Avaya Solution & Interoperability Test Lab

Application Notes for Resource Software International Shadow CMS with Avaya IP Office 9.0 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Resource Software International Shadow CMS to interoperate with Avaya IP Office 9.0. Resource Software International Shadow CMS is a reporting solution that uses the Station Message Detail Recording records from Avaya IP Office to track phone calls and produce detailed reports.

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 configuration steps required for Resource Software International (RSI) Shadow CMS to interoperate with Avaya IP Office 9.0.

RSI Shadow CMS is a reporting solution that uses the Station Message Detail Recording (SMDR) records from Avaya IP Office to track phone calls and produce detailed reports.

2. General Test Approach and Test Results

The feature test cases were performed manually. Different types of calls were made along with different actions initiated from the user telephones, to verify proper parsing and displaying of received SMDR data by Shadow CMS.

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

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 proper parsing and displaying of SMDR data by Shadow CMS for call scenarios including internal, voicemail, inbound PSTN, outbound PSTN, hold, reconnect, transfer, conference, park, forward, and account codes. The verification included Chronological Detail and Account Code Detail reports that were generated from the received SMDR data.

The serviceability testing focused on verifying the ability of Shadow CMS to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet connection to Shadow CM.

2.2. Test Results

All test cases were executed and verified. The one observation from the compliance testing is that the Cost, Route, and CallID parameters values in the Shadow CMS database table and reports were generated internally by Shadow CMS.

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2.3. Support

Technical support on Shadow CMS can be obtained through the following:

- **Phone:** (800) 891-6014
- **Email:** support@telecost.com
- **Web:** www.telecost.com

3. Reference Configuration

The configuration used for the compliance testing is shown below.

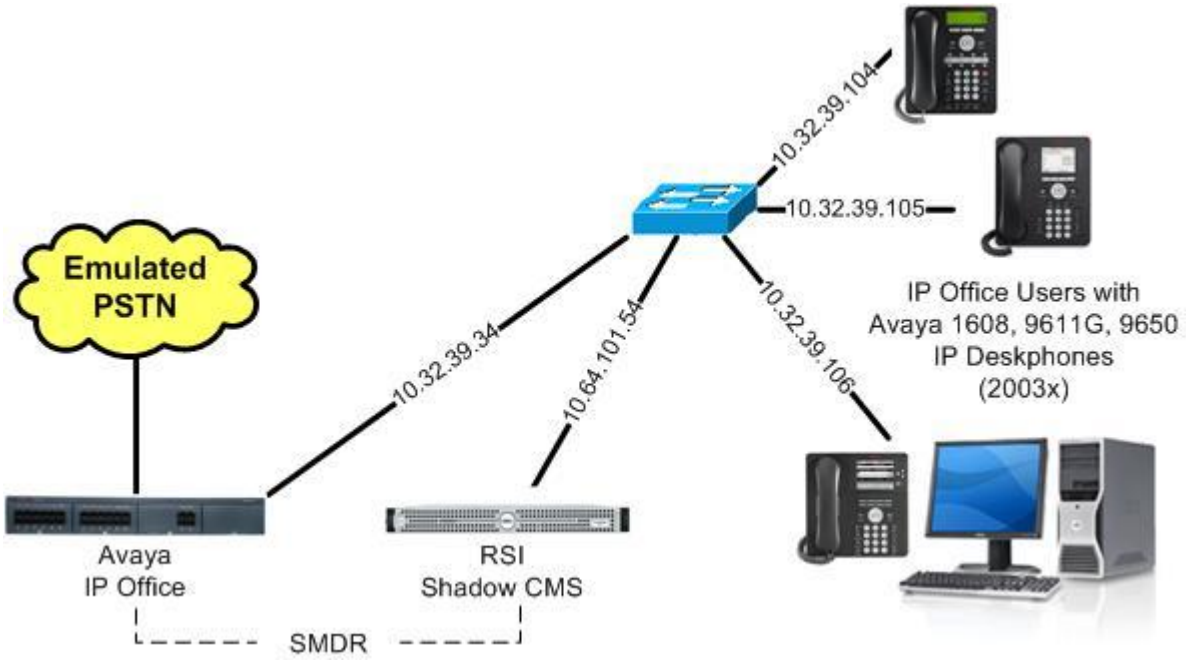

Figure 1: Compliance Testing Configuration

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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
RSI Shadow CMS on Windows Server 2008 R2 Enterprise • Microsoft SQL Server • Driver avayaIP6.prs	5.0.2.0 SP1 11.0.2100 2/13/2014

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.

