Avaya Solution & Interoperability Test Lab

Application Notes for Symmetrics nVISION Contact Center Reporting, Analysis and Performance Management Suite with Avaya Aura™ Communication Manager and Avaya Aura™ Call Management System – Issue 1.0

Abstract

These Application Notes describe the steps to configure for interoperability compliance testing of Symmetrics nVISION Contact Center Reporting, Analysis and Performance Management Suite (here-on refers as nVISION) in an environment which consists of Avaya Aura™ Communication Manager and Avaya Aura™ Call Management System.

Symmetrics nVISION offers analytical software applications and professional services. Symmetrics helps customers realize their visions by providing reporting, analysis and information delivery software and services that turns data into usable information, ensuring they can make mission critical decisions in a timely manner.

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 steps to configure for interoperability compliance testing of Symmetrics nVISION Contact Center Reporting, Analysis and Performance Management Suite (nVISION) with Avaya Aura™ Communication Manager and Avaya Aura™ Call Management System.

Symmetrics offers analytical software applications and professional services. Symmetrics helps customers realize their visions by providing reporting, analysis and information delivery software and services that turns data into usable information, ensuring they can make mission critical decisions in a timely manner.

Symmetrics nVision Data Mart is a centralized data repository for contact center business data. Data integration processes bring in data from Avaya CMS and other data sources - consolidating and optimizing for business intelligence purposes.

The nVision data warehouse and nVision data integration processes are built upon a platform of Microsoft SQL Server 2005 and Pentaho Data Integration services.

1.1. Interoperability Compliance Testing

The interoperability compliance test focused on verifying the ability of Symmetrics nVISION Contact Center Reporting, Analysis and Performance Management Suite to import contact center call data from Call Management System using the JDBC interface and displaying contact center data in nVISION reports.

1.2. Support

Technical support for the Symmetrics nVISION solution can be obtained by contacting Symmetrics:
- URL – support@symmetrics.com
- Phone – (604) 891-5561 (Support hours are 9AM – 5PM PST and available Monday to Friday)

2. Reference Configuration

Figure 1 illustrates the configuration used in these Application Notes. The sample configuration shows nVISION with Avaya S8720 Servers and a G650 Media Gateway. Call center data (agents/skill/vector/vdns) are configured in the Avaya S8720 Servers. Types of IP telephones utilized during the compliance test are Avaya 4625, Avaya 9620, 9630 and 9650 IP Telephones. Symmetrics nVISION was connected to Avaya Call Management System via a VPN connection. An Avaya S8300 Server with an Avaya G450 Media Gateway was included in the test to provide an inter-switch scenario.

Figure 1: Test Configuration for the Symmetrics nVISION Solution

3. Equipment and Software Validated

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

Avaya IP Telephony Solution Components	
Component	Release
Avaya S8720 Servers	Avaya Aura™ Communication Manager 5.2.1 (R015x.02.1.016.4)
Avaya G650 Media Gateway	
TN2312BP IP Server Interface	FW40
TN799DP C-LAN Interface	FW34
TN2602AP IP Media Processor	FW51
Avaya Aura™ Call Management System	16.0
Avaya S8300 Server with Avaya G450 Media Gateway	Avaya Aura™ Communication Manager 5.2.1 (R015x.02.1.016.4)
Avaya 4625 IP Telephone (H.323)	2.9
Avaya 9600 IP Series Telephone (H.323)	Avaya one-X Deskphone Edition (H.323)
9620	3.1
9630	3.1
9650C	3.1
Symmetrics nVISION Solution Components	
Component	Release
Symmetrics nVISION on Windows 2003 Server with SP3	1.8

Table 1: Equipment and Software Tested

4. Configure Avaya Aura™ Communication Manager

This section describes the steps for configuring Communication Manager for the Symmetrics nVISION solution. The procedures include the following areas:

- Verify Communication Manager software options
- Administer adjunct CMS release
- Configure IP node names for Call Management System
- Configure processor interface channel.
- Configure Agents
- Configure measured Skill
- Configure Vector
- Configure measured VDN

The Communication Manager configuration was performed using the System Access Terminal (SAT).

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4.1. Verify Communication Manager Software Options

This section verifies that the Communication Manager license has proper permissions for features illustrated in these Application Notes. Enter the **display system-parameters customer-options** command to verify that the G3 Version field is set to **V15** on **Page 1**, as shown below. If not, contact an authorized Avaya account representative to obtain the license.

```
display system-parameters customer-options                    Page   1 of  11
                            OPTIONAL FEATURES

    G3 Version: V15                          Software Package: Standard
      Location: 1                           RFA System ID (SID): 1
      Platform: 6                           RFA Module ID (MID): 1

                                                              USED
                            Platform Maximum Ports: 44000 10274
                                Maximum Stations: 36000 10128
                          Maximum XMOBILE Stations: 0      0
                 Maximum Off-PBX Telephones - EC500: 50     2
                 Maximum Off-PBX Telephones -   OPS: 100    7
                 Maximum Off-PBX Telephones - PBFMC: 0      0
                 Maximum Off-PBX Telephones - PVFMC: 0      0
                 Maximum Off-PBX Telephones - SCCAN: 0      0




         (NOTE: You must logoff & login to effect the permission changes.)
```

