Avaya Solution & Interoperability Test Lab

Application Notes for TelStrate Engage with Avaya IP Office Using VoIP Recording – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for TelStrate Engage to interoperate with Avaya IP Office using VoIP recording. TelStrat Engage is a call recording solution.

In the compliance testing, TelStrat Engage used the TAPI interface from Avaya IP Office to monitor contact center agents on Avaya IP Office, and the port mirroring method to capture the media associated with the monitored agents for recording.

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 TelStrate Engage to interoperate with Avaya IP Office using VoIP recording. TelStrat Engage is a call recording solution.

In the compliance testing, TelStrat Engage used TAPI 2 in third party mode from Avaya IP Office to monitor contact center agents on Avaya IP Office, and the port mirroring method to capture the media associated with the monitored agents for recording.

2. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of the Engage application, the application established TAPI connectivity to IP Office for monitoring of agent stations.

For the manual part of the testing, each call was handled manually on the agent station with generation of unique audio content for the recordings. Necessary user actions such as hold and reconnect were performed from the agent telephones to test the different call scenarios.

The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet cable to Engage.

The verification of tests included using the Engage logs for proper message exchanges, and using the Engage Client application for proper logging and playback of calls.

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 on Engage:

- Handling of TAPI events.
- Proper recording, logging, and playback of calls for scenarios involving inbound, outbound, internal, external, ACD, hot desking, non-ACD, hold, reconnect, simultaneous, conference, and transfer.

The serviceability testing focused on verifying the ability of Engage to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet cable to Engage.

2.2. Test Results

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

- In the attended conference scenarios, the first recording for the conference-from agent included silence for the period that the conference-from agent was conversing with the conference-to agent, and the second recording for the conference-from agent contained the conversation with the conference-to agent.
- In the unattended conference scenarios, the first recording entry for the conference-from agent contained zero length, and the second recording for the conference-from agent contained all conversations involving the conference-from agent.
- After a 60 seconds link disruption, the Engage Client application may become stuck and need a manually restart.

2.3. Support

Technical support on Engage can be obtained through the following:

- **Phone:** (972) 633-4548
- **Email:** support@telstrat.com

3. Reference Configuration

As shown in the test configuration below, the Engage Client application was running on the supervisor PC, and used for verification of proper logging and playback of calls.

In the compliance testing, the RTP stream for contact center agents with Avaya IP Deskphones were mirrored from the layer 2 switch, and replicated over to the Engage server.

The detailed administration of contact center devices is not the focus of these Application Notes and will not be described. In addition, the port mirroring of the layer 2 switch is also outside the scope of these Application Notes and will not be described.

In the compliance testing, Engage monitored the agent user extensions shown in the table below.