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5. Configure Avaya IP Office

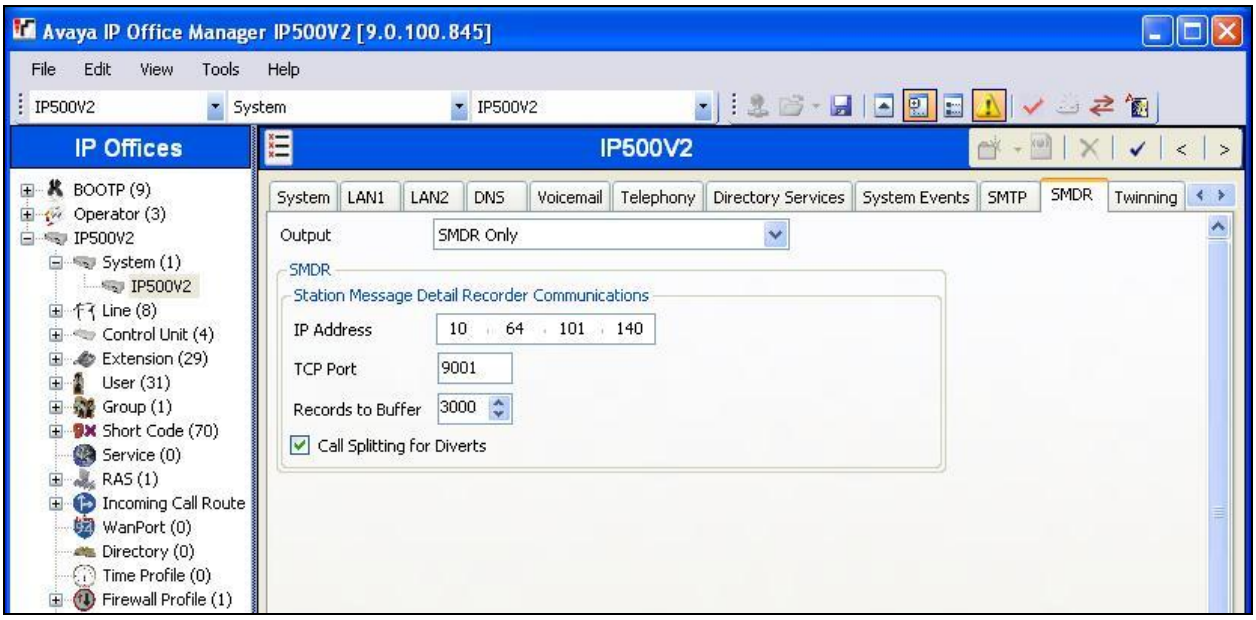
This section provides the procedures for configuring IP Office.

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

The **Avaya IP Office Manager** screen is displayed. From the configuration tree in the left pane, select **System** to display the **IP500V2** screen in the right pane. Select the **SMDR** tab. Select "SMDR Only" from the **Output** drop-down list, to display the **SMDR** sub-section.

For **IP Address**, enter the IP address of Shadow CMS. For **TCP Port**, enter a desired port, in this case "9001". Make a note of the port number, to be used later for configuring Shadow CMS.

Modify **Records to Buffer** to the desired value, and check **Call Splitting for Diverts**. The record buffer is used by IP Office to cache SMDR records in case of communication failure with Shadow CMS.



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6. Configure RSI Shadow CMS

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

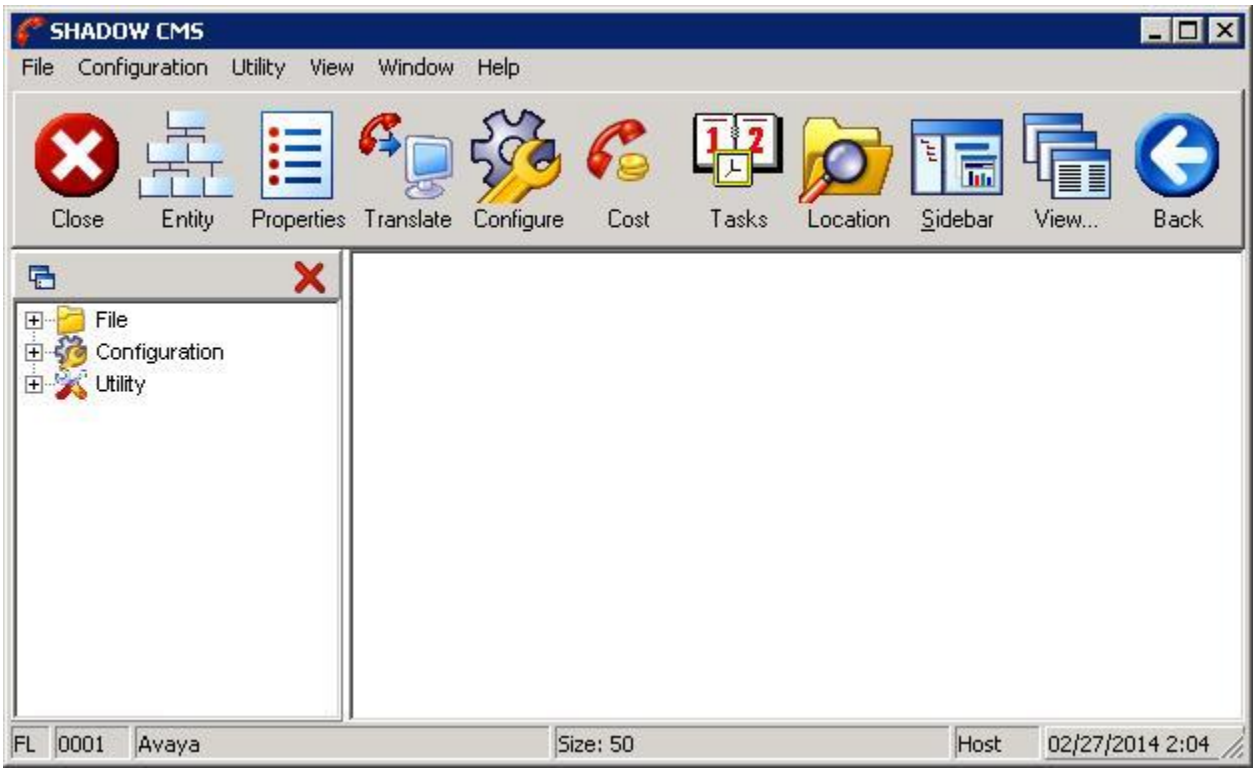
- Launch application
- Administer CDR driver
- Administer data source
- Administer socket settings

