Avaya Solution & Interoperability Test Lab

Application Notes for Trivium SonicView with Avaya IP Office – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Trivium SonicView to interoperate with Avaya IP Office. Trivium SonicView is a packet-based VoIP call recording solution that uses the events from Avaya IP Office to record calls for monitored users with Avaya IP Telephones.

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.

©2009 Avaya Inc. All Rights Reserved.

1. Introduction

These Application Notes describe the configuration steps required for Trivium SonicView to interoperate with Avaya IP Office. SonicView is a packet-based VoIP call recording solution that uses the events from Avaya IP Office to record calls for monitored users with Avaya IP Telephones.

SonicView uses the Avaya Telephony Application Programming Interface (TAPI) in third party mode to monitor VoIP users on Avaya IP Office equipped with Avaya IP Telephones. The port mirroring method can be used to replicate IP packets from the monitored users to SonicView. Upon receipt of a TAPI connected event message for a monitored user, SonicView can start the call recording using the associated RTP stream from the replicated packets.

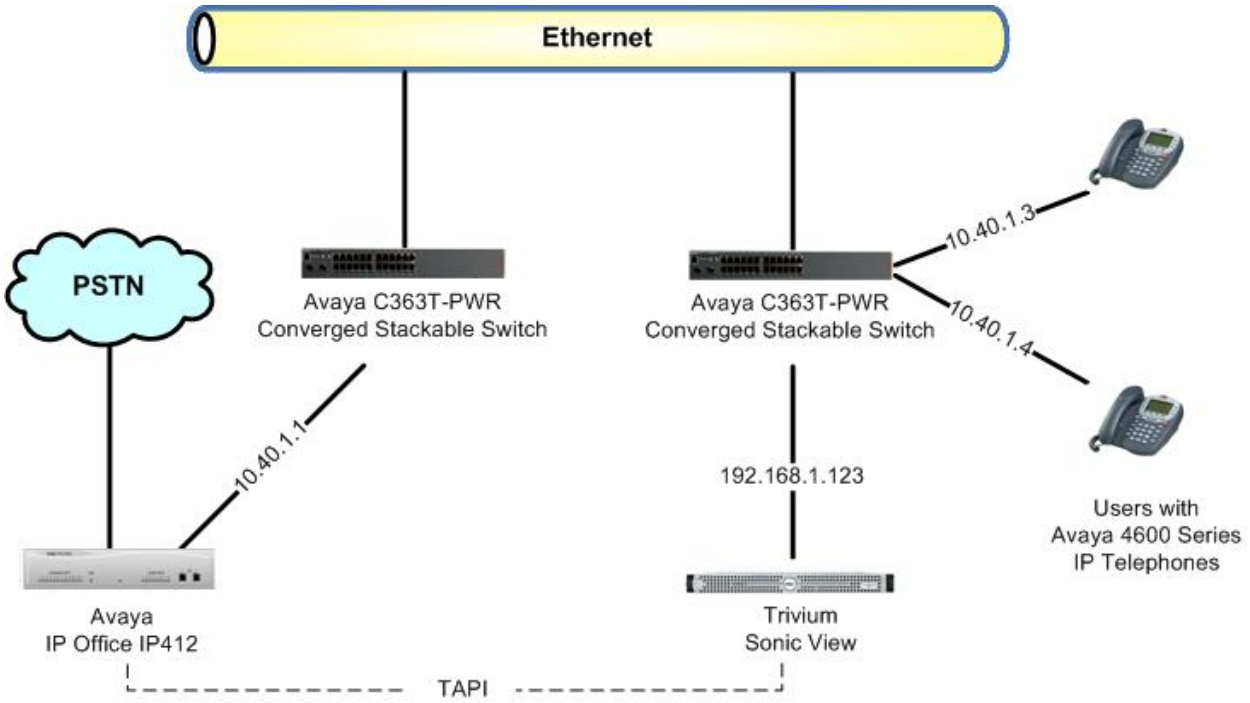


Figure 1: Trivium SonicView with Avaya IP Office

The port mirroring on the layer 2 switch is not the focus of these Application Notes and will not be discussed.

©2009 Avaya Inc. All Rights Reserved.

2. Equipment and Software Validated

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

Equipment	Software
Avaya IP Office IP412	4.2 (4)
Avaya 4600 Series IP Telephones (H.323)	2.8
Trivium SonicView • Avaya TAPI	1.2 with Avaya_Patch_V1.2.1022.2 3.2.15

©2009 Avaya Inc. All Rights Reserved.

3. Configure Avaya IP Office

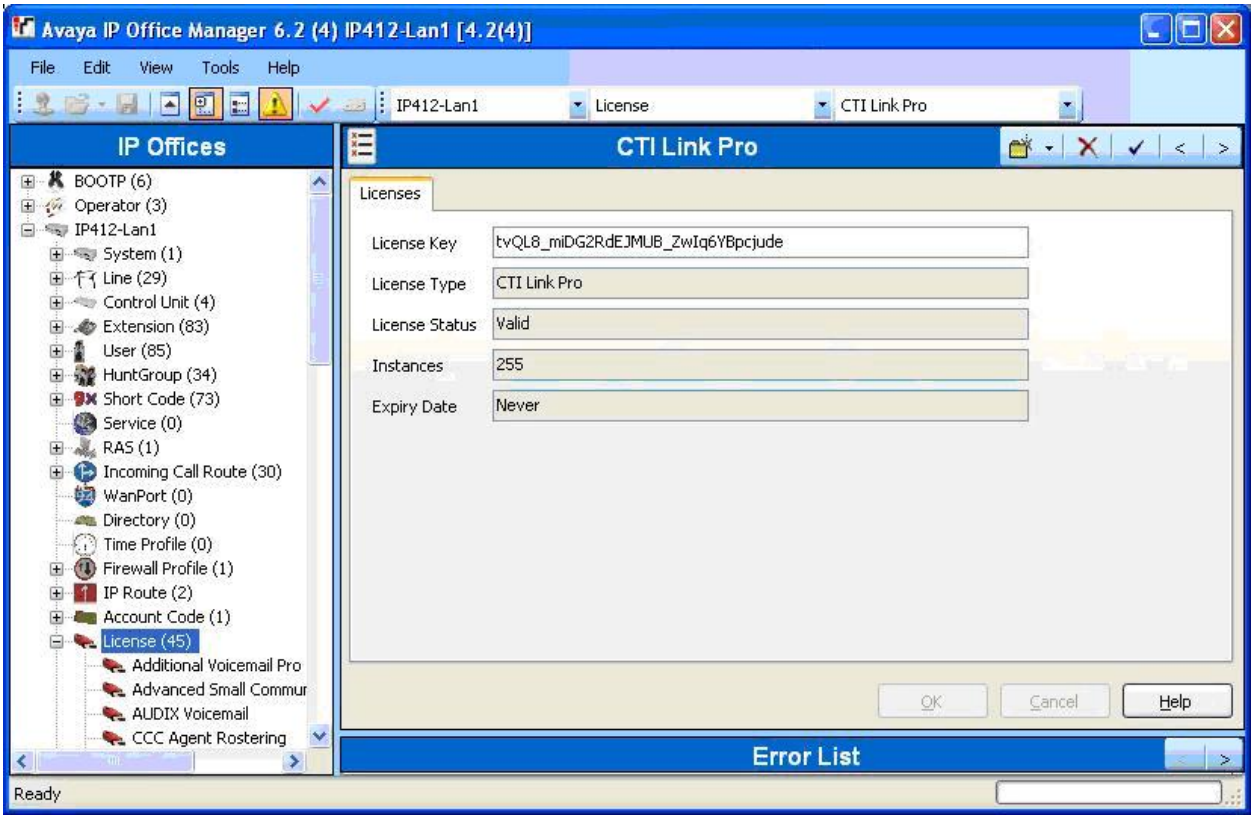
This section provides the procedures for configuring Avaya IP Office. The procedures include the following areas:

