



Avaya Solution & Interoperability Test Lab

Application Notes for dvsAnalytics Encore with Avaya IP Office – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for dvsAnalytics Encore to interoperate with Avaya IP Office. dvsAnalytics Encore is a call recording solution. In the compliance testing, dvsAnalytics Encore used the DevLink interface to obtain real-time events on calls from Avaya IP Office, and used the replicated media from the digital telephone tap to capture the media associated with the monitored agents for call 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 dvsAnalytics Encore to interoperate with Avaya IP Office. dvsAnalytics Encore is a call recording solution. In the compliance testing, dvsAnalytics Encore used the DevLink interface to obtain real-time events on calls from Avaya IP Office, and used the replicated media from the digital telephone tap to capture the media associated with the monitored agents for call recording.

The DevLink interface is used by dvsAnalytics Encore to monitor the agents to be recorded. When there is an active call on the monitored agent with a digital telephone, dvsAnalytics Encore is informed of the call via event reports from the DevLink interface and starts the call recording with media captured from the digital telephone tap.

1.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following on dvsAnalytics Encore:

- Handling of real-time DevLink events from Avaya IP Office.
- Proper recording, logging, and playback of calls for scenarios involving inbound, outbound, internal, external, hunt group, non-hunt group, hot desking, non-hot desking, hold, reconnect, simultaneous, conference, and transfer.

The serviceability testing focused on verifying the ability of dvsAnalytics Encore to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet and digital cables to dvsAnalytics Encore.

1.2. Support

Technical support on dvsAnalytics Encore can be obtained through the following:

- **Phone:** (800) 910-4564
- **Email:** Support@dvsAnalytics.com

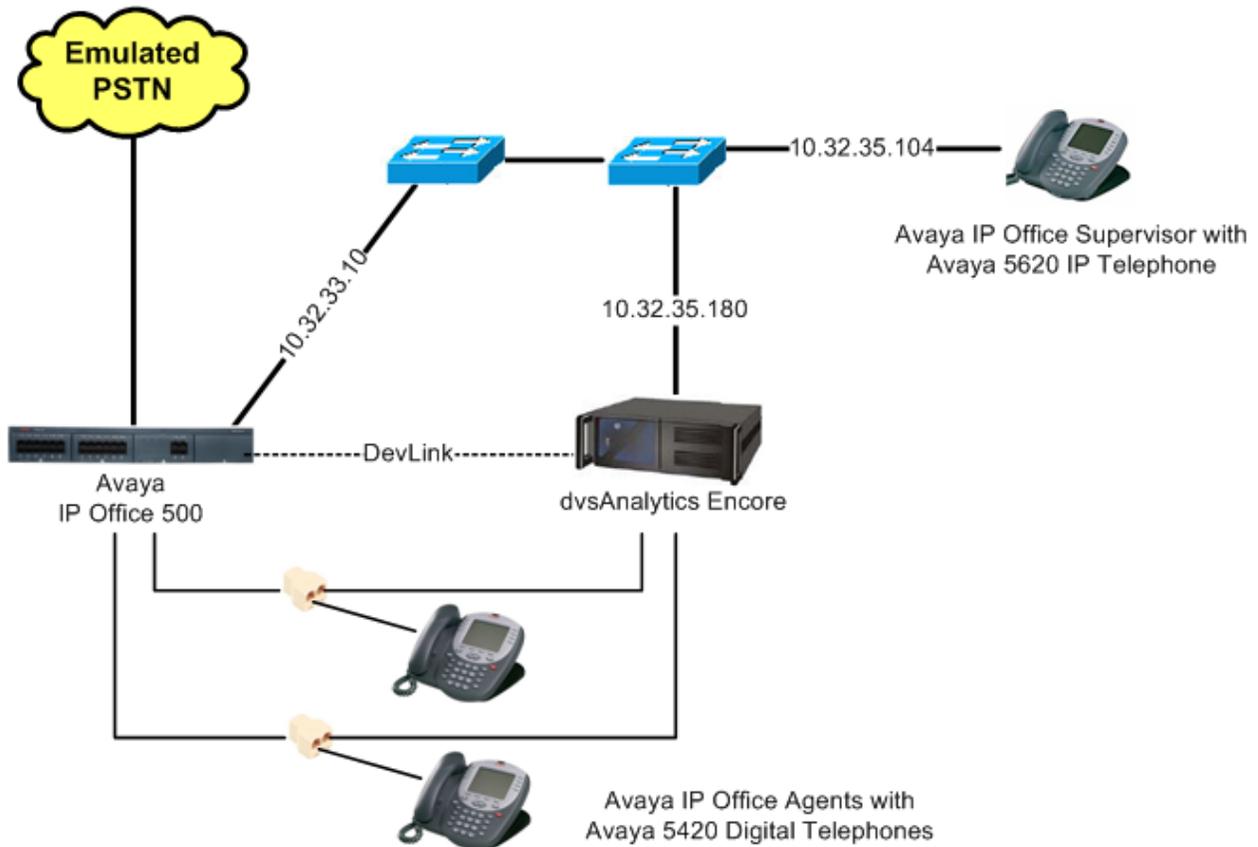
2. Reference Configuration

dvsAnalytics Encore has an Encore Explorer 2 application that can be used to review and playback the call recordings. In the compliance testing, the Encore Explorer 2 application was installed on the dvsAnalytics Encore server.

In the compliance testing, the contact center devices consisted of a hunt group, a supervisor, and two agents shown in the table below. The extensions of the digital telephones used by the agents are also listed below.

A splitter was used to physically connect each agent's digital telephone to the AudioCodes SmartWORKS NGX 2400 PCIe card on the dvsAnalytics Encore server.

Device Type	Extension
Hunt Group	25555
Supervisor	21254
Agent Extension	25001, 25002
Digital Extension	21232, 21233



3. Equipment and Software Validated

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

Equipment	Software
Avaya IP Office 500	5.0 (15)
Avaya 5620 IP Telephones	2.9
Avaya 5420 Digital Telephones	NA
dvsAnalytics Encore	2.2.7
• CT Gateway	6.23
• Encore Explorer 2	1.58
• CTIIPOfficeDevLink.dll	0.1.1.1000
• AudioCodes SmartWORKS NGX 2400 PCIe	05.01
• Avaya devlink.dll	1.0.0.5

4. Configure Avaya IP Office

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

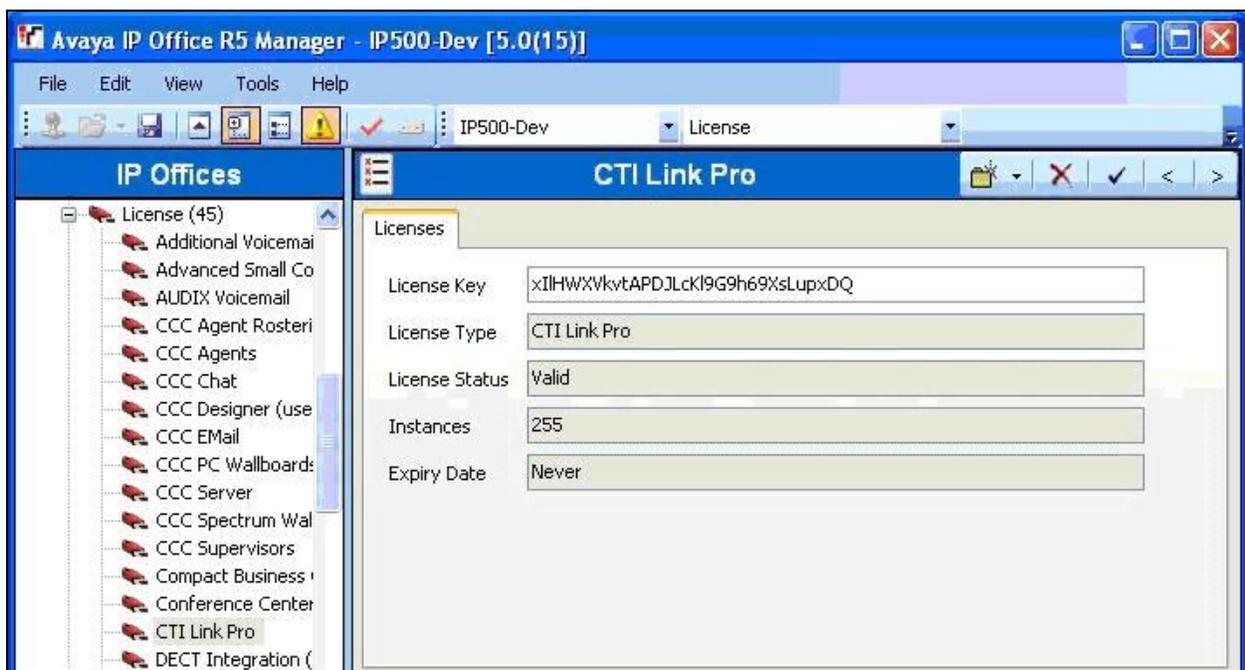
- Verify IP Office license
- Obtain digital ports

The detailed administration of contact center devices such as hunt groups and agents are assumed to be in place and are not covered in these Application Notes.

