



Application Notes for TelStrat Engage Record Version 3.6 with Avaya Communication Server 1000, Release 7.6 using the TelStrat Application Line Card – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for the TelStrat Engage Record version 3.6 to successfully interoperate with Avaya Communication Server 1000 Release 7.6.

TelStrat Application Line Card can be used as a digital line card on the Avaya Communication Server 1000 to program Avaya digital deskphones. Engage Record v3.6 is able to record and playback any conversation that goes through the Avaya digital deskphones that are registered to the TelStrat Application Line Card.

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

The objective of this interoperability compliance testing is to verify that the TelStrat Application Line Card (TALC) can be used in Avaya Communication Server 1000 Release 7.6 (Communication Server 1000) and it behaves like an Avaya Digital Line Card (xDLC). The TALC should be able to register Avaya digital deskphones to them and when connected to an Engage Record v3.6, the Engage Record can record conversations of the Avaya digital deskphones and playback the same as required.

2. General Test Approach and Test Results

The general test approach was to verify whether the TALC functions like an xDLC and if Avaya digital deskphones can be configured on TALC ports. Once the deskphones were configured, the Engage Record Server was tested to see if it can record and playback the conversations of the digital deskphones that were configured using the TALC.

2.1. Interoperability Compliance Testing

The compliance test included configuring the TALC to operate as an xDLC on the Avaya Communication Server 1000. Telephones configured using the TALC were then monitored and conversations recorded using the Engage Record Server. The following areas were covered:

- Recording all calls.
- Schedule Recording based on Agent, Port Numbers, Date & Time, Days of Week, DN, DNIS, CLID.
- Recording on demand via On-Demand keys which could be configured and properly operate on the digital deskphones using the TALC Configuration Manager.

2.2. Test Results

All executed test cases have passed. Avaya digital deskphones can be programmed on TALC and all the keys and features operate correctly. The conversations of these digital deskphones can be recorded using the Engage Record Server and can be successfully played back. The On-Demand key features configured on the digital deskphones also operate correctly.

2.3. Support

Technical support for TelStrat can be obtained by contacting TelStrat via

Email: support@telstrat.com

Phone: +1 972-633-4548

Web: www.telstrat.com

3. Reference Configuration

Figure 1 illustrates the lab test configuration used during the compliant testing event between the Communication Server 1000 and the TALC, Engage Server combination.

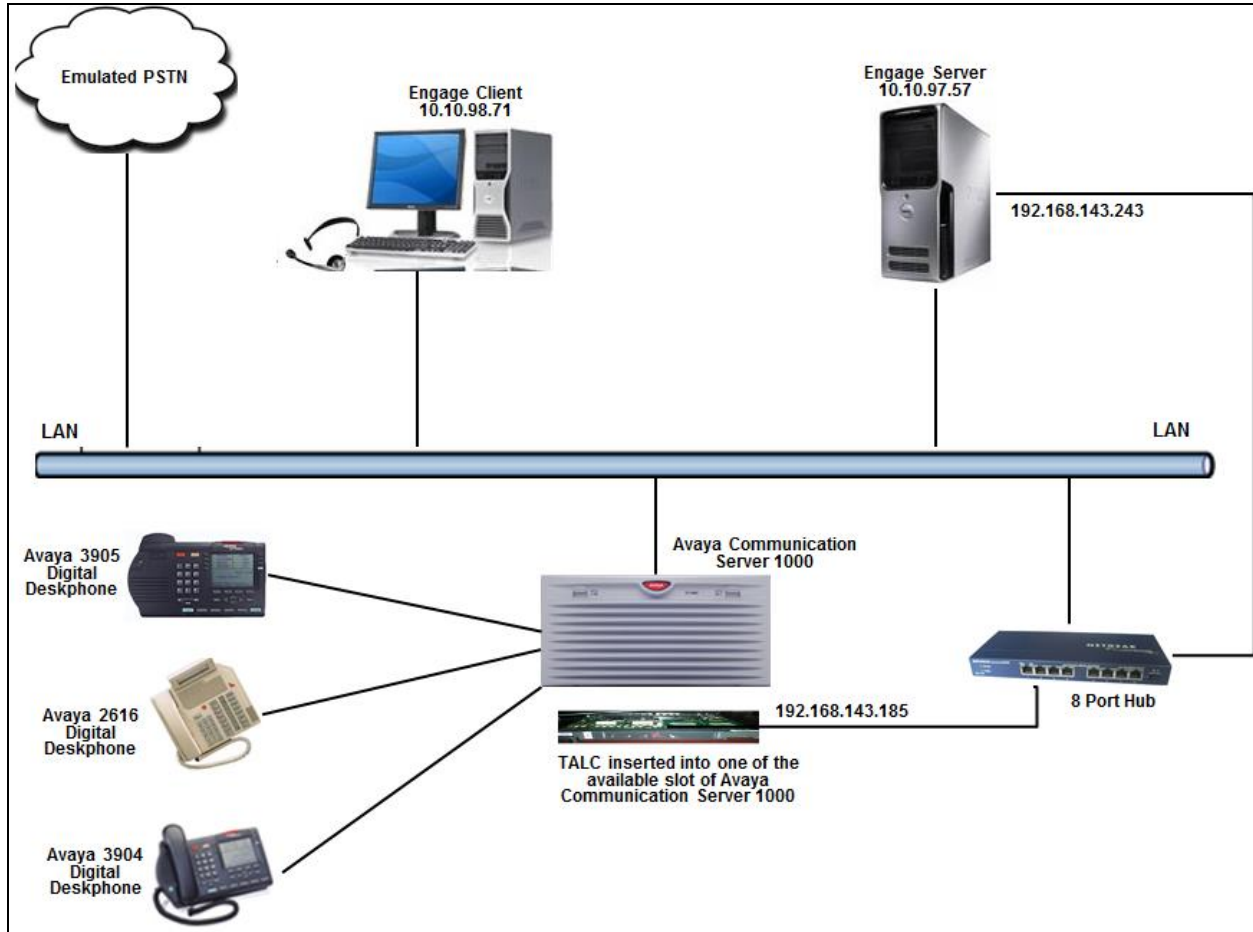


Figure 1: Lab Test Connection Diagram for Communication Server 1000, TALC, Engage Record Server and Engage Client

4. Equipment and Software Validated

The following equipment and software was used during the lab testing:

Equipment	Software/Firmware
Avaya Communication Server 1000	7.65
Avaya Digital Telephones: M3905 M3904 M2616	N/A
TALC	1_05_02.19
Engage Record Server OS	Windows Server 2008 R2 Standard SP1
Engage Record Server	3.6.1.33
Engage Client OS	Windows XP Pro SP3

5. Configure Avaya CS 1000

This section describes the steps to configure the Communication Server 1000 with the TALC.

