



Avaya Solution & Interoperability Test Lab

Application Notes for Symmetrics nVISION Contact Center Reporting, Analysis and Performance Management Suite with Avaya Call Management System and Avaya Aura® Communication Manager – 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 in an environment which consists of Avaya Call Management System and Avaya Aura® Communication Manager.

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 and Analysis Suite (nVISION), Avaya Call Management System (Avaya CMS) and Avaya Aura® Communication Manager.

The core of Symmetrics solutions is the nVISION Data Mart, a data warehouse optimized for the analysis and reporting of call center data. Running on virtually any server platform and compatible with all major relational database systems, nVISION Data Mart integrates data from Avaya CMS and virtually any other contact center system, application or data source for reporting and analysis purposes.

2. General Test Approach and Test Results

The interoperability compliance test focused on verifying the ability of Symmetrics nVISION to import contact center call data from Call Management System using the ODBC interface.

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 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 data was verified on nVISION database by comparing with Informix database on Call Management System.

2.2. Test Results

All test cases were executed and passed.

2.3. Support

Technical support for the Symmetrics nVISION solution can be obtained by contacting Symmetrics:

- URL: support.symmetrics.com
- E-mail: support@symmetrics.com

3. Reference Configuration

Following reference configuration shows the setup used for this test effort. Symmetrics nVISION connected to Avaya Call Management System via a VPN connection.

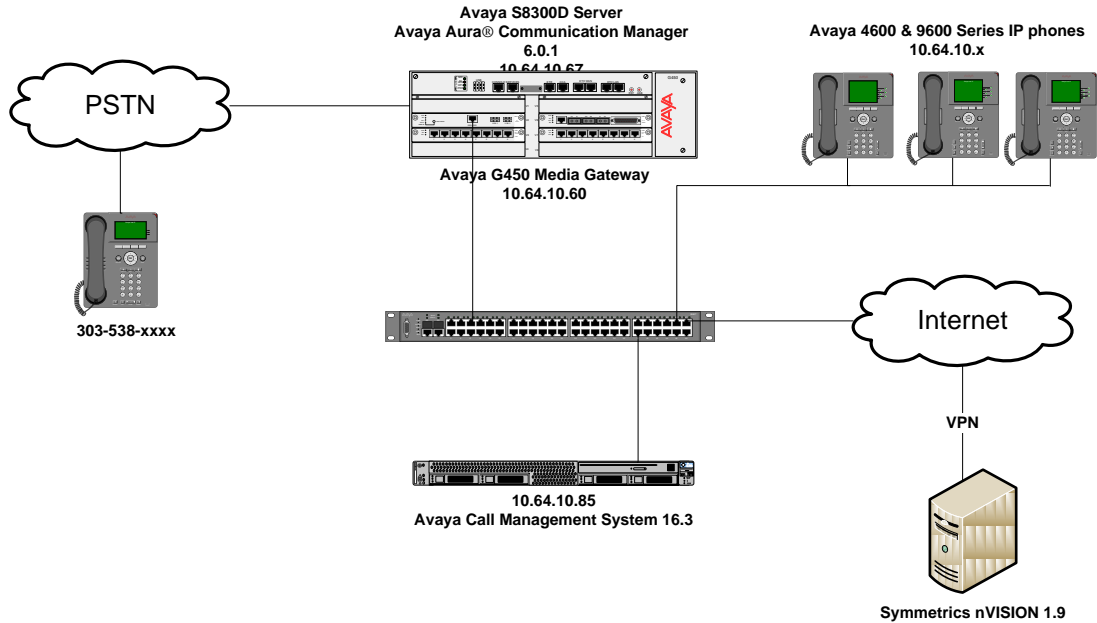


Figure 1: Symmetrics nVISION connected to Avaya Call Management System

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® Communication Manager running on Avaya S8300 Server	R6.1 SP7
Avaya Call Management System running on Sun Sparc Enterprise T5120 server	R16.3
Symmetrics nVISION <ul style="list-style-type: none"> Microsoft Windows Server 2008 Microsoft SQL Server 2008 	1.9

5. 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 measured Skill
- Configure Vector
- Configure measured VDN
- Configure Agents

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

5.1. 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:

- On Page 1, **G3 Version** field is set to **V16**.