Device Type	Extension
Hunt Group	29000
Agent User	20031, 20032
Supervisor	20035

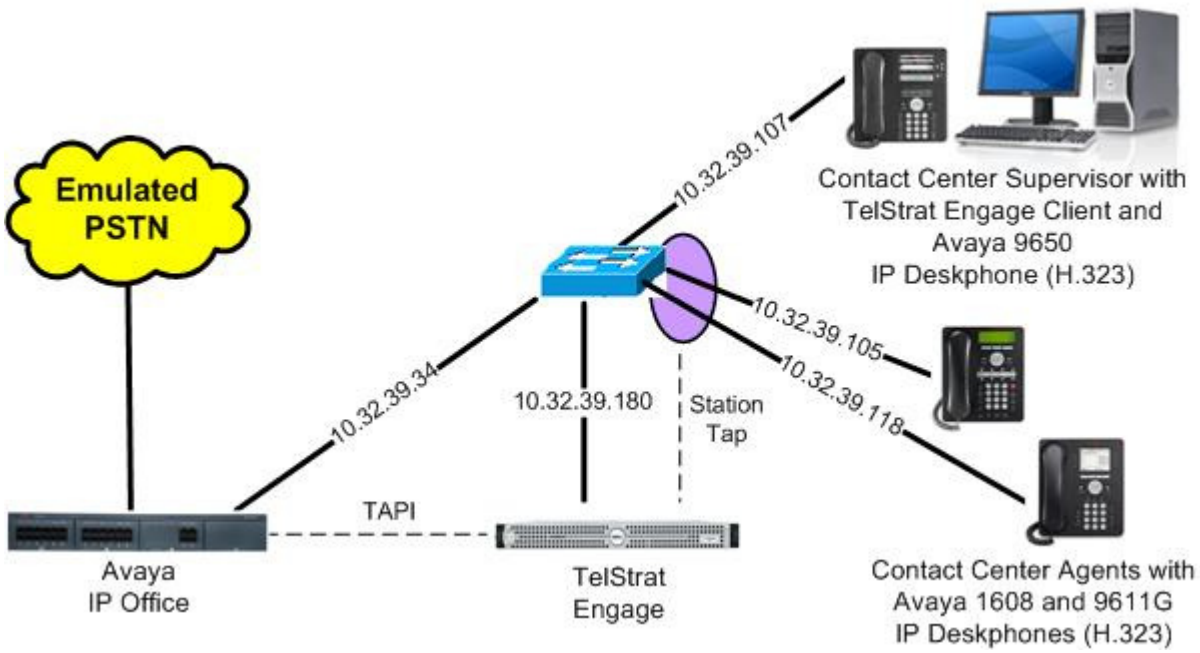


Figure 1: Compliance Testing Configuration

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 IP500 V2	8.1 (63)
Avaya 1608 IP Deskphone (H.323)	1.302S
Avaya 9611G IP Deskphone (H.323)	6.2209
Avaya 9650 IP Deskphone (H.323)	3.105S
TelStrat Engage on Windows 2008 Server Standard • Database Server • VOIPEngine • Avaya TAPI (tspi2w.tsp)	3.6.1.11 SP2 Microsoft SQL Server 2008 R2 3.6.1.19 1.0.0.37
TelStrat Engage Client on Windows XP Professional	3.6.1.11 SP3

Testing was performed with IP Office 500 V2 R8.1, but also applies to IP Office Server Edition R8.1. Note that IP Office Server Edition requires an Expansion IP Office 500 V2 R8.1 to support analog or digital endpoints or trunks.

5. Configure Avaya IP Office

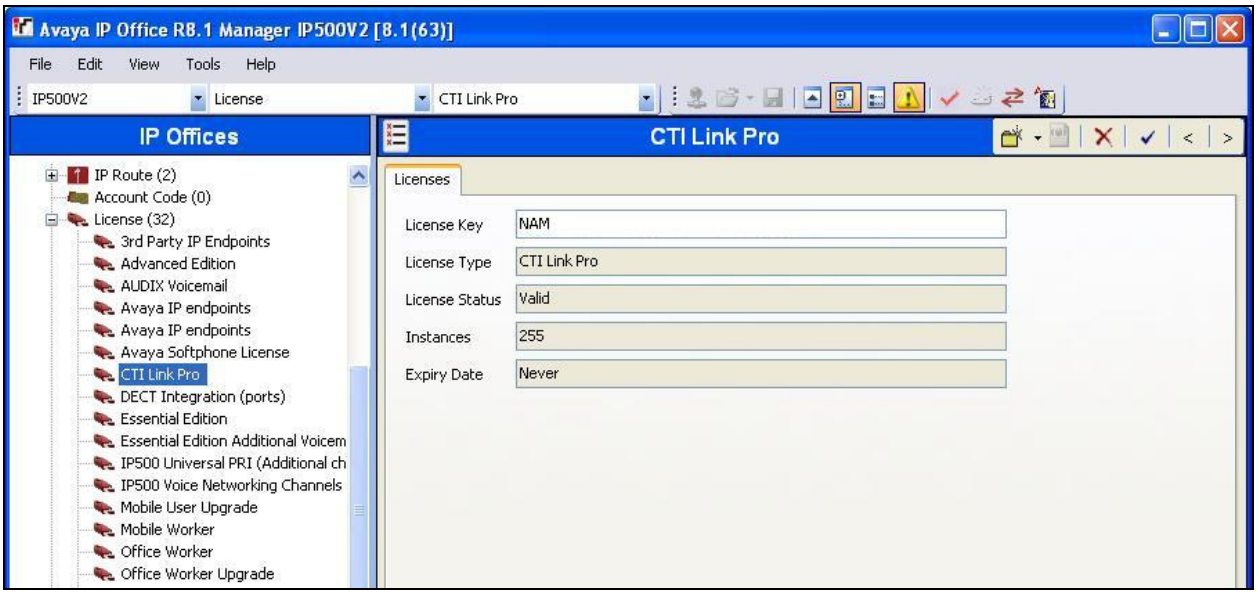
This section provides the procedures for configuring IP Office. The procedures include the following areas:

- Verify license
- Obtain phone IP addresses

5.1. Verify License

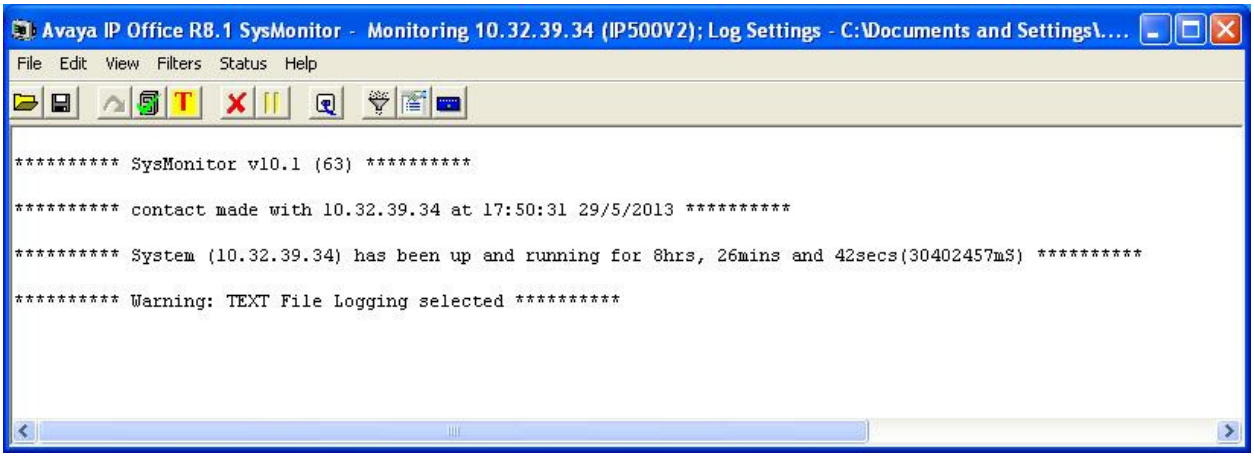
From a PC running the IP Office Manager application, select **Start → Programs → IP Office → Manager** to launch the application. Select the proper IP Office system, and log in using the appropriate credentials.

