



Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Telesoft PSwitchView With Avaya IP Office Delta Server - Issue 1.0

Abstract

These Application Notes describe the procedures for configuring Avaya IP Office Delta Server to work with Telesoft PSwitchView. PSwitchView is a Windows-based call analysis software program that collects and reports on the Station Message Detail Reporting (SMDR) information generated by Avaya IP Office Delta Server.

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 Telesoft PSwitchView to work with Avaya IP Office Delta Server. PSwitchView connects to the Avaya IP Office Delta Server using a Transmission Control Protocol (TCP) socket connection for the collection of Station Message Detail Reporting (SMDR) information. PSwitchView processes the collected SMDR data and accurately bills them. It provides querying and reporting functionality on the billed data. The data can also be exported to various formats for processing.

Figure 1 illustrates the network configuration used to verify the Telesoft PSwitchView solution. The Main Site is comprised of an Avaya IP Office 500, and has connections to the following: Avaya 4620 IP Telephones, Avaya 2420 Digital Telephone, Avaya analog telephone, and both Analog and ISDN-PRI trunks to the PSTN. Telesoft PSwitchView is installed on a server running Microsoft Windows Server 2003 with Service Pack 2. Avaya IP Office Manager / Voicemail Pro / Delta Server are installed on another server running Microsoft Windows Server 2003 with Service Pack 2. The network configuration at Branch Site A was only used to generate IP trunk call SMDR records. Avaya IP Office Delta Server may only be used to report SMDR data from a single Avaya IP Office at a time. The Avaya C364T-PWR Converged Stackable Switch provides Ethernet connectivity to the servers and IP telephones and Layer 3 IP routing between the two sites.

The Avaya IP Office Delta Server is configured to connect to the Avaya IP Office 500 in order to send SMDR data for all inbound and outbound calls as well as internal calls to various destinations. The Delta Server can be configured to send the SMDR data it receives from the Avaya IP Office to a number of destinations via SMDR log file, IP polling, sending to a specified IP address and port or sending to a serial (COM) port. The required destination depends on which method of data transfer is supported by the third-party call accounting application being used. For this solution, Delta Server is configured for IP polling where an IP port number is specified on which the Delta Server PC will then listen. PSwitchView would then poll the IP Port to request Delta Server send the most recent SMDR records. PSwitchView opens a connection and keeps this connection open to gather SMDR records. Upon SMDR record retrieval, PSwitchView parses and processes the SMDR data, then stores the parsed SMDR data into a database for later record retrieval and/or reporting by the end user.

