



## **Avaya Solution & Interoperability Test Lab**

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# **Application Notes for ISI Infortel Select with Avaya Aura® Communication Manager - Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required for the ISI Infortel Select call accounting software to successfully interoperate with Avaya Aura® Communication Manager.

ISI Infortel Select is a call accounting software that interoperates with Avaya Aura® Communication Manager over the Avaya Reliable Session Protocol (RSP). Call records can be generated for various types of calls. ISI Infortel Select collects, and processes the call records.

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 overall objective of this interoperability compliance testing is to verify that the ISI Infortel Select call accounting software can interoperate with Avaya Aura® Communication Manager 7.0. ISI Infortel Select (herein referred to as Infortel Select) connects to Avaya Aura® Communication Manager over a local or wide area network using a Call Detail Record (CDR) link running RSP. Avaya Aura® Communication Manager is configured to send CDR records to Infortel Select using a specific port.

Infortel Select provides traditional call collection, rating, and reporting for any size businesses. Infortel Select can interface with most telephone systems - in particular, with the Avaya Aura® Communication Manager - to collect and interpret the detailed records of inbound, outbound, tandem, and internal telephone calls. Infortel Select then calculates the appropriate charge for local, long distance, international & special calls and allocates them to responsible parties.

During the test, both Avaya H.323 and SIP endpoints were included. SIP endpoints registered with Avaya Aura® Session Manager. An assumption is made that Avaya Aura® Session Manager and Avaya Aura® System Manager are already installed and basic configuration has been performed.

Only steps relevant to this compliance test will be described in this document. In these Application Notes, the following topics will be described:

- Avaya Aura® Communication Manager – A SIP trunk configuration between Avaya Aura® Communication Manager and Avaya Aura® Session Manager. A CDR link configuration on Avaya Aura® Communication Manager.
- Infortel Select – A CDR link configuration on Infortel Select.

## 2. General Test Approach and Test Results

The general test approach was to manually place intra-switch calls, inbound trunk calls, and outbound trunk calls for basic call, transfer, and conference scenarios, and verify that Infortel Select collects the CDR records, and properly classifies and reports the attributes of the call.

For serviceability testing, physical and logical links were disabled/re-enabled, Avaya Servers were reset and Infortel Select was restarted.

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 testing included features and serviceability tests. The focus of the compliance testing was primarily on verifying the interoperability between Infortel Select and Communication Manager.

## **2.2. Test Results**

All executed test cases passed. Infortel Select successfully collected the CDR records from Communication Manager via a RSP connection for all types of calls generated, including intra-switch calls, inbound/outbound PSTN trunk calls, inbound/outbound private IP trunk calls, transferred calls, and conference calls.

For serviceability testing, Infortel Select was able to resume collection of CDR records after failure recovery including buffered CDR records for calls that were placed during the outages.

## **2.3. Support**

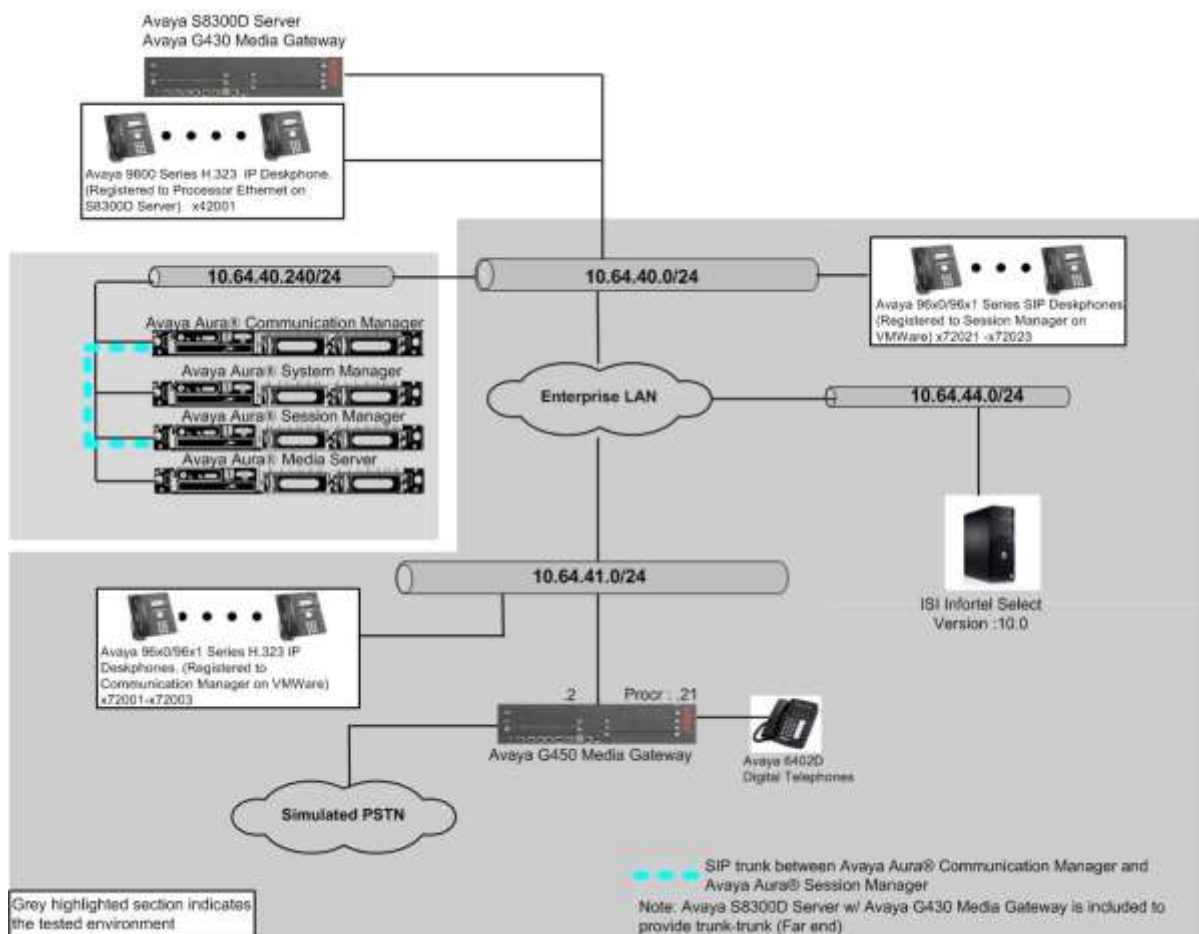
Technical support for Infortel Select can be obtained through the following:

- <http://www.isi-info.com/support/support.htm>
- (847) 592-3250

### 3. Reference Configuration

**Figure 1** illustrates a sample configuration consisting of an Avaya Server running Communication Manager on VMware, an Avaya G450 Media Gateway, a Session Manager, and Infortel Select. Avaya 9600 Series SIP IP Deskphones have been registered to Session Manager. The solution described herein is also extensible to other Avaya Servers and Media Gateways.