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: V16                                                         Software Package: Enterprise
Location: 2                                                             System ID (SID): 1
Platform: 28                                                            Module ID (MID): 1

                                USED
Platform Maximum Ports: 6400 248
Maximum Stations: 2400 12
Maximum XMOBILE Stations: 2400 0
Maximum Off-PBX Telephones - EC500: 9600 0
Maximum Off-PBX Telephones - OPS: 9600 2
Maximum Off-PBX Telephones - PBFMC: 9600 0
Maximum Off-PBX Telephones - PVFMC: 9600 0
Maximum Off-PBX Telephones - SCCAN: 0 0
Maximum Survivable Processors: 313 1
```

5.2. Administer Adjunct CMS Release

Enter the **display system-parameters features** command and navigate to **Page 12**.

- Verify the **CMS (appl mis)** field, under the **REPORTING ADJUNCT RELEASE section**, is set to **R16.1/R16.x**; this corresponds to the Call Management System software release R16.x.

```
display 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
    Block Hang-up by Logged-in Auto-Answer Agents? n

CALL MANAGEMENT SYSTEM
                        REPORTING ADJUNCT RELEASE
                                CMS (appl mis): R16.1/R16.x
                                IQ (appl ccr):

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

5.3. Configure IP Node Name for Call Management System

Enter the **change node-names ip** command, to add an entry for Call Management System that will be used for connectivity.

- Enter a desired name in **Name** field for Call Management System, e.g. **CMS**
- Enter Call Management System's IP address in **IP Address** field, e.g. **10.64.10.85**

```
change node-names ip                                           Page 1 of 2
                        IP NODE NAMES

Name                IP Address
8730TR1             10.64.10.74
AuraSBC-Inside     10.64.10.112
AuraSM              10.64.21.31
CMS                10.64.10.85
```

5.4. 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 – **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 **1** is utilized.
- Session Remote – Corresponding channel number in Proc Chan field. During the test, session remote **1** 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	Chan	Enable	Appl.	Gtwy	To	Mode	Interface	Link/Chan	Destination	Node	Port	Session	Local/Remote	Mach	ID
	1:	y	mis			s	pv4	5001	CMS		0	1	1		
	2:	n									0				

5.5. 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**:

- Enter a descriptive name in **Group Name**
- Enter a valid extension in **Group Extension**
- Set **ACD**, **Queue** and **Vector** fields to **y**

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

```
add hunt-group 1                                     Page 1 of 4
                                                    HUNT GROUP
Group Number: 1                                     ACD? y
Group Name: Hunt Group                             Queue? y
Group Extension: 2001                              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**:

- Set **Skill** to **y**
- Set **Measured** to **both**

```
add hunt-group 1                                     Page 2 of 4
                                                    HUNT GROUP
Skill? y                                           Expected Call Handling Time (sec): 180
AAS? n                                             Service Level Target (% in sec): 80 in 20
Measured: both
```

5.6. Configure Vector

Enter the **add vector *n*** command; where *n* is an unused vector number. On **Page 1**:

- Enter a descriptive Name in **Name** field
- Program the vector to deliver calls to the hunt/skill group number

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

Number: 1                                     Name: Call Queue
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? y      G3V4 Adv Route? y      CINFO? y      BSR? y      Holidays? y
Variables? y      3.0 Enhanced? y
01 wait-time      2 secs hearing ringback
02 queue-to      skill 1      pri m
```

5.7. Configure Measured VDN

Enter the **add vector *n*** command; where *n* is an unused vector number. On **Page 1**:

- Enter a descriptive Name in **Name** field
- Enter a hunt group number configured in previous step for **Destination: Vector Number** field
- Set **Measured** field to **both**

```
add vdn 25090                                     Page 1 of 3
                                           VECTOR DIRECTORY NUMBER

Extension: 25090
Name*: Vec1
Destination: Vector Number      1
Attendant Vectoring? n
Meet-me Conferencing? n
Allow VDN Override? n
COR: 1
TN*: 1
Measured: both
Acceptable Service Level (sec): 20

VDN of Origin Annc. Extension*:
1st Skill*:
2nd Skill*:
3rd Skill*:
```


5.8. Configure Agents

Enter the **add agent-loginID *n*** command; where *n* is a valid extension in the provisioned dial plan. On **Page 1**:

- In **Name** field, type in a desired agent's name
- In **Password** and **Password (enter again)** type in a desired password.

```
add agent-loginID 2501                               Page 1 of 2
                                           AGENT LOGINID

Login ID: 2501                                     AAS? n
Name: D4-H30, Ek                                  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/SIP Display? n
                                           Password: 123456
                                           Password (enter again): 123456
                                           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
Forced Agent Logout Time: :
```

WARNING: Agent must log in again before changes take effect

On **Page 2**:

- Set **SN** (Skill Number) to a hunt group, e.g. **1**, configured in **Section 5.5**
- Set **SL** (Skill Number) to a skill level, e.g. **1**

```
add agent-loginID 2501                               Page 2 of 2
                                           AGENT LOGINID

Direct Agent Skill:                               Service Objective? n
Call Handling Preference: skill-level              Local Call Preference? n

SN  RL SL          SN  RL SL
1:  1      1      16:
```

6. Configure Avaya 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 ODBC interface.

6.1. Configure ACD for Communication Manager

Telnet or SSH into Call Management System, using proper credentials and log in as root.

- Type in **cmssvc** command to view the Avaya Call Management System Service Menu.
- Select **4, Turn Avaya CMS on or off**, to go to the CMS service menu.

```
BDL093562F# 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: 4
```

- Select **2, Turn off CMS but Leave IDS running**.

```
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
```

- Wait until CMS is shut down; **CMS is now off** message will be displayed when CMS is shutdown.

```
Notifying users of impending shutdown...
. . . . .
Proceeding with cms shutdown.

*** Turning off CMS, Please wait ***
. . . . .

*** Cleaning up, Please wait ***

*** CMS is now off ***
```

- Type in **cmsadm** command and select **1, acd_create**, from the service menu. At each prompt type in information as follows:
 - **Enter switch name:** Type in a descriptive name
 - **Select the model of switch for this ACD:** Select **6**
 - For next three prompts, type **y**
 - **Enter the local port assigned to switch:** Type **1**
 - **Enter the remote port assigned to switch:** Type **1**
 - **Select the transport to the switch:** Select **1**
 - **Enter switch host name or IP Address:** Type in Communication Manager's IP Address
 - **Enter switch TCP port number:** Set it to default
 - For rest of the prompts leave the values at default or enter desired values

```
BDL093562F# cmsadm

Avaya(TM) Call Management System Administration Menu

Select a command from the list below.
 1) acd_create      Define a new ACD
 2) acd_remove     Remove all administration and data for an ACD
 3) backup         Filesystem backup
 4) pkg_install    Install a feature package
 5) pkg_remove     Remove a feature package
 6) run_pkg       Turn a feature package on or off
 7) run_ids       Turn Informix Database on or off
 8) run_cms       Turn Avaya CMS on or off
 9) passwd_age    Set password aging options
10) dbaccess      Change Informix DB access permissions
Enter choice (1-10) or q to quit: 1

Information for ACD 3

Enter switch name (up to 20 characters): S8300_TR1

Select the model of switch for this ACD
 1) Communication Mgr 2
 2) Communication Mgr 3.0
 3) Communication Mgr 3.1
 4) Communication Mgr 4/5
 5) Communication Mgr 5.2
 6) Communication Mgr 6.x
Enter choice (1-6): 6

Is Vectoring enabled on the switch? (y/n): y

Is Expert Agent Selection enabled on the switch? (y/n): y

Does the Central Office have disconnect supervision? (y/n): (default: y) y

Enter the local port assigned to switch (1-64): 1

Enter the remote port assigned to switch (1-64): 1
```

```
Select the transport to the switch
  1) TCP/IP
Enter choice (1-1): 1

Enter switch host name or IP Address: 10.64.10.67

Enter switch TCP port number (5001-5999): (default: 5001)

Number of splits/skills (0-8000): (default: 500)

Total split/skill members, summed over all splits/skills (0-1250): (default: 1250)

Number of shifts (1-4): (default: 1)

Enter the start time for shift 1 (hh:mmXM): (default: 8:00 AM)

Enter the stop time for shift 1 (hh:mmXM): (default: 5:00 PM)

Number of agents logged into all splits/skills during shift 1 (0-1250): (default:
1250)

Number of trunk groups (0-2000): (default: 500)

Number of trunks (0-12000): (default: 1000)

Number of unmeasured facilities (0-6000): (default: 500)

Number of call work codes (1-500): (default: 500)

Enter number of vectors (0-8000): (default: 500)

Enter number of VDNs (0-18000): (default: 4000)

Updating database.

Computing space requirements and dbspace availability.

ACD S8300_TR1 (3) created successfully.
```

- Type in **cmssvc** command and select **4** from the service menu.
 - Select **1** to **Turn on CMS**

```
BDL093562F# 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: 4

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

Please wait for initialization
. .
*** CMS is now up ***
```

7. Symmetrics nVISION Configuration

Interface to Avaya CMS database is achieved through updates to an XML configuration file. This configuration file is used for batch processing of data updates.