4.1. 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 the appropriate credentials.

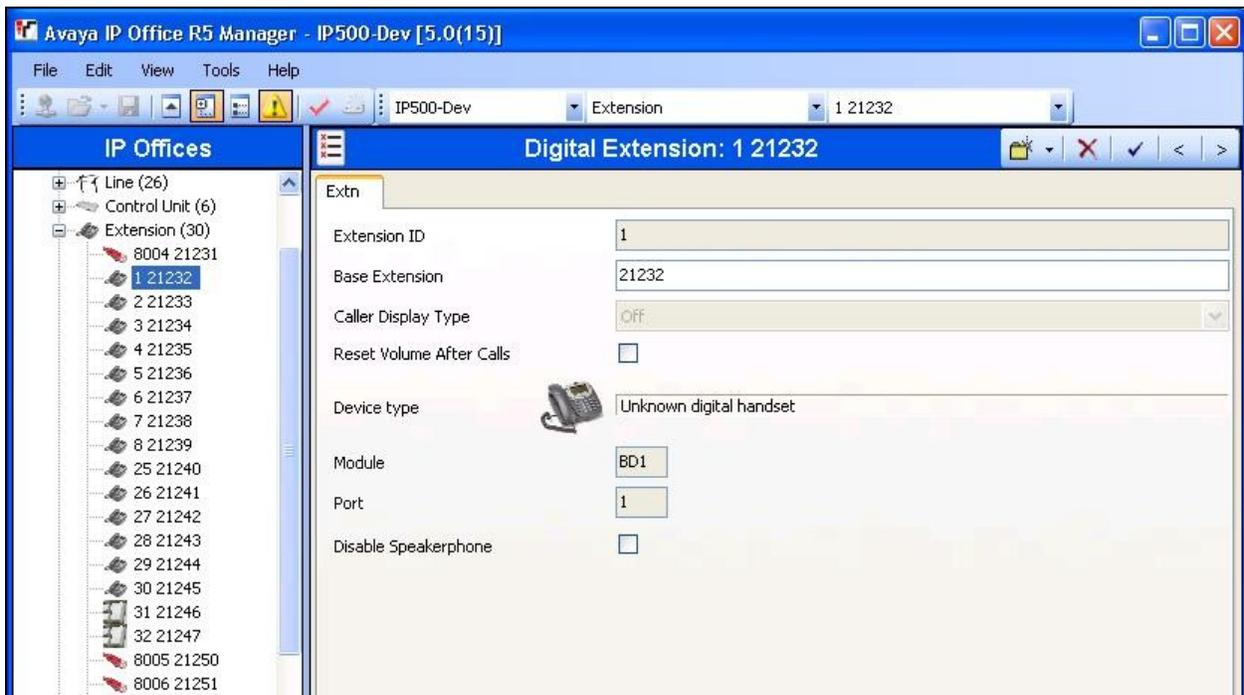
The **Avaya IP Office R5 Manager** screen is displayed. From the configuration tree in the left pane, select **License > CTI Link Pro** to display the **CTI Link Pro** screen in the right pane. Verify that the **License Status** is “Valid”.



4.2. Obtain Digital Ports

From the configuration tree in the left pane, select **Extension**, followed by the extension corresponding to the first digital port that is physically connected to dvsAnalytics Encore, in this case “21232”. Make a note of the **Extension ID** value, which is “1”. This will be used later to configure dvsAnalytics Encore.

Repeat this step to obtain the associated extension ID for all monitored digital extensions. In the compliance testing, the associated extension ID was “1” for extension 21232, and “2” for extension 21233.