On **Page 6**, and verify that the Call Center Release field is set to **5.0**, as shown below.

```
display system-parameters customer-options                    Page   6 of  11
                      CALL CENTER OPTIONAL FEATURES

                        Call Center Release: 5.0

                              ACD? y                        Reason Codes? y
                      BCMS (Basic)? y              Service Level Maximizer? n
         BCMS/VuStats Service Level? n            Service Observing (Basic)? y
  BSR Local Treatment for IP & ISDN? n    Service Observing (Remote/By FAC)? y
                   Business Advocate? n             Service Observing (VDNs)? n
                   Call Work Codes? y                            Timed ACW? n
       DTMF Feedback Signals For VRU? n                   Vectoring (Basic)? y
                    Dynamic Advocate? n              Vectoring (Prompting)? y
         Expert Agent Selection (EAS)? y         Vectoring (G3V4 Enhanced)? y
                           EAS-PHD? y              Vectoring (3.0 Enhanced)? y
                  Forced ACD Calls? n    Vectoring (ANI/II-Digits Routing)? y
              Least Occupied Agent? n    Vectoring (G3V4 Advanced Routing)? y
          Lookahead Interflow (LAI)? n                  Vectoring (CINFO)? n
Multiple Call Handling (On Request)? n    Vectoring (Best Service Routing)? n
      Multiple Call Handling (Forced)? n             Vectoring (Holidays)? n
   PASTE (Display PBX Data on Phone)? n             Vectoring (Variables)? y
          (NOTE: You must logoff & login to effect the permission changes.)
```

4.2. Administer Adjunct CMS Release

Enter the **change system-parameters features** command and navigate to **Page 12**. Set the CMS (appl mis) field, under the REPORTING ADJUNCT RELEASE section, to the software release of Call Management System. In this case, **R15/R16** is used to correspond to the Call Management System software release R16.0.

```
change system-parameters features                             Page  12 of  19
                        FEATURE-RELATED SYSTEM PARAMETERS

  AGENT AND CALL SELECTION
                            MIA Across Splits or Skills? n
                             ACW Agents Considered Idle? y
                             Call Selection Measurement: current-wait-time
       Service Level Supervisor Call Selection Override? n
                                    Auto Reserve Agents: none


  CALL MANAGEMENT SYSTEM
                                 REPORTING ADJUNCT RELEASE
                                   CMS (appl mis): R15/R16
                                   IQ  (appl ccr):

                                BCMS/VuStats LoginIDs? y
                      BCMS/VuStats Measurement Interval: half-hour
             BCMS/VuStats Abandon Call Timer (seconds):
                       Validate BCMS/VuStats Login IDs? y
                             Clear VuStats Shift Data: on-login
                  Remove Inactive BCMS/VuStats Agents? n
```

4.3. Configure IP Node Name for Call Management System

Enter the **change node-names ip** command, to add entries for Call Management System that will be used for connectivity. In this case, **avaya-cms** is entered as **Name** and **IP Address** for the Call Management System server. The CLAN has been configured prior to the test.

```
change node-names ip                                          Page   1 of   2
                                 IP NODE NAMES
    Name            IP Address
CLAN            10.64.40.24
MEDPRO          10.64.40.26
avaya-cms       10.64.10.85
default         0.0.0.0
```

4.4. Configure Processor Interface Channel

Assign a new processor interface channel by entering the **change communication-interface processor-channels** command. Add an entry with the following values:
- Enable – **y**
- Appl – **mis**
- Mode – **s** for a server mode.
- Interface Link – Link number for data module Ethernet port.
- Interface Chan – TCP channel number for Call Management System. During the test, channel **5001** is utilized.
- Destination Node – **avaya-cms** Enter the node name created in previous section.

- Destination Port – **0**
- Session Local – Corresponding channel number in Proc Chan field. During the test, session local **2** is utilized.
- Session Remote – Corresponding channel number in Proc Chan field. During the test, session remote **2** is utilized.

The **Interface Chan** field contains the Call Management System's TCP channel number, which is defined as a part of the Call Management System installation. For the compliance testing, the default TCP channel number of **5001** was used.

```
change communication-interface processor-channels        Page   1 of  24
                       PROCESSOR CHANNEL ASSIGNMENT
   Proc              Gtwy      Interface      Destination      Session
                               Mach
Chan Enable   Appl.   To  Mode Link/Chan   Node       Port   Local/Remote ID
  1:   y    audix        s    1   5002  audix          0       1    1    1
  2:   y    mis          s    1   5001  avaya-cms      0       2    2
  3:   n                                                0
  4:   n                                                0
```

4.5. Configure Agents

Enter the **add agent-loginID p** command, where **p** is a valid extension in the provisioned dial plan. On **Page 1** of the agent-loginID form, enter a descriptive Name and Password.

```
add agent-loginID 50021                                  Page   1 of   2

                            AGENT LOGINID

              Login ID: 50021                            AAS? n
                  Name: Agent-50021                      AUDIX? n
                    TN: 1                      LWC Reception: spe
                   COR: 1              LWC Log External Calls? n
         Coverage Path:               AUDIX Name for Messaging:
         Security Code:
                                      LoginID for ISDN Display? n
                                                   Password: 1234
                                  Password (enter again): 1234
                                               Auto Answer: station
                                         MIA Across Skills: system
                            ACW Agent Considered Idle: system
                            Aux Work Reason Code Type: system
                              Logout Reason Code Type: system
               Maximum time agent in ACW before logout (sec): system


     WARNING:  Agent must log in again before changes take effect
```

On **Page 2**, set the Skill Number (**SN**) to the hunt group number previously created. The Skill Level (**SL**) may be set according to customer requirements.

Repeat this step as necessary to configure additional agent extensions.

```
add agent-loginID 50021                                     Page   2 of   2

                              AGENT LOGINID
      Direct Agent Skill:
Call Handling Preference: skill-level              Local Call Preference? n

     SN      SL          SN      SL          SN      SL          SN      SL
 1: 11       1       16:               31:               46:
 2:                  17:               32:               47:
 3:                  18:               33:               48:
 4:                  19:               34:               49:
 5:                  20:               35:               50:
 6:                  21:               36:               51:
 7:                  22:               37:               52:
 8:                  23:               38:               53:
 9:                  24:               39:               54:
10:                  25:               40:               55:
11:                  26:               41:               56:
12:                  27:               42:               57:
13:                  28:               43:               58:
14:                  29:               44:               59:
15:                  30:               45:               60:
```

4.6. Configure Measured Skill

Enter the **add hunt-group n** command, where **n** is an unused hunt group number to be measured by Call Management System. On **Page 1** of the hunt-group form, assign a descriptive Group Name and Group Extension valid in the provisioned dial plan. Set the ACD, Queue, and Vector fields to **y**. When ACD is enabled, hunt group members serve as ACD agents and must log in to receive ACD split/skill calls. When Queue is enabled, calls to the hunt group will be served by a queue. When Vector is enabled, the hunt group will be vector controlled.