ETL Configuration:

1. Open up the file, “**acd_config.xml**” from the folder, **%nvision_home%\config**.
2. The following table outlines the key items within this file.
3. Each item outlined below should be updated with the correct credentials in order for the system to connect to the source system and extract the data into the nVision Data Mart.

Property	Detail	Required
site_name	Site label, normally will be identical to AACC/CCMS site name	Yes
site_version	Version of AACC/CCMS software: CCM5, 6, 7, or AACC 6.2	Yes
conn_name	Label for database connection, can be shared across intervals	Yes
conn_username	AACC/CCMS database user name	Yes
conn_password	AACC/CCMS database user password	Yes
conn_jdbcurl	CCM7 or AACC 6.2 jdbc:Cache://47.249.66.152:1972/CCMS_STAT	Yes
conn_driver	For cache use com.intersys.jdbc.CacheDriver	Yes
retention_days	Period of days that data should be retained in data warehouse	No, unless default not adequate
init_days	Period of days that data should be loaded in data warehouse for initial load	No, unless default not adequate
gmt_offset	Offset in hours from GMT	Yes
observes_dst	If site timezone observes dst set to 1. Otherwise, set to 0	No, unless default not adequate
reload_secs	Period of time to go back and reload data in to data warehouse	No
batch_secs	Max period of time range for ETL batch	No
is_active	On/Off switch for site interval. Please set to 1/0.	No, unless default not adequate

For additional configuring the Symmetrics nVISION database, refer to **Section 10** [3]

The following is the sample acd_config.xml that was used for the testing:

```

- <cfg>
- <acds>
<!-- avaya cms -->
<acd>
<acd_src>avaya_cms_acd</acd_src>
<acd_src_driver>com.informix.jdbc.IfxDriver</acd_src_driver>
<acd_src_url>jdbc:informixqli://avaya_cms_ip:avaya_cms_port/cms:informixserve
r=avaya_cms_informix</acd_src_url>
<acd_src_user>avaya_db_user</acd_src_user>
<acd_src_pwd>avaya_db_pwd</acd_src_pwd>
<acd_timezone>avaya_cms_timezone</acd_timezone>
</acd>

- <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>nvision_db_user</conn_user>
  <conn_pwd>nvision_db_pwd</conn_pwd>

<conn_url>jdbc:jtds:sqlserver://nvision_server:1433/avaya_cert_stg</conn_url>
  <conn_driver>nvision_db_driver</conn_driver>
  <conn_db>nvision_db_vendor</conn_db>
</connection>
- <connection>
  <conn_name>conn_nvision_dw</conn_name>
  <conn_user>nvision_db_user</conn_user>
  <conn_pwd>nvision_db_pwd</conn_pwd>
  <conn_url>jdbc:jtds:sqlserver://nvision_server:1433/avaya_cert_dw</conn_url>
  <conn_driver>nvision_db_driver</conn_driver>
  <conn_db>nvision db vendor</conn_db>
</connection>
- <connection>
  <conn_name>conn_nvision_log</conn_name>
  <conn_user>nvision_db_user</conn_user>
  <conn_pwd>nvision_db_pwd</conn_pwd>

<conn_url>jdbc:jtds:sqlserver://nvision_server:1433/avaya_cert_log</conn_url>
  <conn_driver>nvision db driver</conn_driver>
  <conn_db>nvision_db_vendor</conn_db>
</connection>
</connections>
- <sql>

<log setup ddl>%nvision home%\sql\ddl\mssql avaya log ddl.sql</log setup ddl>

<stg_setup_ddl>%nvision_home%\sql\ddl\mssql_avaya_stg_ddl.sql</stg_setup_ddl>
  <dw setup ddl>%nvision_home%\sql\ddl\mssql avaya dw ddl.sql</dw setup ddl>

<stg batch pre>%nvision_home%\sql\batch\nvision stg pre batch.sql</stg batch pre>
re>
</sql>
</cfg>

