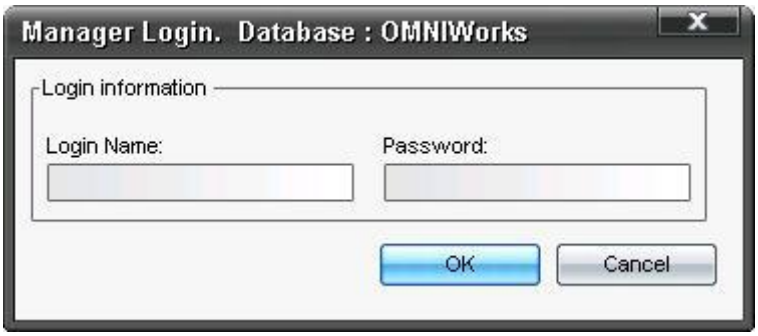


The **Avaya TAPI2 configuration** screen is displayed next**.** For **Switch IP Address**, enter the IP address of IP Office. Select the radio button for **Third Party**, enter the IP Office password into the **Switch Password** field, and check **ACD Queues**. Reboot the OMNIWorks server.



6.2. Launch Manager

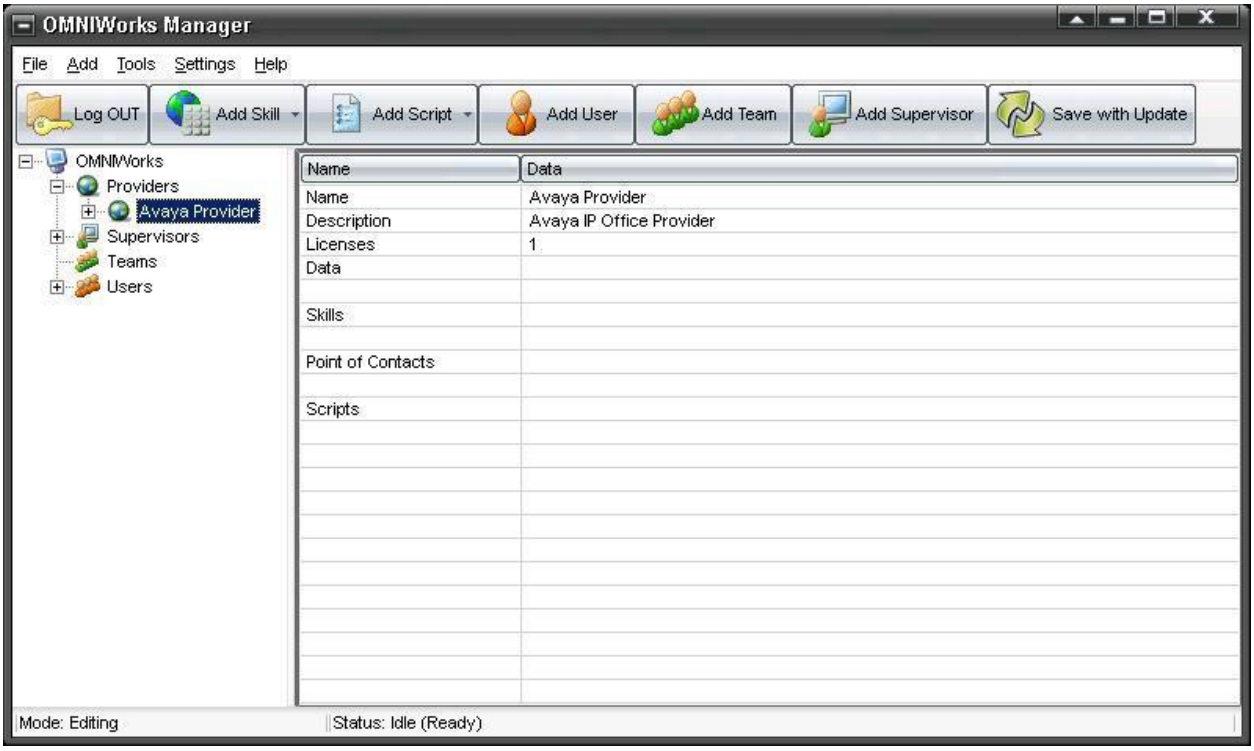
From the OMNIWorks server, select **Start → All Programs → OMNIWorks → Manager** to launch the Manager application. Log in using the appropriate credentials.