Repeat this step for all VDNs that will be monitored by Call Management System.

```
add hunt-group 1                                          Page   1 of   3
                             HUNT GROUP

           Group Number: 1                                ACD? y
             Group Name: n                                Queue? y
        Group Extension: 50011                            Vector? y
             Group Type: ucd-mia
                     TN: 1
                    COR: 1                 MM Early Answer? n
          Security Code:               Local Agent Preference? n
 ISDN/SIP Caller Display:

            Queue Limit: unlimited
Calls Warning Threshold:       Port:
 Time Warning Threshold:       Port:
```

On **Page 2**, enable the Skill field, and set the Measured field to **external** or **both** to enable real-time measurement data on the ACD/Skill group and the associated agents to be sent to Call Management System.

```
add hunt-group 1                                            Page   2 of   3
                               HUNT GROUP


          Skill? y        Expected Call Handling Time (sec): 180
           AAS? n         Service Level Target (% in sec): 80 in 20
                                 Measured: both
                             Supervisor Extension:



                             Controlling Adjunct: none



                             VuStats Objective:


                         Interruptible Aux Threshold: none
                         Redirect on No Answer (rings): 3
                                Redirect to VDN: 50000
              Forced Entry of Stroke Counts or Call Work Codes? n
```

4.7. Configure Vector

Enter the **add vector q** command, where **q** is an unused vector number. Enter a descriptive Name, and program the vector to deliver calls to the hunt/skill group number. Agents that are logged into the hunt/skill group will be able to answer calls queued to the hunt/skill group.

```
change vector 1                                            Page   1 of   6
                               CALL VECTOR

    Number: 1                  Name: Inbound Vector
Multimedia? n      Attendant Vectoring? n    Meet-me Conf? n         Lock? n
    Basic? y    EAS? y   G3V4 Enhanced? y   ANI/II-Digits? y   ASAI Routing? y
 Prompting? y   LAI? n  G3V4 Adv Route? y   CINFO? n   BSR? n   Holidays? n
 Variables? y   3.0 Enhanced? y
01 wait-time    2   secs hearing ringback
02 queue-to     skill 1    pri m
03
04
05
```

4.8. Configure Measured VDN

Enter the **add vdn r** command, where **r** is an extension valid in the provisioned dial plan. Specify a descriptive Name for the VDN and the **Vector Number** configured in the previous step. In the example below, incoming calls to the extension 50000 will be routed to VDN 50000, which in turn will invoke the actions specified in vector 1. Set the Measured field to **both** to enable measurement data on the VDN to be sent to Call Management System.

Repeat this step for all VDNs that will be monitored by Call Management System.

```
add vdn 50000                                             Page   1 of   3
                         VECTOR DIRECTORY NUMBER

                      Extension: 50000
                          Name*: testVDN00000
                    Destination: Vector Number        1
              Attendant Vectoring? n
              Meet-me Conferencing? n
                Allow VDN Override? n
                            COR: 1
                            TN*: 1
                       Measured: both




                      1st Skill*:
                      2nd Skill*:
                      3rd Skill*:
```

5. Configuring Avaya Aura™ Call Management System

This section covers the configuration of Call Management System to support the import of splits/skills, VDN, and agent data from nVision via the JDBC interface.

5.1. Configure Initial Setup for Communication Manager

Telnet into Call Management System, using proper credentials. Run **cmssvc** to view the Avaya Aura™ Call Management System Service Menu. Select **4** to go to the CMS service menu.

```
 Avaya(TM) Call Management System Services Menu

Select a command from the list below.
   1) auth_display  Display feature authorizations
   2) auth_set      Authorize capabilities/capacities
   3) run_ids       Turn Informix Database on or off
   4) run_cms       Turn Avaya CMS on or off
   5) setup         Set up the initial configuration
   6) swinfo        Display switch information
   7) swsetup       Change switch information
   8) patch_inst    Install a single CMS patch from CD
   9) patch_rmv     Backout an installed CMS patch
  10) load_all      Install all CMS patches found on CD
  11) back_all      Backout all installed CMS patches from machine
Enter choice (1-11) or q to quit: 4
```

From the following page, select **2** to turn off the CMS service.

```
Select one of the following
  1) Turn on CMS
  2) Turn off CMS but Leave IDS running
  3) Turn off both CMS and IDS
Enter choice (1-3): 2
```

Select **5** to setup a switch (Communication manager)

```
# cmssvc


 Avaya(TM) Call Management System Services Menu

Select a command from the list below.
   1) auth_display Display feature authorizations
   2) auth_set     Authorize capabilities/capacities
   3) run_ids      Turn Informix Database on or off
   4) run_cms      Turn Avaya CMS on or off
   5) setup        Set up the initial configuration
   6) swinfo       Display switch information
   7) swsetup      Change switch information
   8) patch_inst   Install a single CMS patch from CD
   9) patch_rmv    Backout an installed CMS patch
  10) load_all     Install all CMS patches found on CD
  11) back_all     Backout all installed CMS patches from machine
Enter choice (1-11) or q to quit: 5
```

Provide information on Communication Manager.

```
Switch name: S8720_in_D4H26
Switch model: Communication Mgr 5.2
Vectoring: y
Expert Agent Selection: y
Central office disconnect supervision: y
Local port: 2
Remote port: 2
Link: TCP/IP 10.64.40.24 5001
```