5. Configure dvsAnalytics Encore

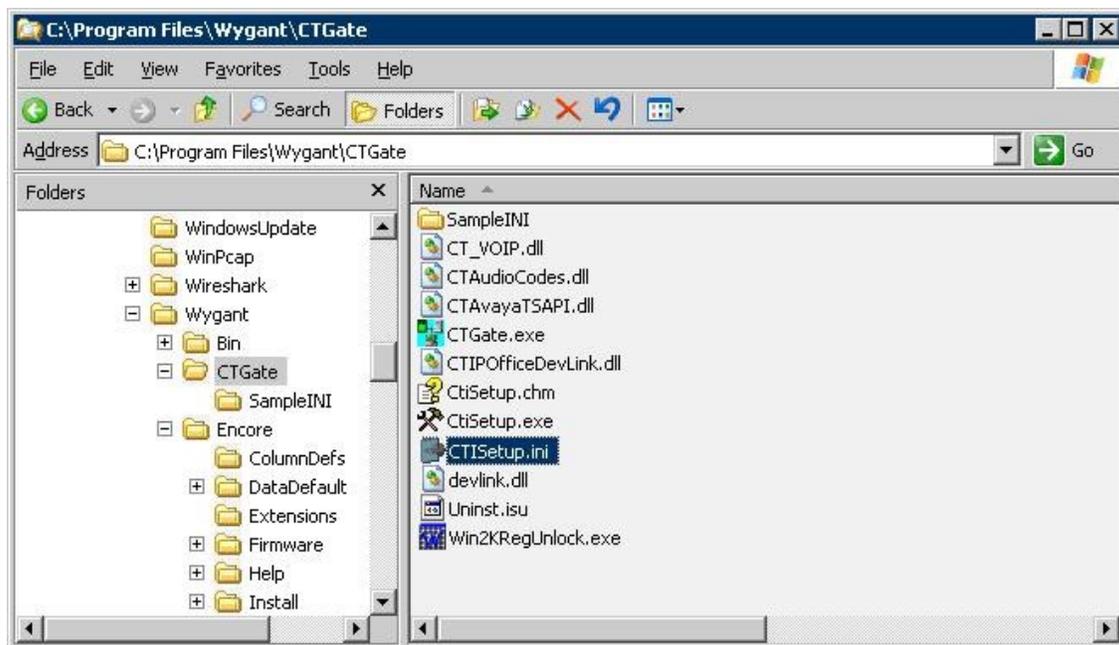
This section provides the procedures for configuring dvsAnalytics Encore. The procedures include the following areas:

- Administer CTISetup
- Administer CT Gateway

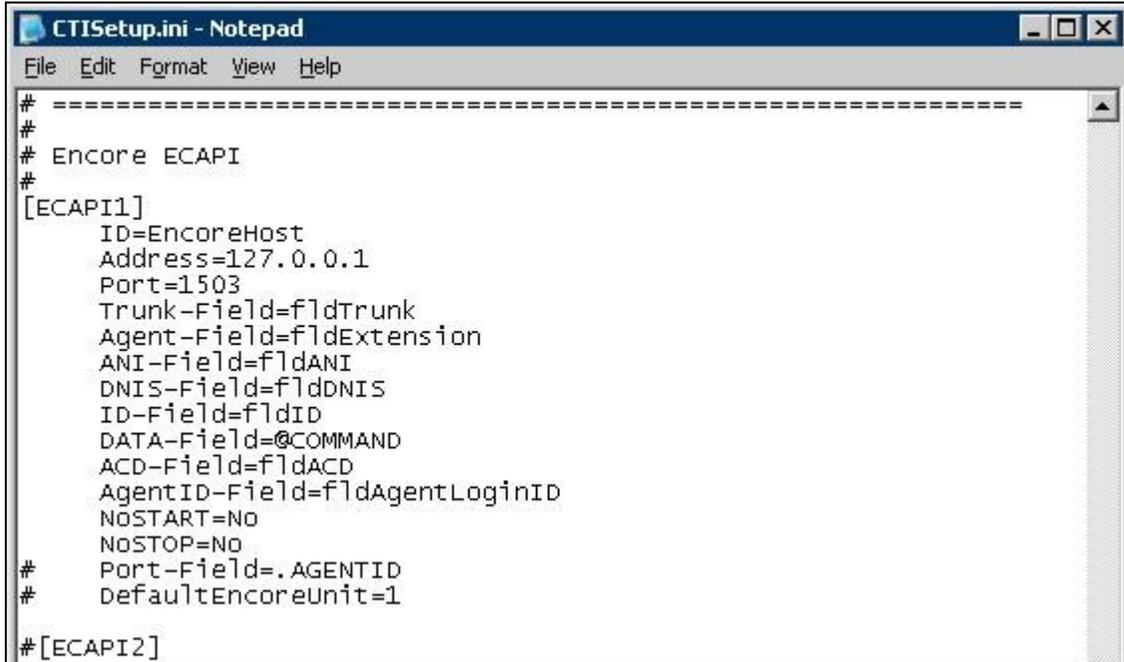
The configuration of dvsAnalytics Encore is performed by dvsAnalytics installers and dealers. The procedural steps are presented in these Application Notes for informational purposes.