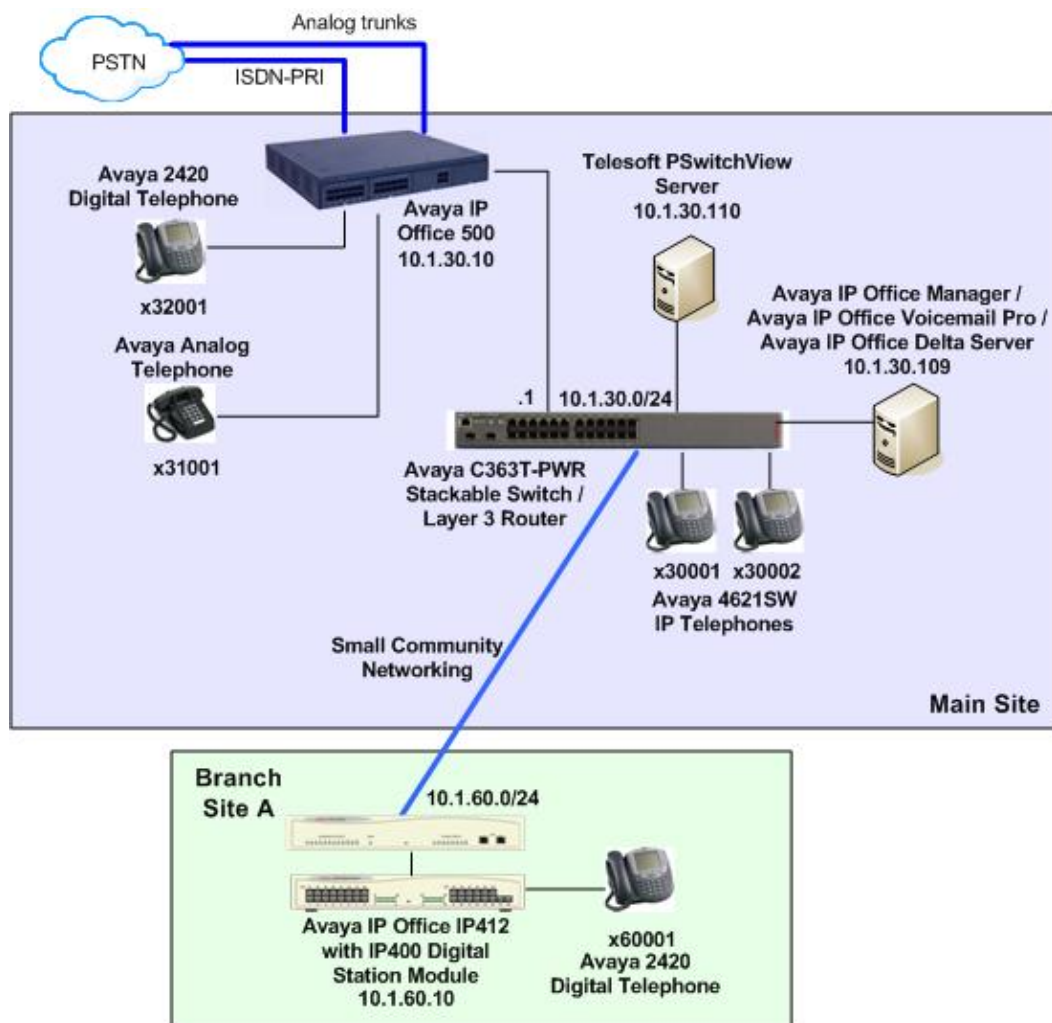


Figure 1: Test Configuration

2. Equipment and Software Validated

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

Equipment	Software
Avaya IP Office 500	4.0(10)
Avaya IP Office IP412	4.0(10)
Avaya IP Office Digital Station Module	6.0(10)
Avaya IP Office Delta Server	5.2.16
Avaya IP Office Manager	6.0(10)
Avaya IP Office Voicemail Pro	4.0(18)
Avaya 4621SW IP Telephones	2.8.3 (H.323)
Avaya 2420 Digital Telephones	-
Avaya Analog Telephone	-
Avaya C364T-PWR Converged Stackable Switch	4.5.18
Telesoft PSwitchView	7.0

3. Configure Avaya IP Office

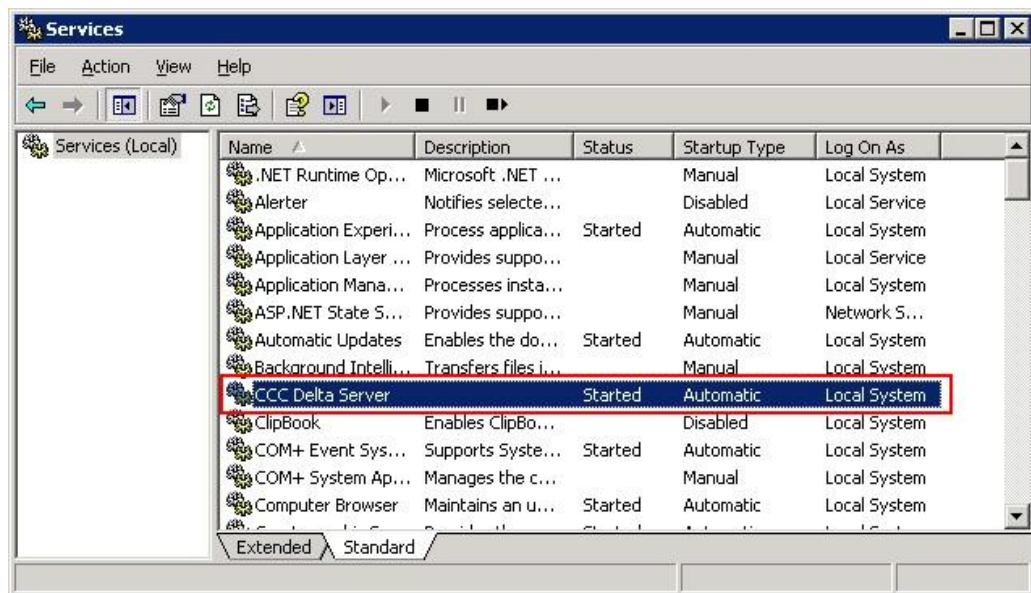
No configuration is required.