Run the **cmssvc** command, and select **4** to go to the CMS service menu.

```
 Avaya(TM) Call Management System Services Menu

Select a command from the list below.
   1) auth_display Display feature authorizations
   2) auth_set     Authorize capabilities/capacities
   3) run_ids      Turn Informix Database on or off
   4) run_cms      Turn Avaya CMS on or off
   5) setup        Set up the initial configuration
   6) swinfo       Display switch information
   7) swsetup      Change switch information
   8) patch_inst   Install a single CMS patch from CD
   9) patch_rmv    Backout an installed CMS patch
  10) load_all     Install all CMS patches found on CD
  11) back_all     Backout all installed CMS patches from machine
Enter choice (1-11) or q to quit: 4
```

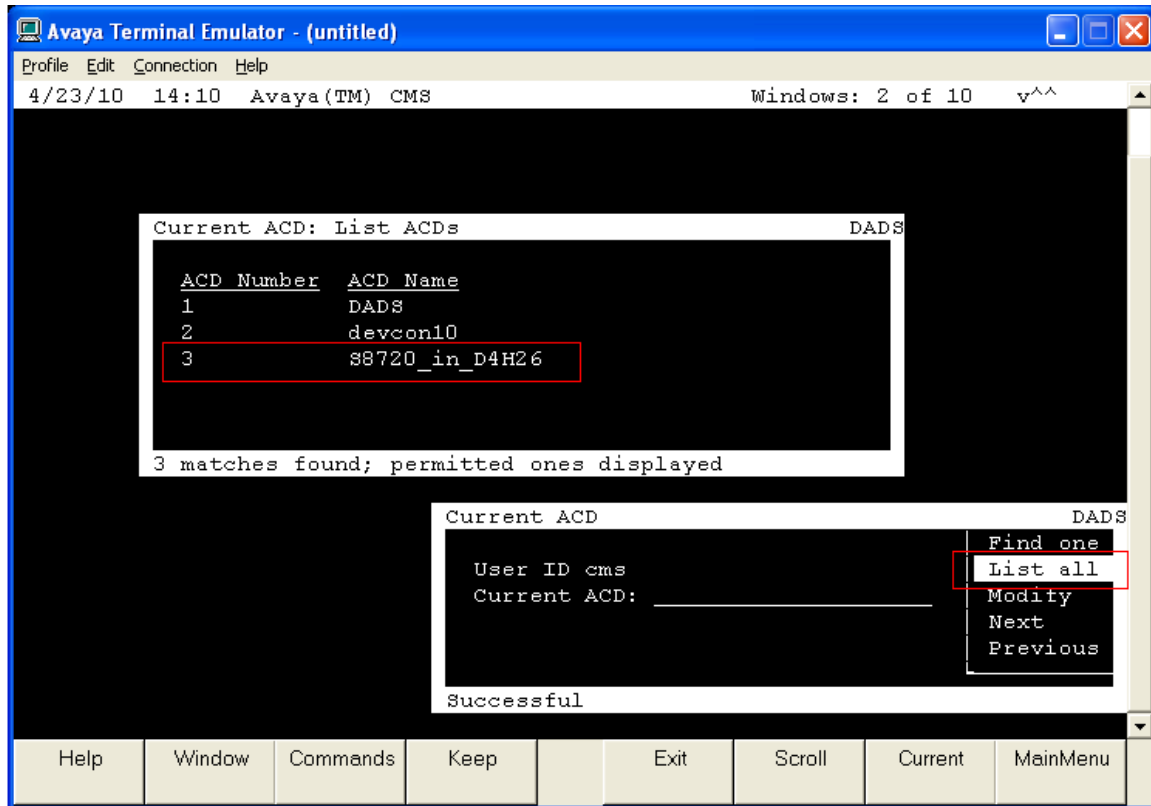From the following page, select **1** to turn on the CMS service.

```
Select one of the following
  1) Turn on CMS
  2) Turn off CMS but Leave IDS running
  3) Turn off both CMS and IDS
Enter choice (1-3): 1
```

5.2. Configure Current ACD

Use a terminal emulator to connect to the Call Management System server, and log in with the proper credentials. Enter **cms** at the command prompt to display the **MainMenu** screen. The first step is to configure the **Current ACD**, which in this case is **S8720_in_D4H26**, an ACD name assigned on Call Management System. From the Avaya Terminal Emulator click on the **Commands** option button at the bottom of the screen.
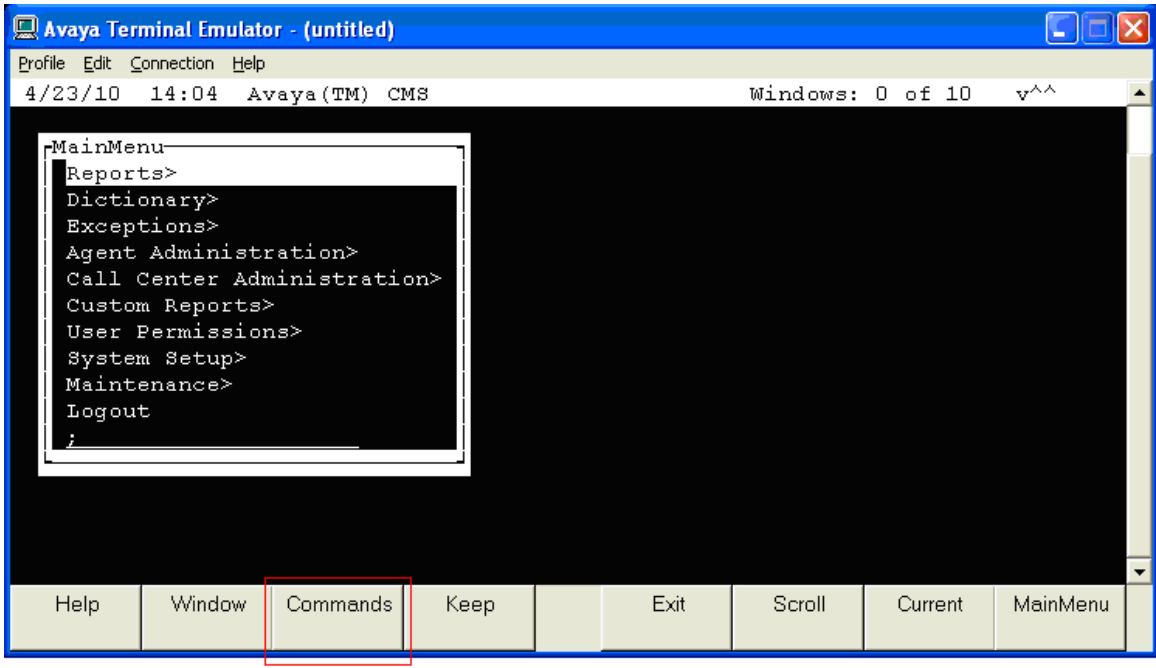
Navigate to **Options➔Current ACD**, and select **List All** to view all ACDs. From the list, select an ACD as a Current ACD and press the **Enter** key.