5.1. Configuring the TALC with Communication Server 1000

The TALC is a hardware line card that supports Avaya digital deskphones and needs to provide functionalities similar to the xDLC. Insert the TALC in a free slot of the Communication Server 1000 that supports the xDLC.

Log in to the Communication Server 1000 and at the command prompt type **LD 32**. In this overlay we are able to get the status of the new hardware. During the compliance testing, the Communication Server 1000 command line was accessed via SSH using the PuTTY application.

In **LD 32** type **STAT <l s c u>**; where **l s c u** stands for loop, shelf, card, unit.

The above command provides the status of the new card inserted. When the card is inserted for the first time, the Communication Server 1000 will recognize this card and all the units (ports) within this card. The ports are initially in the disabled state.

Program a digital set (M2000 or 3900 series) on one of the ports on the TALC. Refer to **Section 9** for details as how to configure digital deskphones.

6. Configuration for Engage Record


This section describes the steps on how to configure the TALC, the Engage Record Server and the Engage Record Client to be able to record conversations of the digital deskphones on the Communication Server 1000 via the TALC.

6.1. Configure TALC

The TALC can be configured and managed either by command line interface (CLI) or by using a Graphical User Interface (GUI) called TALC Configuration Manager. These Application Notes only describe how to configure the TALC to communicate with the Engage Record Server via the TALC Configuration Manager. It is assumed that the TALC Configuration Manager has been installed successfully. For additional information on TALC installation and administration, refer to **Section 9**.

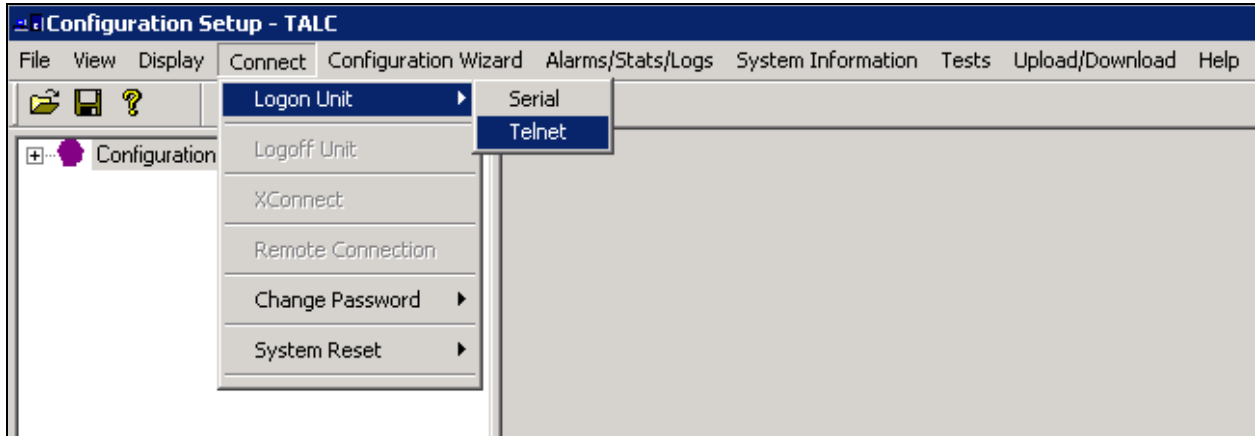
The TALC Configuration Manager can be accessed by navigating to **Start → All Programs → TALC Configuration Manager → TALC Configuration Manager**. During the compliance testing the TALC Configuration Manager was installed on the Engage Record Server itself.

The login screen of the TALC Configuration Manager is shown as below. Enter the correct credentials in the **Login Name** and **Password** and then press **OK**.



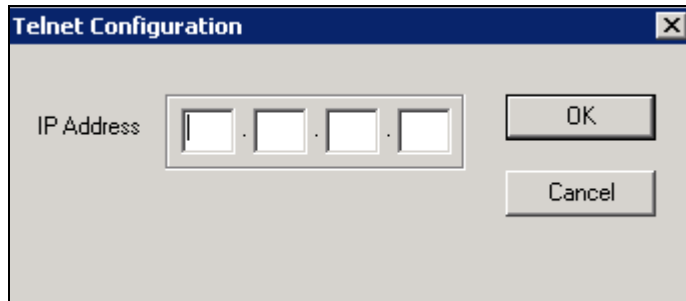
The image shows a screenshot of a Windows-style dialog box titled "Local User Authentication". The dialog box has a blue title bar with a close button (X) in the top right corner. The main area is light gray and contains two text input fields. The first field is labeled "Login Name" and the second is labeled "Password". Below the input fields are two buttons: "OK" on the left and "Cancel" on the right.

The main screen **Configuration Setup-TALC** is seen as shown below. Navigate to **Connect** → **Logon Unit** → **Telnet** to get access to the TALC.

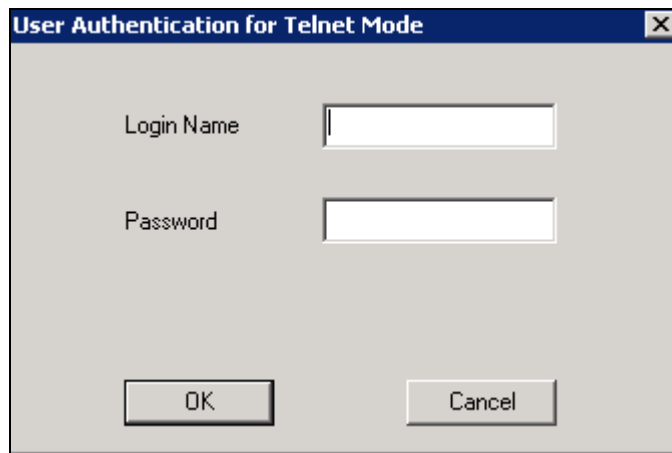


In the **Telnet Configuration** screen as shown in below, enter the **IP address** of the TALC and then press **OK**.