The **Avaya IP Office R8.1 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".



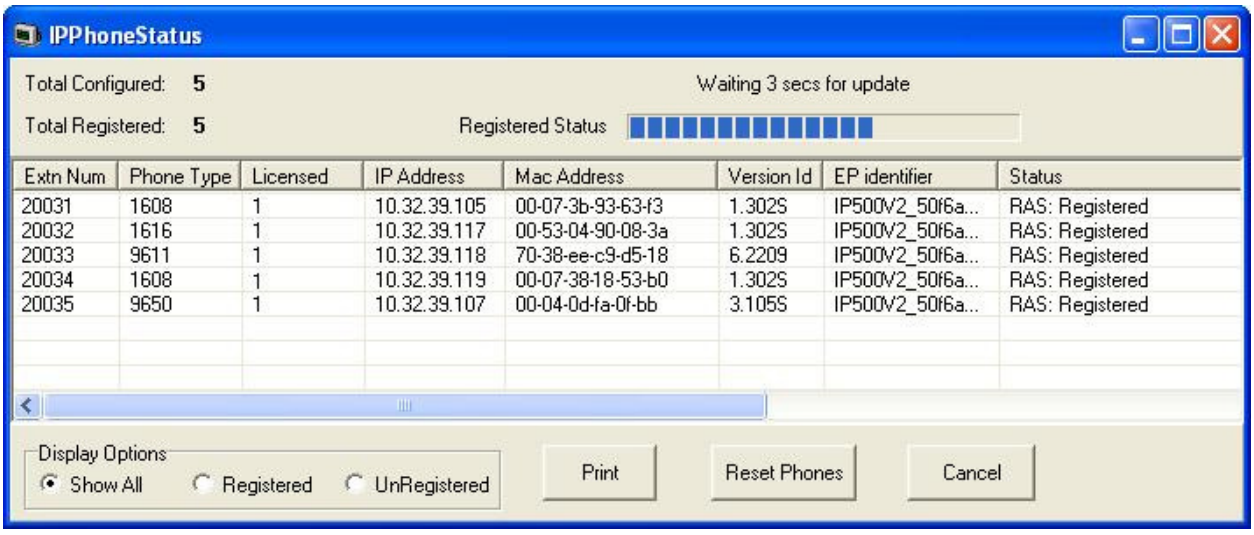
5.2. Obtain Phone IP Address

From a PC running the IP Office Monitor application, select **Start → Programs → IP Office → Monitor** to launch the application. The **Avaya IP Office R8.1 SysMonitor** screen is displayed, as shown below. Select **Status → H323 Phone Status** from the top menu.



The **IPPhoneStatus** screen is displayed. Make a note of the IP address associated with each extension number the agents may be using.

In the system configuration, agent 20031 does not use hot desking, whereas agent 20032 uses hot desking and can log in from physical stations 20032, 20033, and 20034.