The configuration of Shadow CMS is typically performed by RSI Support Services. The procedural steps are presented in these Application Notes for informational purposes.

6.1. Launch Application

From the Shadow CMS server, select **Start → All Programs → RSI → CMS → CMS** to display the **SHADOW CMS** screen.

Select **File → Properties** from the top menu.



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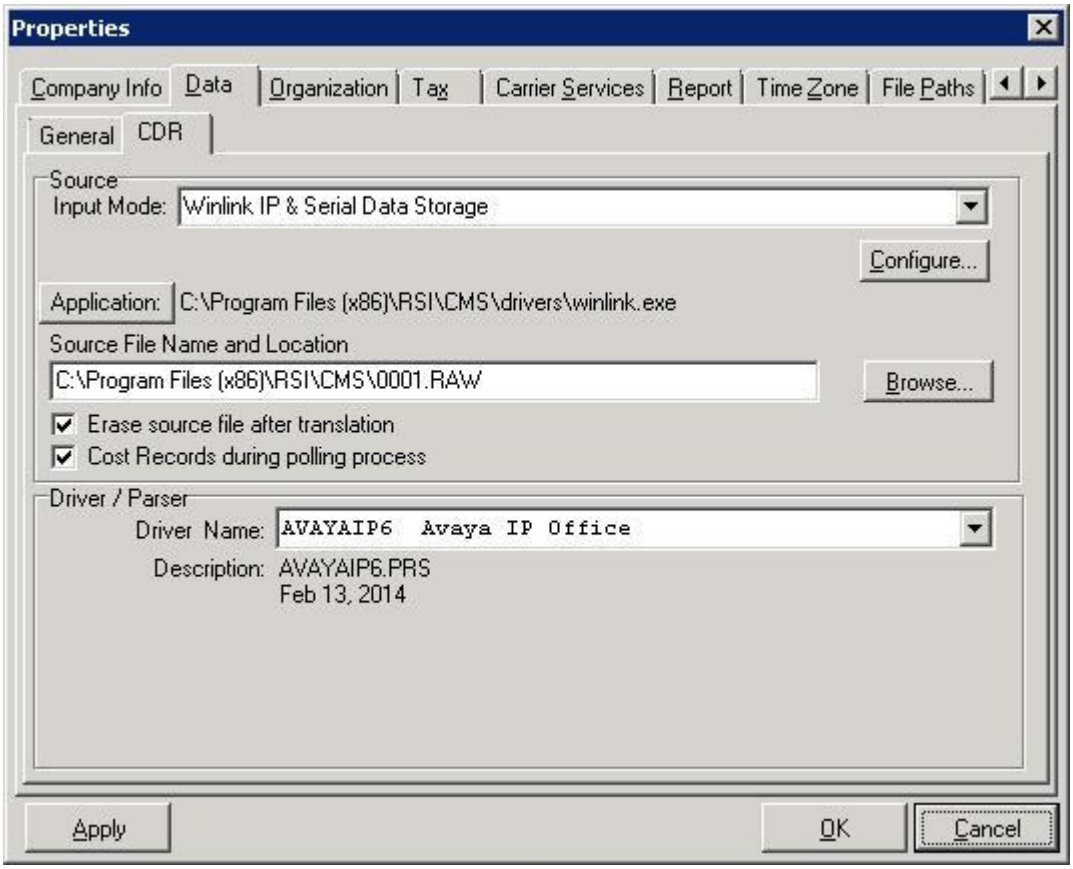
6.2. Administer CDR Driver

The **Properties** screen is displayed. Select the **Data** tab, followed by the **CDR** sub-tab. In the **Driver / Parser** sub-section, select "AVAYAIP6 Avaya IP Office" for **Driver Name**, as shown below.