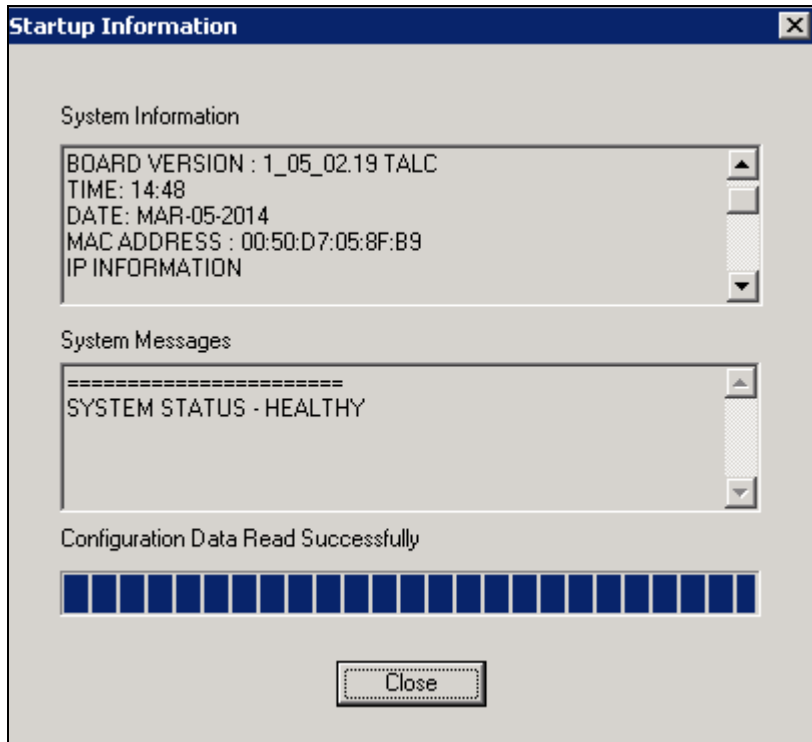
Note: This telnet session will allow user to access the TALC card using local (default) IP address.



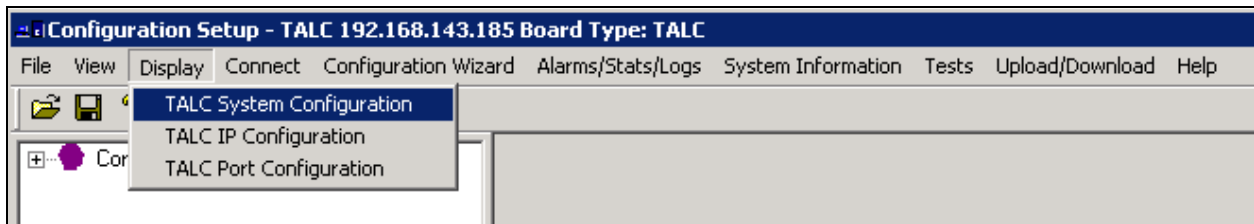
Enter the required credentials in the **Login Name** and **Password** and then press **OK** to pass the authentication for Telnet mode as shown below.



Connection to the TALC is now established via Telnet. The **Startup Information** screen is shown below. Click on the **Close** button.



From the **Configuration Setup-TALC** screen navigate to **Display → TALC System Configuration** as shown below to access the System Configuration screen.



In the **TALC System Configuration** screen as shown below configure the following:

- **Unit ID:** 181. This value can range from 1 to 254.
- **Node Name:** A descriptive name.
- **Engage Server IP Address:** 192.168.143.243. During compliance testing the server had 2 NIC and one of the NIC had the above IP address configured.
- **Enable DN Discovery:** Select this box.
- **Port:** 0
- **Feature Key:** 0
- **DN:** 54473. This was the DN configured during compliance testing for Port 0.

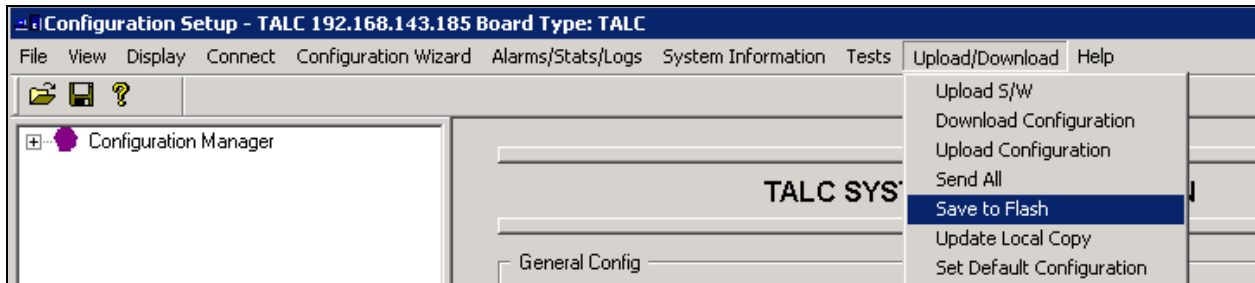
During compliance testing rest of the values were left at default.

Click on the **Send** button to send this information to the TALC. Once the information has been sent, click on the **Start-DN Discovery** button to start detecting DN/Extension on each TN. The **Start-DN Discovery** button need not be clicked if TALC is going to be restarted since restarting TALC will automatically detect DN since **Enable DN Discovery** is selected.