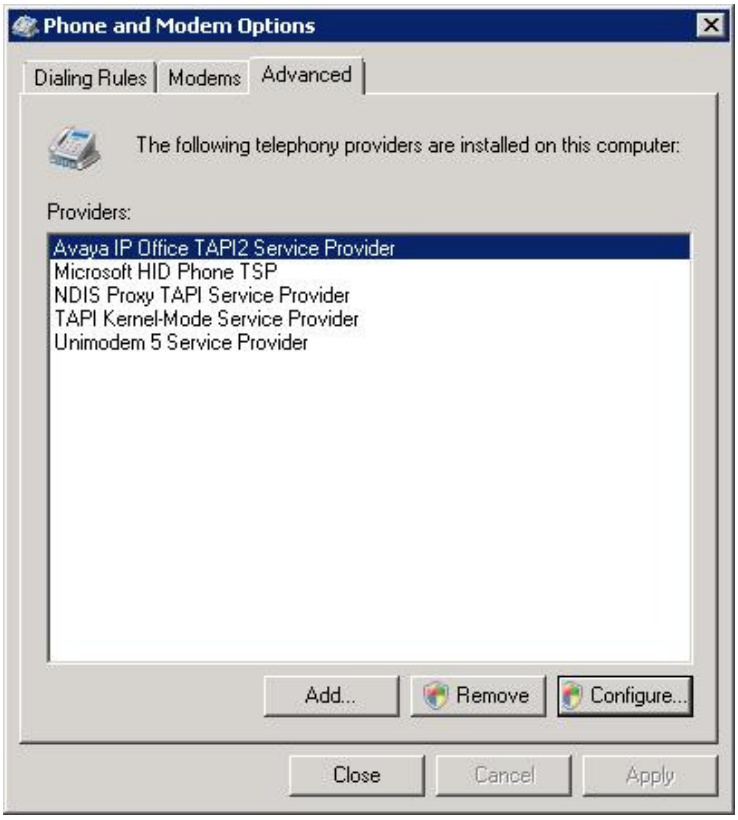
6. Configure TelStrat Engage

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

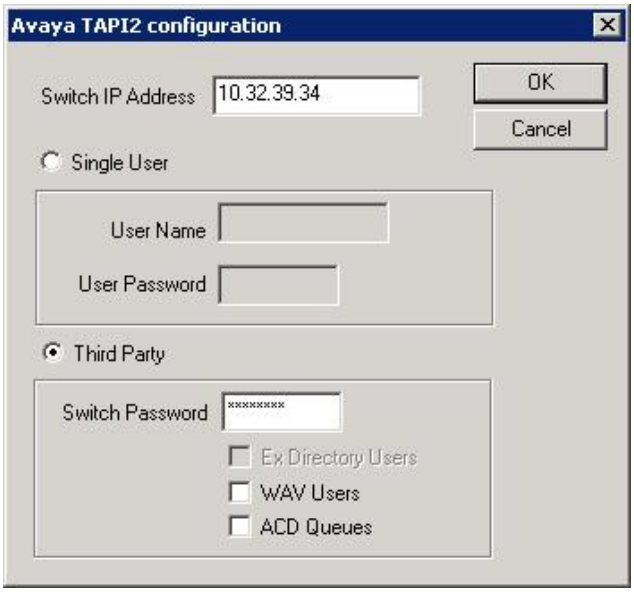
- Administer TAPI driver
- Launch VoIP Engine Configuration
- Administer SPAN configuration
- Administer port mapping

6.1. Administer TAPI Driver

From the Engage server, select **Start → Control Panel**, and click on the **Phone and Modem** icon (not shown below). In the displayed **Phone and Modem Options** screen, select the **Advanced** tab. Select the **Avaya IP Office TAPI2 Service Provider** entry, 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 **Third Party**, and enter the IP Office password into the **Switch Password** field. Reboot the Engage server.