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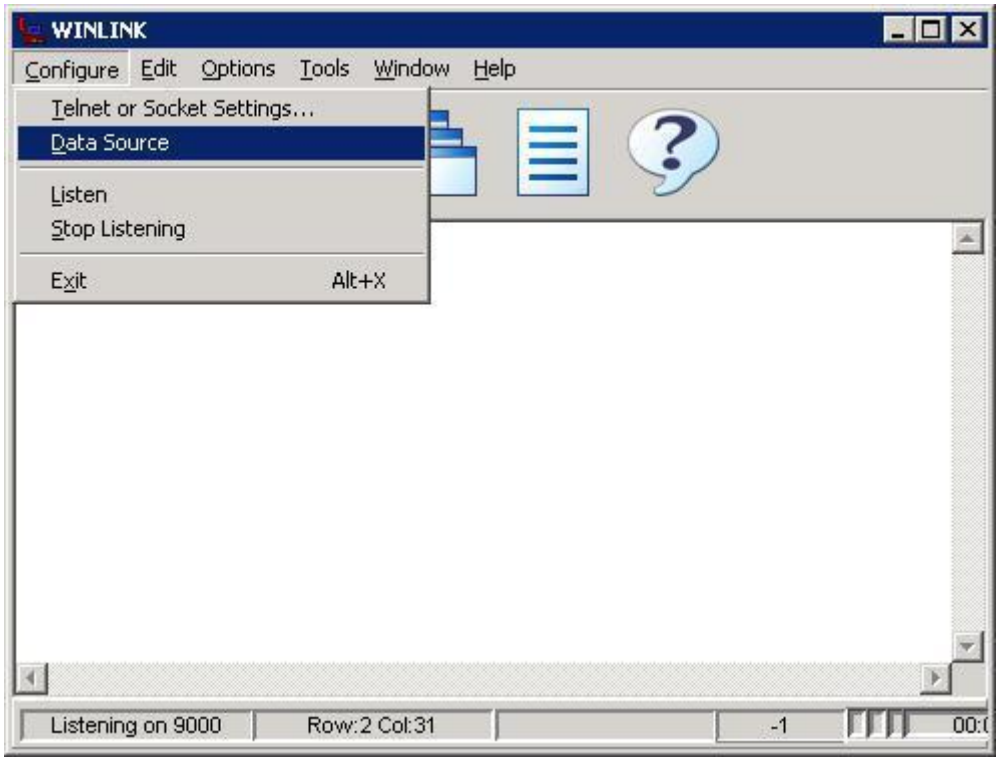
6.3. Administer Data Source

The **SHADOW CMS** screen from **Section 6.1** is displayed again (not shown). Select **Utility → Winlink Data Storage** from the top menu, to display the **WINLINK** screen below.

Select **Configure → Data Source** from the top menu.



The **Data Source** screen is displayed next. Select "Socket Listener" from the drop-down list, as shown below.

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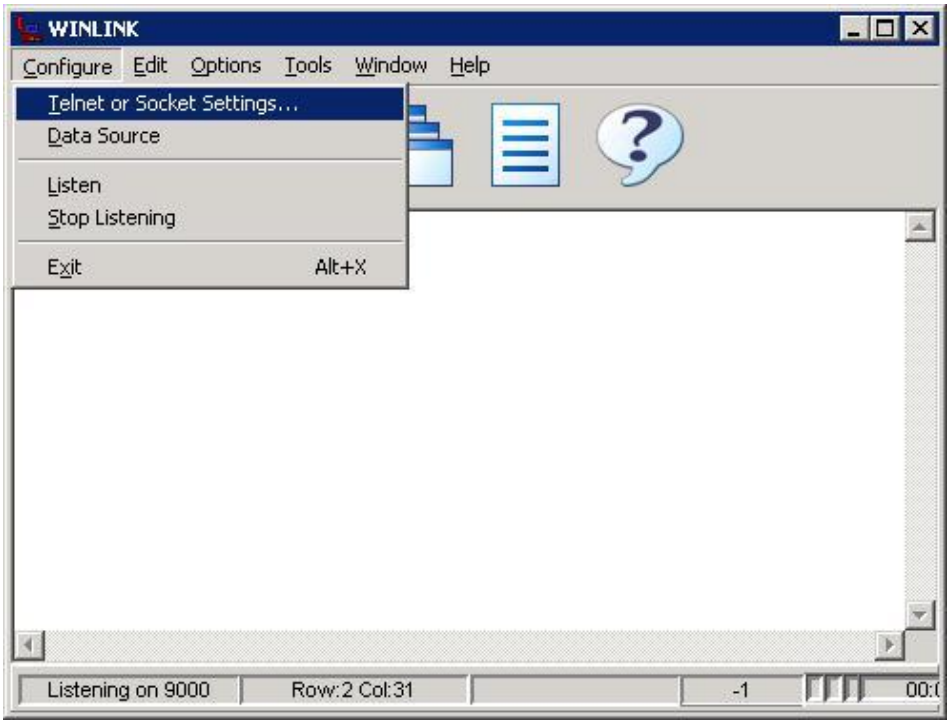
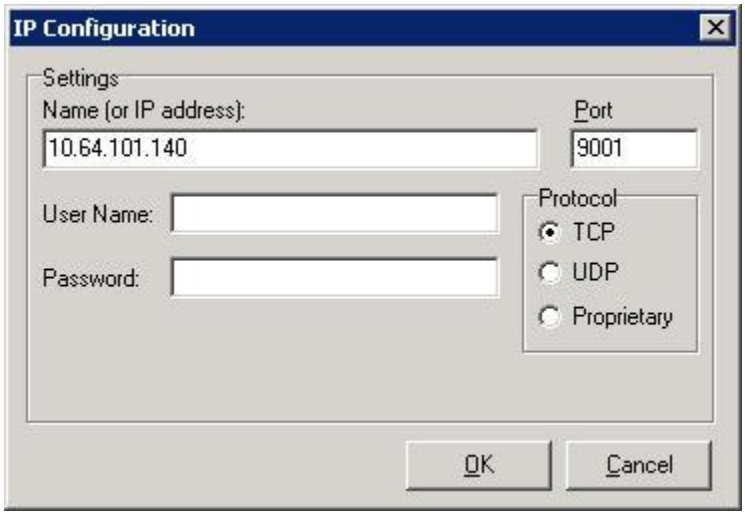
6.4. Administer Socket Settings

From the **SHADOW CMS** screen shown in **Section 6.1**, select **Utility → Winlink Data Storage** to display the **WINLINK** screen. Select **Configure → Telnet or Socket Settings**…from the top menu.