***Note:** Avaya S8300D Server with an Avaya G430 Media Gateway was included in the test only to provide an inter-switch scenario. Thus, there will not be any discussion on configuring Avaya S8300D Server with an Avaya G430 Media Gateway.*



**Figure 1. Test configuration of ISI Infortel Select with Avaya Aura® Communication Manager**

## 4. Equipment and Software Validated

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

Equipment		Software
Avaya Aura® Communication Manager on Virtual Environment		7.0 (R017x.00.0.441.0)
Avaya G450 Media Gateway		37.19.0
Avaya Aura® Media Server on Virtual Environment		7.7.0.226
Avaya Aura® System Manager on Virtual Environment		7.0.0.0.3929
Avaya Aura® Session Manager on Virtual Environment		7.0.0.0.700007
Avaya 96x1/96x0 Series SIP IP Deskphone		
	9611G	7.0.0.39
	9630	2.6.14
Avaya 96X0 and 96X1 Series H.323 IP Deskphone		
	9620	3.25
	9621G	6.6
	9650	3.25
Infotel Select on Windows 2008 Server R2 Standard, 64 bit		10.0.5740

## 5. Configure Avaya Aura® Communication Manager

This section describes the procedure for configuring call detail recording (CDR) and a SIP trunk in Communication Manager. These steps are performed through the System Access Terminal (SAT). These steps describe the procedure used for the Avaya S8300D Server. All steps are the same for the other Avaya Servers. Communication Manager will be configured to generate CDR records using RSP over TCP/IP to the IP address of the server running Infotel Select. For the Avaya S8300D Server, the RSP link originates at the IP address of the local processor (with node-name - “procr”).

## 5.1. Configure CDR

Use the **change node-names ip** command to create a new node name, for example, **isi**. This node name is associated with the IP address of the server running the Infortel Select application. Also, take note of the node name – “procr”. It will be used in the next step. The “procr” entry on this form was previously administered.

change node-names ip		Page 1 of 2
IP NODE NAMES		
Name	IP Address	
AMS	10.64.40.224	
isi	10.64.44.101	
SM-1	10.64.41.42	
SM70	10.64.40.226	
default	0.0.0.0	
msgserver-ip	10.64.41.21	
procr	10.64.40.221	

Use the **change ip-services** command to define the CDR link to use the RSP over TCP/IP. To define a primary CDR link, provide the following information:

- **Service Type:** “CDR1” [If needed, a secondary link can be defined by setting Service Type to CDR2.]
- **Local Node:** “procr” [For the Avaya S8720 Servers set the Local Node to the node name of the CLAN board.]
- **Local Port:** “0” [The Local Port is fixed to 0 because Communication Manager initiates the CDR link.]
- **Remote Node:** “ISI” [The Remote Node is set to the node name previously defined.]
- **Remote Port:** “9000” [The Remote Port may be set to a value between 5000 and 64500 inclusive, and must match the port configured in Infortel Select.]

change ip-services

Page1 of 4

IP SERVICES

Service Type	Enabled	Local Node	Local Port	Remote Node	Remote Port
AESVCS	y	procr	8765		
CDR1		procr	0	ISI	9000
CDR2		procr	0	rdtt-1	9004

On **Page 3** of the ip-services form, enable the Reliable Session Protocol (RSP) for the CDR link by setting the **Reliable Protocol** field to “y”.

change ip-services					Page	3 of	4
SESSION LAYER TIMERS							
Service Type	Reliable Protocol	Packet Resp Timer	Session Connect Message Cntr	SPDU Cntr	Connectivity Timer		
CDR1	y	30	3	3	60		
CDR2	v	30	3	3	60		

Enter the **change system-parameters cdr** command from the SAT to set the parameters for the type of calls to track and the format of the CDR data. The example below shows the settings used during the compliance test. Provide the following information:

- **CDR Date Format:** “month/day”
- **Primary Output Format:** “unformatted”
- **Primary Output Endpoint:** “CDR1”

The remaining parameters define the type of calls that will be recorded and what data will be included in the record. See reference [2] for a full explanation of each field. The test configuration used some of the more common fields described below.