6.3. Verify License

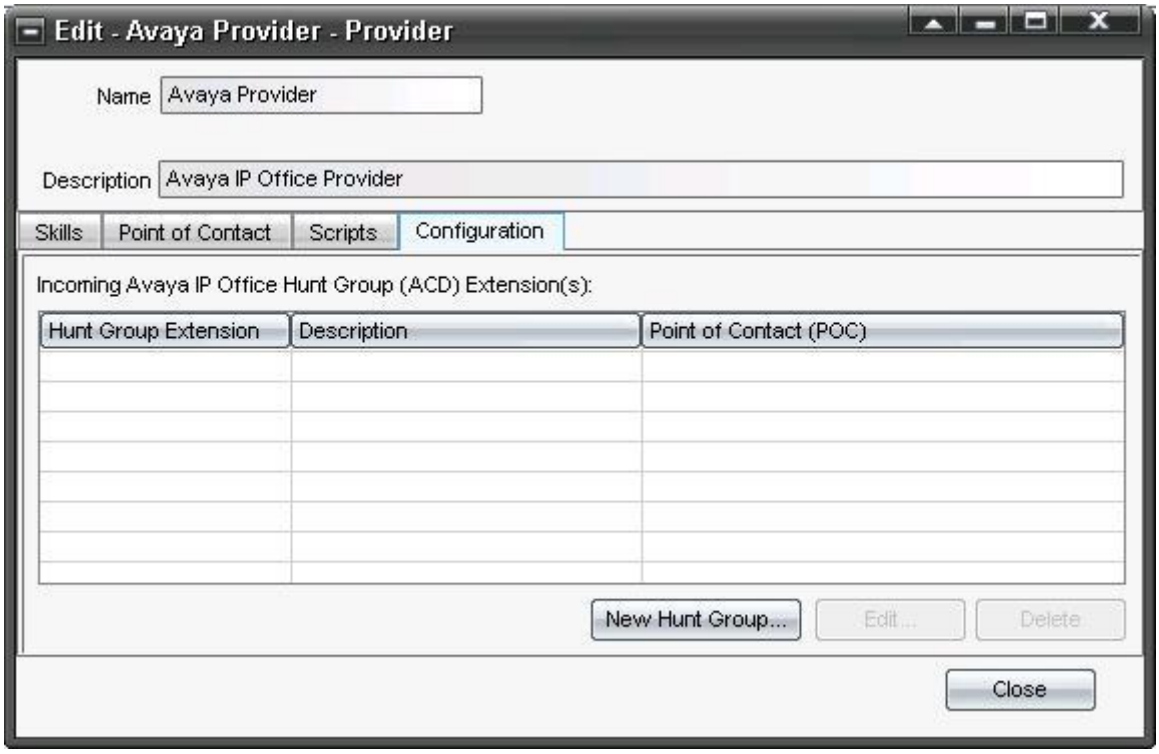
The **OMNIWorks Manager** screen is displayed. Select **OMNIWorks → Provider → Avaya Provider** in the left pane, where **Avaya Provider** is the name of the provider configured as part of installation. Verify that the right pane shows a valid **Licenses** count.

Right click on **Avaya Provider** in the left pane, and select **Edit**.