```

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 5.4**. Verify that the **Session Layer Status** is **In Service**, and that the **Socket Status** is **TCP connected**, as shown below

```
status processor-channels 1
                          PROCESSOR-CHANNEL STATUS

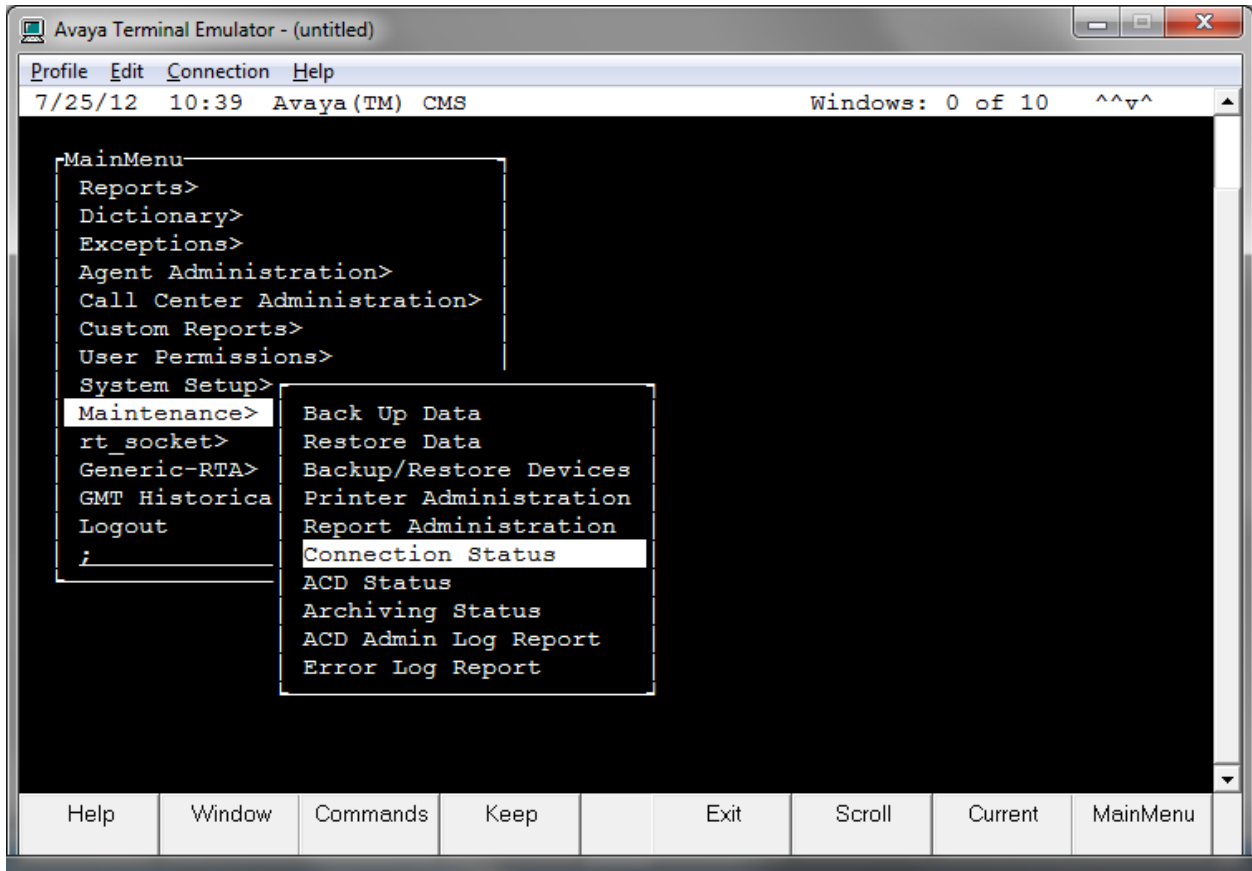
      Channel Number: 1
      Session Layer Status: In Service
      Socket Status: TCP connected
      Link Number: pv4
      Link Type: processor ethernet
      Message Buffer Number: 0

      Last Failure: Far end sent disconnect
      At: 07/25/12 10:06
```