- **Use Legacy CDR Formats?:** “n” [Allows CDR formats to use 4.x CDR formats. If the field is set to “y”, then CDR formats utilize the 3.x CDR formats.]
- **Intra-switch CDR:** “y” [Allows call records for internal calls involving specific stations. Those stations must be specified in the **intra-switch cdr** form.]
- **Record Outgoing Calls Only?:** “n” [Allows incoming trunk calls to appear in the CDR records along with the outgoing trunk calls.]
- **Outg Trk Call Splitting?:** “y” [Allows a separate call record for any portion of an outgoing call that is transferred or conferenced.]
- **Inc Trk Call Splitting?:** “y” [Allows a separate call record for any portion of an incoming call that is transferred or conferenced.]
- **Call Account Code Length:** “6” [The length may be set to a value between 1 and 15. However, during the compliance test, “6” was used.]

```

change system-parameters cdr                                     Page 1 of 1
                        CDR SYSTEM PARAMETERS

Node Number (Local PBX ID): 1                                CDR Date Format: month/day
Primary Output Format: unformatted                            Primary Output Endpoint: CDR1
Secondary Output Format: unformatted                          Secondary Output Endpoint: CDR2
  Use ISDN Layouts? n                                       Enable CDR Storage on Disk? y
  Use Enhanced Formats? n                                   Condition Code 'T' For Redirected Calls? n
  Use Legacy CDR Formats? n                                Remove # From Called Number? n
Modified Circuit ID Display? y                               Intra-switch CDR? y
  Record Outgoing Calls Only? n                             Outg Trk Call Splitting? y
  Suppress CDR for Ineffective Call Attempts? n             Outg Attd Call Record? y
  Disconnect Information in Place of FRL? y                 Interworking Feat-flag? y
  Force Entry of Acct Code for Calls Marked on Toll Analysis Form? n
  Calls to Hunt Group - Record: member-ext
Record Called Vector Directory Number Instead of Group or Member? n
Record Agent ID on Incoming? y                               Record Agent ID on Outgoing? y
  Inc Trk Call Splitting? y                                 Inc Attd Call Record? y
  Record Non-Call-Assoc TSC? n                               Call Record Handling Option: warning
  Record Call-Assoc TSC? n                                   Digits to Record for Outgoing Calls: dialed
  Privacy - Digits to Hide: 0                                CDR Account Code Length: 6
Remove '+' from SIP Numbers? y

```

If the **Intra-switch CDR** field is set to “y” on **Page 1** of the **system-parameters cdr** form, then use the **change intra-switch-cdr** command to define the extensions that will be subject to call detail records. In the **Extension** field, enter the specific extensions whose usage will be tracked.

change intra-switch-cdr		Page 1 of 3	
INTRA-SWITCH CDR			
		Assigned Members: 6	of 1000 administered
Extension	Extension	Extension	Extension
72001			
72002			
72003			
72021			
72022			
72023			

## 5.2. Configure IP Network Region

This section describes the steps for administering an IP network region in Communication Manager for communication between Communication Manager and Session Manager. Enter the **change ip-network-region <n>** command, where **<n>** is a number between **1** and **250** inclusive, and configure the following:

- **Authoritative Domain** – Enter the appropriate name for the Authoritative Domain. Set to the appropriate domain. During the compliance test, the authoritative domain is set to “avaya.com”.
- **Codec Set** – Set the codec set number as provisioned in the **IP Codec Set** form. The form can be retrieved and set, using the **change ip-codec-set 1** command.

change ip-network-region 1		Page 1 of 20	
IP NETWORK REGION			
Region: 1			
Location: 1	Authoritative Domain: avaya.com		
Name:	Stub Network Region: n		
MEDIA PARAMETERS	Intra-region IP-IP Direct Audio: yes		
Codec Set: 1	Inter-region IP-IP Direct Audio: yes		
UDP Port Min: 16390	IP Audio Hairpinning? n		
UDP Port Max: 16999			
DIFFSERV/TOS PARAMETERS			
Call Control PHB Value: 46			
Audio PHB Value: 46			
Video PHB Value: 26			
802.1P/Q PARAMETERS			
Call Control 802.1p Priority: 6			
Audio 802.1p Priority: 6			
Video 802.1p Priority: 5			
H.323 IP ENDPOINTS		AUDIO RESOURCE RESERVATION PARAMETERS	
H.323 Link Bounce Recovery? y		RSVP Enabled? n	
Idle Traffic Interval (sec): 20			
Keep-Alive Interval (sec): 5			
Keep-Alive Count: 5			



## 6. Configure Avaya Aura<sup>®</sup> Session Manager

This section provides the procedures for configuring Session Manager as provisioned in the reference configuration. Session Manager is comprised of two functional components: the Session Manager server and the System Manager server. All SIP call provisioning for Session Manager is performed through the System Manager Web interface and is then downloaded into Session Manager.

It is assumed that Session Manager and System Manager have been installed, network connectivity exists between Communication Manager and Session Manager, and the following topics are already configured in System Manager:

- **SIP Domains**
- **Locations**
- **SIP Entities**
- **Entity Links**
- **Time Ranges**
- **Routing Policy**
- **Dial Patterns**
- **Manage Element**
- **Applications**
- **Application Sequence**
- **Manage Users**

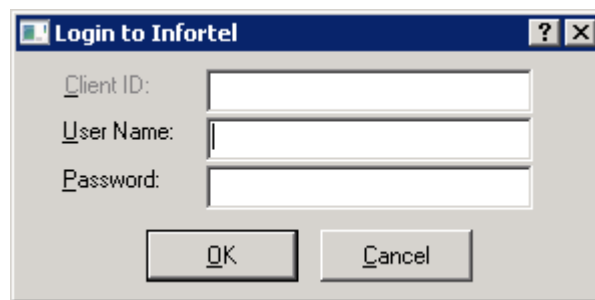
## 7. Configure Infortel Select

This section describes the operation of Infortel Select to receive CDR data from Communication Manager. Installation of the Infortel Select software was performed by an ISI engineer prior to the actual compliance test. In this section, the following topics are discussed:

- Configure ISI Infortel Select
- Start ISI Infortel Select services
- View ISI Infortel Select CDR report