- Verify IP Office license
- Verify DHCP mode
- Administer extensions

3.1. 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 appropriate credentials.

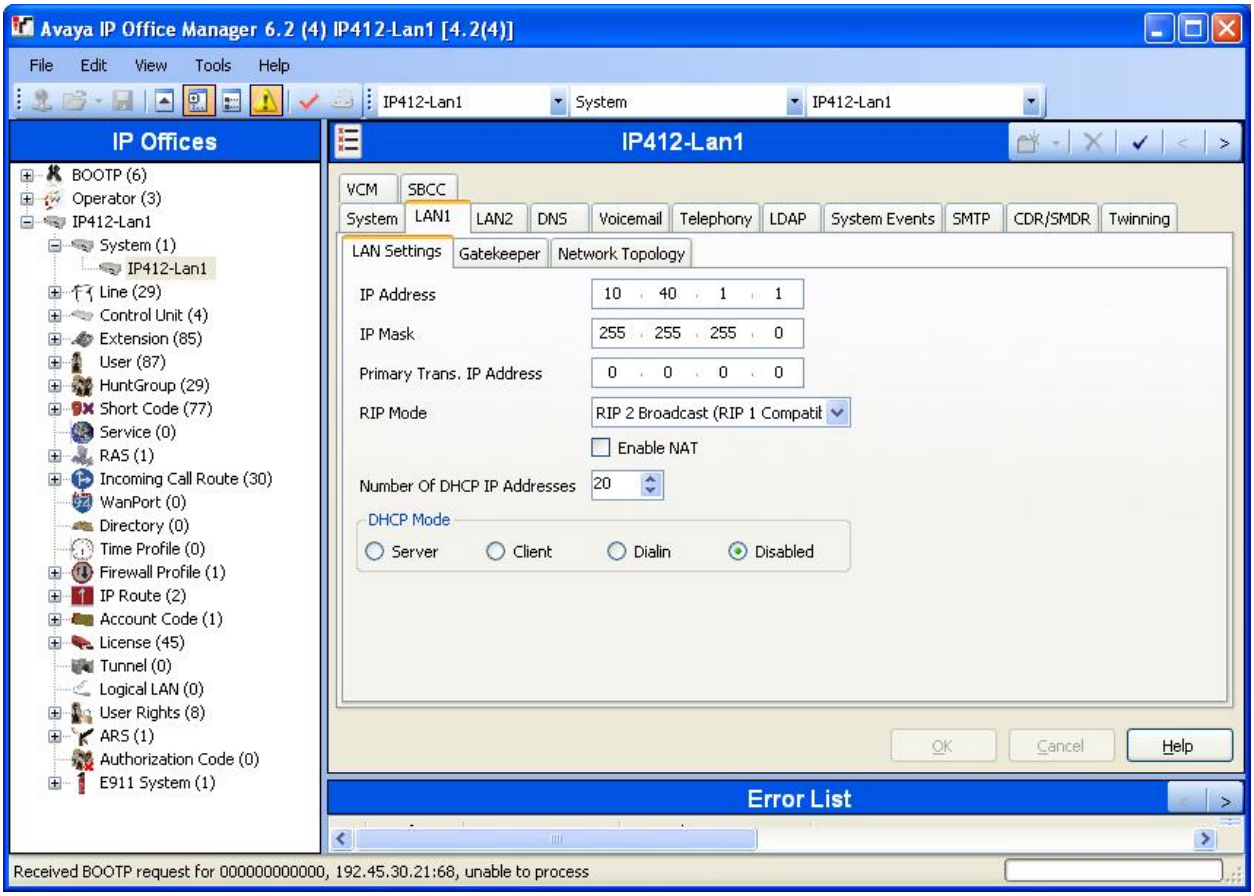
The **Avaya IP Office Manager** screen is displayed. From the configuration tree in the left pane, select **License > CTI Link Pro** to display the **CTI Link Pro** screen in the right pane. Verify that the **License Status** is "Valid".



©2009 Avaya Inc. All Rights Reserved.

3.2. Verify DHCP Mode

From the configuration tree in the left pane, select **System**, followed by the **LAN1** tab in the right pane. In the **LAN Settings** sub tab, verify that the **DHCP Mode** is "Disabled", as shown below. Note that the DHCP mode needs to be disabled, as the SonicView application requires use of static IP addresses for the Avaya IP Telephones.