For all other provisioning information such as Avaya IP Office installation and configuration, please refer to Avaya IP Office product documentation in reference [1].

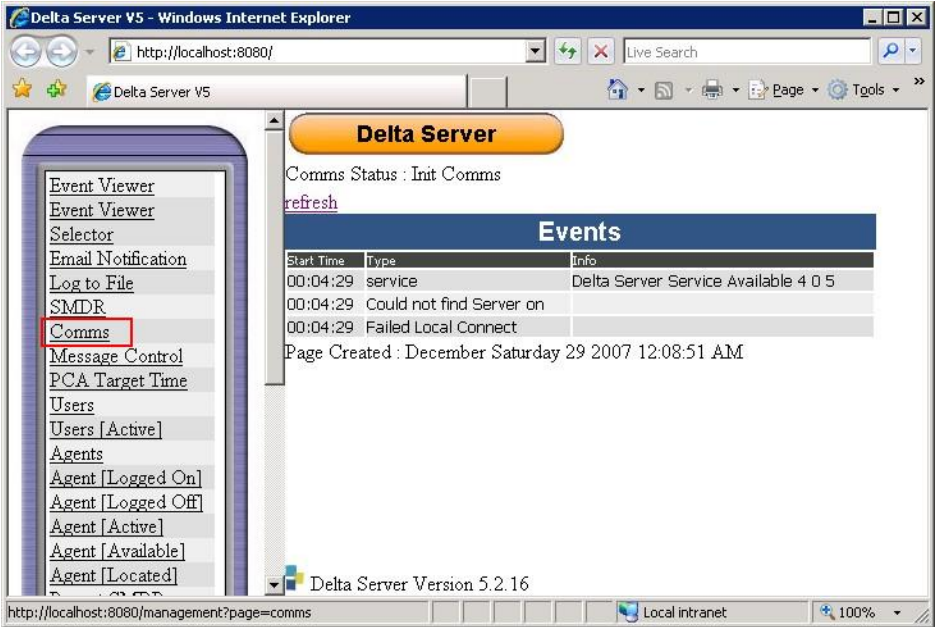
4. Configure Avaya IP Office Delta Server

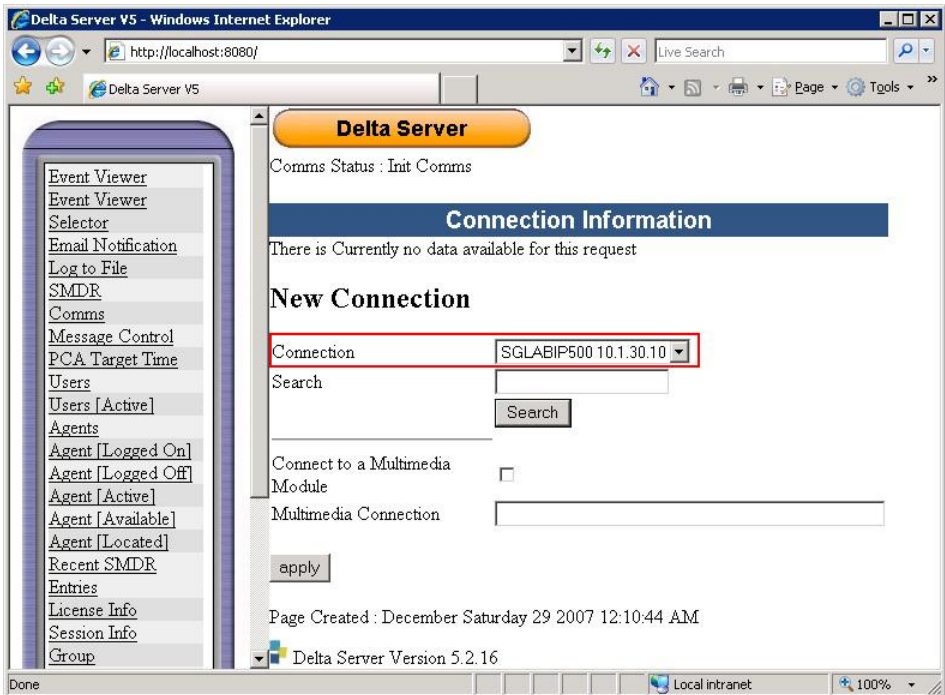
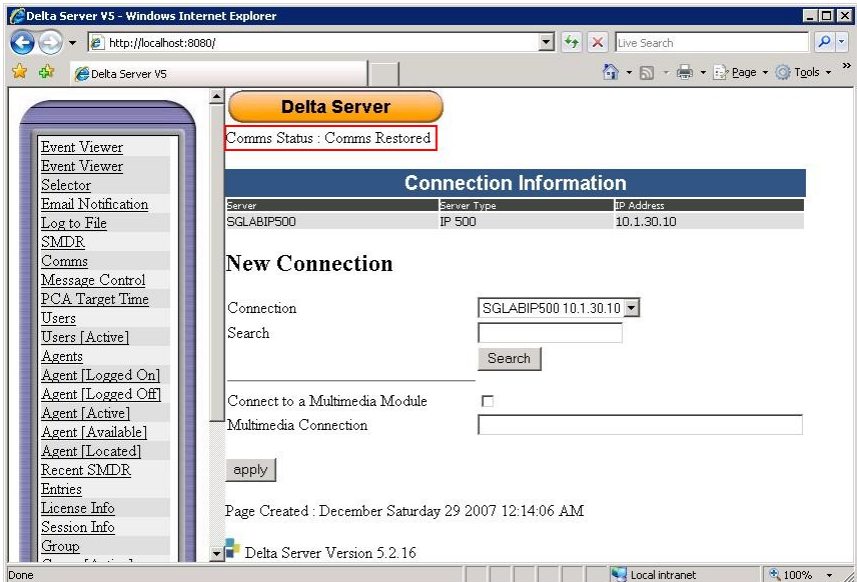
The configuration information provided in this section describes the steps used to configure Avaya IP Office Delta Server for this solution.

