



Avaya Solution & Interoperability Test Lab

Application Notes for dvsAnalytics Encore 2.3.1 with Avaya IP Office 8.0 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for dvsAnalytics Encore 2.3.1 to interoperate with Avaya IP Office 8.0.

dvsAnalytics Encore is a call recording solution. In the compliance testing, dvsAnalytics Encore used the DevLink interface from Avaya IP Office to obtain real-time events on calls, 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 2.3.1 to interoperate with Avaya IP Office 8.0.

dvsAnalytics Encore is a call recording solution. In the compliance testing, dvsAnalytics Encore used the DevLink interface from Avaya IP Office to obtain real-time events on calls, 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.

Note that tapping the line wire of a digital telephone can cause distortion affecting the telephone's performance. Avaya recommends that the cable length from the splitter to the Avaya digital telephone not be longer than 70 cm. Whenever a performance problem is noticed on a digital telephone that uses a splitter, the first troubleshooting step should be to remove and eliminate the splitter as possible cause. Avaya will not warrant that such a tap will work.

2. General Test Approach and Test Results

The feature test cases were performed manually. Each call was placed and handled manually on the agent digital telephones 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 Encore.

The verification of tests included using the Encore logs for proper message exchanges, and using the Encore web interface for proper logging and playback of calls.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following on Encore:

- Handling of real-time DevLink events from 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 Encore to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet and digital cables to Encore.

2.2. Test Results

All test cases were executed. The following were the observations on Encore from the compliance testing.

- Toggling between multiple calls on the same digital telephone results in multiple call recording entries.
- Audio captured during the held period from the 1408 Digital Deskphone is included in the call recording.
- Upon any Ethernet disruption on the Encore server, recording for a call 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 event 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.

2.3. Support

Technical support on Encore can be obtained through the following:

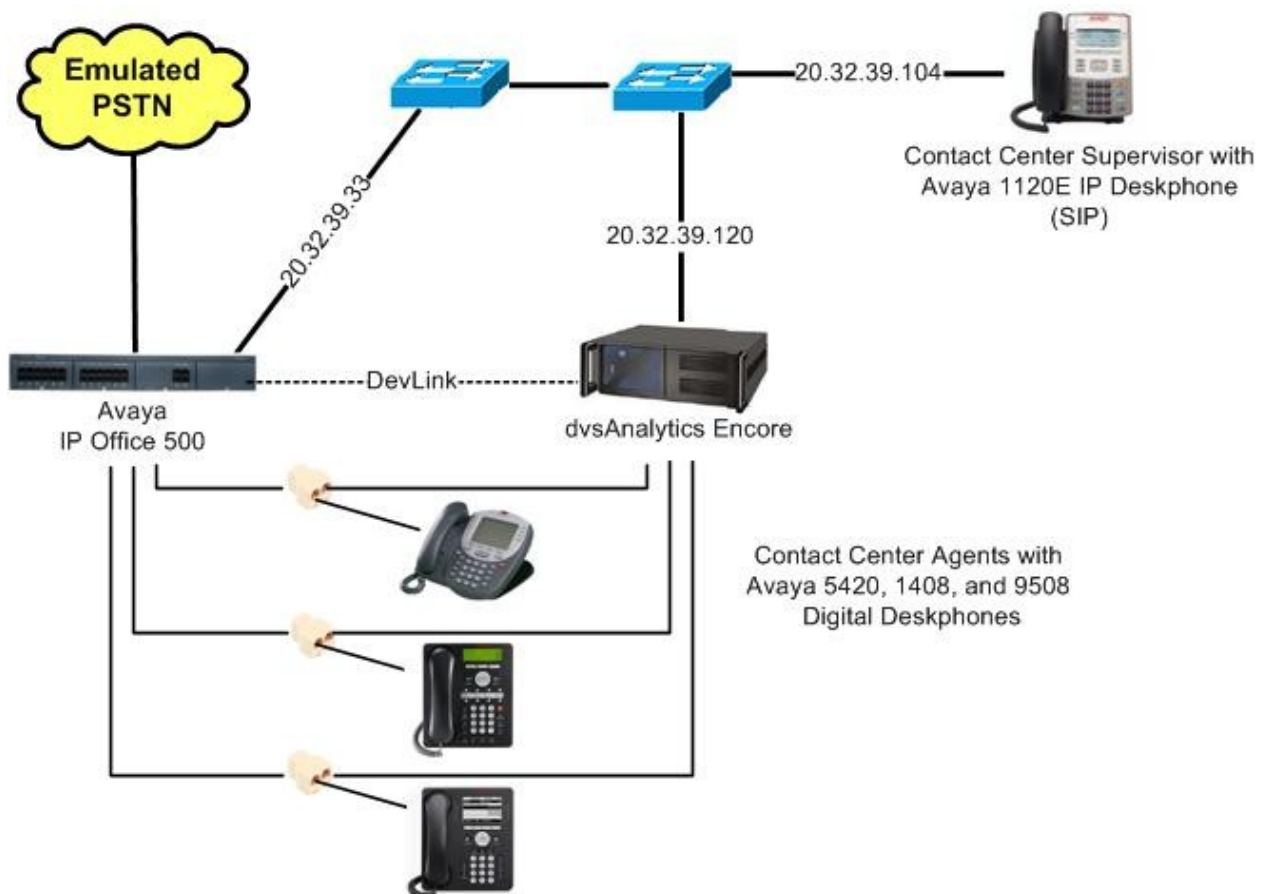
- **Phone:** (800) 910-4564
- **Email:** Support@dvsAnalytics.com