5.1. Administer CTISetup

From the Encore server, navigate to the **CTGate** directory to edit the **CTISetup.ini** file.

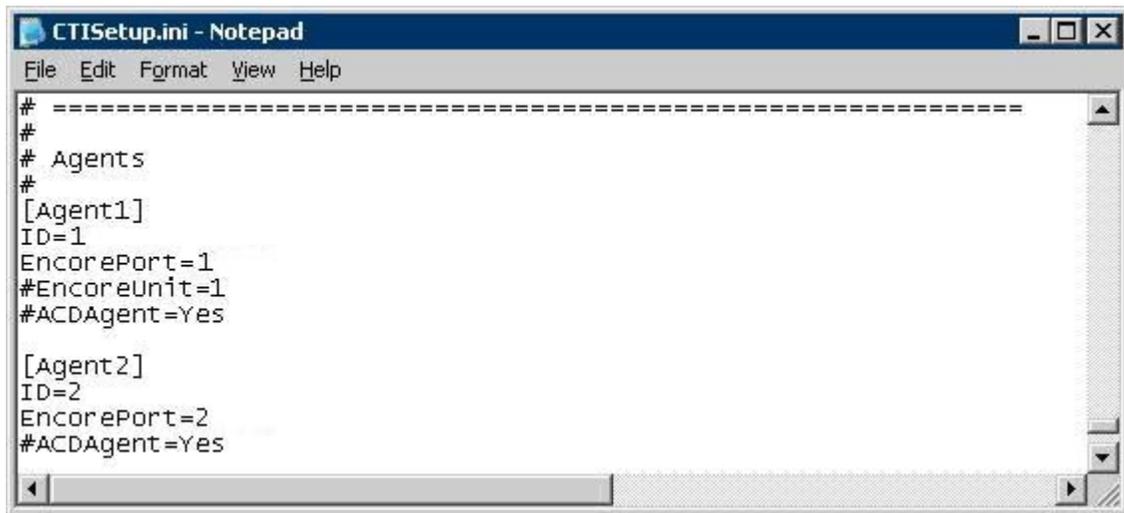


Navigate to the **Encore ECAPI** section. Under **ECAPI1**, set all parameters as shown below.



```
CTISetup.ini - Notepad
File Edit Format View Help
# =====
#
# Encore ECAPI
#
[ECAPI1]
  ID=EncoreHost
  Address=127.0.0.1
  Port=1503
  Trunk-Field=fldTrunk
  Agent-Field=fldExtension
  ANI-Field=fldANI
  DNIS-Field=fldDNIS
  ID-Field=fldID
  DATA-Field=@COMMAND
  ACD-Field=fldACD
  AgentID-Field=fldAgentLoginID
  NoSTART=No
  NoSTOP=No
#   Port-Field=.AGENTID
#   DefaultEncoreUnit=1
#[ECAPI2]
```

Navigate to the **Agents** section. Under **Agent1**, set both **ID** and **EncorePort** to the first extension ID from **Section 4.2**. Create additional agent parameter lines as necessary when more than one agent is being monitored.



```
CTISetup.ini - Notepad
File Edit Format View Help
# =====
#
# Agents
#
[Agent1]
  ID=1
  EncorePort=1
  #EncoreUnit=1
  #ACDAgent=Yes

[Agent2]
  ID=2
  EncorePort=2
  #ACDAgent=Yes
```

5.2. Administer CT Gateway

From the Encore server, click the **CT Gateway** icon from the system tray, as shown below.



The **CTISetup.ini – CT Gateway (VOIP)** screen is displayed. Select **PBX > Configure** from the top menu.