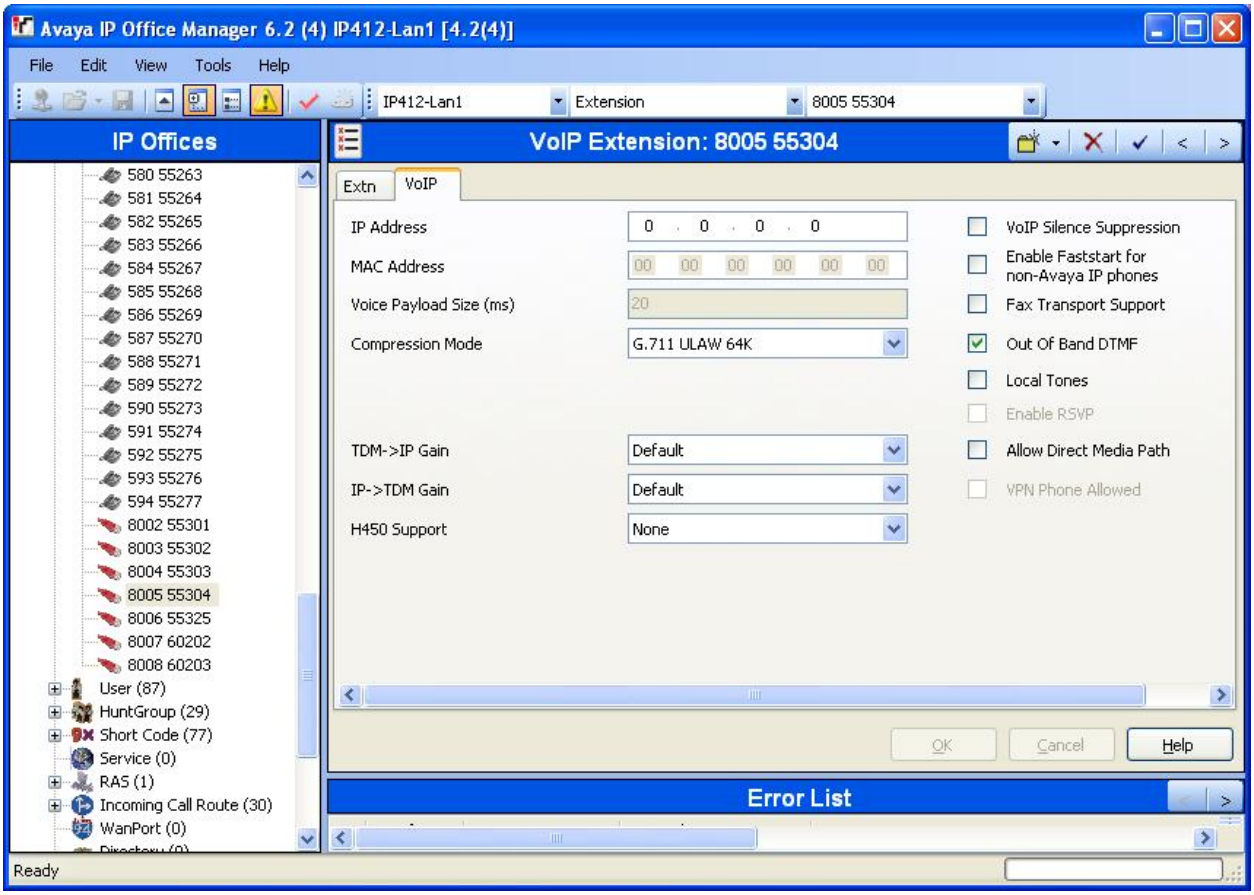


©2009 Avaya Inc. All Rights Reserved.

3.3. Administer Extensions

From the configuration tree in the left pane, select **Extension** followed by the first VoIP extension that will be monitored by SonicView, in this case "8005 55304". For **Compression Mode**, select "G.711 ULAW 64K". Uncheck **VoIP Silence Suppression** and **Allow Direct Media Path**, as shown below.

Repeat this section for all VoIP extensions monitored by SonicView.



©2009 Avaya Inc. All Rights Reserved.

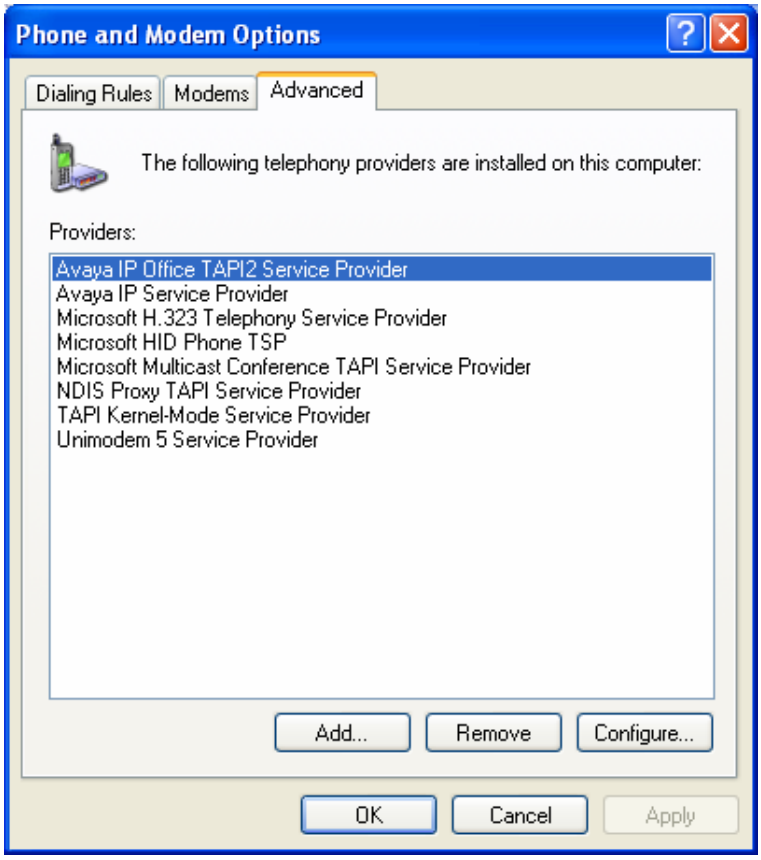
4. Configure Trivium SonicView

This section provides the procedures for configuring Trivium SonicView. The procedures include the following areas:

- Administer TAPI
- Launch SonicView
- Administer site
- Administer department
- Administer group
- Administer user
- Administer extension
- Administer recorder
- Restart recording engine

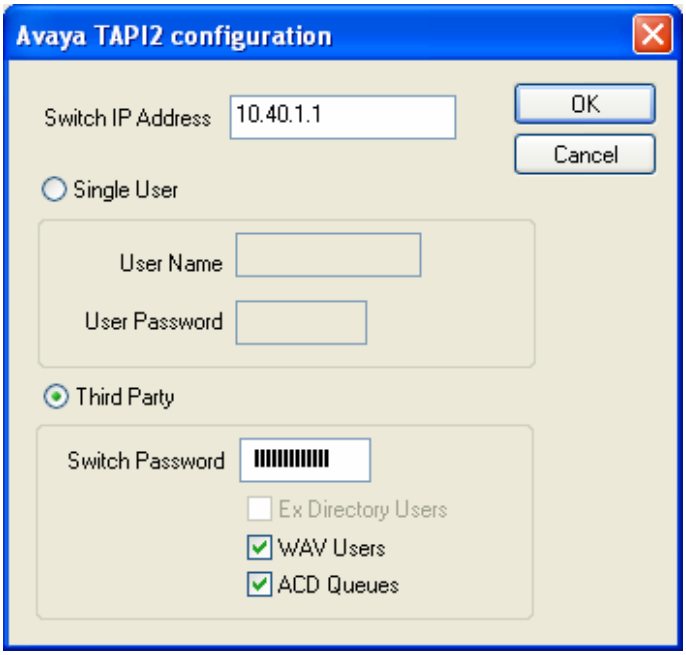
4.1. Administer TAPI

From the Trivium SonicView server, select **Start > Settings > Control Panel > Phone and Modem Options** to display the **Phone and Modem Options** screen. Select the **Advanced** tab. Select the **Avaya IP Office TAPI2 Service Provider** entry, and click **Configure**.