The **IP Configuration** screen is displayed next. For **Name (or IP address):**, enter the IP address of the Shadow CMS server. For **Port**, enter the TCP port from **Section 5**. Retain the default values in the remaining fields.



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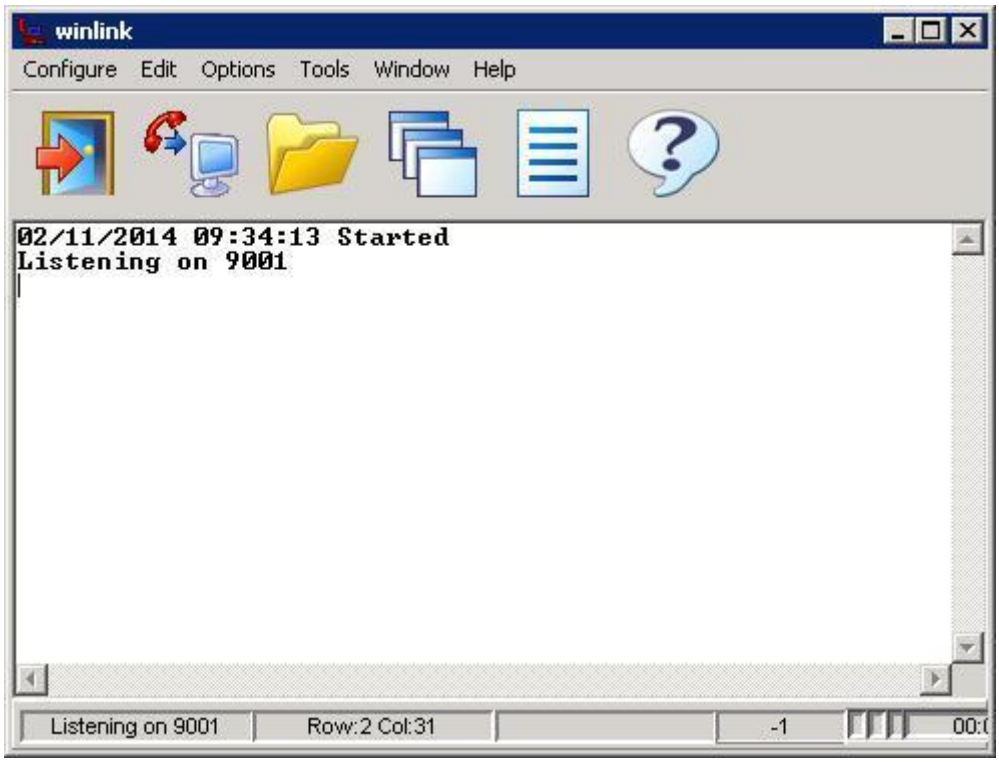
The **winlink** screen is displayed next. Verify that the application is started and listening on the proper TCP port, as shown below.



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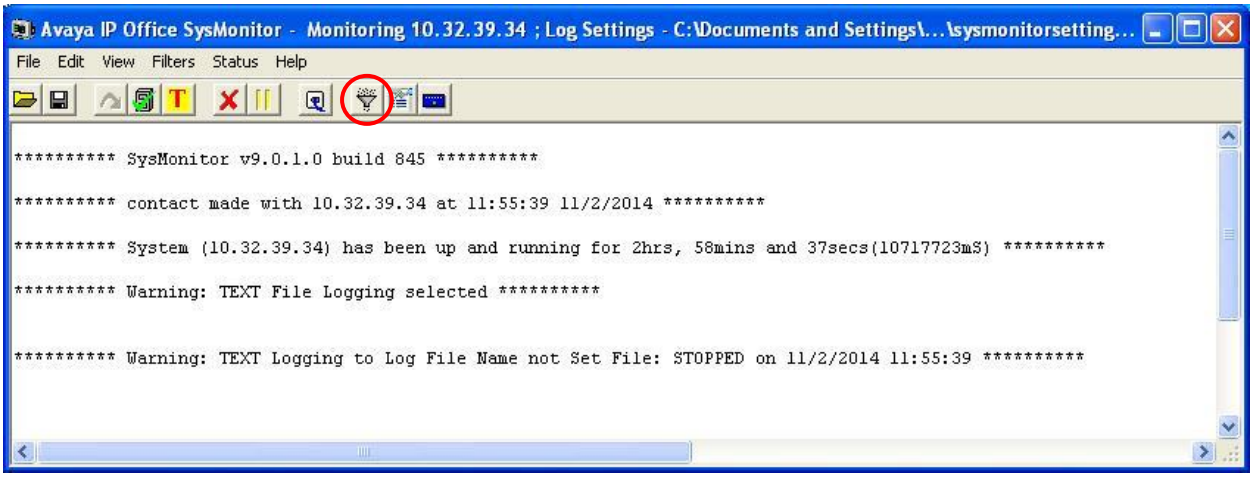
7. Verification Steps

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

7.1. Verify Avaya IP Office

From a PC running the Avaya IP Office Monitor application, select **Start → Programs → IP Office → Monitor** to launch the application. The **Avaya IP Office SysMonitor** screen is displayed, as shown below. Click on the **Filter** icon.