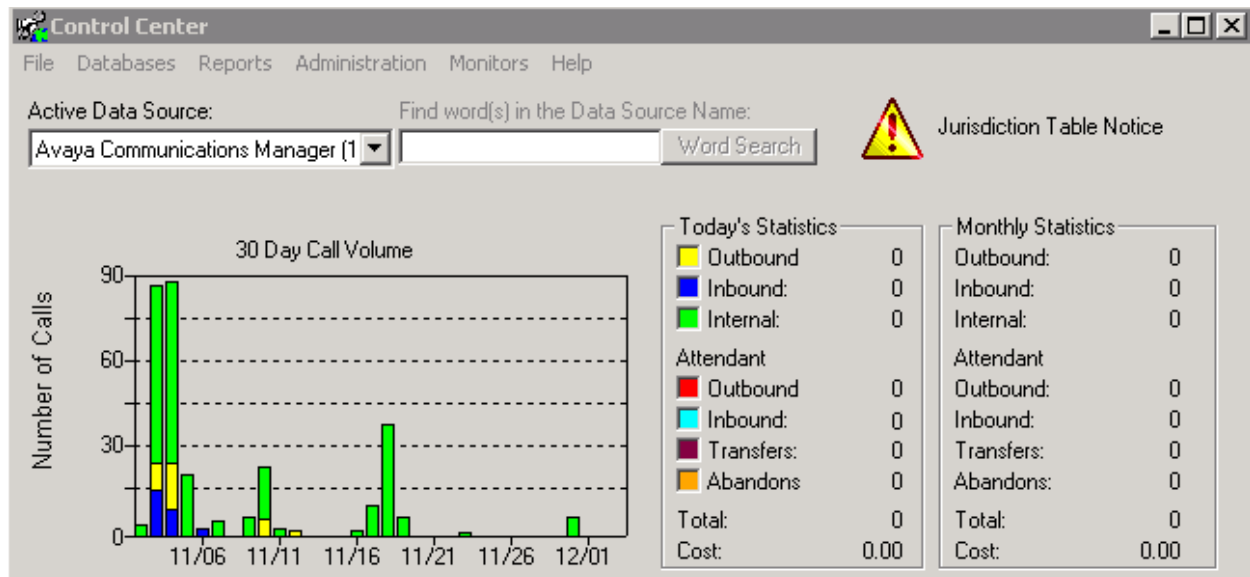
### 7.1. Configure ISI Infortel Select

To configure Infortel Select to communicate with Communication Manager, navigate to **Start** → **Control Center**, and provide credentials to log into the **Control Center** page.

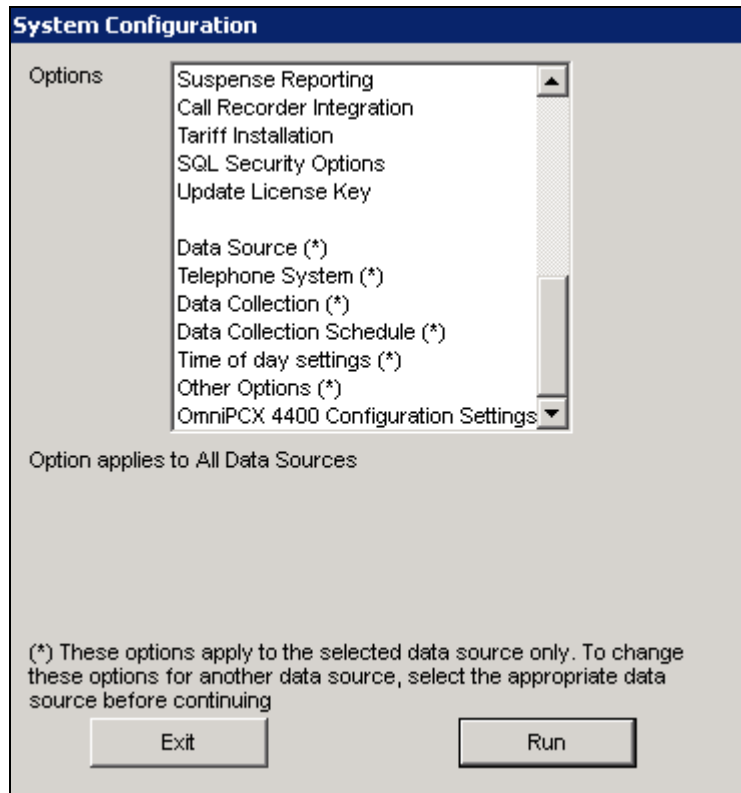


A dialog box titled "Login to Infortel" with a blue header bar containing a question mark and a close button. It contains three input fields: "Client ID:", "User Name:", and "Password:". Below the fields are two buttons: "OK" and "Cancel".

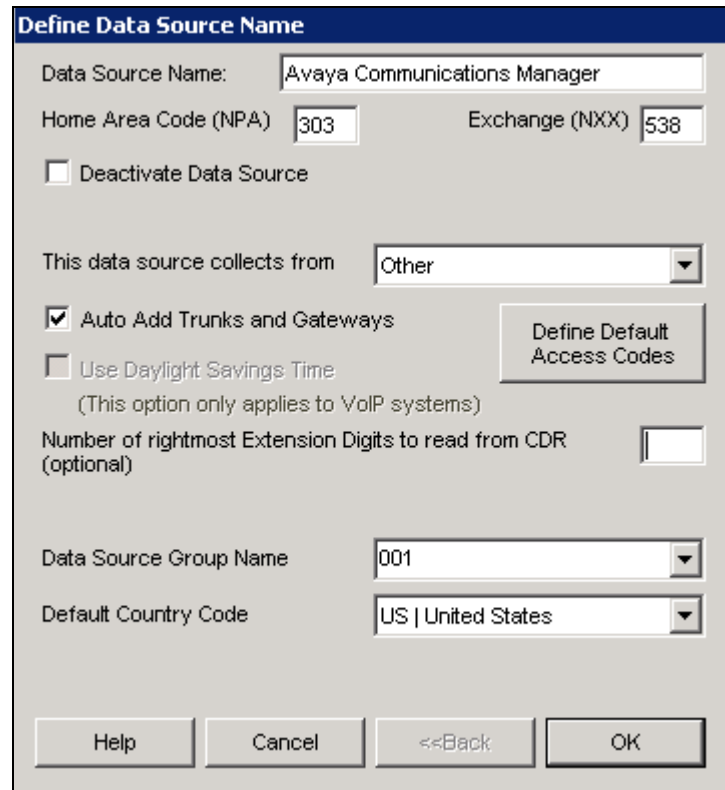
From the **Control Center** page, select **Administration** → **System Configuration Options**.



From the **System Configuration** page, scroll down and select **Date Source (\*)** and click on the **Run** button.



Enter a descriptive **Data Source Name** and click on **OK**.