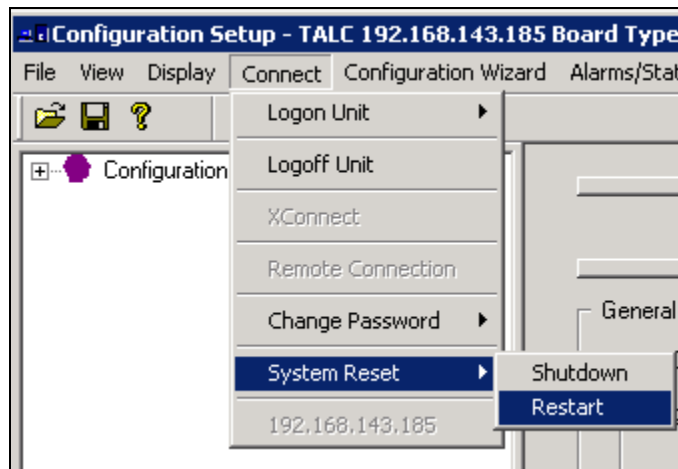
Note: User must set the Unit ID for each TALC provisioned/deployed for recording of their Communication Server 1000 to the Engage server. Traffic from each TALC will be delineated with this Unit ID. The Engage server cannot accept communication from multiple TALCs having the same/identical UnitID because the data could not be differentiated.

The screenshot shows the 'TALC SYSTEM CONFIGURATION' window. The 'General Config' section has 'Unit ID' set to 181 and 'Node Name' set to Test. The 'Engage Feature' section has 'Enable' selected and 'Engage Server IP Address' set to 192.168.143.243. The 'DN Discovery Schedule' section has 'Enable DN Discovery' checked and 'Frequency' set to 'Once a month'. The 'TALC Extension to Dial' section has 'Port' set to 0, 'Feature Key' set to 0, and 'DN' set to 54473. The 'Symposium Display Format' section has 'DNIS' and 'CLID' settings. The 'Send' button is highlighted with a red box.

Once the above information has been sent to the TALC, the information needs to be saved on the TALC flash. From the **TALC System Configuration** screen, navigate to **Upload/Download** → **Save to Flash** as shown below to save the configuration on the TALC flash.



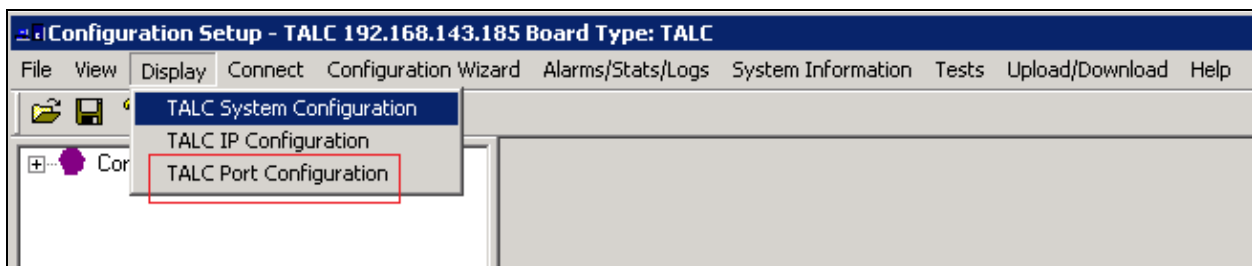
In order for the changes to take effect, the TALC needs to be restarted by navigating to **Connect** → **System Reset** → **Restart** from the **TALC System Configuration** screen as shown below.



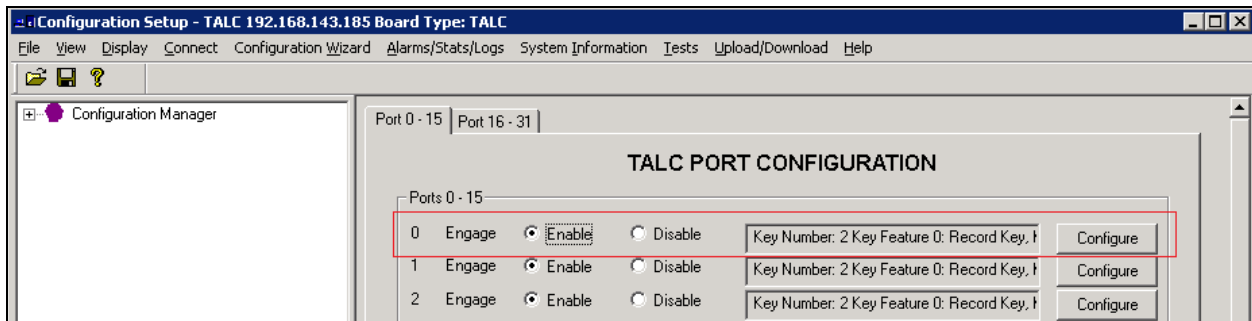
6.2. Configure On-Demand Keys

This section describes how On-Demand keys can be built on the digital deskphones. Examples of On-Demand keys are Record Key, Conversation Save Key etc. These keys can be pressed on the digital deskphones to record a conversation or save a conversation. These keys are built on the digital deskphones using the TALC Configuration Manager. Note that when On-Demand key is configured then the associated feature key for the selected port of the digital set must not be configured (i.e. - NUL) on the Communication Server 1000.

Once connected to the TALC via the TALC Configuration Manager, from **TALC System Configuration** screen navigate to **Display → TALC Port Configuration** as shown below to access the Port Configuration screen.



In the **TALC Port Configuration** screen as below, select a port and press on **Configure** to start configuring an On-Demand key. In the example below, port 0 is selected.



Under the **Key Feature** field select the required On-Demand key feature from the drop down option and from the **Key Number** field select the keys where this feature needs to be built. In the example as shown below, *Record Key* and *Conversation Save Key* are built on keys 2 and 5 respectively of the digital set that is on port 0. Retain default values for other fields. Click on **OK** after all required configuration has been completed.

Feature Key Configuration	
Key Feature	Key Number
Record Key	2
Conversation Save Key	5
Not Configured	NC

Compression Rate: G.711

TAPI Support: Enable Disable

2250 Support: Enable Disable

2250 Secondary Port No.: []

Agent ID: Configure Agent ID
Enter Agent ID: 0

Beep Tone: Enable Disable

Virtual Phone Recording: Enable Disable

OK Cancel Help

Perform the **Send** and **Save to Flash** (not shown) actions as explained in **Section 6.1** for the above changes to be sent to the TALC and saved to the TALC flash.