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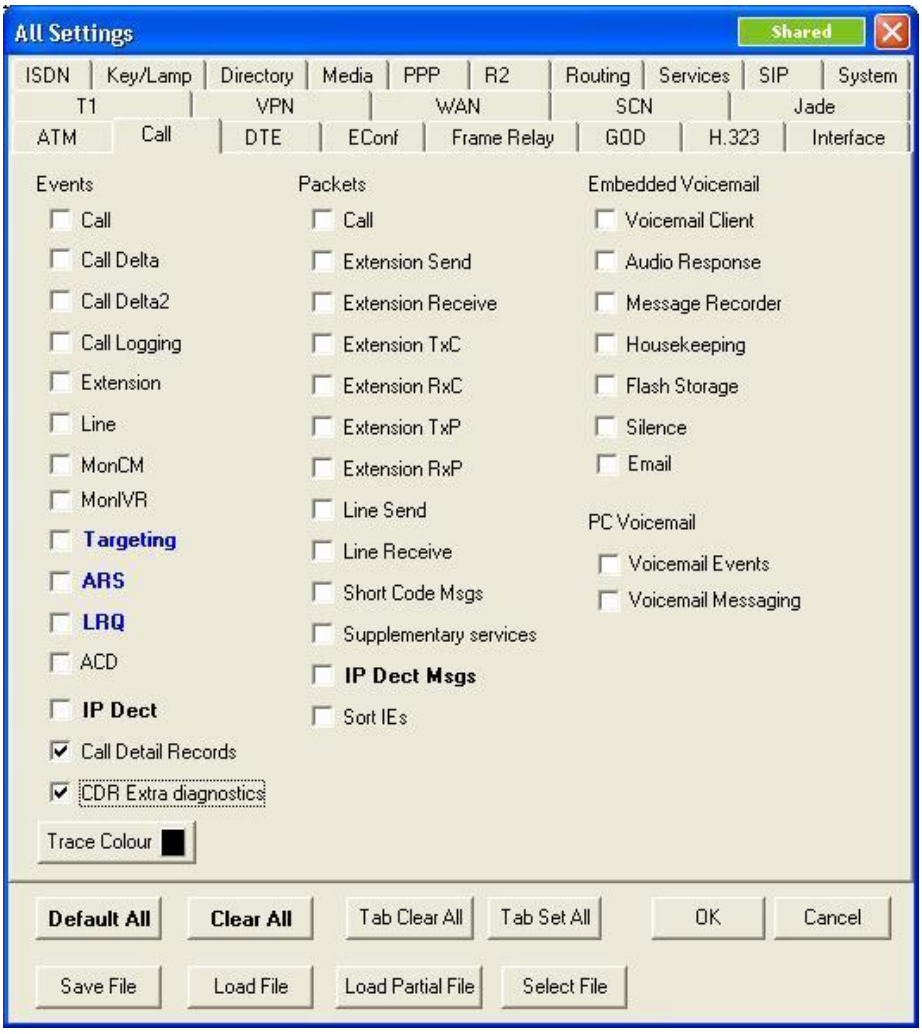
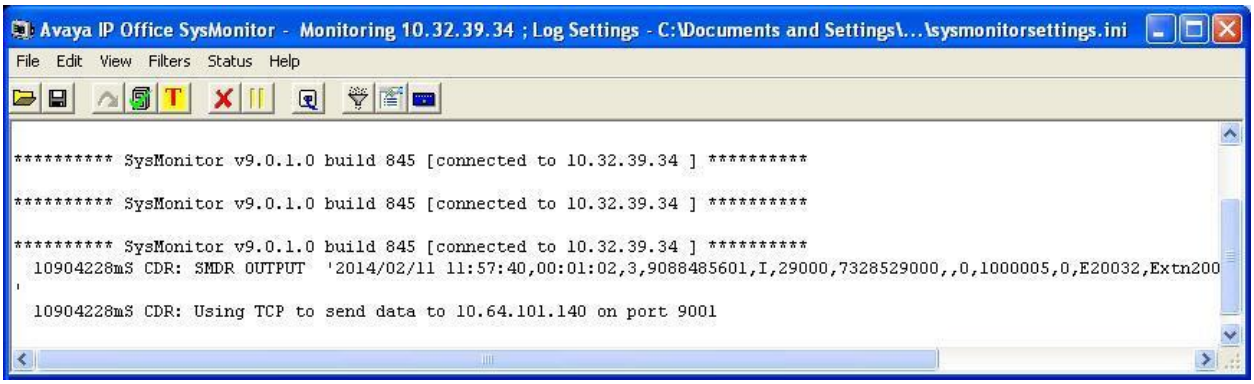
The **All Settings** screen is displayed. Check **Call Detail Records** and **CDR Extra diagnostics**, as shown below.