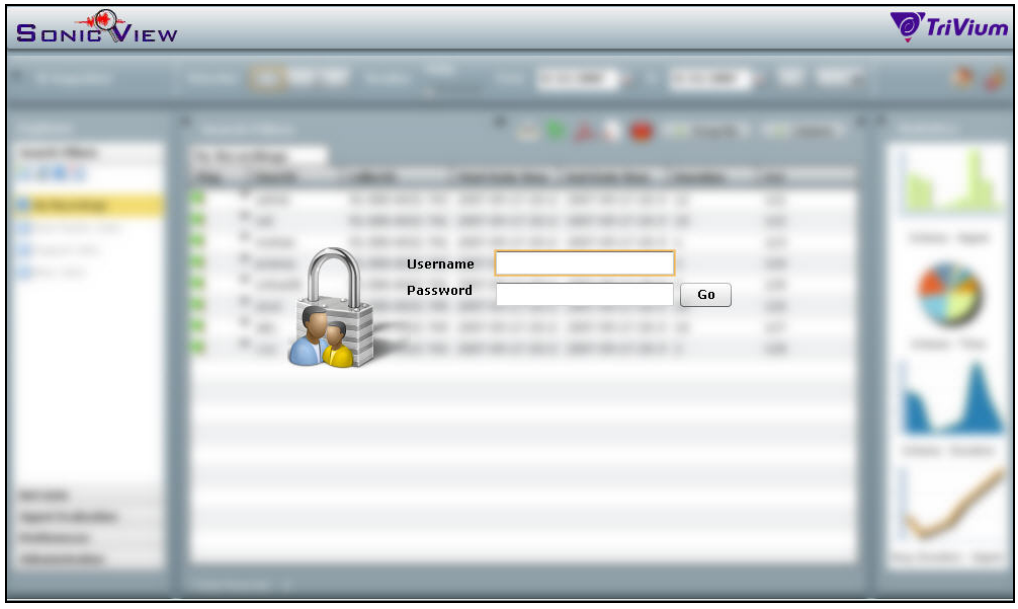
©2009 Avaya Inc. All Rights Reserved.

The **Avaya TAPI2 configuration** screen is displayed. For **Switch IP Address**, enter the IP address of Avaya IP Office. Select the radio button for **Third Party**, and enter the Avaya IP Office credential in the **Switch Password** field. Retain the default values in the remaining fields.



4.2. Launch SonicView

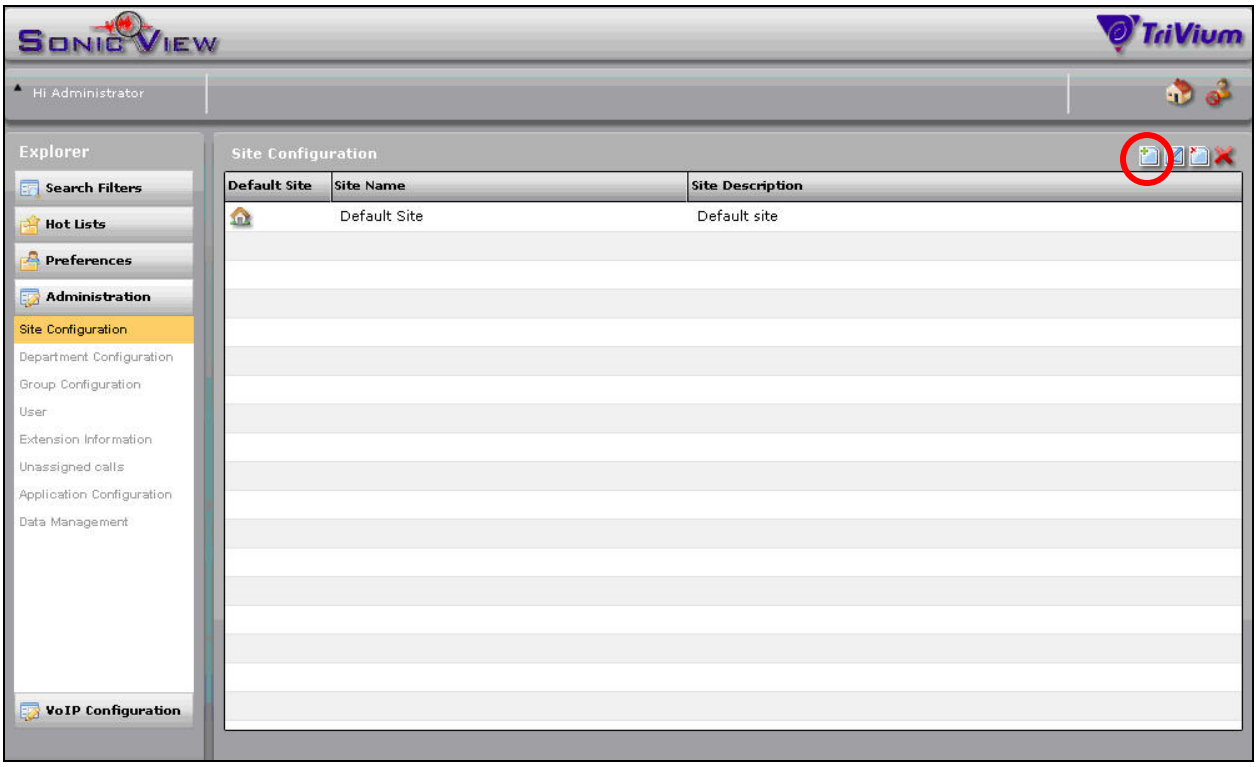
Access the SonicView web interface by using the URL "http://ip-address:8080/SonicView/home/login" in an Internet browser window, where "ip-address" is the IP address of the SonicView server. Log in with the appropriate credentials.



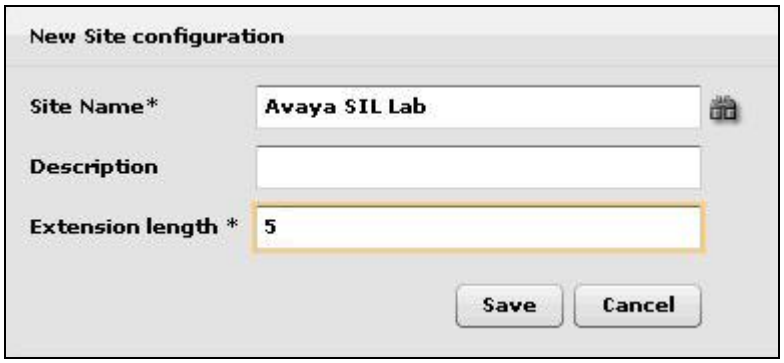
©2009 Avaya Inc. All Rights Reserved.

4.3. Administer Site

Select **Administration** > **Site Configuration** from the left pane, to display the **Site Configuration** screen in the right pane. Select the **Add a new site** icon circled below.