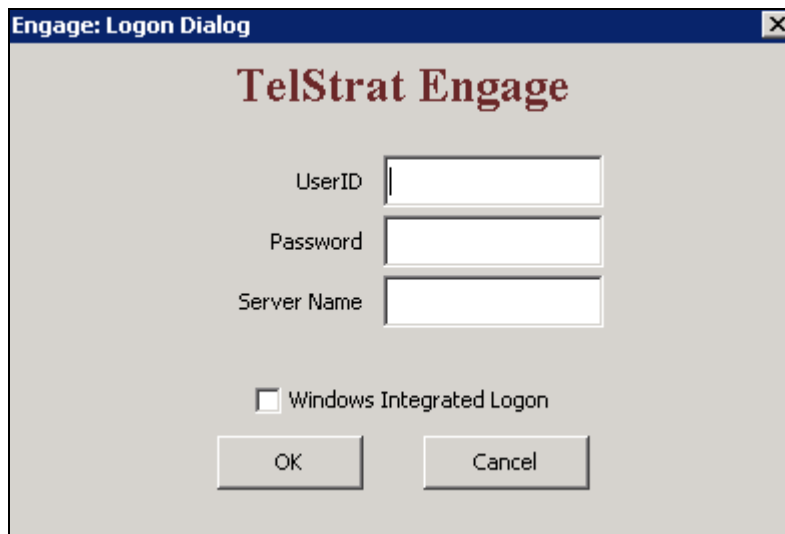
6.3. Configure Engage Record

This section explains the configuration using the Engage Record Client to add digital deskphones and ports that will be monitored for recording. These digital deskphones are built on the TALC that resides on the Communication Server 1000. For the compliance testing some of the digital deskphones are configured to behave as an Automatic Call Distribution (ACD) Agent telephone.

It is assumed that the Engage Record Server has been successfully installed and the required recording services are running on it. Assumption is also made that the Engage Record Client has been successfully installed. For additional information on Engage Record suite installation and configuration refer to **Section 9**.

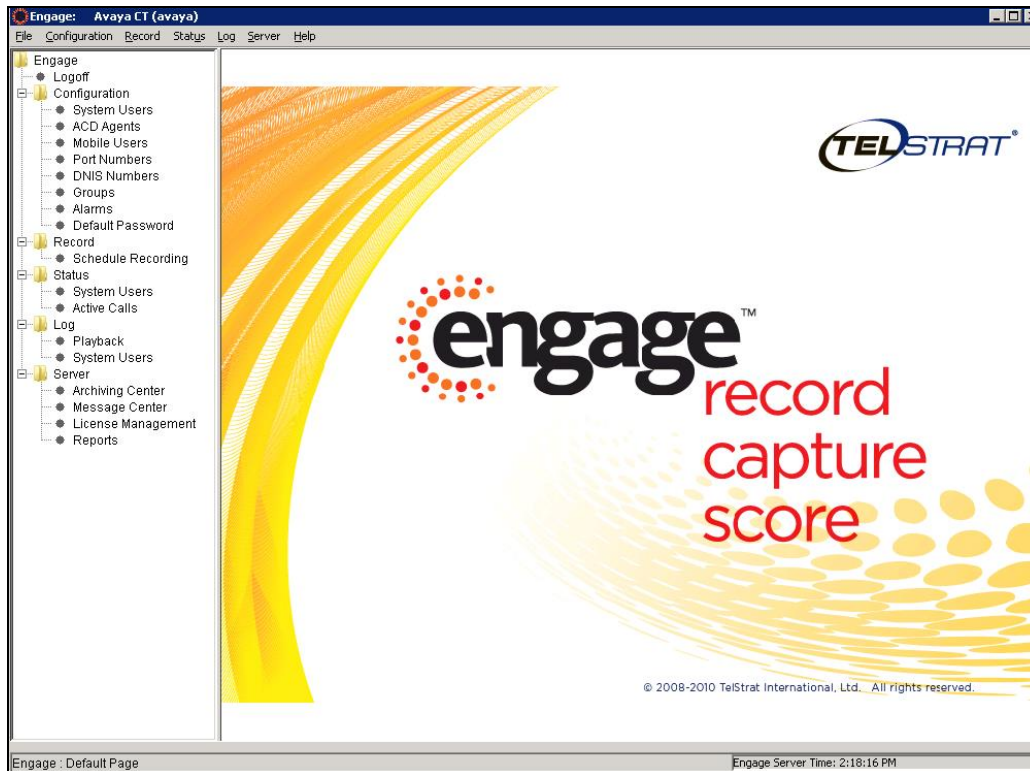
The Engage Client can be installed as a Windows client or accessed via the web using a suitable browser. During compliance testing the client was installed as a Windows client on a PC. To access the Engage Client, navigate to **Start → All Programs → TelStrat Engage → Engage Client** from the equipment it is installed on.

The TelStrat Engage login screen is seen as shown below. Enter the **UserID**, **Password** and the **Server Name**. The server name is the IP address or the server name of the Engage Record Server. Click on **OK** once the above information has been entered.



The screenshot shows a Windows-style dialog box titled "Engage: Logon Dialog". The main content area has a light gray background and features the text "TelStrat Engage" in a large, dark red serif font. Below this, there are three vertically stacked text input fields. The first is labeled "UserID", the second "Password", and the third "Server Name". Below the input fields is a checkbox with the label "Windows Integrated Logon". At the bottom of the dialog are two buttons: "OK" on the left and "Cancel" on the right. The dialog box has a standard Windows title bar with a close button (X) in the top right corner.

The main screen of the Engage client is seen as shown below.



From the above screen various fields can be configured from the **Configuration** section. However in this application notes only **ACD Agents** and **Port Numbers** will be explained as examples.

To add a digital deskphone that is configured as an ACD Agent that the Engage Record Server need to record, from the above screen navigate to **Engage → Configuration → ACD Agents**. On the right hand window pane under the column **ACD Agents**, right click the mouse button and select the **Create** option provided (not shown).

The **Engage:Create ACD Agent(s)** screen is seen as shown below. Populate the **ACD Agent** and **Name** (optional) fields with appropriate values and retain default values for other fields. Click on **OK** and then the **Exit** buttons.