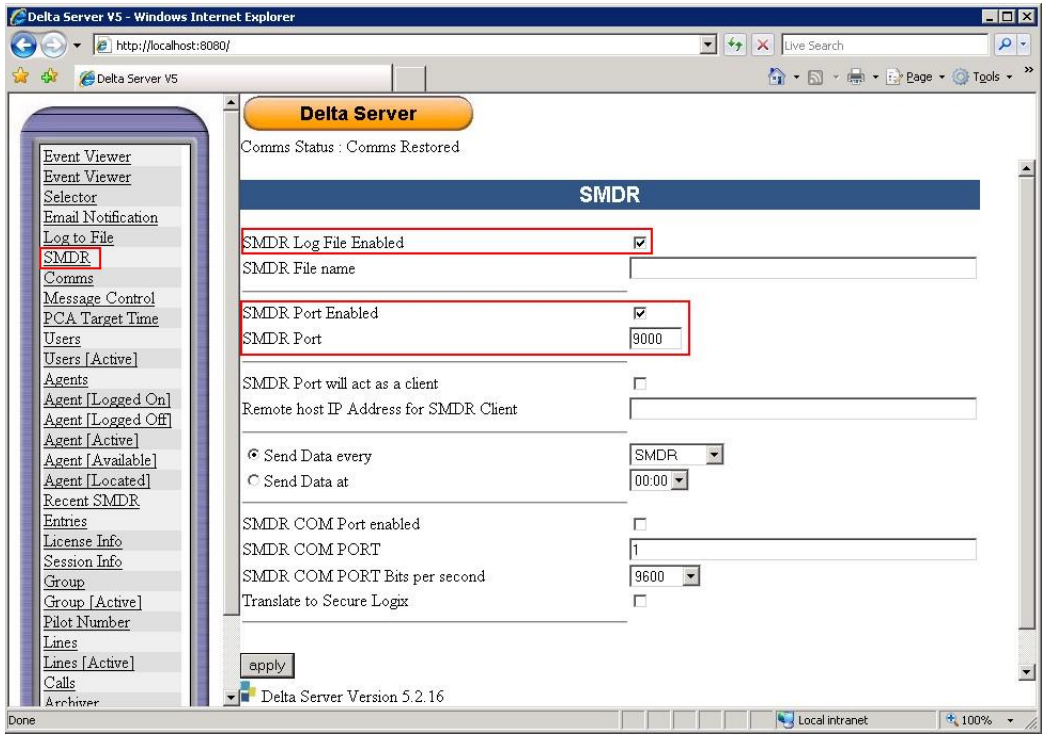
For all other provisioning information, such as Avaya IP Office Delta Server installation, please refer to the product documentation in reference [2].