3. Reference Configuration

In the compliance testing, the contact center devices consisted of a hunt group, a supervisor, and three 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 Encore server.

Device Type	Extension
Hunt Group	21000
Supervisor	28001
Agent Extensions	25001, 25002, 25003
Digital Extensions	21232, 21234, 21236



4. Equipment and Software Validated

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

Equipment	Software
Avaya IP Office 500 <ul style="list-style-type: none">Digital Station 8 Card	8.0 (16)
Avaya 5420 Digital Deskphone	NA
Avaya 1408 Digital Deskphone	NA
Avaya 9508 Digital Deskphone	NA
Avaya 1120E IP Deskphone (SIP)	04.03.09.00
dvsAnalytics Encore on Windows Server 2003 SP 2 <ul style="list-style-type: none">CTIIPOfficeDevLink.dllAudioCodes SmartWORKS NGX 2400 PCIeAvaya devlink.dll	2.3.1 0.1.1.1000 05.01 1.0.0.5

5. Configure Avaya IP Office

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

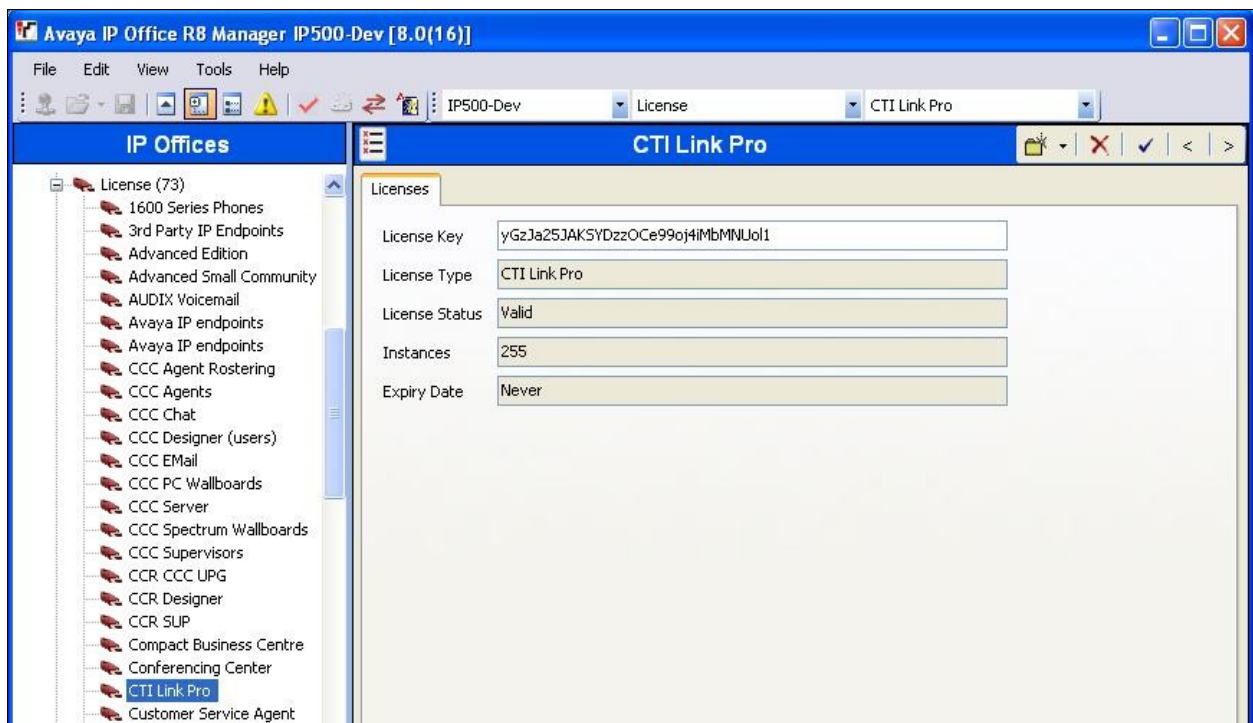
- Verify license
- Obtain digital ports

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.

5.1. Verify License

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 with the appropriate credentials.

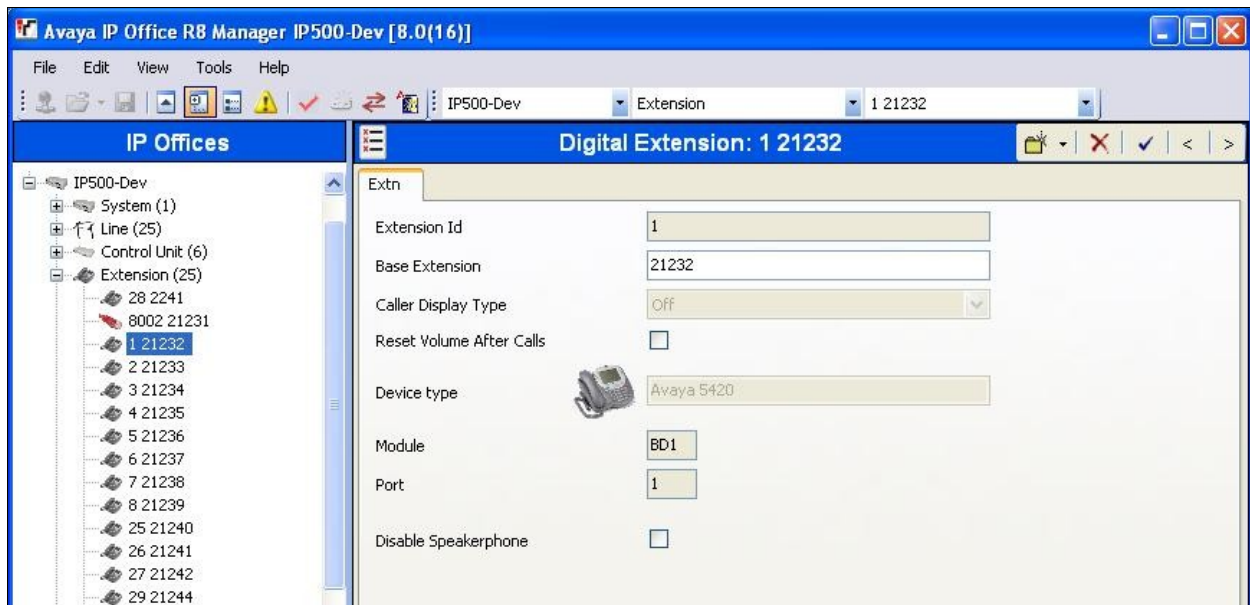
The **Avaya IP Office R8 Manager** screen is displayed. From the configuration tree in the left pane, select **License > CTI Link Pro** to display the **CTI Link Pro** screen in the right pane. Verify that the **License Status** is “Valid”.