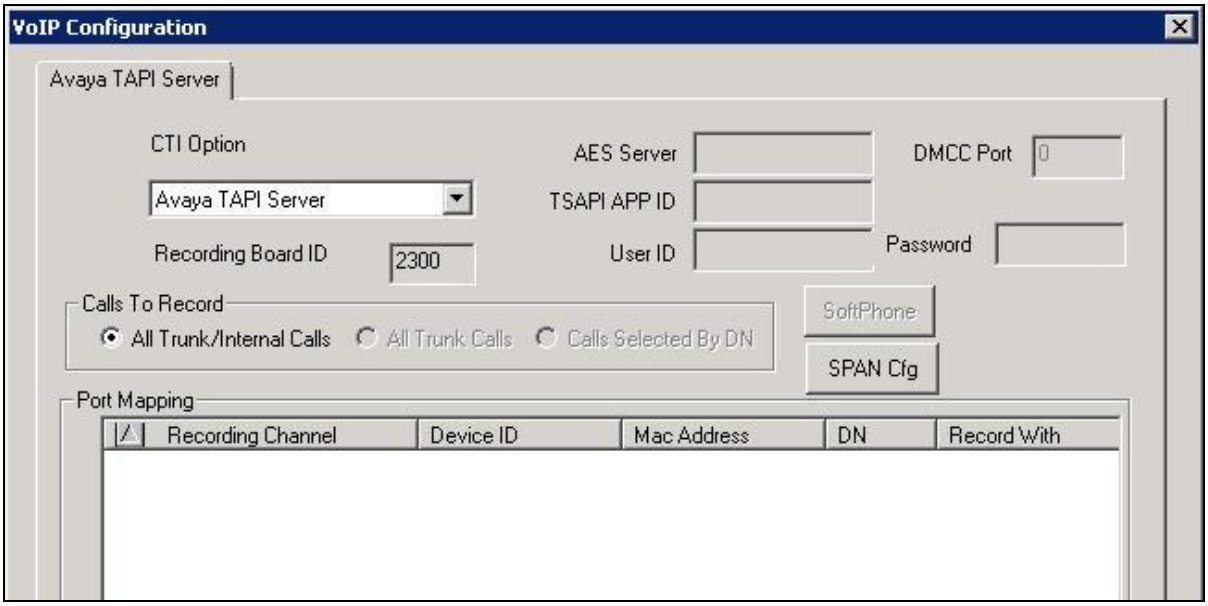


6.2. Launch VoIP Engine Configuration

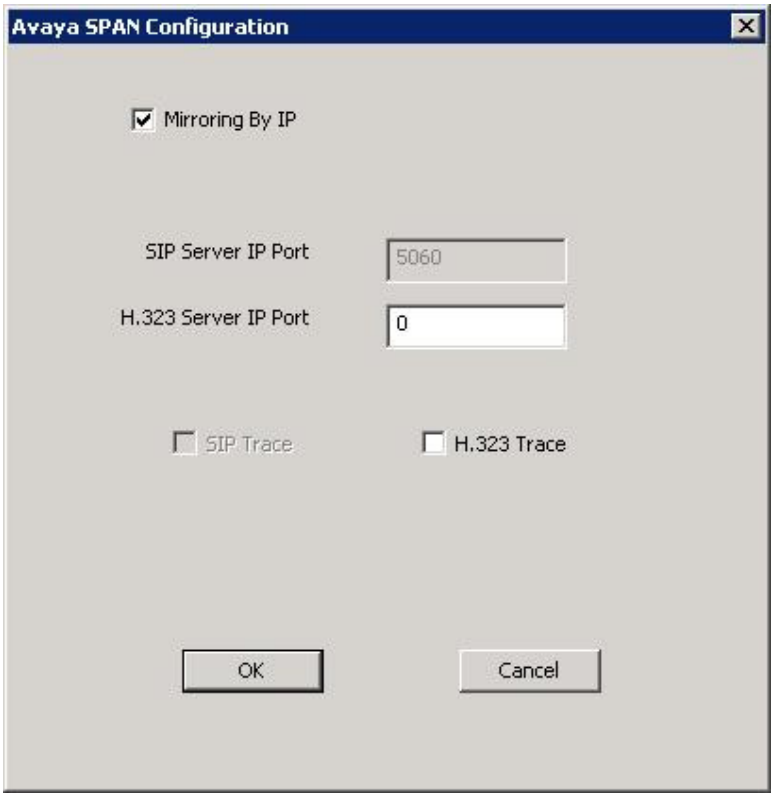
From the Engage server, select **Start → All Programs → TelStrat Engage → VOIP Engine Configuration** to display the **Engage VoIPEngine Config Console** screen shown below. Click **Config**.

6.3. Administer SPAN Configuration

The **VoIP Configuration** screen is displayed. Click **SPAN Cfg**.