Make and complete a call, such as an incoming trunk call from the PSTN. Verify that raw SMDR data is displayed on the **Avaya IP Office SysMonitor** screen, as shown below.



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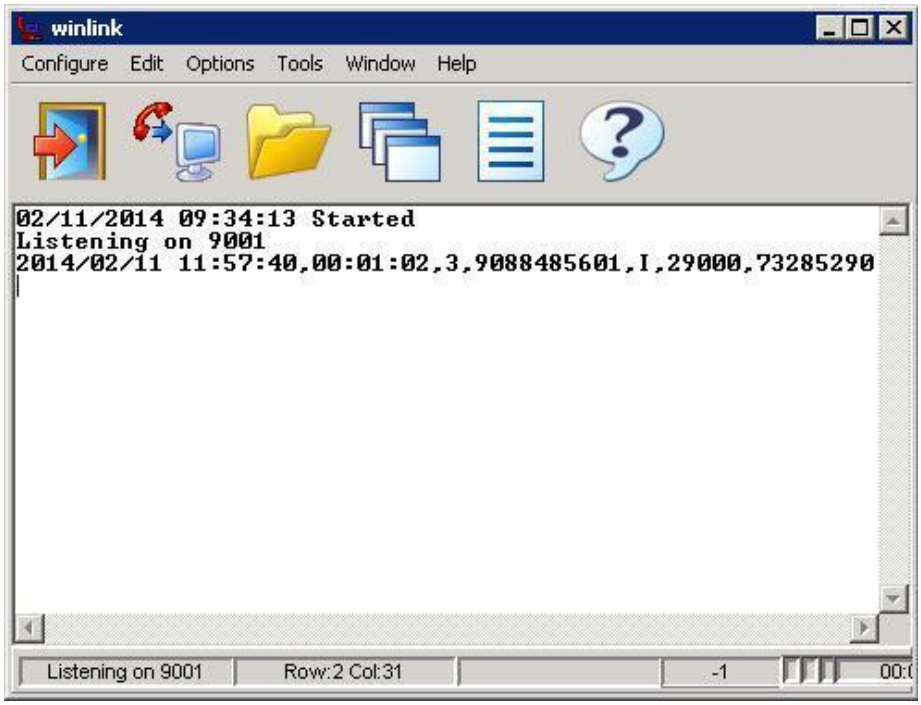
7.2. Verify RSI Shadow CMS

From the Shadow CMS server, on the **winlink** screen shown in **Section 6.4**, verify that an entry is displayed for each SMDR record output from **Section 7.1**



Access the Shadow CMS web-based interface by using the URL "http://ip-address:81" in an Internet browser window, where "ip-address" is the IP address of Shadow CMS. The screen below is displayed. Log in using the appropriate credentials.