Engage: Create ACD Agent(s)

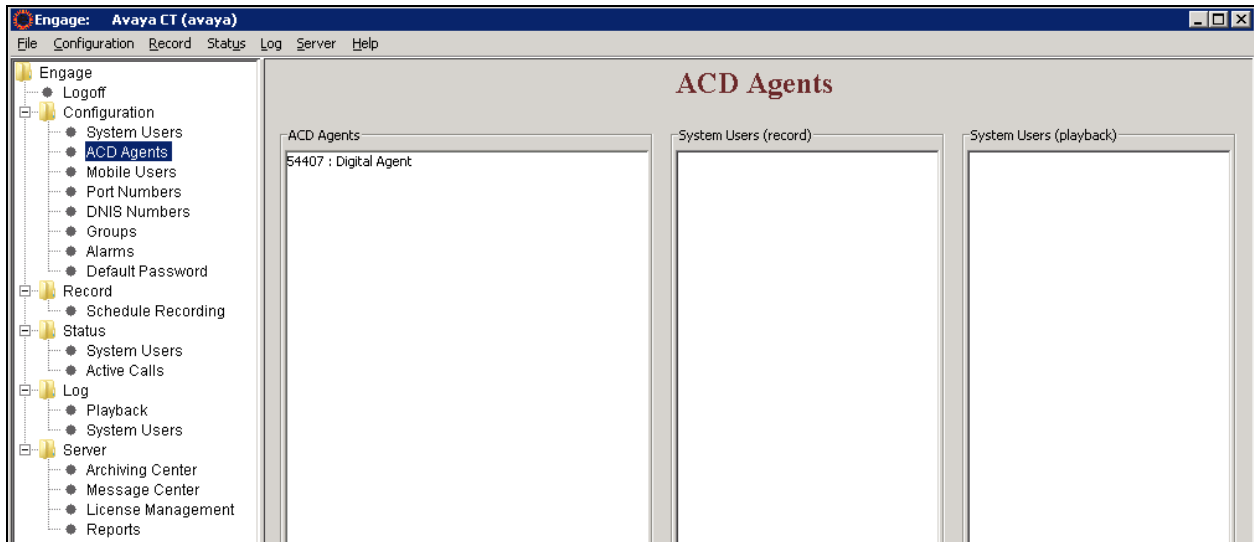
ACD Agent: 54407

Name: Last: Agent, First: Digital, MI:

Screen Capture Wrap-up Time: Minutes (0-30): 0, Seconds (0-59): 0

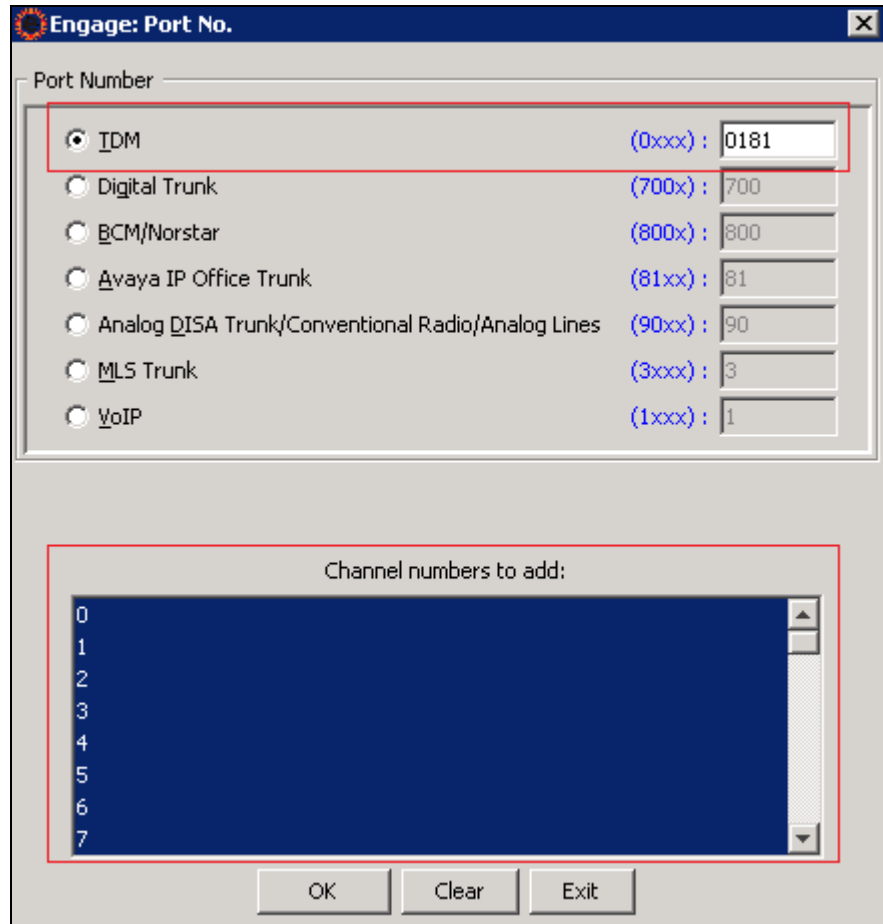
Buttons: OK, Clear, Exit

Screen below shows the new ACD Agent added under the **ACD Agents** column of the Engage Client.