5.2. Obtain 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 Encore, in this case “21232”. Make a note of the **Extension Id** value, which is “1”. This will be used later to configure Encore.

Repeat this step to obtain the associated extension id for all physically connected digital ports. In the compliance testing, the associated extension ids are “1” for extension 21232, “3” for extension 21234, and “5” for extension 21236.



6. Configure dvsAnalytics Encore

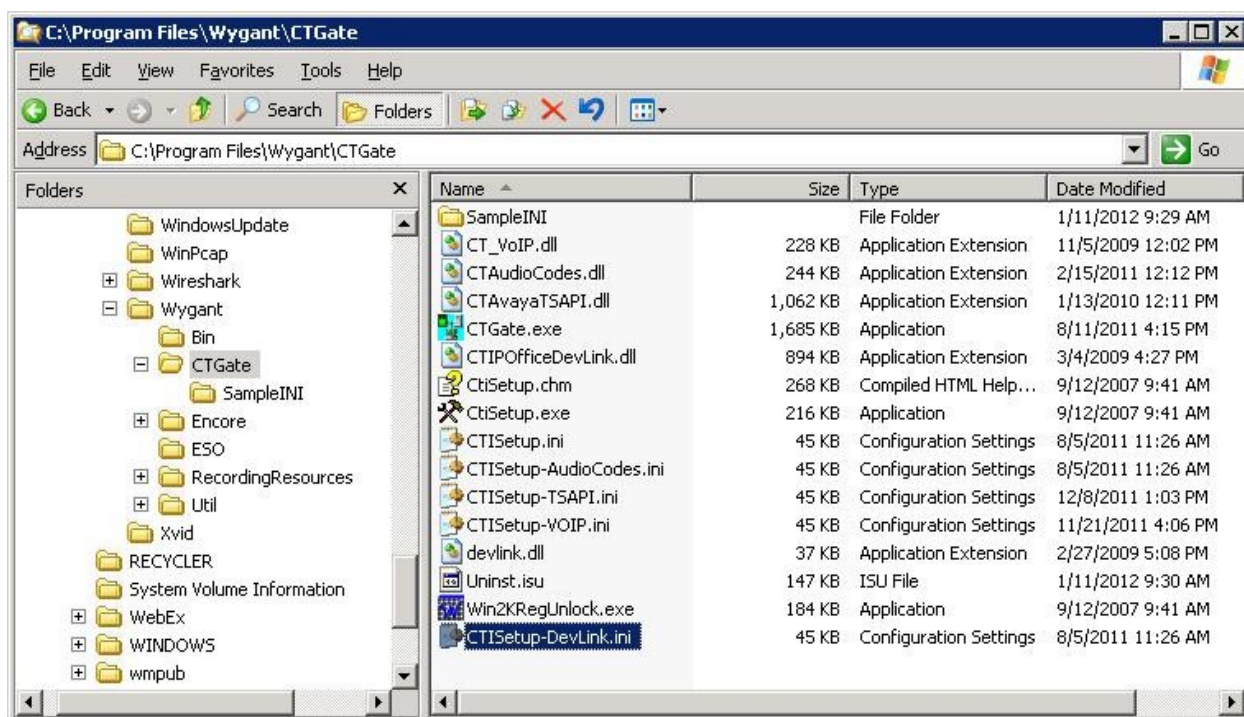
This section provides the procedures for configuring Encore. The procedures include the following areas:

- Administer CTISetup
- Administer CT Gateway

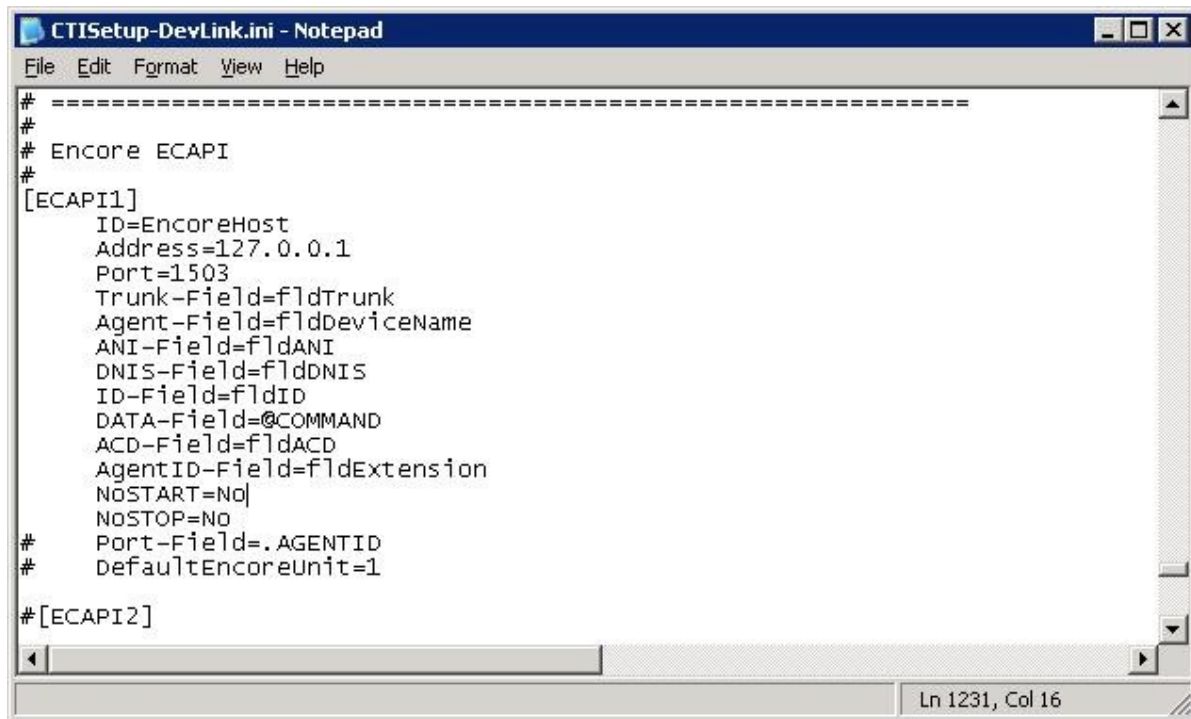
The configuration of Encore is performed by dvsAnalytics installers and dealers. The procedural steps are presented in these Application Notes for informational purposes.

6.1. Administer CTISetup

Navigate to the **C:\Program Files\Wygant\CTGate** directory to edit the **CTISetup-DevLink.ini** file.