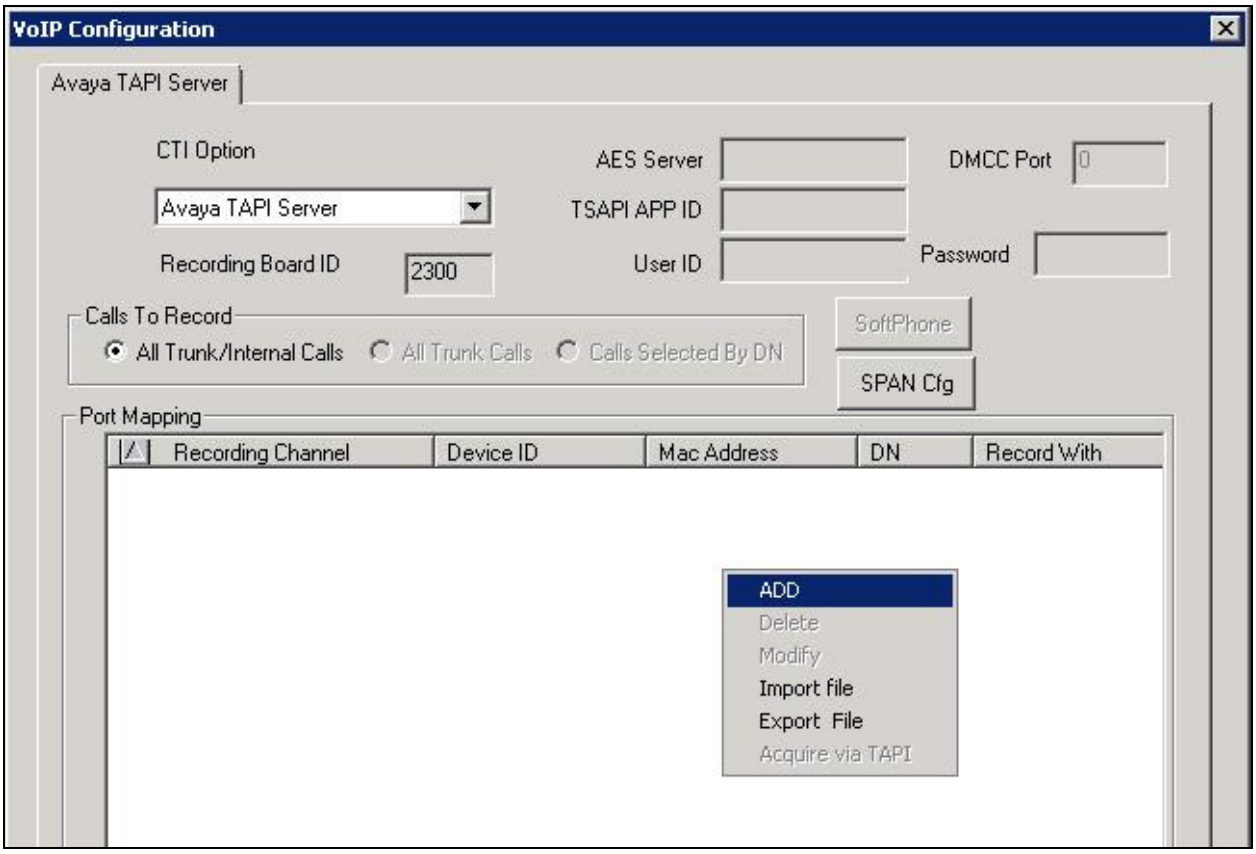


The **Avaya SPAN Configuration** screen is displayed next. Check **Mirroring By IP** to enable device mapping by IP addresses.



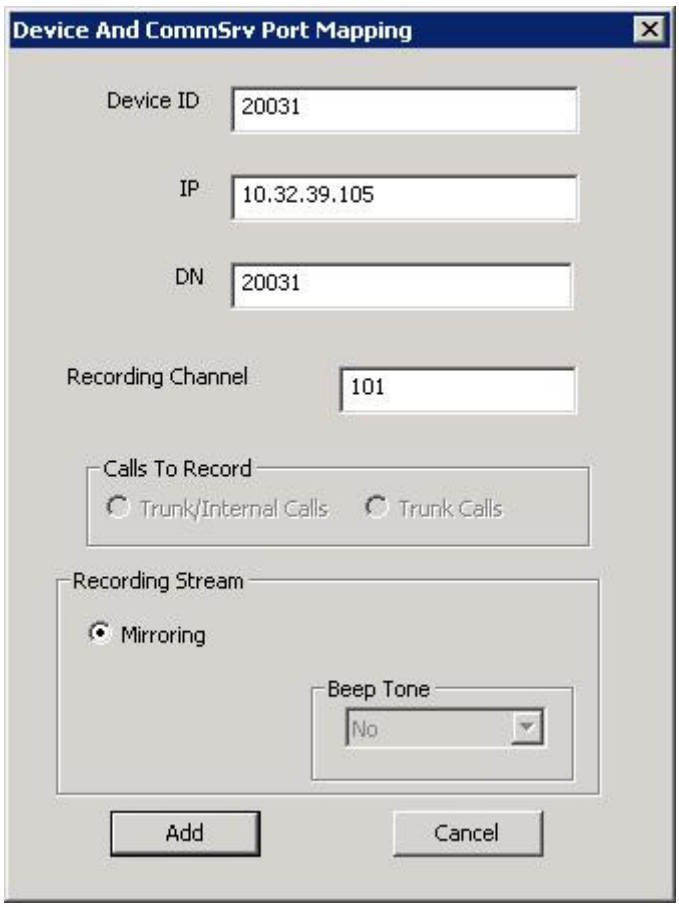
6.4. Administer Port Mapping

The **VoIP Configuration** screen is displayed again. Right click in the empty screen and select **ADD**.