6.4. Administer Hunt Group

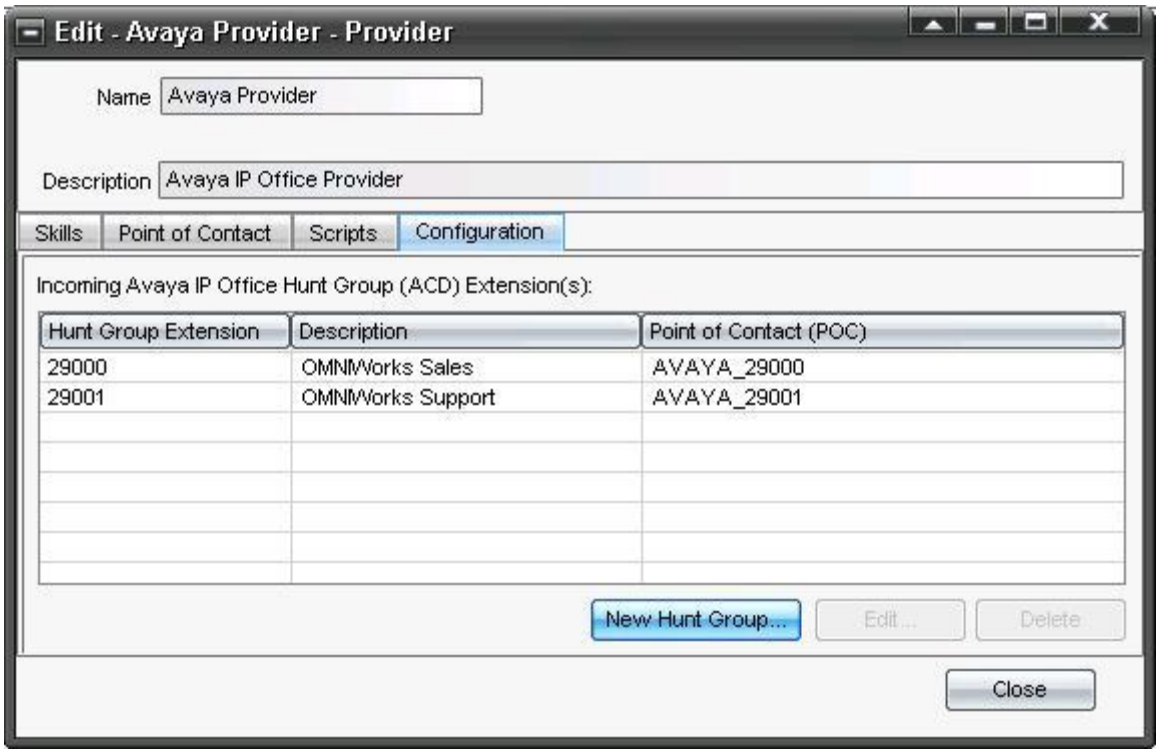
The **Edit** screen is displayed. Select the **Configuration** tab, and click **New Hunt Group**.



In the pop-up screen, enter the first group extension and name from **Section 5.2**.

Repeat this section for all groups from **Section 5.2**. In the compliance testing, two hunt groups with extensions "29000" and "29001" were created, as shown below.

Note that the **Point of Contact (POC)** field values are generated automatically by OMNIWorks.