The image shows a 'Define Data Source Name' dialog box. It contains several input fields and checkboxes. The 'Data Source Name' field is filled with 'Avaya Communications Manager'. The 'Home Area Code (NPA)' field is '303' and the 'Exchange (NXX)' field is '538'. There is an unchecked checkbox for 'Deactivate Data Source'. A dropdown menu for 'This data source collects from' is set to 'Other'. There is a checked checkbox for 'Auto Add Trunks and Gateways' and an unchecked checkbox for 'Use Daylight Savings Time' with a note '(This option only applies to VoIP systems)'. A button labeled 'Define Default Access Codes' is next to the daylight savings checkbox. The 'Number of rightmost Extension Digits to read from CDR (optional)' field is empty. The 'Data Source Group Name' dropdown is set to '001' and the 'Default Country Code' dropdown is set to 'US | United States'. At the bottom are buttons for 'Help', 'Cancel', '<<Back', and 'OK'.

**Define Data Source Name**

Data Source Name:

Home Area Code (NPA)  Exchange (NXX)

☐ Deactivate Data Source

This data source collects from

☒ Auto Add Trunks and Gateways

☐ Use Daylight Savings Time  
(This option only applies to VoIP systems)

Number of rightmost Extension Digits to read from CDR (optional)

Data Source Group Name

Default Country Code

From the **System Configuration** page, scroll down and select **Telephone System (\*)** and select **Avaya Communications Manager (1)** on the **Data Source** field. Click on the **Run** button.

**System Configuration**

Options

- Suspense Reporting
- Call Recorder Integration
- Tariff Installation
- SQL Security Options
- Update License Key
- Data Source (\*)
- Telephone System (\*)**
- Data Collection (\*)
- Data Collection Schedule (\*)
- Time of day settings (\*)
- Other Options (\*)
- OmniPCX 4400 Configuration Settings

Data Source: Avaya Communications Manager (1)

(\*) These options apply to the selected data source only. To change these options for another data source, select the appropriate data source before continuing

Exit Run


Select **Avaya Media and Definity Servers** under the **SMDR Parsing module Name** page.  
Click on the **Configure PBX filter** tab to configure the CDR format type.

**Define Telephone System (Avaya Communications Manager)**

Search:

SMDR Parsing module Name	Last Modified
AudioCodes VOIP switches - radius data	04/20/2012
Avaya Aura Session Manager phone switc...	05/16/2011
Avaya IP Office VOIP switches	03/06/2015
<b>Avaya Media and Definity Servers</b>	04/23/2015
Avaya phone switches - Special Trunk Call ...	08/20/2009
CDR MS Costed Call records	08/20/2009

This system supports various telephone switches and versions. In order to install the correct configuration, highlight the telephone system name.



Select **CDR format** type on the **Avaya Switch Setup** page, and click on the **OK** button. During the compliance test, **Unformatted V4** was used.

The image shows a screenshot of the 'Avaya Switch Setup' dialog box. It has a title bar with the text 'Avaya Switch Setup'. The dialog is divided into two main sections: 'CDR Format' and 'Processing Options'.

**CDR Format Section:**

- 'Select CDR Format:' is a dropdown menu with 'Unformatted V4' selected.
- 'Select Date Format:' is a dropdown menu with 'No Date Stamp in the data record [] (None)' selected.
- There are four radio buttons:
  - ☒ U.S. Date (MM/dd/yyyy)
  - ☐ International Date (dd/MM/yyyy)
  - ☒ Std. Duration Format (HMMT)
  - ☐ Special Duration Format (SSSSS)

**Processing Options Section:**

- ☐ Use Feature Flag plus Duration to emulate Answer Supervision.
- ☒ Trunk To Trunk calls with no Inbound Trunk Group, change to Outbound
- ☒ Inbound Calls that are Extension to Extension Calls, change to Internal
- ☐ Support 2007 Daylight Savings Time period change.
- ☐ Prepend Digits Dialed with Access Code
- ☐ Strip leading spaces from data record
- ☐ Process records with Condition Code E
- ☐ Process records with Condition Code F
- Specify minimum number of ANI/CallerID digits to store (or leave blank to store all).
- Specify maximum number of digits for a valid extension.

**Replace Characters Section:**

Field Name	Search for	Replace with	When call type is
------------	------------	--------------	-------------------

Below the table are two buttons: 'Add Row' and 'Delete Row'.

At the bottom right of the dialog are two buttons: 'Cancel' and 'OK'.

Select **Data Collection (\*)** on the **System Configuration** page, and click on **Run**.

**System Configuration**

Options

- Suspense Reporting
- Call Recorder Integration
- Tariff Installation
- SQL Security Options
- Update License Key
- Data Source (\*)
- Telephone System (\*)
- Data Collection (\*)**
- Data Collection Schedule (\*)
- Time of day settings (\*)
- Other Options (\*)
- OmniPCX 4400 Configuration Settings

Data Source: Avaya Communications Manager (1)

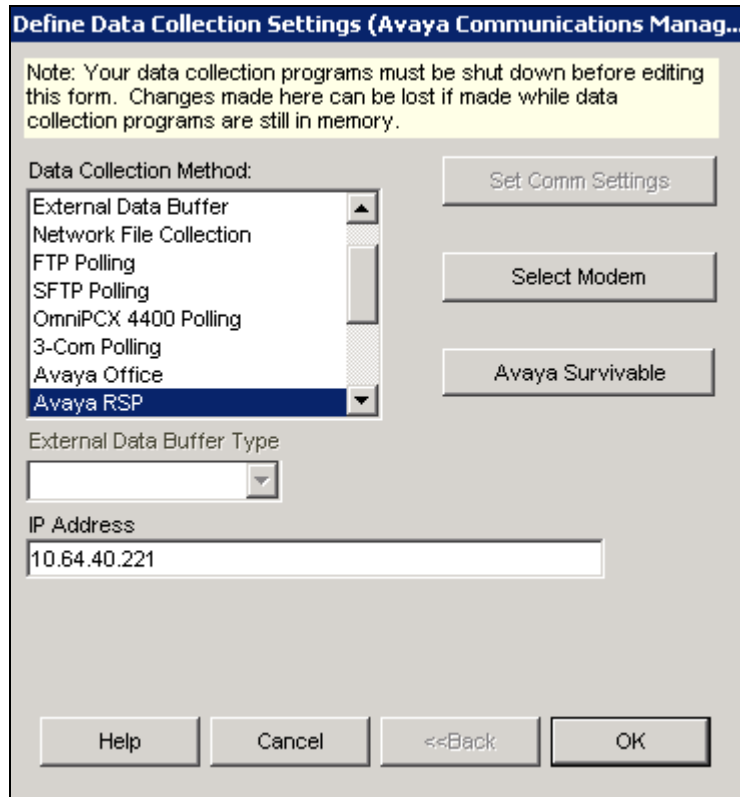
(\*) These options apply to the selected data source only. To change these options for another data source, select the appropriate data source before continuing