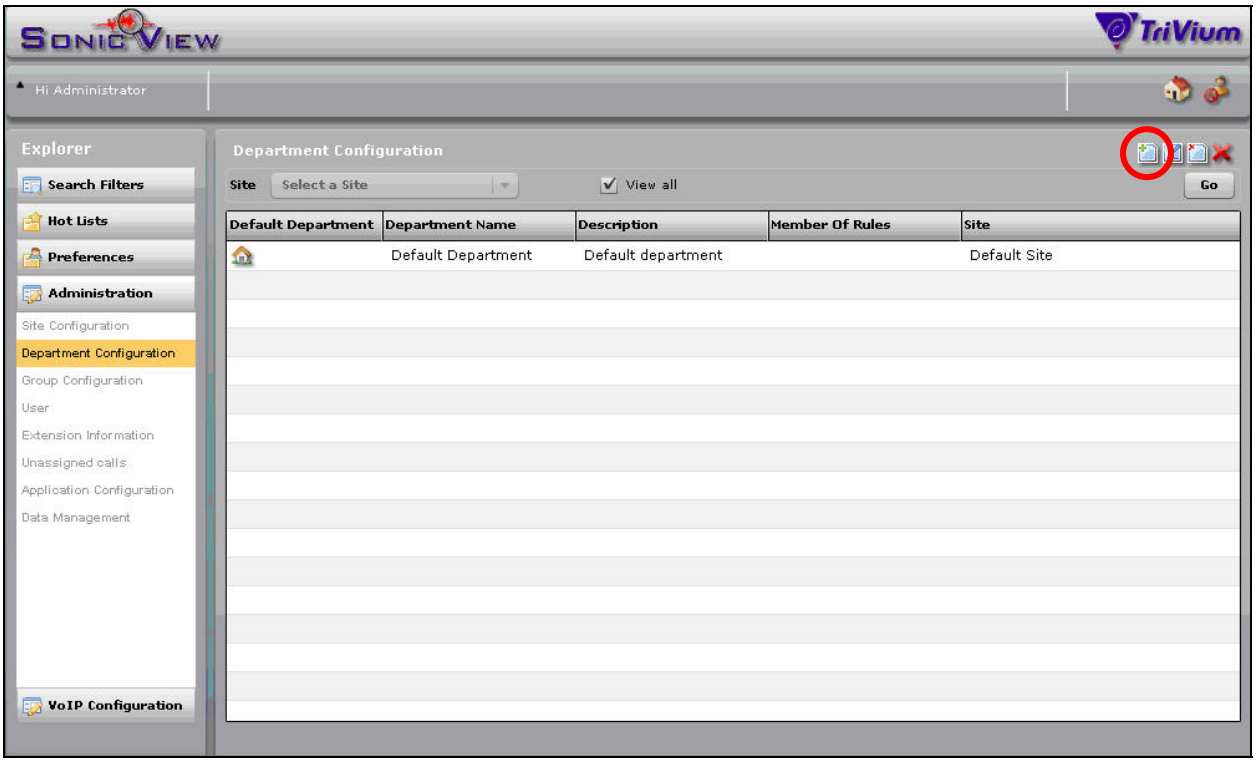
The **New Site configuration** pop-up window is displayed next. For **Site Name**, enter a descriptive name. For **Extension length**, enter the number of digits for the VoIP extensions on Avaya IP Office from **Section 3.3**, in this case "5".



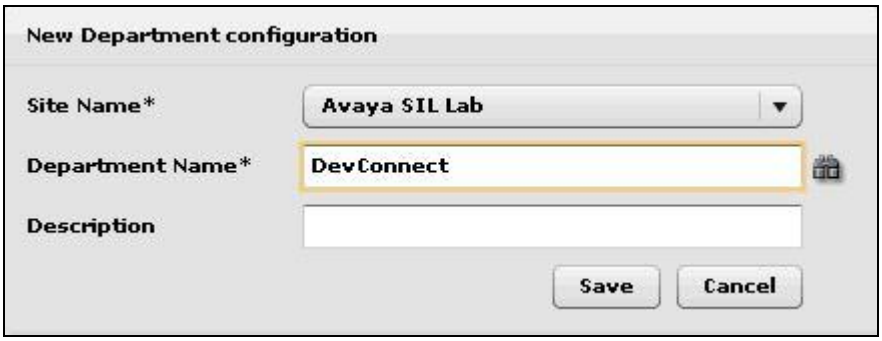
©2009 Avaya Inc. All Rights Reserved.

4.4. Administer Department

Select **Administration > Department Configuration** from the left pane, to display the **Department Configuration** screen in the right pane. Select the **Add a new Department** icon circled below.



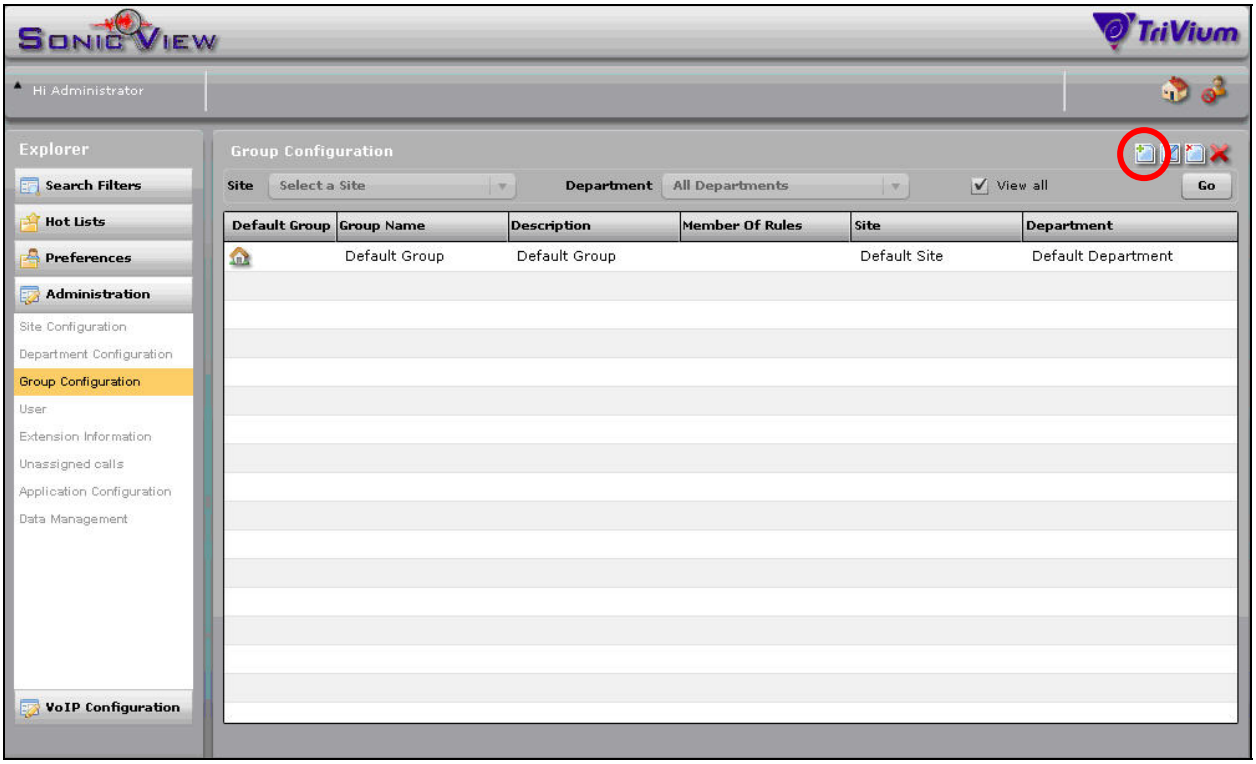
The **New Department configuration** pop-up window is displayed next. For **Site Name**, select the site name from **Section 4.3**. Enter a descriptive **Department Name**.