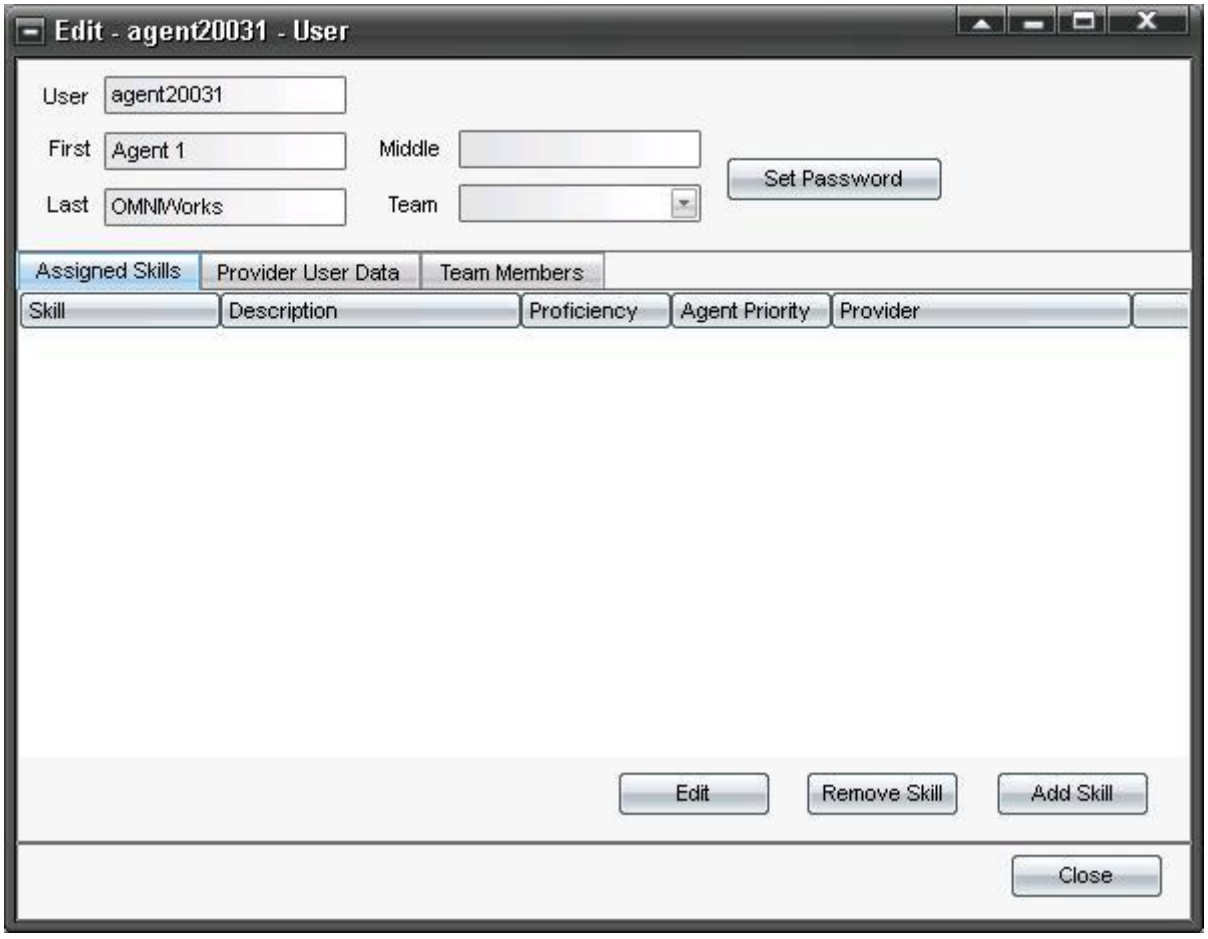


6.5. Administer User

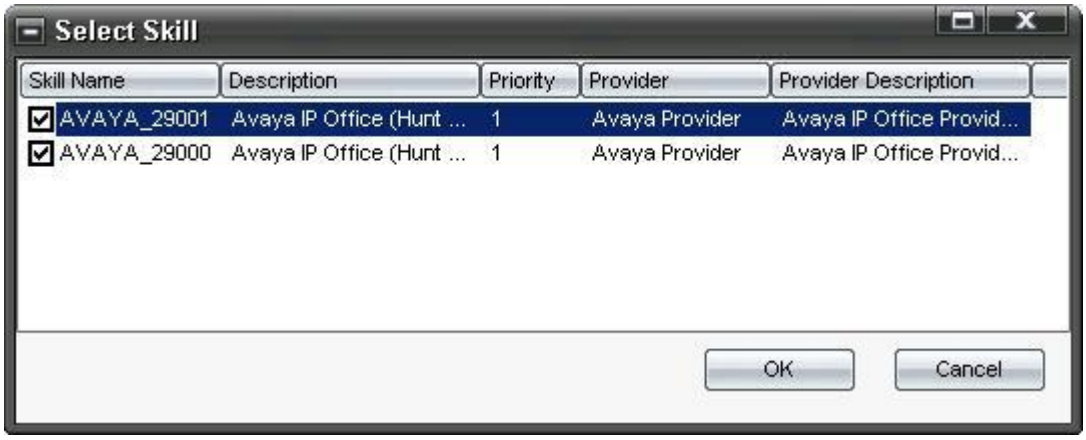
From **the OMNIWorks Manager** screen shown in **Section 6.3**, select **Add User** from the upper portion of the screen.

The **Add New User** pop-up screen is displayed. Enter a desired **Username** for the first agent user from **Section 3**.

The **Edit** screen is displayed. Enter the desired **First** and **Last** name, and click **Add Skill**.