Exit Run



Select **Avaya RSP** under the **Data Collection Method** section, and provide the **IP address** that CDR records are coming from, in this case, the IP address of Communication Manager.

Click **OK**.



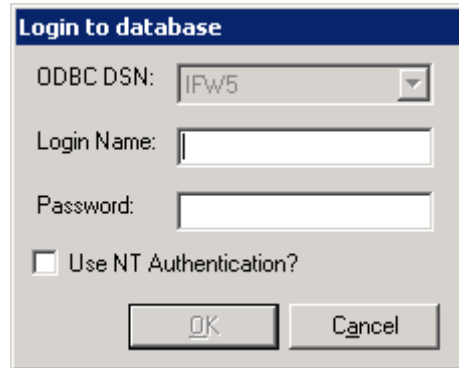
The dialog box titled "Define Data Collection Settings (Avaya Communications Manag...)" contains a yellow note at the top: "Note: Your data collection programs must be shut down before editing this form. Changes made here can be lost if made while data collection programs are still in memory." Below the note, the "Data Collection Method:" section features a list box with options: External Data Buffer, Network File Collection, FTP Polling, SFTP Polling, OmniPCX 4400 Polling, 3-Com Polling, Avaya Office, and Avaya RSP (which is selected). To the right of this list are three buttons: "Set Comm Settings", "Select Modem", and "Avaya Survivable". Below the list box is the "External Data Buffer Type" section with a dropdown menu. The "IP Address" section contains a text field with the value "10.64.40.221". At the bottom of the dialog are four buttons: "Help", "Cancel", "<<Back", and "OK".

To configure the listening port on Infortel Select, navigate to **c:\InfortelSelect\Programs** and modify the **isvAvayaRsp** file. The DataPort is set to 9000. The port 9000 is the port that Infortel Select is listening on. The following screen shows the file.

```
[Service]
DataPort=9000
HostAddress=
ReconnectEnabled=Y
CleanNonPrint=Y
LogFile=
LogEnabled=Y
TraceFile=
```

## 7.2. Start ISI Infortel Select Services

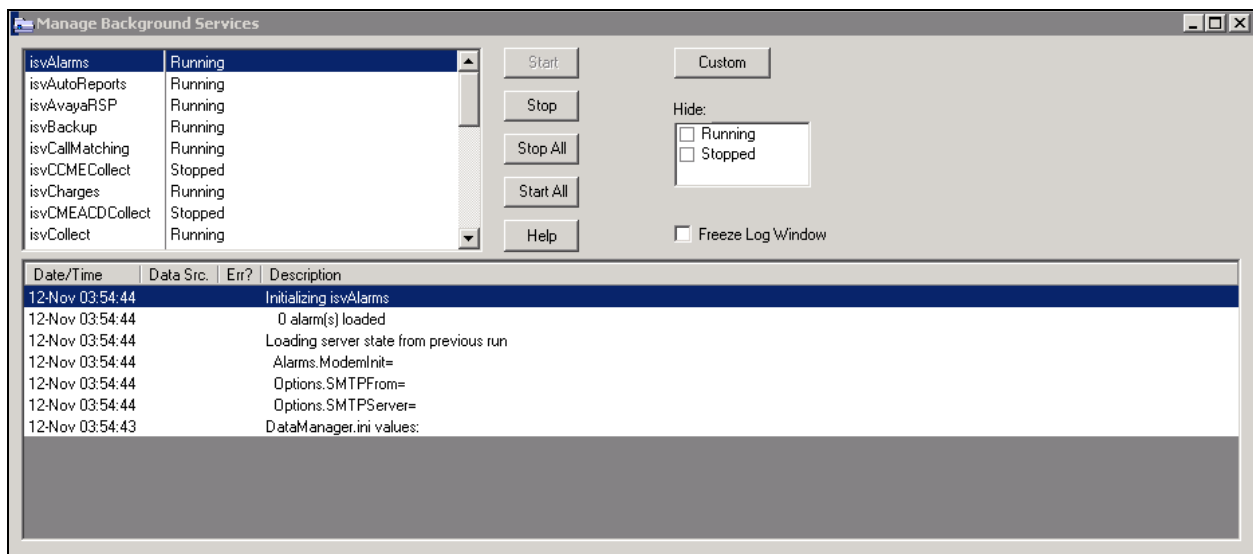
Start the Infortel Select services by navigating to **Start → Manage Background Services**. Provide the same credential, used previously in **Section 7.1**.



A dialog box titled "Login to database" with a blue header. It contains the following fields and controls:

- ODBC DSN: A dropdown menu showing "IFW5".
- Login Name: A text input field.
- Password: A text input field.
- Use NT Authentication?: A checkbox that is currently unchecked.
- OK and Cancel buttons at the bottom.

Click the **Start All** button on the **Manage Background Services** page



The "Manage Background Services" window displays a list of services and their status. The "Start All" button is highlighted.

Service Name	Status
isvAlarms	Running
isvAutoReports	Running
isvAvayaRSP	Running
isvBackup	Running
isvCallMatching	Running
isvCCMECollect	Stopped
isvCharges	Running
isvCMEACDCollect	Stopped
isvCollect	Running

Buttons: Start, Stop, Stop All, Start All, Help, Custom.