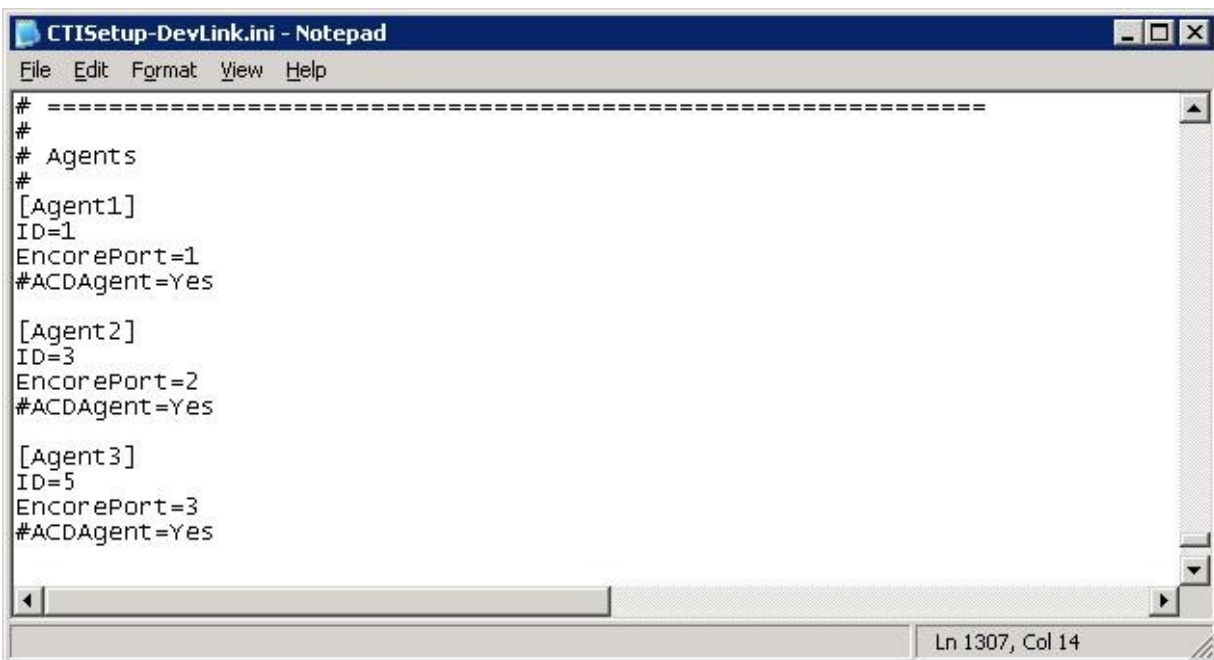
Navigate to the **Encore ECAPI** section. Under **ECAPI1**, set all parameters as shown below.



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

Ln 1231, Col 16

Navigate to the **Agents** section. Under **Agent1**, set **ID** to the extension id associated with the first physically connected digital port from **Section 5.2**, in this case “1”. For **EncorePort**, use the corresponding physically connected port to AudioCodes, in this case “1”. Create additional agent parameter lines as necessary when more than one agent is being monitored.