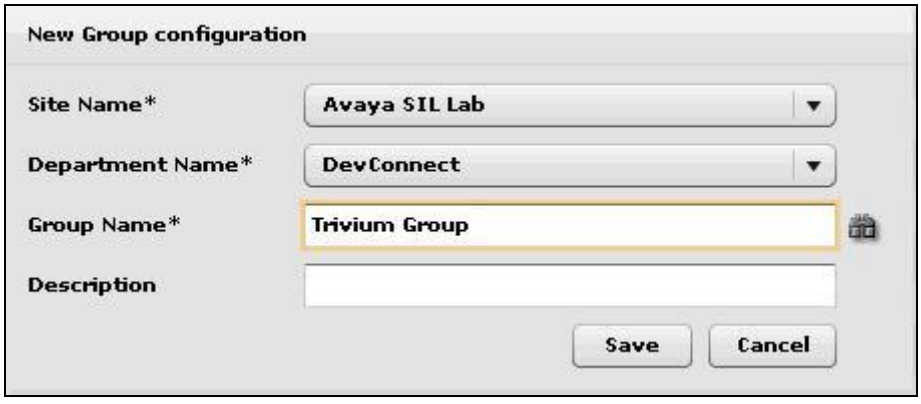
©2009 Avaya Inc. All Rights Reserved.

4.5. Administer Group

Select **Administration** > **Group Configuration** from the left pane, to display the **Group Configuration** screen in the right pane. Select the **Add a new Group** icon circled below.



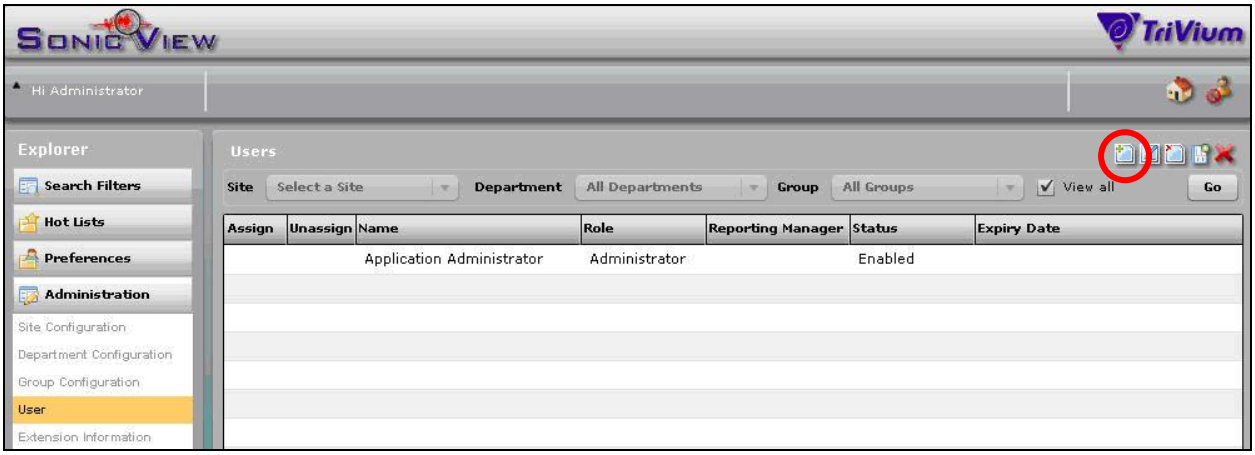
The **New Group configuration** pop-up window is displayed next. For **Site Name**, select the site name from **Section 4.3**. For **Department Name**, select the department name from **Section 4.4**. Enter a descriptive **Group Name**.



©2009 Avaya Inc. All Rights Reserved.

4.6. Administer User

Select **Administration > User** from the left pane, to display the **Users** screen in the right pane. Select the **Add a new User** icon circled below.



The **Users** screen is updated, as shown below. Enter descriptive values for the **First Name**, **Last Name**, **Username**, **Password**, and **Confirm Password** fields. Select the appropriate values for **Site Name**, **Department Name**, and **Group Name**.

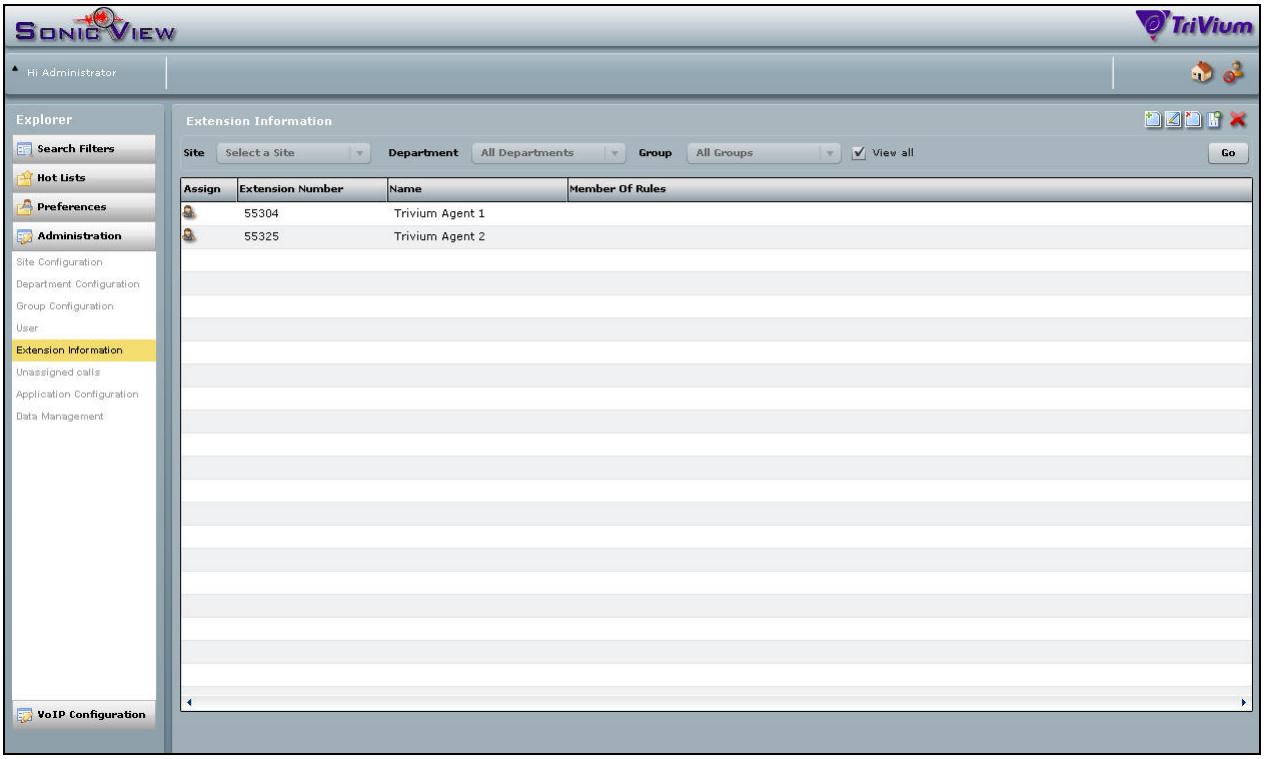
Select "Agent" from the **Role** field drop-down list. For **Extension**, enter the first VoIP extension from **Section 3.3** to be monitored by SonicView. Retain the default values in the remaining fields.