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Under the Current ACD field, put in the ACD Number or ACD name. After the completion, exit and navigate back to **Commands → Options→ Current ACD** to verify the current ACD, as shown below.
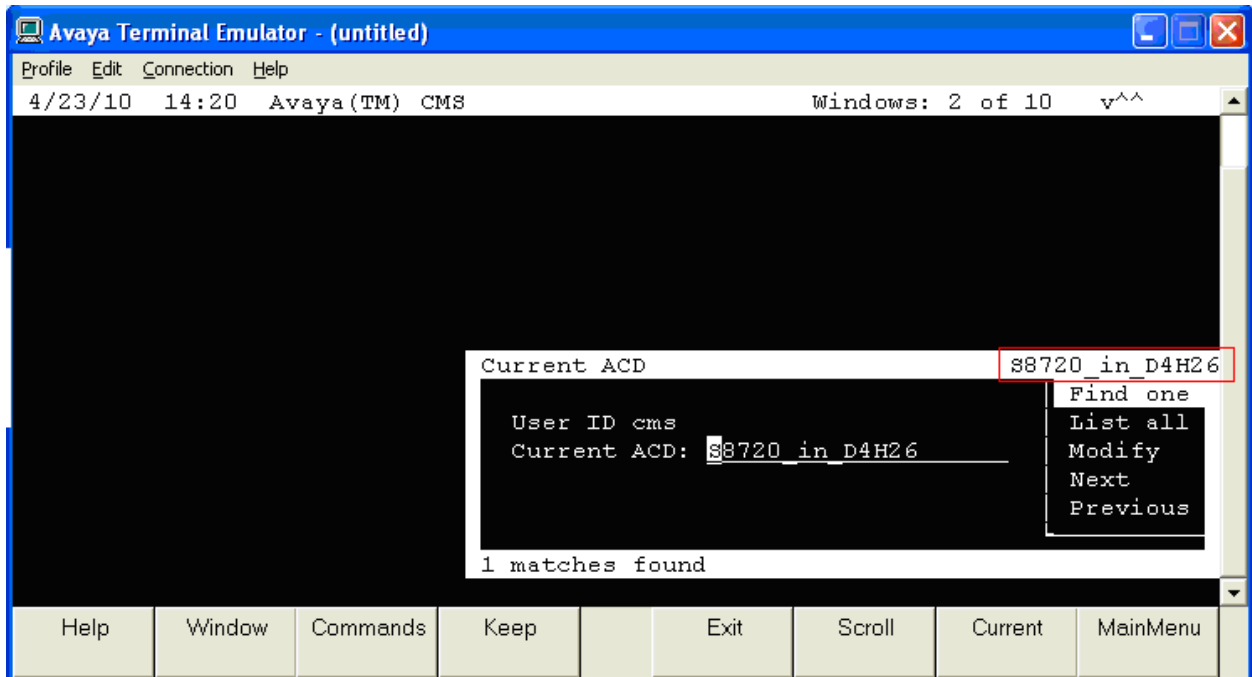
6. Symmetrics nVISION Configuration

This section provides the procedure for configuring Symmetrics nVISION to interface with Call Management System. The following screen shows the **acd_config.xml** file for initial configuration of Symmetrics nVISION to interface with Call Management System. The file is located in the **c:\Apps\workspace\nvision_avaya\config** directory.