Step	Description
1.	Log into the Avaya IP Office Delta Server PC with the appropriate administrative credentials and navigate to Start > Control Panel .
2.	In the Control Panel window that appears, double-click Administrative Tools .
3.	In the Administrative Tools window that appears, double-click Services .
4.	In the Services window that appears, verify CCC Delta Server is already started. If it is not, then start it manually. <div data-bbox="336 1104 1360 1692"></div>

NOTE: Following initial installation, the CCC Delta Server service is not started until either the PC is restarted or the service is started manually.

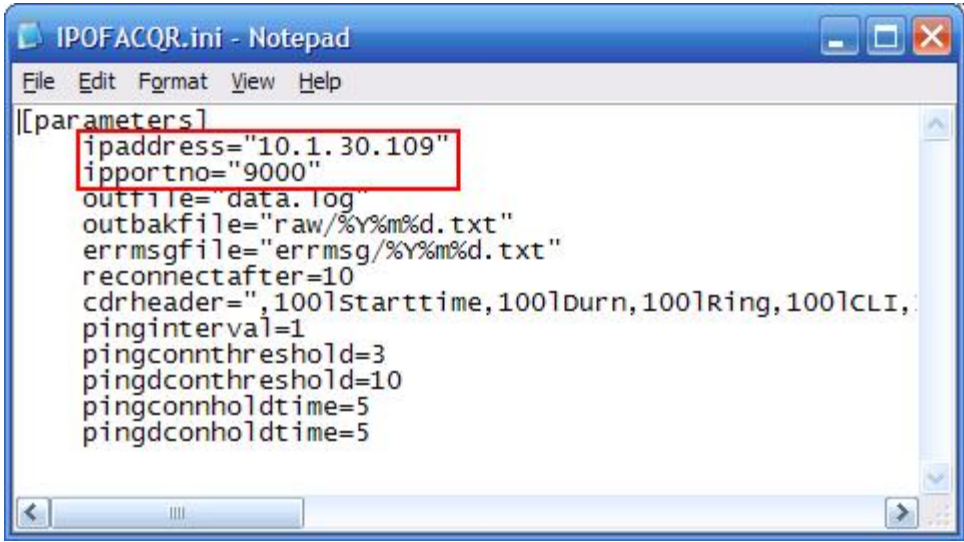
Step	Description
5.	<p>Navigate to Start > All Programs > CCC > Delta Server to launch the Delta Server. In the Delta Server window that appears, click Comms in the left pane.</p> 

Step	Description						
6.	<p>In the Connection Information page that appears, select the required IP Office system from the Connection drop-down. If the required IP Office system is not listed, enter its IP address in the Search field. Click Search.</p>  <p>The screenshot shows the Delta Server V5 web interface in Internet Explorer. The left sidebar contains a menu with options like Event Viewer, Selector, Email Notification, Log to File, SMDR, Comms, Message Control, PCA Target Time, Users, Users [Active], Agents, Agent [Logged On], Agent [Logged Off], Agent [Active], Agent [Available], Agent [Located], Recent SMDR, Entries, License Info, Session Info, and Group. The main content area is titled 'Delta Server' and shows 'Comms Status : Init Comms'. Below this is a 'Connection Information' section with the message 'There is Currently no data available for this request'. A 'New Connection' section contains a 'Connection' dropdown menu with 'SGLABIP500 10.1.30.10' selected, a 'Search' text box, and a 'Search' button. There is also a checkbox for 'Connect to a Multimedia Module' and a 'Multimedia Connection' text box. An 'apply' button is at the bottom. The footer shows 'Page Created : December Saturday 29 2007 12:10:44 AM' and 'Delta Server Version 5.2.16'.</p>						
7.	<p>Once the IP Office is listed, click apply. Ensure that Comms Status changes from Init Comms to Comms Restored. This may take a few minutes.</p>  <p>The screenshot shows the Delta Server V5 web interface after the connection has been established. The 'Comms Status' is now 'Comms Restored', which is highlighted with a red box. The 'Connection Information' section now displays a table with the following data:</p> <table><tr><th>Server</th><th>Server Type</th><th>IP Address</th></tr><tr><td>SGLABIP500</td><td>IP 500</td><td>10.1.30.10</td></tr></table> <p>The 'New Connection' section remains the same as in the previous screenshot. The footer shows 'Page Created : December Saturday 29 2007 12:14:06 AM' and 'Delta Server Version 5.2.16'.</p>	Server	Server Type	IP Address	SGLABIP500	IP 500	10.1.30.10
Server	Server Type	IP Address					
SGLABIP500	IP 500	10.1.30.10					

Step	Description
8.	<p>Click SMDR in the left-hand panel. In the SMDR page that appears, check SMDR Log File Enabled, check SMDR Port Enabled, and set SMDR Port to 9000. Click apply. This completes configuration of the Avaya IP Office Delta Server.</p> 

5. Configure Telesoft PSwitchView

The configuration information provided in this section describes the steps required to configure Telesoft PSwitchView to retrieve SMDR records from Avaya IP Office Delta Server.