The **PBX interface setup** screen is displayed. For **Switch IP addr**, enter the IP address of Avaya IP Office. For **Switch password**, enter the password for the Avaya IP Office Monitor application. In the compliance testing, the **Debug logging level** was set to "2". Retain the default values in the remaining fields.

A screenshot of a dialog box titled "PBX interface setup". It contains several input fields and buttons. The fields are: "*Switch IP addr:" with the value "10.32.33.10", "*Switch password:" with a masked password "xxxxxxxxxx", "Debug logging level:" with the value "2", "Encore database fields for additional call data" section containing "*Call ID field:" with "fldCallID", "*Other call ID field:" with "fldOtherCallID", and "*User name field:" with "fldAgentName". There are two buttons: "Add memo to log file..." and "Dump slot to name list on next event". At the bottom, there is a note "* Requires restart of CT Gateway" and "OK" and "Cancel" buttons.

6. General Test Approach and Test Results

The feature test cases were performed manually. Each call was placed and handled manually on the agent's digital telephone with generation of unique audio content for the recordings. Necessary user actions such as hold and reconnect were performed from the digital telephones to test the different call scenarios.

The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet and digital cables to dvsAnalytics Encore.

The verification of tests included using the dvsAnalytics Encore logs for proper message exchanges, and using the Encore Explorer 2 application for proper logging and playback of the calls.

All test cases were executed. The one observation noted from the compliance test is that upon any Ethernet disruption on the dvsAnalytics Encore server, recordings for calls established before the outage will not end until either the default maximum recording interval has been reached, or that a new call has been delivered to the agent. In the case that a new call was delivered to the agent, the audio for the new call was concatenated to the audio for the call established before the Ethernet outage into one recording entry.

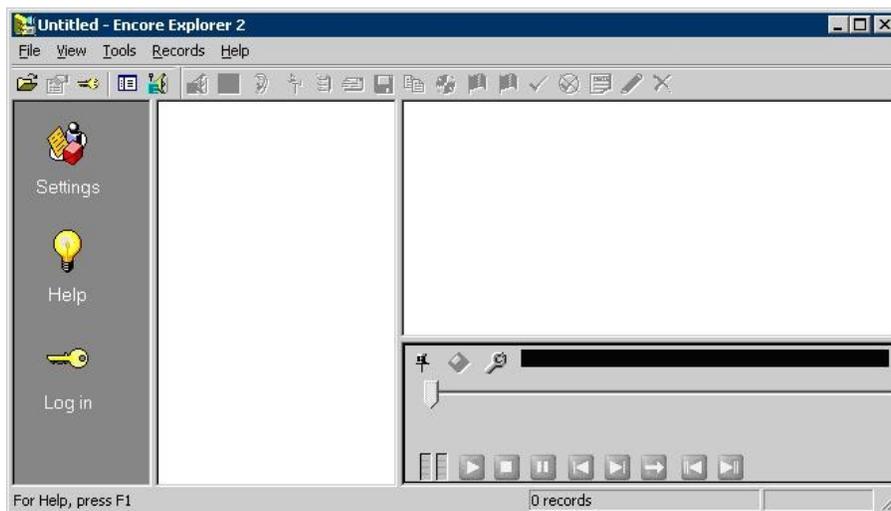
7. Verification Steps

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

Log an agent in to handle and complete a hunt group call. From the PC running the Encore Explorer 2 application, double-click on the **Encore Explorer 2** icon shown below, which is created as part of installation.