For configuring the Symmetrics nVISION database, refer [4]

```
- <cfg>
- <acds>
- <!--  avaya lab -->
- <acd>
  <acd_src>devcon18</acd_src>
  <acd_src_driver>com.informix.jdbc.IfxDriver</acd_src_driver>
  <acd_src_url>jdbc:informix-sqli://10.64.10.85:50001/cms:informixserver=cms_BDL093562F</acd_src_url>
  <acd_src_user>symmetri</acd_src_user>
  <acd_src_pwd>symmetri</acd_src_pwd>
  <acd_timezone>America/New_York</acd_timezone>
- <historic>
- <interval>
  <interval_level>h</interval_level>
  <interval_retention>1000</interval_retention>
  <interval_reload_secs>86400</interval_reload_secs>
  <interval_batch_secs>0</interval_batch_secs>
  <interval_is_active>1</interval_is_active>
  </interval>
- <interval>
  <interval_level>d</interval_level>
  <interval_retention>1000</interval_retention>
```

```
   <interval_reload_secs>86400</interval_reload_secs>
   <interval_batch_secs>0</interval_batch_secs>
   <interval_is_active>1</interval_is_active>
   </interval>
-  <interval>
   <interval_level>w</interval_level>
   <interval_retention>1000</interval_retention>
   <interval_reload_secs>86400</interval_reload_secs>
   <interval_batch_secs>0</interval_batch_secs>
   <interval_is_active>1</interval_is_active>
   </interval>
-  <interval>
   <interval_level>m</interval_level>
   <interval_retention>1000</interval_retention>
   <interval_reload_secs>86400</interval_reload_secs>
   <interval_batch_secs>0</interval_batch_secs>
   <interval_is_active>1</interval_is_active>
   </interval>
-  <interval>
   <interval_level>x</interval_level>
   <interval_retention>1000</interval_retention>
   <interval_reload_secs>86400</interval_reload_secs>
   <interval_batch_secs>0</interval_batch_secs>
   <interval_is_active>1</interval_is_active>
   </interval>
   </historic>
   </acd>
-  <!--  avaya lab -->
   </acds>
-  <connections>
-  <connection>
   <conn_name>conn_nvision_stg</conn_name>
   <conn_user>symm_dm_user</conn_user>
   <conn_pwd>symm_dm_user</conn_pwd>
   <conn_url>jdbc:jtds:sqlserver://nebula:1433/avaya_cert_stg</conn_url>
   <conn_driver>net.sourceforge.jtds.jdbc.Driver</conn_driver>
   <conn_db>mssql_2008</conn_db>
   </connection>
-  <connection>
   <conn_name>conn_nvision_dw</conn_name>
   <conn_user>symm_dm_user</conn_user>
   <conn_pwd>symm_dm_user</conn_pwd>
   <conn_url>jdbc:jtds:sqlserver://nebula:1433/avaya_cert_dw</conn_url>
   <conn_driver>net.sourceforge.jtds.jdbc.Driver</conn_driver>
   <conn_db>mssql_2008</conn_db>
   </connection>
-  <connection>
   <conn_name>conn_nvision_log</conn_name>
   <conn_user>symm_dm_user</conn_user>
   <conn_pwd>symm_dm_user</conn_pwd>
   <conn_url>jdbc:jtds:sqlserver://nebula:1433/avaya_cert_log</conn_url>
   <conn_driver>net.sourceforge.jtds.jdbc.Driver</conn_driver>
   <conn_db>mssql_2008</conn_db>
   </connection>
   </connections>
-  <sql>
   <log_setup_ddl>C:\Apps\workspace\nvision_avaya\sql\ddl\mssql_avaya_log_ddl.sql</log_setup_ddl>
   <stg_setup_ddl>C:\Apps\workspace\nvision_avaya\sql\ddl\mssql_avaya_stg_ddl.sql</stg_setup_ddl>
   <dw_setup_ddl>C:\Apps\workspace\nvision_avaya\sql\ddl\mssql_avaya_dw_ddl.sql</dw_setup_ddl>
   <stg_batch_pre>C:\Apps\workspace\nvision_avaya\sql\batch\nvision_stg_pre_batch.sql</stg_batch_pre>
   </sql>
   </cfg>
```

7. General Test Approach and Test Results

The interoperability compliance test focused on verifying the ability of Symmetrics nVISION to import ACD contact center call data from Call Management System using the JDBC interface and displaying contact center call data in nVISION reports.

The feature test cases were performed manually. ACD calls were made to the measured skills and routed to agents to generate call center statistics for Symmetrics nVISION. The accuracy and proper display of the data were verified.

All test cases were executed and passed.

8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Communication Manager and Call Management System.

8.1. Verify from Communication Manager

Verify the status of the processor interface channel by using the **status processor-channels n** command, where **n** is the processor channel number from **Section 4.4**. Verify that the Session Layer Status is **In Service**, and that the Socket Status is **TCP connected**, as shown below.

```
status processor-channels 2
                      PROCESSOR-CHANNEL STATUS

          Channel Number: 2
     Session Layer Status: In Service
           Socket Status: TCP connected
             Link Number: 1
               Link Type: ethernet
    Message Buffer Number: 0
```