The **Select Skill** screen is displayed next. Check the desired skills for this agent.



The **Confirm** screen is displayed, as shown below.

The **Edit** screen is displayed next. For **Extension**, enter the first agent user extension from **Section 5.3**, and the **TAPI Device Name** will be populated automatically. Set **Auto Answer** as desired, and retain the default values in the remaining fields.

Repeat this section to administer all agent users from **Section 3**.

7. Configure MedTel Services OMNIWorks Client

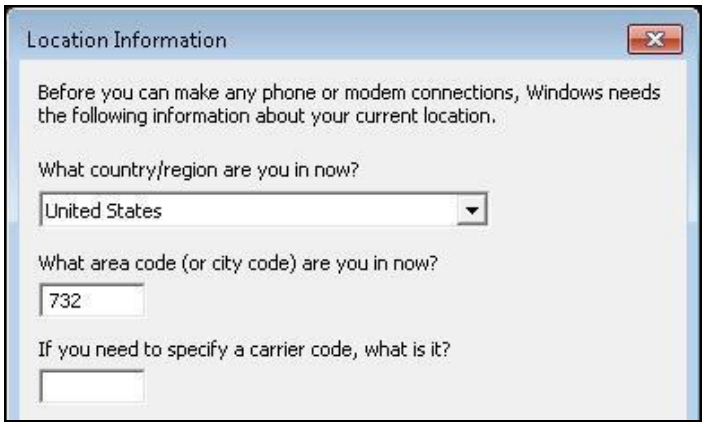
This section provides the procedures for administering each OMNIWorks client. The procedures include the following areas:

- Administer TAPI driver
- Administer TAPI device

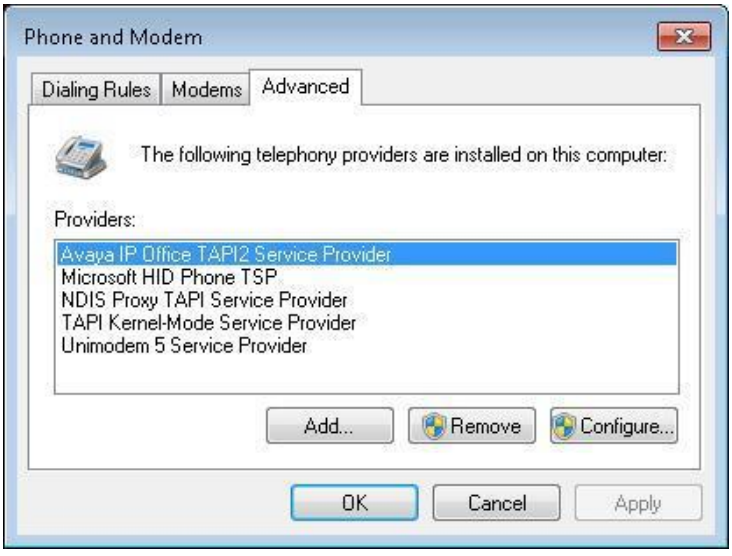
Repeat this section for all OMNIWorks clients.

7.1. Administer TAPI Driver

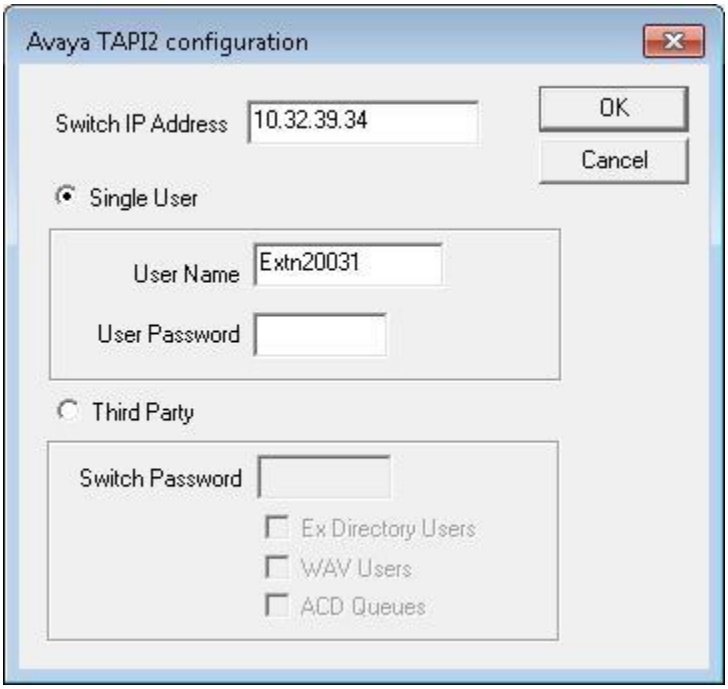
From the OMNIWorks client PC, select **Start → Control Panel → Phone and Modem**, to display the **Location Information** screen below. Enter the proper area code and any other pertinent data.