Repeat this section to administer a user for every VoIP extension on Avaya IP Office to be monitored by SonicView.

©2009 Avaya Inc. All Rights Reserved.

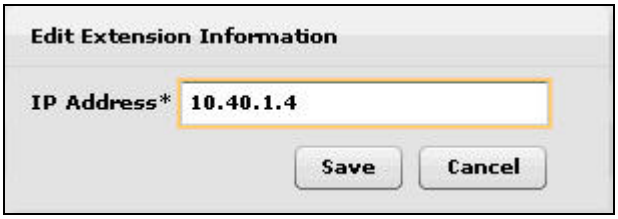
4.7. Administer Extension

Select **Administration > Extension Information** from the left pane, to display the **Extension Information** screen in the right pane. Double-click on the first entry in the right pane.



The **Edit Extension Information** pop-up window is displayed. Enter the IP address of the Avaya IP Telephone associated with the selected extension.

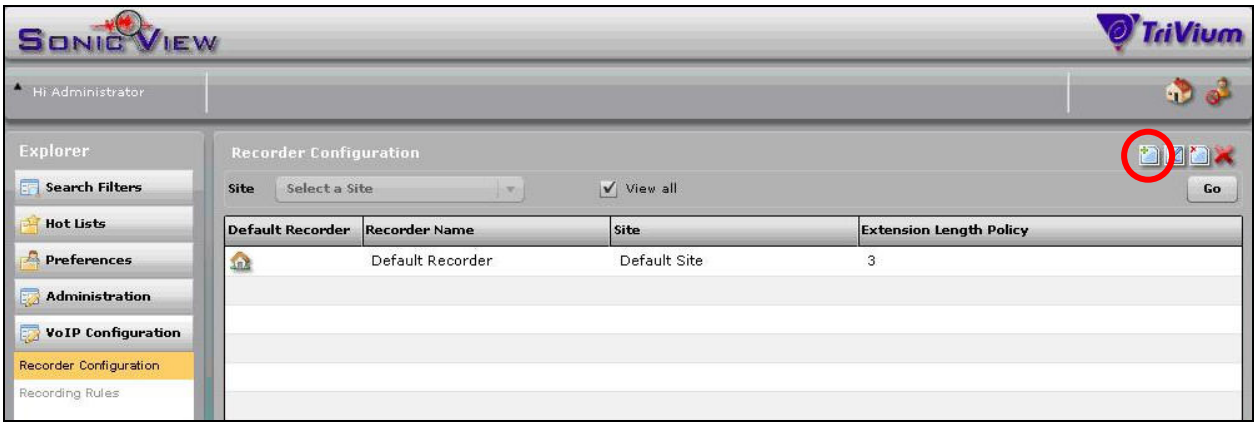
Repeat this section to administer the extension for every user in **Section 4.6**.



©2009 Avaya Inc. All Rights Reserved.

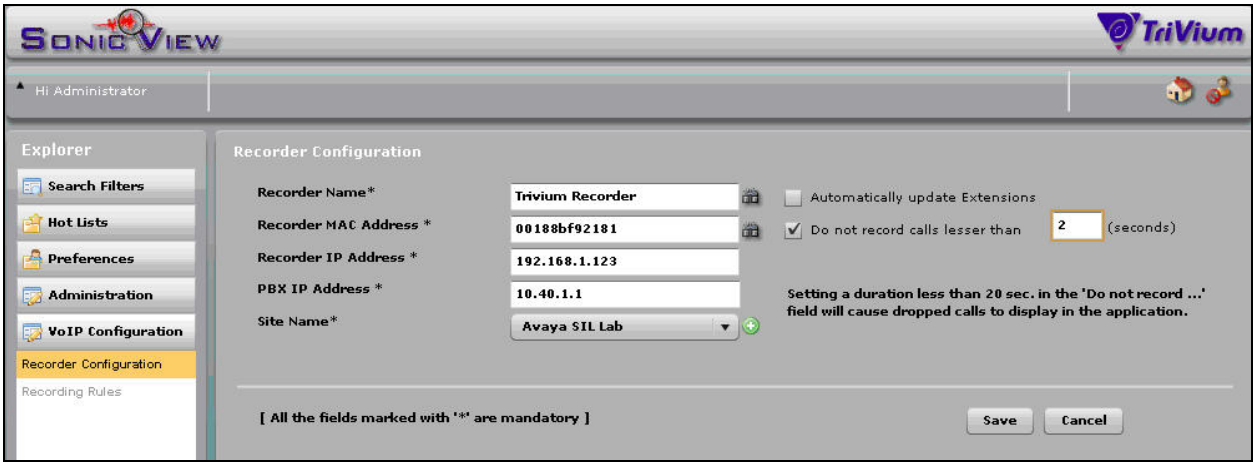
4.8. Administer Recorder

Select **VoIP Configuration > Recorder Configuration** from the left pane, to display the **Recorder Configuration** screen in the right pane. Select the **Add a new Recorder Configuration** icon circled below.



The **Recorder Configuration** screen is updated, as shown below. Enter the following values for the specified fields.

- **Recorder Name:** A descriptive name.
- **Recorder MAC Address:** The MAC address of the SonicView server's Ethernet card.
- **Recorder IP Address:** The IP address of the SonicView server.
- **PBX IP Address:** The IP address of Avaya IP Office.
- **Site Name:** Select the site name from **Section 4.3**.
- **(seconds):** The desired number of seconds for the recording threshold.



©2009 Avaya Inc. All Rights Reserved.

4.9. Restart Recording Engine

From the Trivium SonicView server, select **Start > All Programs > SonicView > Service Manager**. The **Service Manager** screen is displayed. Select "Recording Engine" from the **Services** field drop-down list, and click **Restart**.