Verify the status of the TCP/IP link number by using the **status link n** command, where **n** is the TCP/IP link number assigned to the C-LAN used to connect to the Call Management System server from **Section 4.4**. Verify that the Link Status is **connected**, and that the Service State is **in-service/active**, as shown below.

```
status link 1                                              Page   1 of   5
                              LINK/PORT STATUS

                    Link Number: 1
                    Link Status: connected
                      Link Type: ethernet

            Service Port Location: 01A0317

                   Service State: in-service/active
                       Node Name: CLAN
              Source IP Address: 10.64.40.24/24

              Broadcast Address: 10.64.40.255
               Physical Address: 00:04:0d:4b:39:a4
                        Enabled? yes
               Maintenance Busy? no
                 Active Channels: 1
```
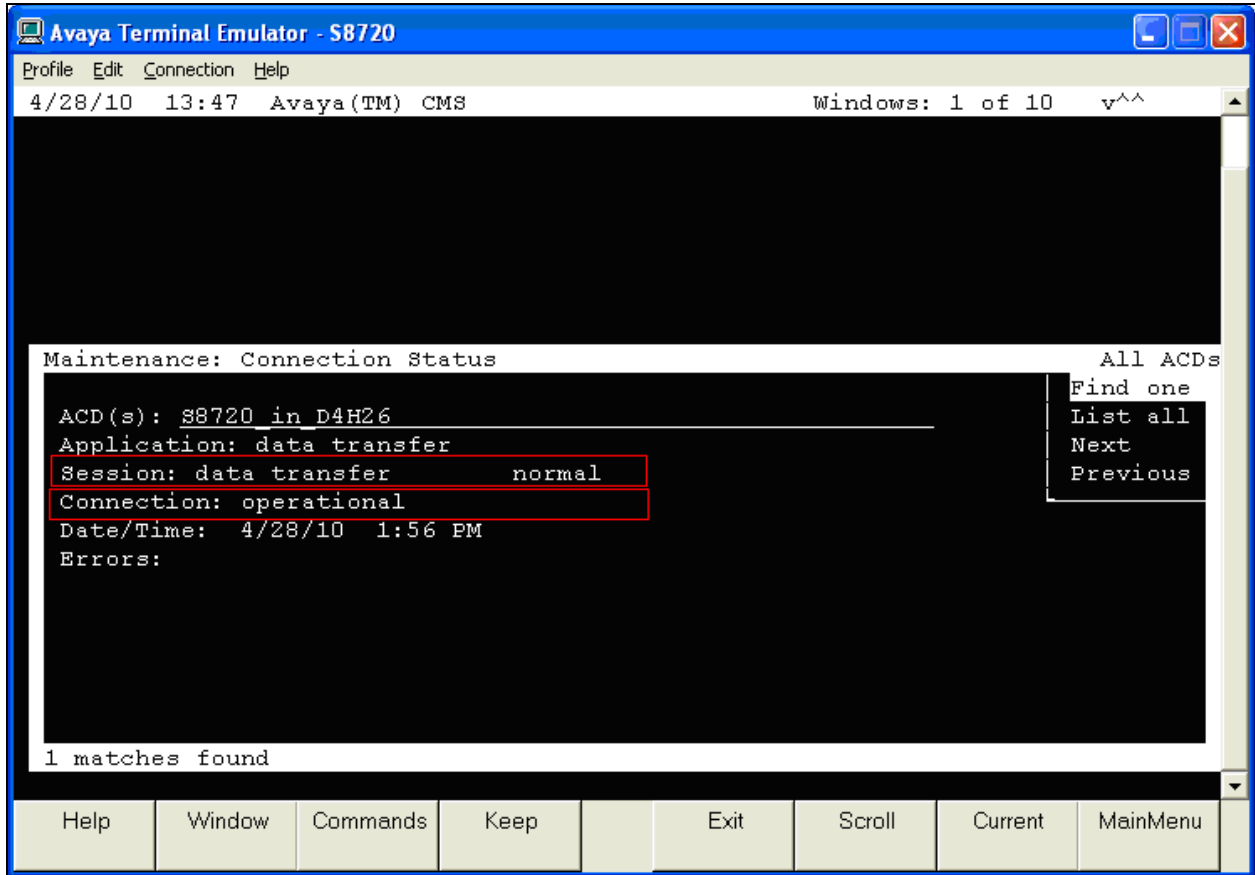
8.2. Verify from Call Management System

From the **MainMenu**, verify the status of the connection to Communication Manager by
selecting **Maintenance → Connection Status**, as shown below.