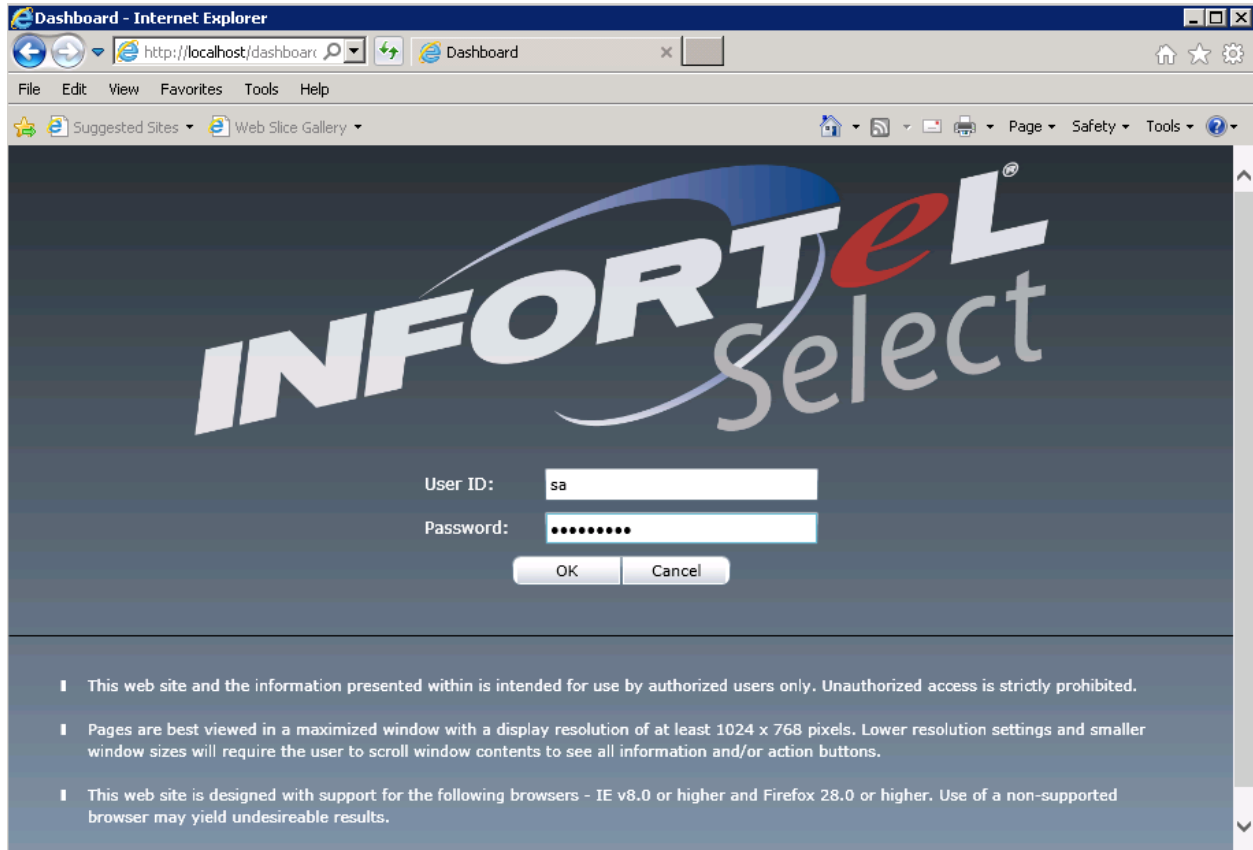
Hide: ☐ Running, ☐ Stopped.

☐ Freeze Log Window

Date/Time	Data Src.	Err?	Description
12-Nov 03:54:44			Initializing isvAlarms
12-Nov 03:54:44			0 alarm(s) loaded
12-Nov 03:54:44			Loading server state from previous run
12-Nov 03:54:44			Alarms.ModemInit=
12-Nov 03:54:44			Options.SMTPFrom=
12-Nov 03:54:44			Options.SMTPServer=
12-Nov 03:54:43			DataManager.ini values:

### 7.3. View ISI Infortel Select Report

To view the CDR report, launch a web browser. Enter <http://<IP address of ISI Infortel Select>/dashboard> in the URL, and log in with appropriate credentials.



From the **Dashboard** page, select **Report/Exports** icon, , at the bottom of the screen.



Select **Report Publisher** on the **Report/Exports** page.



Select **Call Detail Record Search** on the **Report Publisher** page.



On the **Execute/Define Reports** page, enter the specific date or dates to list the call detail data. Click the **Run Now** button at the top and select the review type, either **Preview PDF** or **Preview HTML**.

The screenshot shows a web application window titled "Execute/Define Reports" with a dark header bar. In the header, there are buttons for "Run Now" and "Save Settings", and icons for help, search, and close. Below the header, the "Report Name: Call Detail Record Search" is displayed. A series of tabs are present: "Required Constraints" (active), "Additional Constraints", "Options", "Layout", "Email", "Export", and "Schedule". The "Required Constraints" section is divided into "Date" and "Time" subsections. The "Date" subsection has radio buttons for "Specific" and "Relative", with "Specific" selected. It includes "From" and "To" date pickers set to 11/2/2015 and 11/4/2015, and an "Exclude Weekends" checkbox. The "Time" subsection has radio buttons for "Continuous" and "Interval", with "Continuous" selected. It includes "Start time on first day" and "End time on last day" time pickers set to 12:00 AM and 11:59 PM. A description box states: "Description: Individual call records sorted by phone number, datetime, call type, duration or cost." At the bottom of the main area, it says "For help, hover mouse over control." The footer contains the ISI logo and a row of icons representing various functions like charts, maps, phone, settings, and help.

Execute/Define Reports Run Now Save Settings

Report Name: Call Detail Record Search

Required Constraints Additional Constraints Options Layout Email Export Schedule

Required Constraints Data available from 10/14/2015 to 11/30/2015

Date

☒ Specific From 11/2/2015 To 11/4/2015 ☐ Exclude Weekends

☐ Relative

Time

☒ Continuous Start time on first day: 12:00 AM End time on last day: 11:59 PM

☐ Interval

Description: Individual call records sorted by phone number, datetime, call type, duration or cost.