©2009 Avaya Inc. All Rights Reserved.

5. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying Trivium SonicView on the following:

- Handling of TAPI monitor and event messages.
- Proper use of TAPI event messages to associate call recordings with correct users in basic, transfer, and conference call scenarios.
- Proper call recordings that can be retrieved and played back.

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

5.1. General Test Approach

The feature test cases were performed both automatically and manually. Upon start of the Trivium SonicView application, the application automatically requests monitoring of VoIP users.

For the manual part of the testing, incoming calls were made to the monitored VoIP users to trigger event messages to Trivium SonicView for call recordings. Manual call controls from the user telephones were exercised to verify scenarios such as hold, reconnect, conference, and transfer. Testing also included incoming trunk, outgoing trunk, and internal calls involving monitored VoIP users.

The serviceability test cases were performed manually by disconnecting and reconnecting the Ethernet cable to the Trivium SonicView server.

5.2. Test Results

All test cases were executed and passed. Below are the observations from the compliance test:

- Only the G.711 codec is supported by SonicView.
- Direct media path is not supported by SonicView, therefore must be disabled on the Avaya IP Office extension screen.

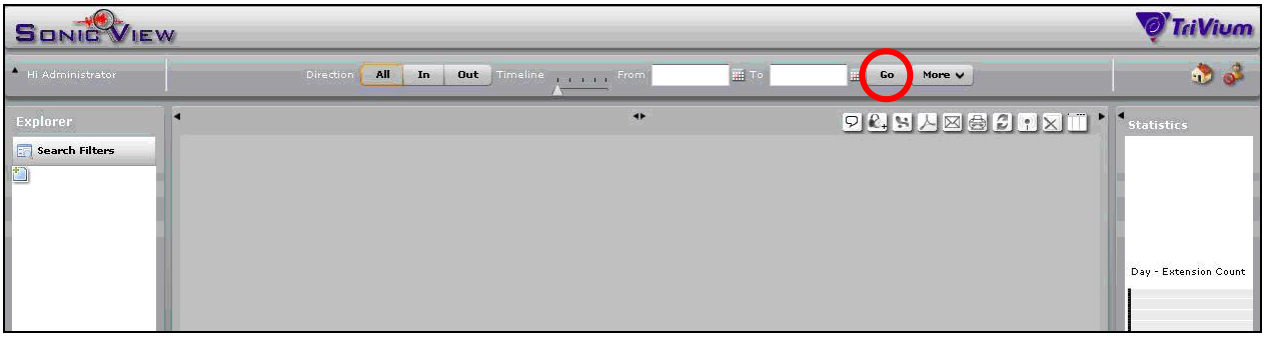
©2009 Avaya Inc. All Rights Reserved.

6. Verification Steps

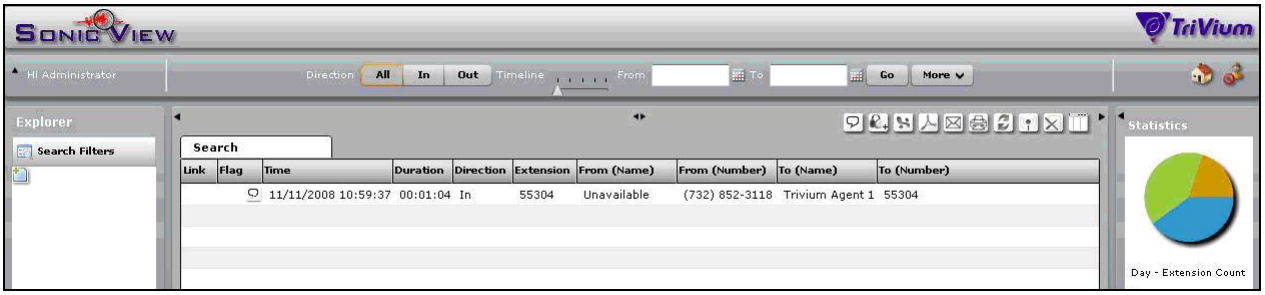
This section provides the tests that can be performed to verify proper configuration of Avaya IP Office and Trivium SonicView.

Establish a call from the PSTN to a monitored VoIP user. After the call is completed, follow the procedure in **Section 4.2** to launch the SonicView web interface.

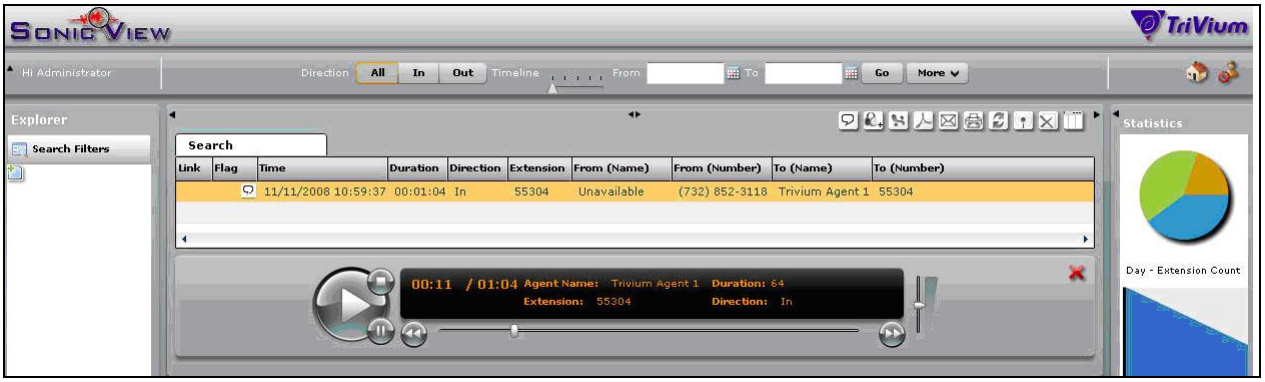
In the screen that is displayed, click the **Go** button toward the top of the screen.



Verify that an entry for the completed call is displayed in the center pane, with appropriate values in the various fields, as shown below.



Double-click on the entry, and verify the proper recording of the entire call via the playback.



©2009 Avaya Inc. All Rights Reserved.

7. Support

Technical support on Trivium SonicView can be obtained through the following:

- **Phone:** (877) 439-9338
- **Web:** www.triviumsys.com

8. Conclusion

These Application Notes describe the configuration steps required for Trivium SonicView to successfully interoperate with Avaya IP Office. All feature and serviceability test cases were completed.

9. Additional References

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

- *IP Office 4.2 Documentation CD*, August 2008, available at http://support.avaya.com.
- *SonicView Installation & Setup Guide*, available from the SonicView installation CD.
- *SonicView Application User Guide*, available from the SonicView installation CD.

©2009 Avaya Inc. All Rights Reserved.

©2009 Avaya Inc. All Rights Reserved.
Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of the respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for the application of any products specified in these Application Notes.

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.

©2009 Avaya Inc. All Rights Reserved.