Solution & Interoperability Test Lab Application Notes
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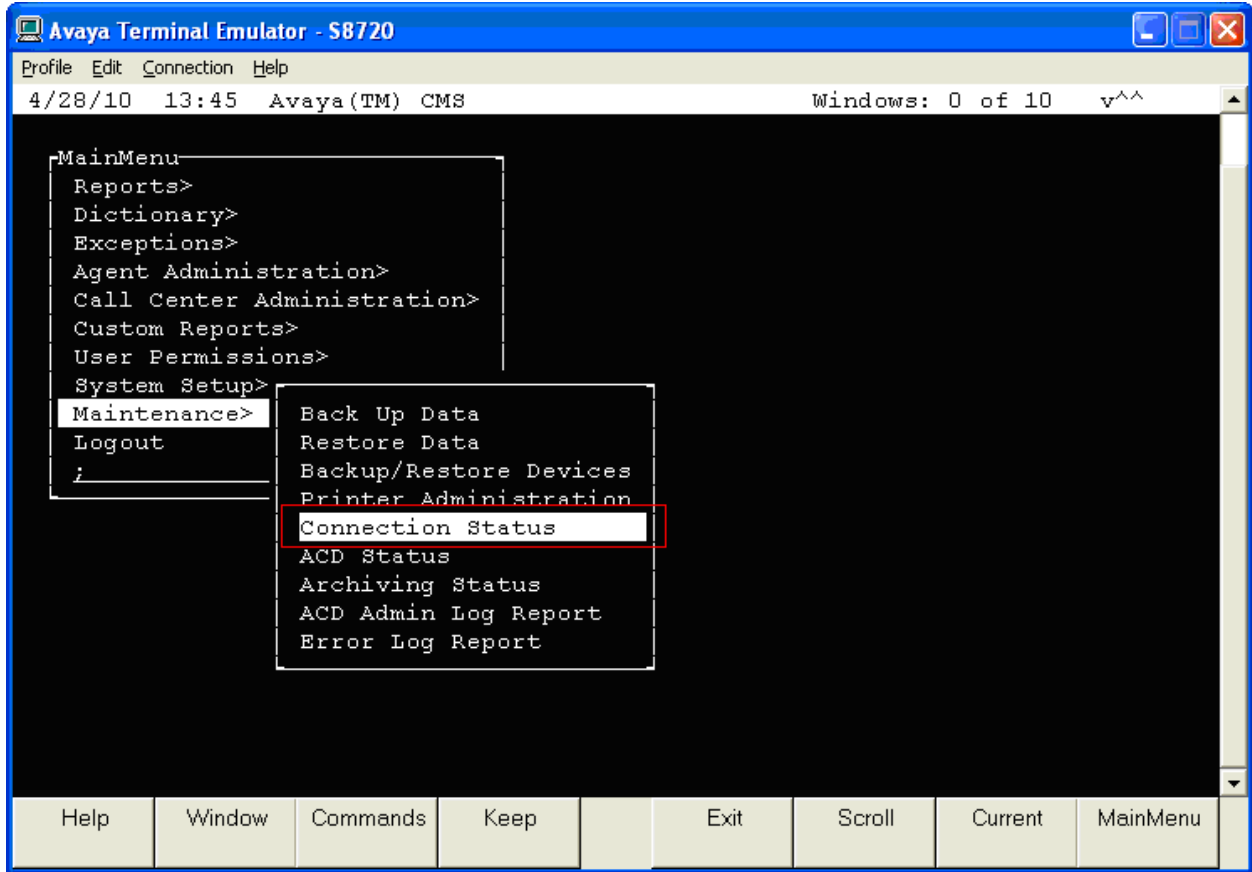
Enter the corresponding ACD(s) number. For the compliance testing, the corresponding switch connection is ACD system **3**. Tab over to **Find one** and press **Enter**.
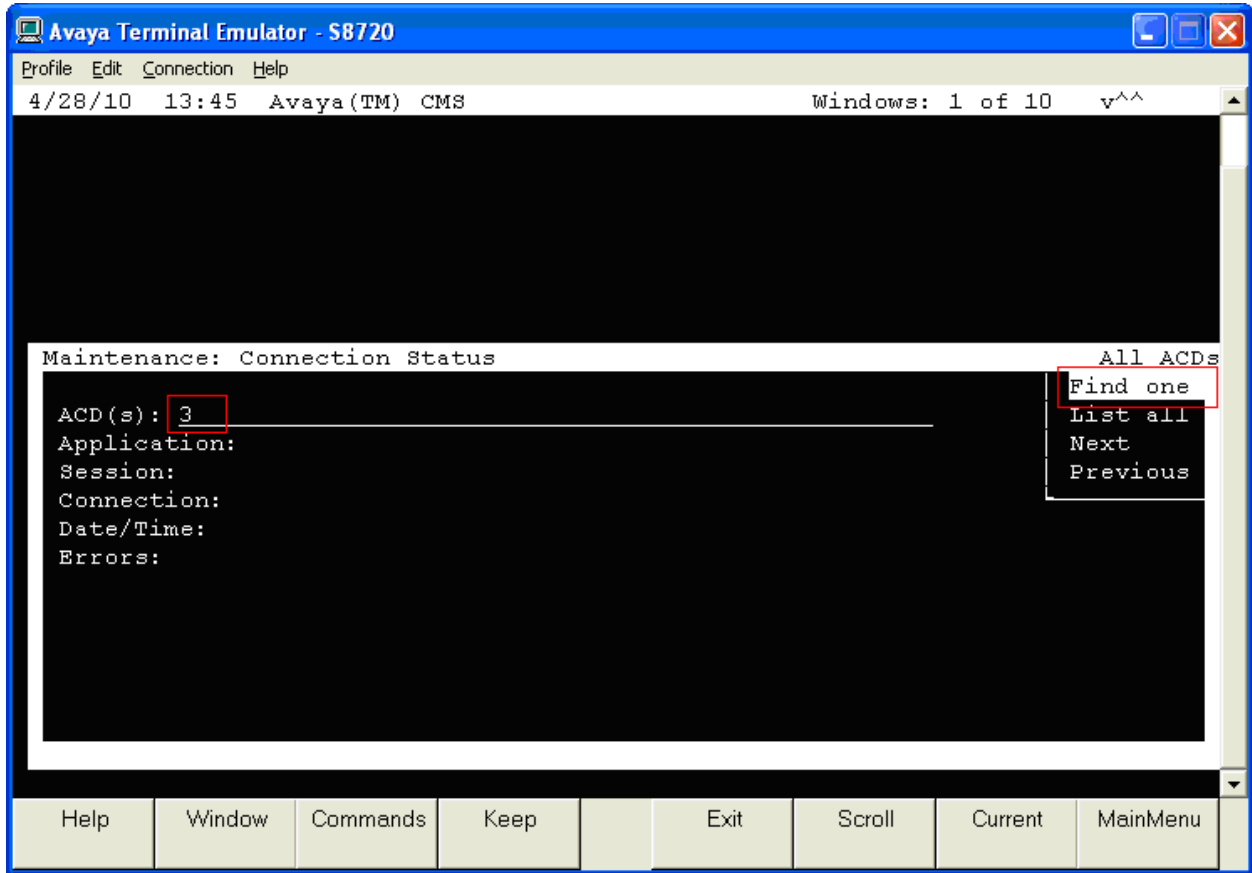
The switch connection status is displayed. Check that the status in the Session field is **normal**, and Connection field is **operational**, as shown below.

```
Avaya Terminal Emulator - S8720
Profile  Edit  Connection  Help
 4/28/10   13:47   Avaya(TM) CMS                    Windows: 1 of 10    v^^




   Maintenance: Connection Status                             All ACDs
                                                              Find one
     ACD(s):  S8720_in_D4H26_____  List all
     Application: data transfer                               Next
     Session: data transfer          normal                  Previous
     Connection: operational
     Date/Time:  4/28/10   1:56 PM
     Errors:




 1 matches found

   Help      Window    Commands    Keep          Exit      Scroll    Current    MainMenu
```

9. Conclusion

These Application Notes describe the configuration steps required for Symmetrics nVISION to successfully interoperate with Communication Manager using the JDBC interface of Call Management System. All feature test cases were completed successfully.

10.   References

This section references the documentation relevant to these Application Notes.
Additional Avaya product documentation is available at http://support.avaya.com.
[1] *Administrator Guide for Avaya Communication Manager*, May 2009, Document Number 03-300509.
[2] *Avaya Call Management System Switch Connections, Administration, and Troubleshooting*, November 2009.
[3] *Avaya Call Management System Open Database Connectivity Version 5.2*, Document ID 07-601580, December 2007.

Product information for Symmetrics products may be found at http://www.symmetrics.com
The following Symmetrics nVISION document was provided by Symmetrics.
[4] *Symmetrics nVISION DATAMART AVAYA CMS USER GUIDE,* Version 1.8