For help, hover mouse over control.

The following screen shows the final report that was generated on a specific date.

Avaya Test Call Detail Search									
Call Detail Search							From 11/02/2015 through 11/04/2015		
Data Source	Ext.	Date	Time	Duration	Call Cost Type	Facility	Phone Number Location	Account/Matter	
Avaya Comm (1)	72021	11/02/2015	09:20	0:00:12	0.00 INT	DEFAULT	72001 Avaya Communications Manager, Undefined Extension 72001		
Avaya Comm (1)	72022	11/02/2015	09:22	0:00:12	0.00 INT	DEFAULT	72002 Avaya Communications Manager, Undefined Extension 72002		
Avaya Comm (1)	72021	11/02/2015	12:50	0:00:12	0.00 INT	DEFAULT	72002 Avaya Communications Manager, Undefined Extension 72002		
Avaya Comm (1)	72021	11/02/2015	12:54	0:00:06	0.00 INT	DEFAULT	72001 Avaya Communications Manager, Undefined Extension 72001		
Avaya Comm (1)	72001	11/03/2015	09:22	0:00:06	0.00 INT	DEFAULT	72002 Avaya Communications Manager, Undefined Extension 72002		
Avaya Comm (1)	72001	11/03/2015	09:22	0:00:06	0.00 INT	DEFAULT	72021 Avaya Communications Manager, Undefined Extension 72021		
Avaya Comm (1)	72021	11/03/2015	09:22	0:00:06	0.00 INT	DEFAULT	72001 Avaya Communications Manager, Undefined Extension 72001		
Avaya Comm (1)	72021	11/03/2015	09:22	0:00:06	0.00 INT	DEFAULT	72002 Avaya Communications Manager, Undefined Extension 72002		
Avaya Comm (1)	72002	11/03/2015	09:26	0:00:12	0.00 INT	DEFAULT	42001 Avaya Communications Manager, Undefined Extension 42001		
Avaya Comm (1)	72021	11/03/2015	09:28	0:00:06	0.00 INT	DEFAULT	42001 Avaya Communications Manager, Undefined Extension 42001		



## 8. Verification Steps

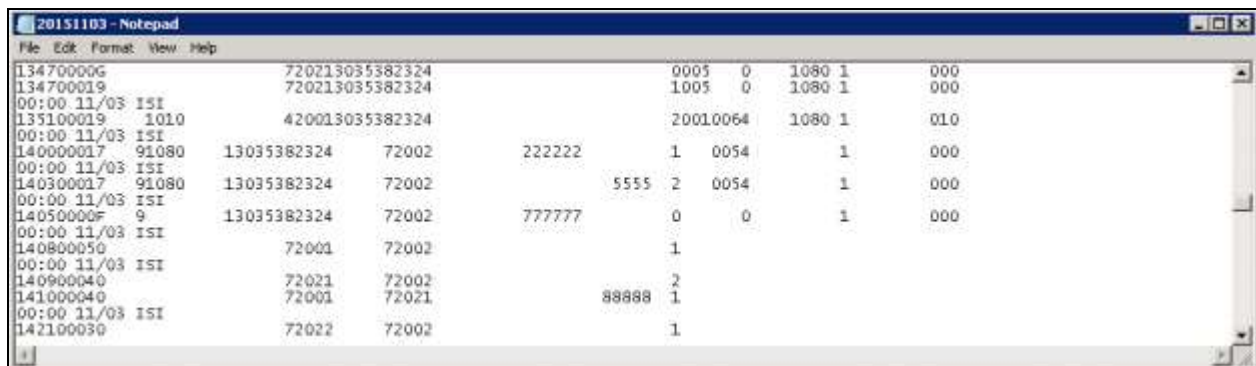
The following steps may be used to verify the configuration:

- Check the CDR status, by running the **status cdr** command in Communication Manager, and verify that the **Link State** is “up” and **Reason Code** is “OK”.

```
status cdr-link
```

CDR LINK STATUS	
Primary	Secondary
Link State: up	down
Number of Retries: 999	
Date & Time: 2015/12/01 14:16:07	2015/11/16 14:40:35
Forward Seq. No: 13	0
Backward Seq. No: 0	0
CDR Buffer % Full: 0.00	0.01
Reason Code: OK	CDR connection is closed

- Make several SIP calls between two Communication Managers, and verify that call records were collected from Infortel Select. The following raw data page may be used to verify. The raw data page is located in the **c:\InfortelSelect\Data\Raw\Archive** directory.



Time	Source	Destination	Call ID	Seq No	Seq No	Seq No	Seq No	Seq No
13470000G	720213035382324	0005	0	1080	1	000		
134700019	720213035382324	1005	0	1080	1	000		
00:00 11/03 ISI	420013035382324	20010064	1080	1	010			
135100019	1010							
00:00 11/03 ISI								
140000017	91080	13035382324	72002	222222	1	0054	1	000
00:00 11/03 ISI								
140300017	91080	13035382324	72002	5555	2	0054	1	000
00:00 11/03 ISI								
14050000F	9	13035382324	72002	777777	0	0	1	000
00:00 11/03 ISI								
140800050	72001	72002			1			
00:00 11/03 ISI								
140900040	72021	72002			2			
141000040	72001	72021		88888	1			
00:00 11/03 ISI								
142100030	72022	72002			1			

## 9. Conclusion

These Application Notes describe the procedures for configuring Infortel Select to collect call detail records from Avaya Aura® Communication Manager. Testing was successful.

## 10. References

This section references the Avaya and ISI documentation that are relevant to these Application Notes.

[1] *Administering Avaya Aura® Communication Manager*, Document 03-300509, Issue 1 Release 7.0, August 2015, available at <http://support.avaya.com>.

[2] *Avaya Aura® Communication Manager Feature Description and Implementation*, Release 7.0, June 2015, available at <http://support.avaya.com>.

The Infortel Solution and Product information is available from ISI. Visit <http://www.isi-info.com/solutions/call-accounting-and-reporting/infortel-select>

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