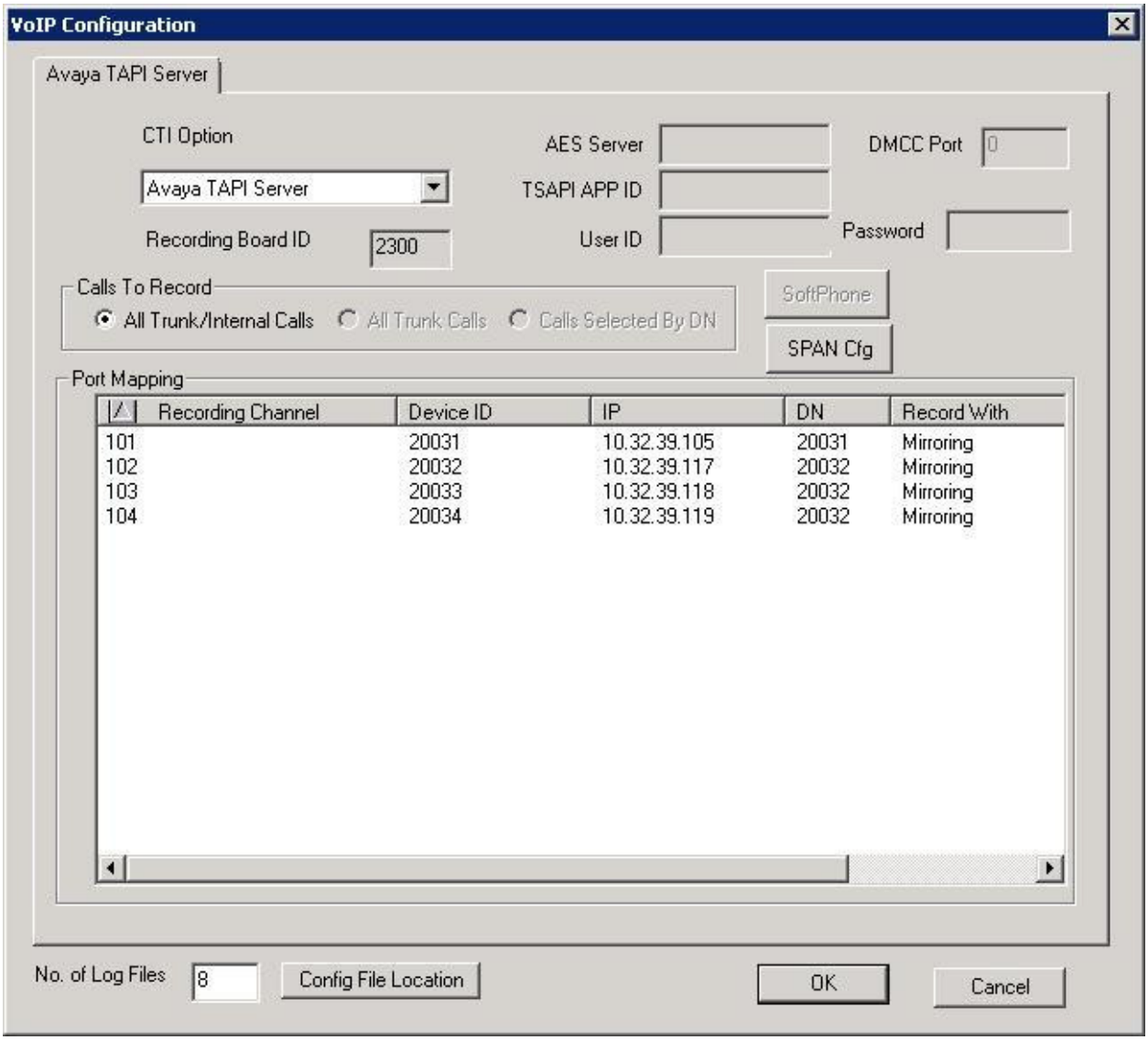
The **Device And CommSrv Port Mapping** screen is displayed. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Device ID:** Physical station extension used by first agent from **Section 3**.
- **IP:** The corresponding station IP address from **Section 5.2**.
- **DN:** The first agent extension from **Section 3**.
- **Recording Channel:** An available port.



Repeat this section to create port mappings for all agents in **Section 3**. Note that a port mapping needs to be created for every possible station extension that the agent can use for hot desking.

In the compliance testing, one entry was created for agent 20031, whom does not use hot desking. Three entries were created for agent 20032, whom uses hot desking and can log in from physical stations 20032, 20033, and 20034.