The **Phone and Modem** screen is displayed next. Select the **Advanced** tab, followed by **Avaya IP Office TAPI2 Service Provider**, and click **Configure**.



The **Avaya TAPI2 configuration** screen is displayed**.** For **Switch IP Address**, enter the IP address of IP Office. Select the radio button for **Single User**. Enter the applicable user name and password from **Section 5.3**. Reboot the OMNIWorks client.

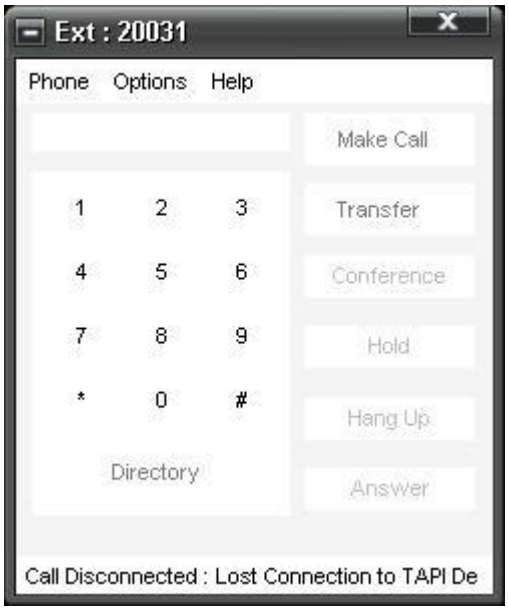


7.2. Administer TAPI Device

After the reboot, select **Start → All Programs → OMNIWorks → Agent Console** to launch the application, and log in using the applicable credentials from **Section 6.5**.

The screen below is displayed. Upon initial log in to the application, select **Services → Avaya Provider** from the top menu.

In the subsequent screen, select **Options → TAPI Device**.



The **Select TAPI Device** screen is displayed. Select the **IP Office Phone** entry shown below.

8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of IP Office and OMNIWorks.

From the agent user PC, follow the procedures in **Section 7.2** to launch the OMNIWorks Agent Console application and log in using the applicable credentials.

The screen below is displayed next. Verify the lower right corner of the screen reflects the correct number of skills configured for the agent from **Section 6.5**. Click **Ready** to make the agent available to receive ACD calls.

Verify the screen is updated to reflect agent in the **Ready** and **Connected** states, as shown below.

Make an incoming ACD call from the PSTN. Verify that the call is delivered to the agent, and automatically answered by the application with two-way talk paths.

Verify that an additional screen is popped up, that the agent state is **Working**, and that the screens reflect the proper calling party and called group information, as shown below.

9. Conclusion

These Application Notes describe the configuration steps required for MedTel Services OMNIWorks to successfully interoperate with Avaya IP Office 9.0. All feature and serviceability test cases were completed with observation noted in **Section 2.2**.

10. Additional References

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

1. *Avaya IP Office Manager*, Release 9.0, Issue 9.01, September 2013, Document Number 15-601011, available at http://support.avaya.com.

2. *OMNIWorks® 7 Administration & Maintenance Manual*, Part Number 610-0000-0791 Rev D, available on the OMNIWorks installation media.

3. *OMNIWorks® 7 Agent Console User's Guide*, Part Number 610-0000-0561 Rev E, available on the OMNIWorks installation media.

4. *OMNIWorks Avaya IP Office Provider*, available on the OMNIWorks installation media.

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.