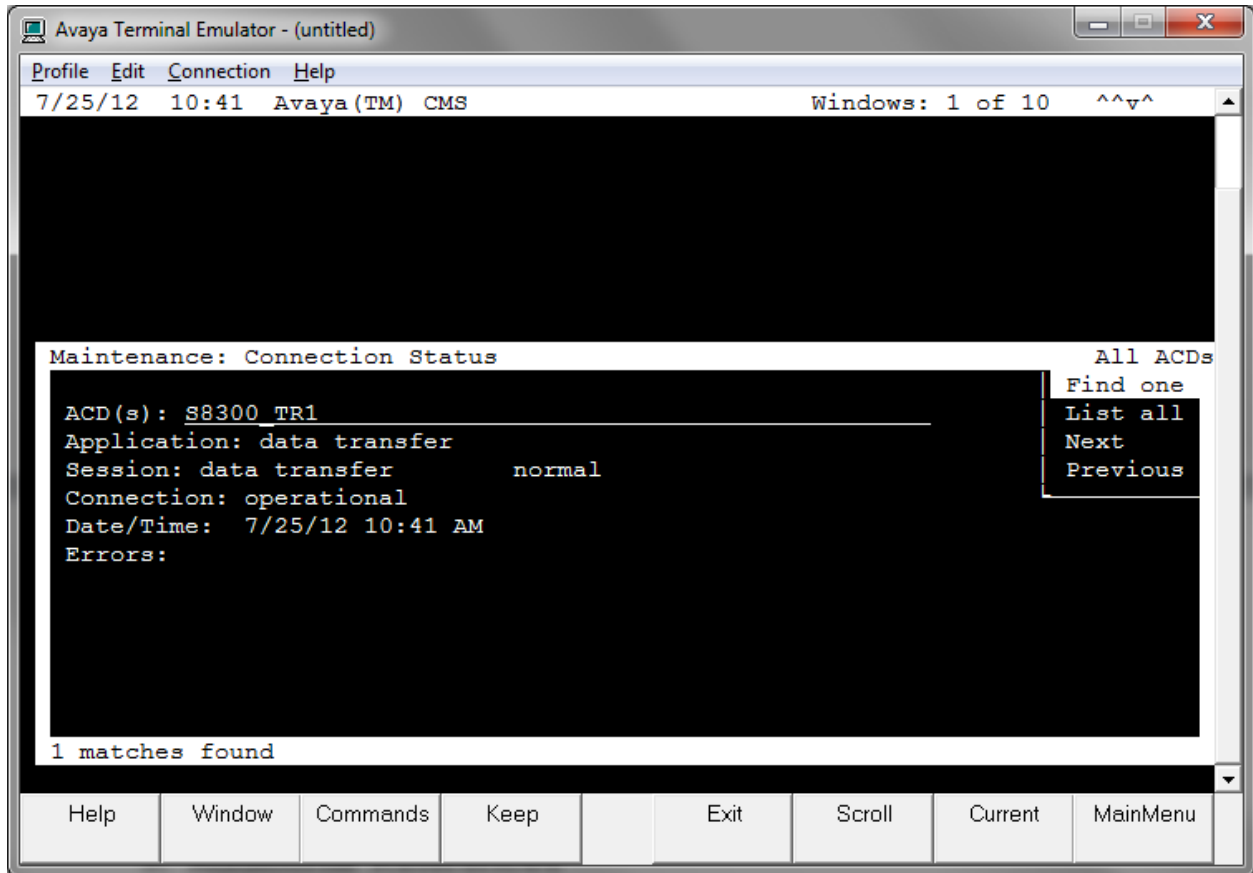

8.2. Verify from Call Management System

Connect to Call Management System using Avaya Terminal Emulator.

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



Type in the name of ACD configured in **Section 6.1**, and select **Find one. Connection:** should be **operational**.



9. Conclusion

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

10. Additional References

This section references the documentation relevant to these Application Notes.

- [1] *Administering Avaya Aura™ Communication Manager*, June 2010, Document Number 03-300509, Release 6.0.
- [2] *Avaya Call Management System Administration*, December 2011, Release 16.3.
- [3] *nVISION Datamart Avaya CMS User Guide*, Version 1.9.

Additional Avaya product documentation is available at <http://support.avaya.com>.

Additional Symmetrics product documentation may be found at <http://www.symmetrics.com>

©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.