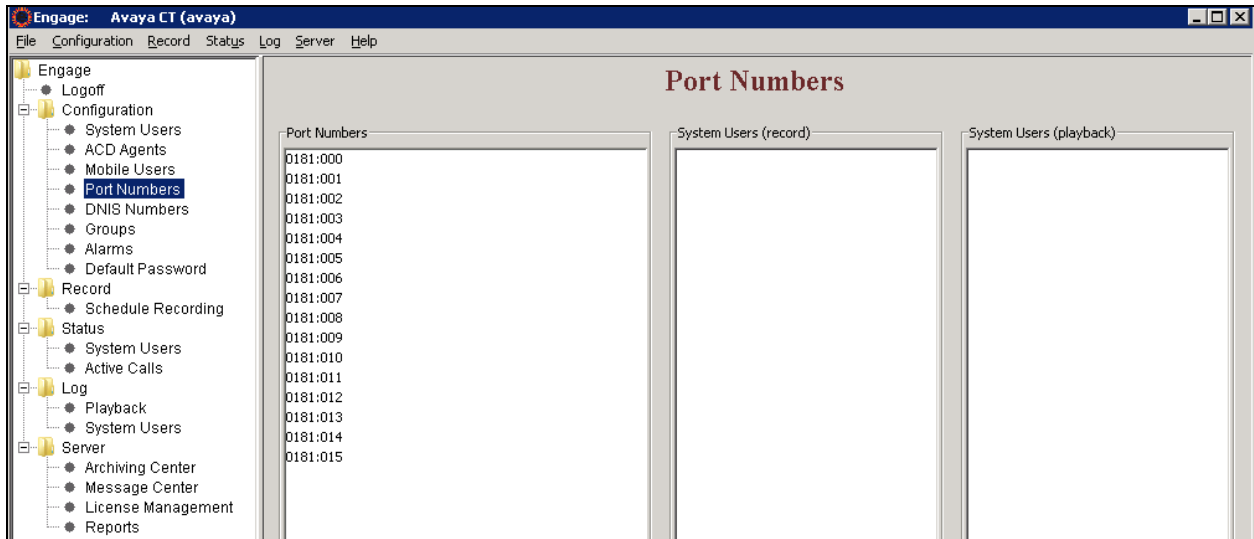


To add port numbers that the Engage Record Server need to record, from the main screen of Engage client navigate to **Engage → Configuration → Port Numbers**. On the right hand window pane under the column **Port Numbers**, right click the mouse button and select the **Create** option provided (not shown).

To add a port for digital deskphones, select the **TDM** radio button, type the port number (example 0181, which was configured as the Unit ID for the TALC in **Section 6.1**), select the number of **Channel numbers to add** and click on **OK** and **Exit** buttons as shown below. Ensure that adequate numbers of channels are added for the agents present.



Screen below shows the newly added Port Numbers and its channels under the **Port Numbers** column of the Engage Client.



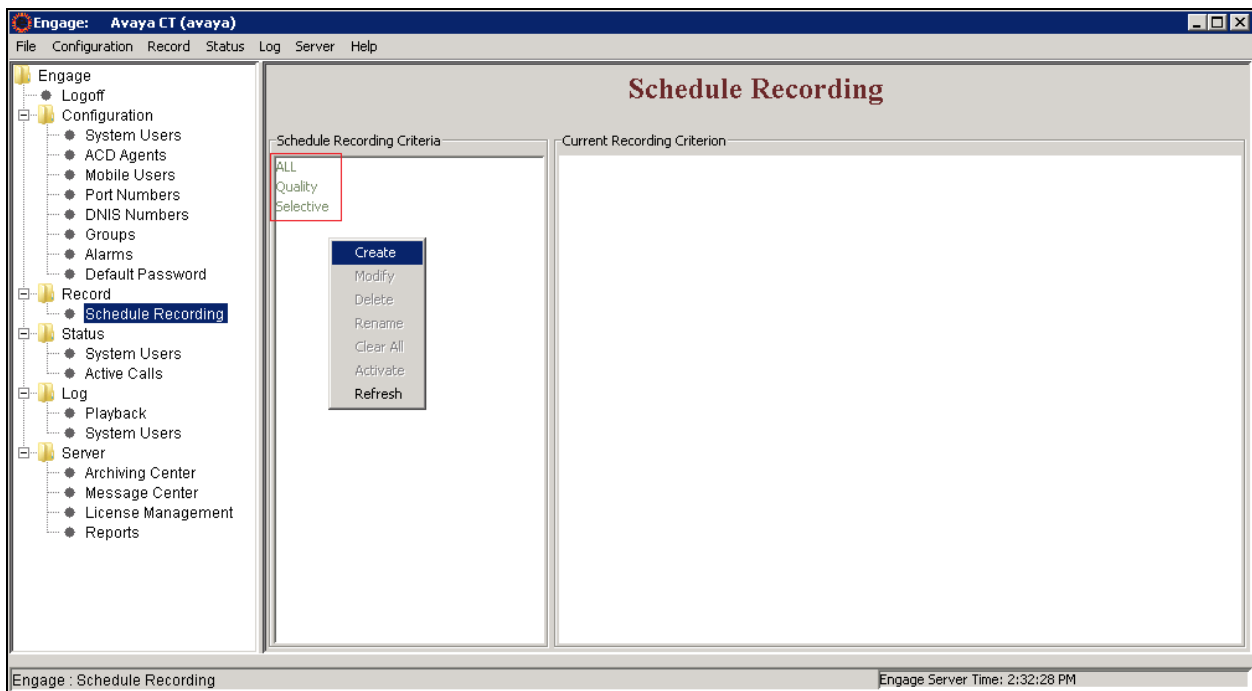
6.4. Configure Recording Criteria

This section describes the recording criteria that can be built using the Engage Record Client to record conversations going on the digital deskphones. Since this configuration is beyond the scope of this compliance testing only a brief summary will be explained below.