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

[Agent2]
ID=3
EncorePort=2
#ACDAgent=Yes

[Agent3]
ID=5
EncorePort=3
#ACDAgent=Yes
```

Ln 1307, Col 14

6.2. Administer CT Gateway

Click on the **CT Gateway** icon from the system tray, as shown below.



The **CTISetup-DevLink.ini** 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 IP Office. For **Switch password**, enter the password for the 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 "PBX interface setup" dialog box. It contains several input fields: "*Switch IP addr:" with the value "20.32.39.33", "*Switch password:" with a masked password "xxxxxxx", and "Debug logging level:" with the value "2". Below these is a section titled "Encode database fields for additional call data" containing three fields: "*Call ID field:" with "fldCallID", "*Other call ID field:" with "fldOtherCallID", and "*User name field:" with "fldAgentName". At the bottom, there are two buttons: "Add memo to log file..." and "Dump slot to name list on next event". A note at the bottom states "* Requires restart of CTGateway". The dialog has "OK" and "Cancel" buttons at the very bottom.

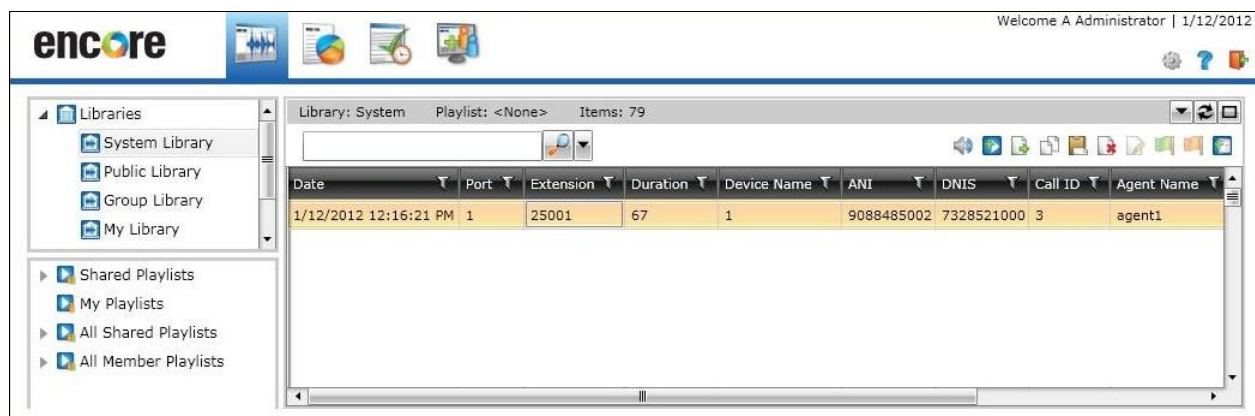
7. Verification Steps

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

Log an agent in to the hunt group to handle and complete an ACD call. Access the Encore web interface by using the URL “http://ip-address/encore” in an Internet browser window, where “ip-address” is the IP address of the Encore server. The **encore** screen is displayed. Click **Login** and log in using the appropriate credentials.



The **encore** screen is updated with a list of call recordings. Verify that there is an entry in the right pane reflecting the last call, with proper values in the relevant fields.



Right click on the entry and select **Play** to listen to the playback. Verify that the screen is updated and that the call recording is played back.

The screenshot displays the Encore web interface. At the top, the 'encore' logo is on the left, and 'Welcome A Administrator | 1/12/2012' is on the right. A sidebar on the left contains 'Libraries' (System Library, Public Library), 'Shared Playlists', 'My Playlists', and 'All Shared Playlists'. The main area shows a table of call records under 'Library: System', 'Playlist: <None>', and 'Items: 79'. The table has columns: Date, Port, Extension, Duration, Device Name, ANI, DNIS, Call ID, and Agent Name. One record is visible: 1/12/2012 12:16:21 PM, Port 1, Extension 25001, Duration 67, Device Name 1, ANI 9088485002, DNIS 7328521000, Call ID 3, and Agent Name agent1. Below the table is a 'Streaming Player: 01Z1421V.vx8' section. It shows 'Position: 0:00:15.700' and 'Recording Length: 0:01:08.102'. A waveform visualization is present, and a 'Video Unavailable' message is on the left. At the bottom are playback controls: play, pause, stop, previous, next, volume, and a timer.

Date	Port	Extension	Duration	Device Name	ANI	DNIS	Call ID	Agent Name
1/12/2012 12:16:21 PM	1	25001	67	1	9088485002	7328521000	3	agent1

8. Conclusion

These Application Notes describe the configuration steps required for dvsAnalytics Encore 2.3.1 to successfully interoperate with Avaya IP Office 8.0. 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 8.0 Documentation CD*, November 2011, available at <http://support.avaya.com>.
2. *Encore Administrator's Guide*, Release 2.3.1, September 20, 2011, available upon request to dvsAnalytics Support.
3. *Avaya IP Office with DevLink Pro Switch Integration Guide*, Release 2.2.7, July 22, 2010, available upon request to dvsAnalytics Support.

©2012 Avaya Inc. All Rights Reserved.

Avaya and the Avaya Logo are trademarks of Avaya Inc. All trademarks identified by ® and ™ are registered trademarks or trademarks, respectively, of Avaya Inc. All other trademarks are the property of their respective owners. The information provided in these Application Notes is subject to change without notice. The configurations, technical data, and recommendations provided in these Application Notes are believed to be accurate and dependable, but are presented without express or implied warranty. Users are responsible for their application of any products specified in these Application Notes.

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.