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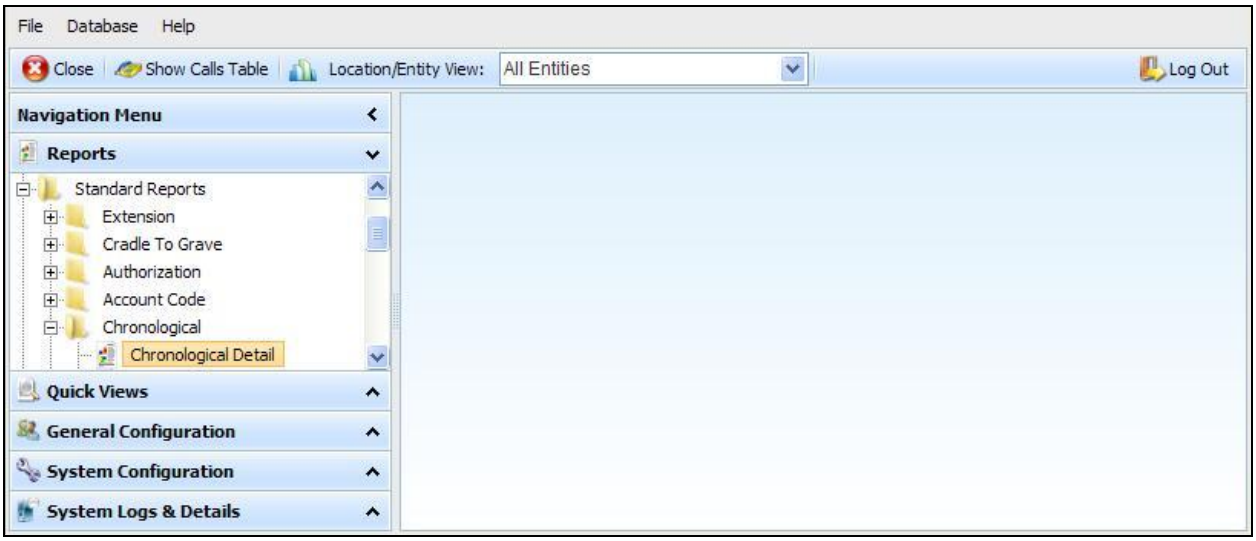
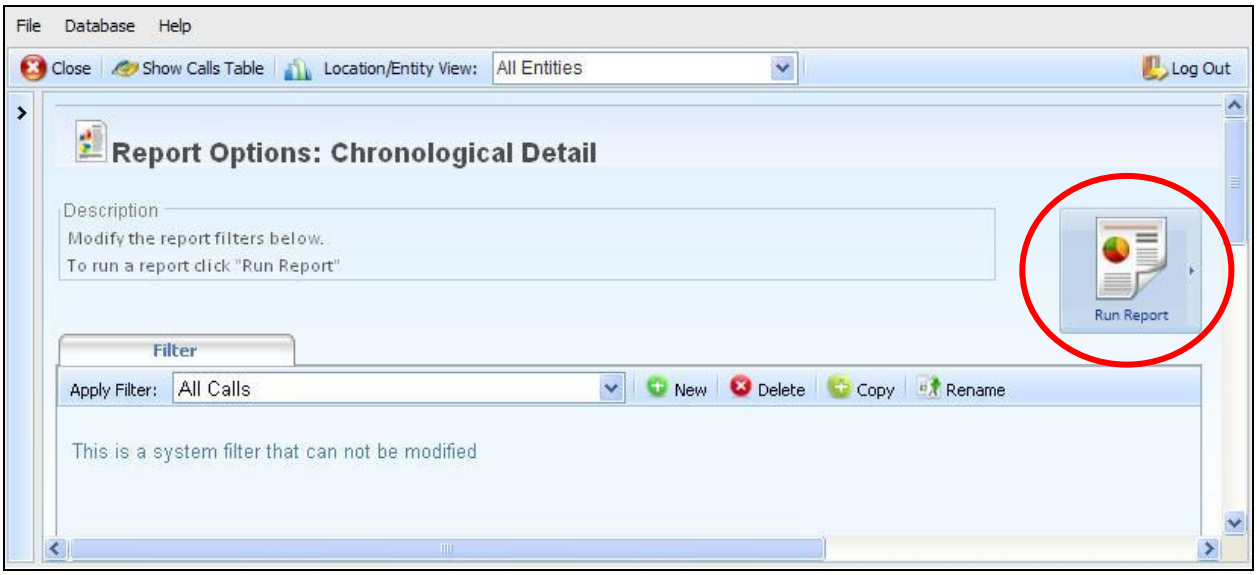
The screen below is displayed. Select **Reports → Standard Reports → Chronological → Chronological Detail** from the left pane, as shown below.



The **Report Options: Chronological Detail** screen is displayed. Click **Run Report**.



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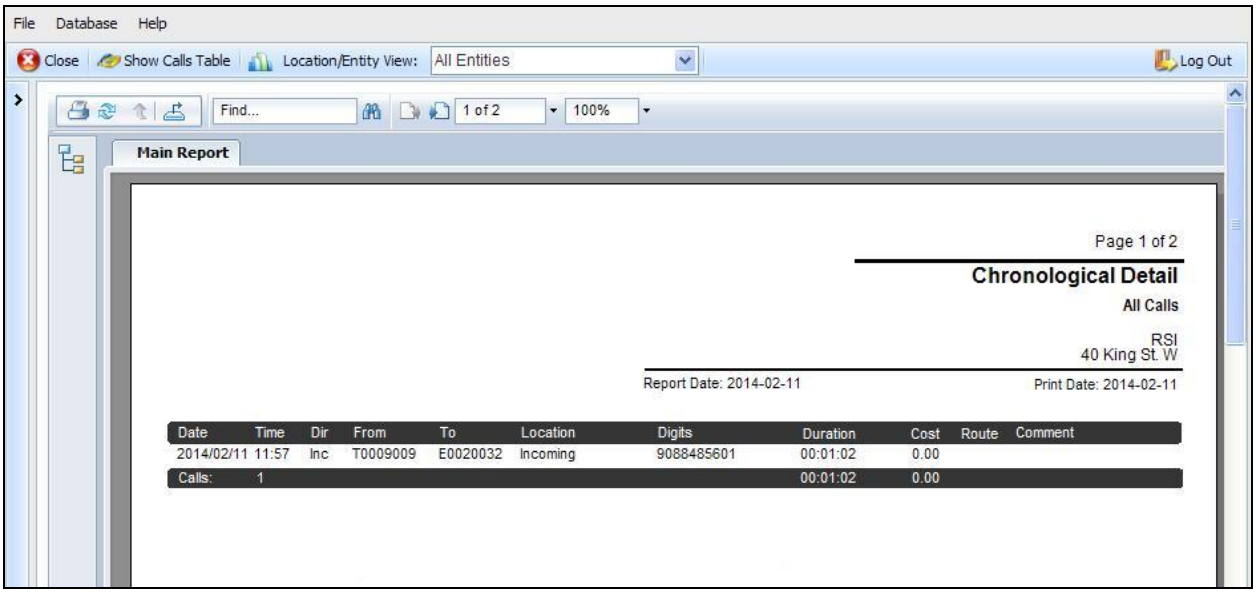
The **Chronological Detail** report is displayed. Verify that there is a reported entry matching to the SMDR data from **Section 7.1**.



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8. Conclusion

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

9. 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. *Resource Software International Ltd. Avaya IP Office RSI CMS Integration Guide*, available from RSI Support.

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