Step	Description
1.	<p>Edit the file IPOFACQR.INI located in the directory C:\ipoffice\ipofacqr\. In the [parameters] section, set the field ipaddress to the IP address of the Avaya IP Office Delta Server and the field ipportno to the TCP port that is configured in Section 4 Step 8.</p>  <pre> [[parameters] ipaddress="10.1.30.109" ipportno="9000" outfile="data.log" outbakfile="raw/%Y%m%d.txt" errmsgfile="errmsg/%Y%m%d.txt" reconnectafter=10 cdrheader=",1001starttime,1001burn,1001ring,1001CLI," pinginterval=1 pingconnthreshold=3 pingdconthreshold=10 pingconnholdtime=5 pingdconholdtime=5 </pre>

6. Interoperability Compliance Testing

Interoperability compliance testing evaluated the ability of Telesoft PSwitchView to collect and process SMDR records for various types of calls (inbound, outbound, internal, transfer, conference, etc.).

6.1. General Test Approach

The general test approach was to manually place intra-switch calls, inbound trunk and outbound trunk calls to and from telephones attached to Avaya IP Office and verify that Telesoft PSwitchView collects the SMDR records and properly classifies and reports the attributes of the call.

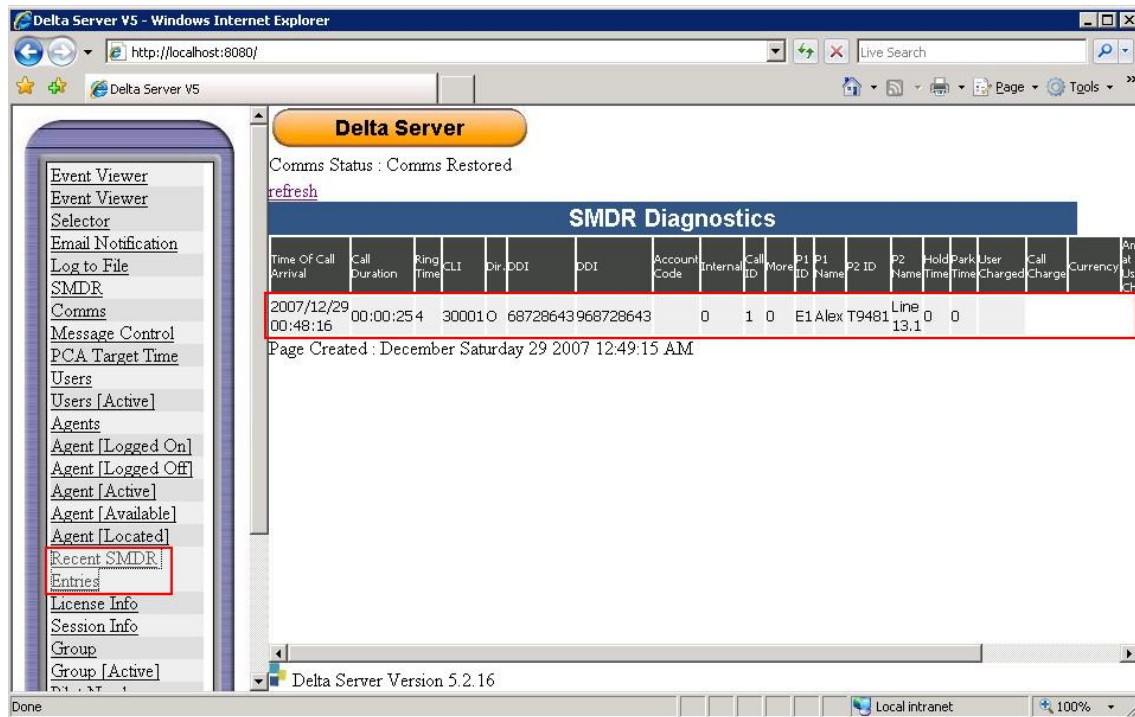
6.2. Test Results

All test cases were completed successfully. Telesoft PSwitchView successfully captured and processed call records from Avaya IP Office Delta Server.