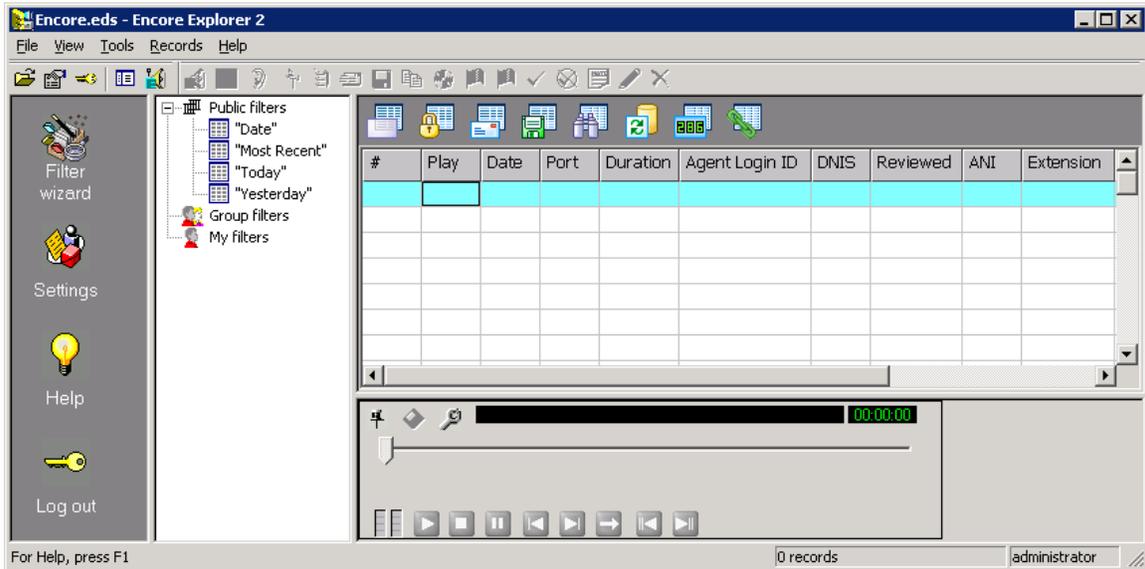
The **Untitled – Encore Explorer 2** screen is displayed. Click **Log in** from the left pane.



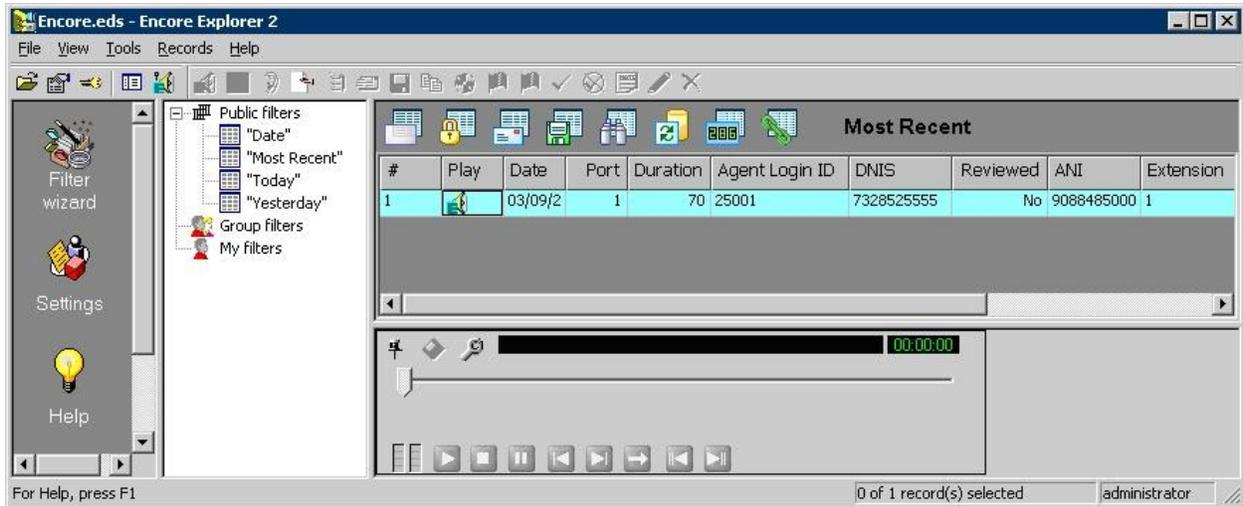
The **Login** screen is displayed next. Enter the appropriate credentials.



The **Encore.eds – Encore Explorer 2** screen is displayed. Select the **“Most Recent”** filter from the middle pane.



The **Encore.eds – Encore Explorer 2** screen is updated with a listing of the most recent 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 dvsAnalytics Encore to successfully interoperate with Avaya IP Office. All feature and serviceability test cases were completed with observations noted in **Section 6**.

9. Additional References

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

1. *IP Office 5.0 Documentation CD*, August 2009, available at <http://support.avaya.com>.
1. *Encore Administrator's Guide*, Release 2.2.7, February 26, 2010, available from dvsAnalytics Support.
2. *Avaya IP Office with DevLink Pro Switch Integration Guide*, Release 2.2.7, February 23, 2010, available from dvsAnalytics Support.

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