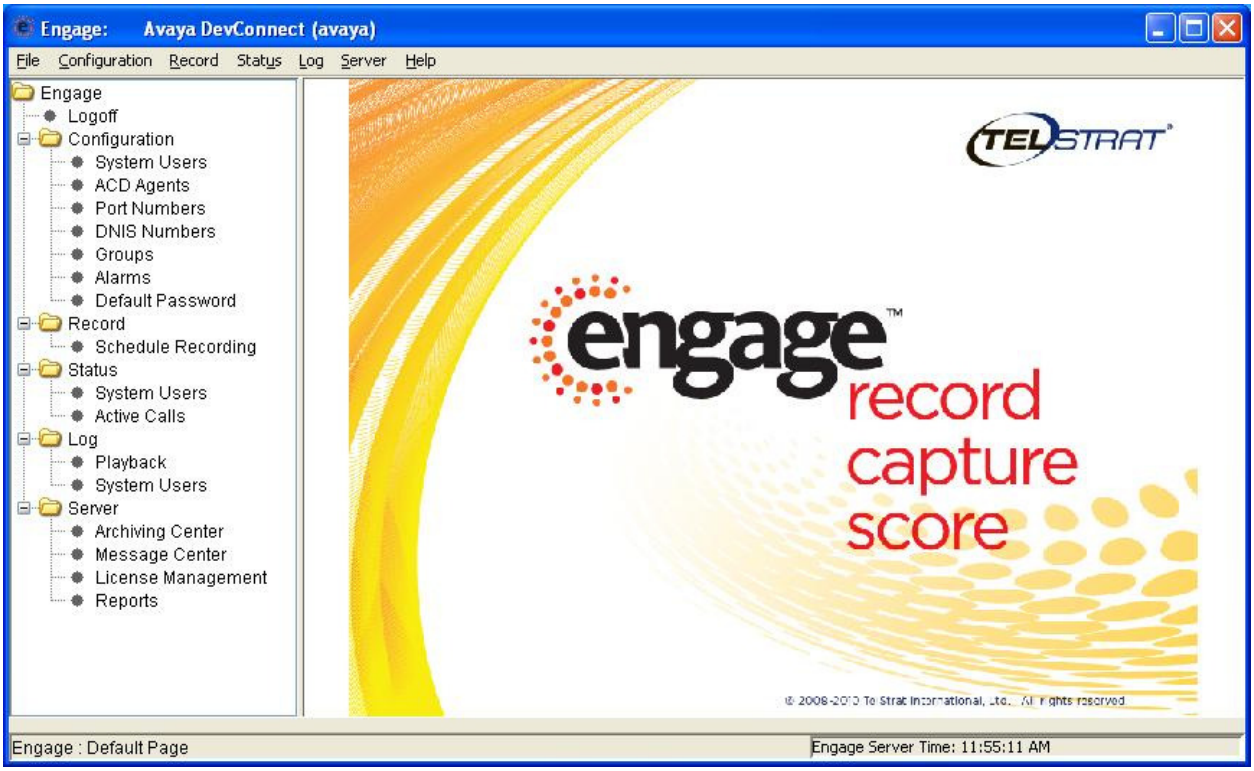


7. Verification Steps

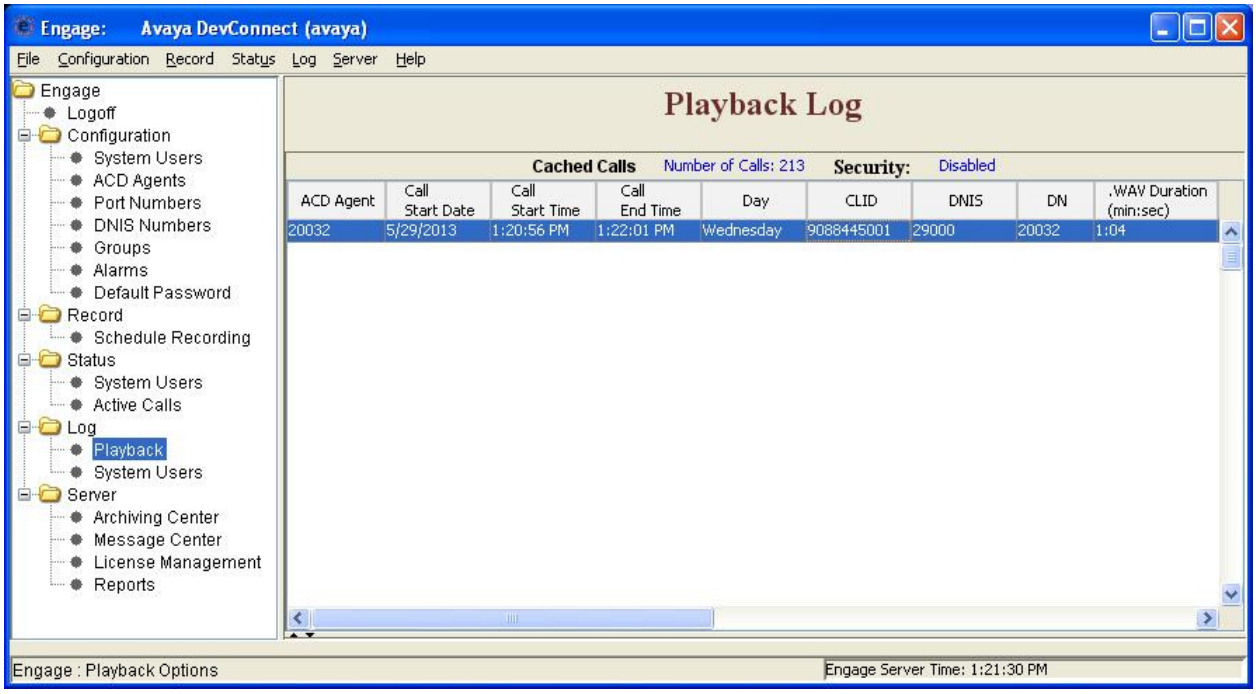
This section provides the tests that can be performed to verify proper configuration of IP Office and Engage.

Log in an agent to the hunt group to handle and complete an ACD call. From the PC running the Engage Client application, select **Start → All Programs → TelStrat Engage → Engage Client** to launch the application, and log in using the appropriate credentials.

The **Engage** screen below is displayed. Select **Engage → Log → Playback** from the left pane.



The **Engage** screen is updated with a list of the call recordings. Verify that there is an entry reflecting the last call, with proper values in the relevant fields. Double click on the entry and verify that the call recording can be played back.



8. Conclusion

These Application Notes describe the configuration steps required for TelStrat Engage to successfully interoperate with Avaya IP Office using station tap. All feature and serviceability test cases were completed with observations noted in **Section 2.2**.

9. Additional References

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

1. *IP Office Manager 8.1*, Document 15-601011, Issue 25o, April 2012, available at http://support.avaya.com.

2. *Engage Server Installation and Administration Guide*, Product Release 3.6, Standard 1.2, June 2012, available on the installation CD.

3. *Engage Contact Center Suite System Administration Guide*, Product Release 3.6, Standard 3.4, June 2012, available on the installation CD.

4. *Engage Contact Center Suite Configuring Engage with Avaya IP Office*, Product Release 3.6.1, Standard 1.2, September 2012, available on the installation CD.

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.