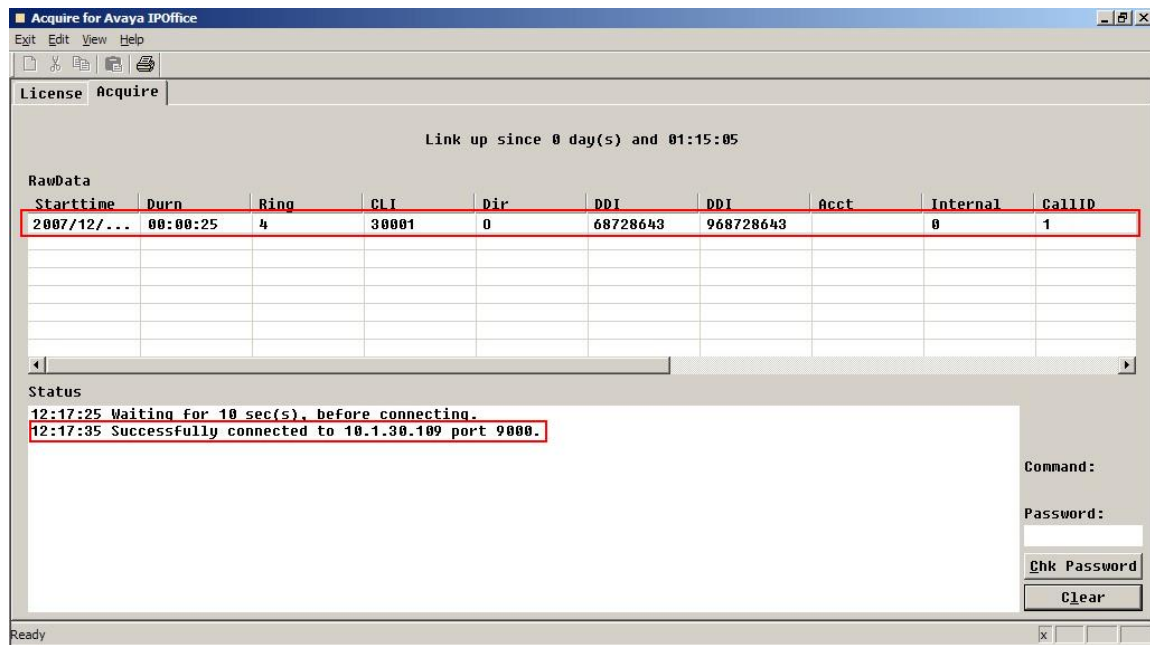
7. Verification Steps

The following steps may be used to verify the configuration:

- Use the **ping** utility on the Telesoft PSwitchView server to verify the IP connectivity to the Avaya IP Office Delta Server.
- Verify that the IP Office Delta Server properly generates SMDR records by placing inbound and outbound calls on the Avaya IP Office. Then click **Recent SMDR Entries** and confirm the call activity is properly reflected.



- Verify that Telesoft PSwitchView receives the CDR record for the call. Compare the values of data fields in the CDR record with the expected values and verify that they match.



- Place internal, inbound trunk, and outbound trunk calls to and from various telephones, generate an appropriate report in Telesoft PSwitchView and verify the report's accuracy.

8. Support

Technical support for PSwitchView can be obtained by contacting Telesoft's Support Desk at +91 22 26155139, or sending an e-mail to support@telesoft.in.

9. Conclusion

These Application Notes describe the procedures for configuring the Telesoft PSwitchView to collect SMDR data from Avaya IP Office Delta Server. Telesoft PSwitchView successfully passed the compliance testing.

10. Additional References

Product documentation for Avaya products may be found at <http://support.avaya.com>.

[1] *Avaya IP Office 4.0 Manager: 01. Using Manager*, Issue 19k, 22 January 2007

[2] *Avaya IP Office 4.0 Delta Server and SMDR*, Issue 7a, 22 January 2007

The following PSwitchView documentations are provided by Telesoft on request.

[3] PSwitchView : Using IPOfAcquire module, 4 Dec 2007.

[4] PSwitchView Call Analysis Software, Version 7.0.

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