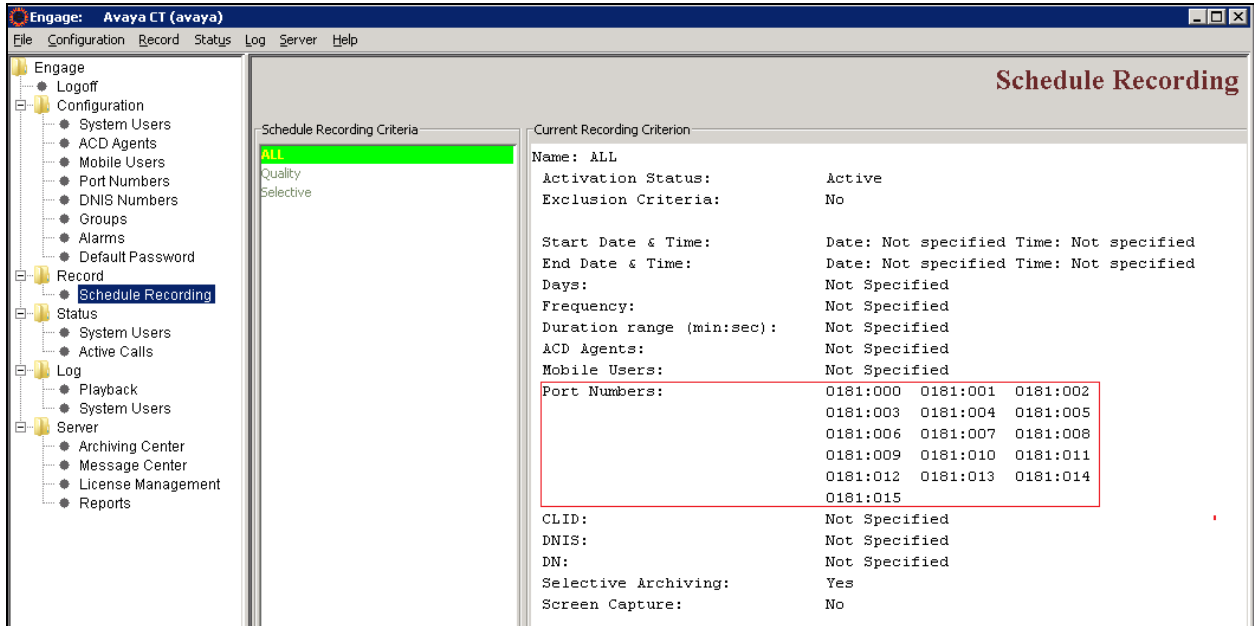
To create a recording criteria, from the main screen of Engage client navigate to **Engage → Record → Schedule Recording**. On the right hand window pane under the column **Schedule Recording Criteria**, right click the mouse button and select the **Create** option provided as shown below.

In the New Criteria window type the **Criteria Name** and press **OK** (not shown). The **ALL** criteria rule is built to record all calls. From the **Port Numbers** tab, select all the ports so that all incoming/outgoing calls made through these channels are recorded (not shown). Similarly other values like **ACD Agents**, **Date & Time**, **Days of Week**, **CLID**, **DNIS**, **DN**, **Other** etc. can be configured as per the users recording needs (not shown).

Example criteria created during compliance testing were **All** (record all calls), **Selective** (record calls as per filters set) and **Quality** (recording calls based on frequency of calls) as shown below.



Screen below shows the summary of the **ALL** criteria showing the **Port Numbers** that will be included as part of the Engage Record.



7. Verification Steps

This section includes some steps that can be followed to verify the solution is working.

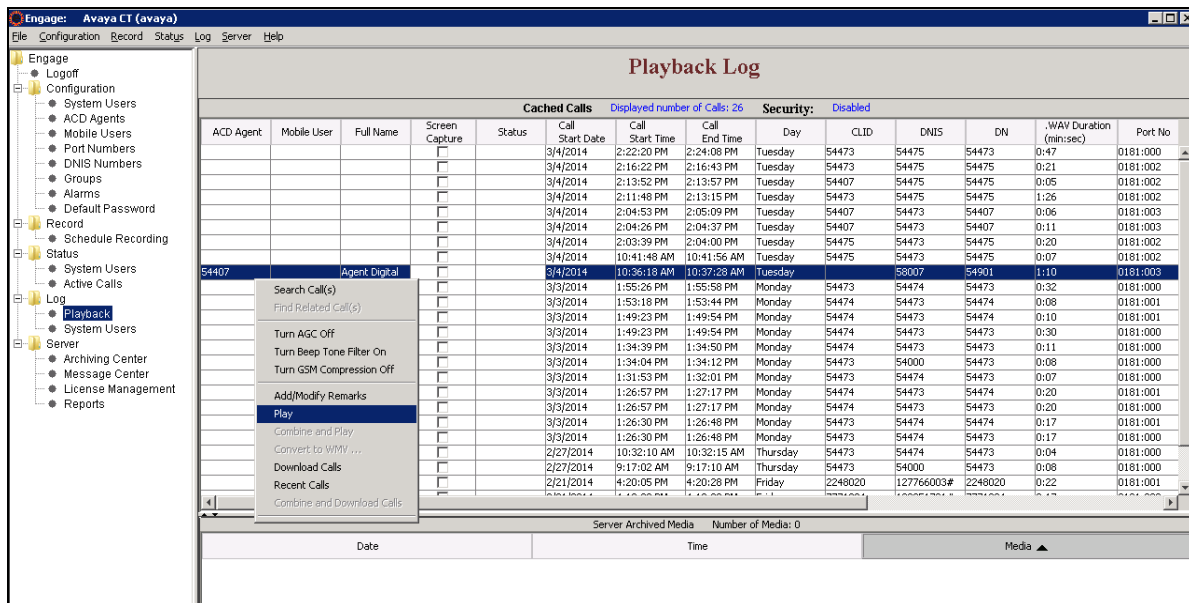
Insert the TALC into one of the Communication Server 1000 slots that support xDLC and test the following,

- Avaya digital deskphones can be built on the TALC.
- All keys and features of the digital deskphones function correctly.

Configure the recording criteria using Engage Record Client and test the following,

- Various recording criteria can be built and conversations recorded.
- Recorded conversations can be played back, searched and viewed.

To playback a recording, from the main screen of Engage client navigate to **Engage → Log → Playback**. Select the required recording and double click to play it or right click and select the **Play** option as shown in the screen below.



Configure the On-Demand feature key using TALC Configuration Manager and test the following,

- On-Demand keys are active on the digital deskphones they are built.
- Feature keys built function correctly and conversations recorded and saved.

8. Conclusion

All of the executed test cases have passed and met the objectives outlined in **Section 2**. The combination of TelStrat Application Line Card and Engage Record Server v 3.6 is considered compliant with Avaya Communication Server 1000 Release 7.6.

9. Additional References

This section references the product documentation relevant to these Application Notes. Product documentation for Avaya products may be found at <http://support.avaya.com>.

Avaya:

Software Input Output Reference —Administration Avaya Communication Server 1000, NN43001-611

Product documentation for Telstrat may be found at <http://www.telstrat.com/index.php>

Telstrat:

TelStrat Application Line Card Installation and Administration Guide.

Engage Contact Center Suite Installation Guide

Engage Contact Center Suite System Administration Guide

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