



Avaya Solution & Interoperability Test Lab

Application Notes for TONE Software ReliaTel with Avaya Aura® Communication Manager 6.2 Using SAT – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for TONE Software ReliaTel to interoperate with Avaya Aura® Communication Manager 6.2 using System Administrator Terminal (SAT). ReliaTel is a monitoring and management solution that can monitor and maintain groups of telephone switches, PBX systems, and other devices from a single control point. In the compliance testing, ReliaTel used the SAT interface from Avaya Aura® Communication Manager to provide trunk group performance reporting.

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 TONE Software ReliaTel to interoperate with Avaya Aura® Communication Manager 6.2 using SAT. ReliaTel is a monitoring and management solution that can monitor and maintain groups of telephone switches, PBX systems, and other devices from a single control point.

In the compliance testing, ReliaTel used the SAT interface from Avaya Aura® Communication Manager to obtain performance measurements data on an hourly and daily basis. The obtained data is presented in multiple performance reports via the ReliaTel web interface.

2. General Test Approach and Test Results

The feature test cases were performed manually. Calls were made across different trunk and hunt groups, to generate hourly and daily data for the system. The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet connection to ReliaTel.

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 test included feature and serviceability testing.

The feature testing focused on verifying the proper collection and reporting of performance measurements data for SAT commands involving: trunk group, outage trunk, lightly used trunk, hunt group, attendant group, attendant position, blockage, call rate, load balance, and occupancy.

The serviceability testing focused on verifying the ability of ReliaTel to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet connection to ReliaTel.

2.2. Test Results

All test cases were executed and passed.

2.3. Support

Technical support on ReliaTel can be obtained through the following:

- **Phone:** (800) 833-8663
- **Email:** info@tonesoft.com

3. Reference Configuration

The configuration used for the compliance testing is shown below.

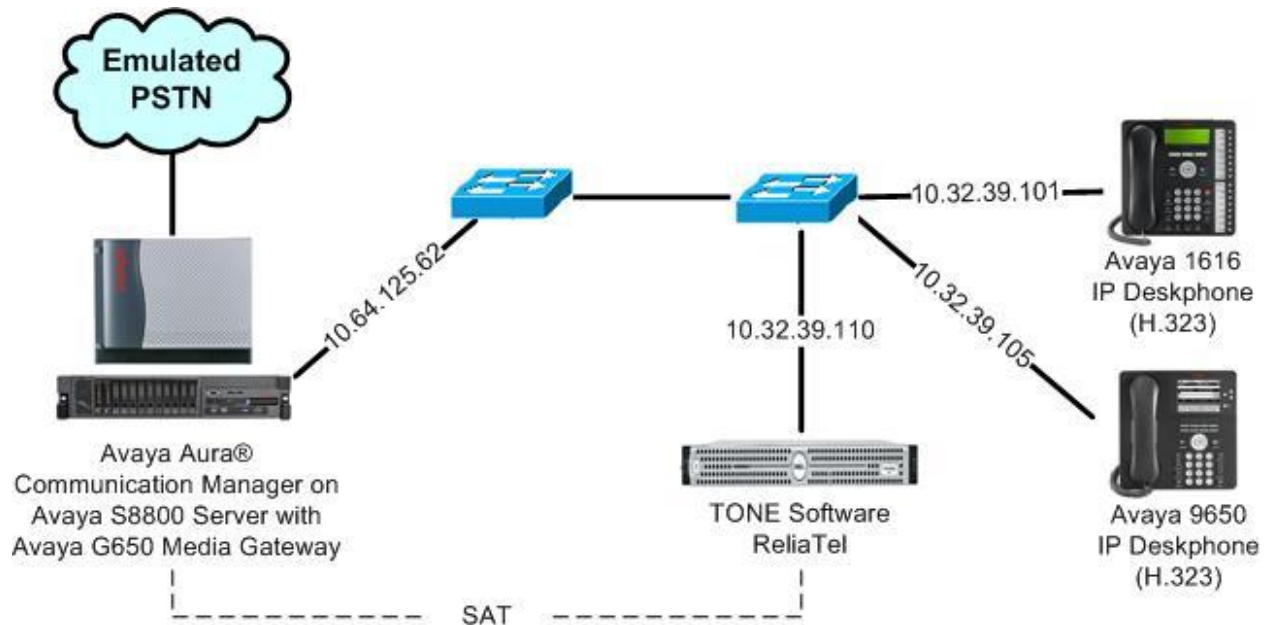


Figure 1: Compliance Testing Configuration

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 on Avaya S8800 Server	6.2 SP3 (R016x.02.0.823.0-20001)
Avaya G650 Media Gateway <ul style="list-style-type: none">• TN799DP C-LAN Circuit Pack• TN2302AP IP Media Processor	HW01 FW040 HW12 FW121
Avaya 1616 IP Deskphone (H.323)	1.302S
Avaya 9650 IP Deskphone (H.323)	3.105S
TONE Software ReliaTel	4.1

5. Configure Avaya Aura® Communication Manager

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

- Obtain product ID
- Administer measurement selection trunk groups

5.1. Obtain Product ID

From the Linux shell interface of Communication Manager, enter the command “productid”. Make a note of the **Product ID**, which will be used later to configure ReliaTel.

```
xxxxxx@cm_125_62> productid

Product ID: "1000000000"
```

5.2. Administer Measurement Selection Trunk Groups

From the SAT interface of Communication Manager, enter the command “change meas-selection trunk-group”. Enter the desired trunk groups to be measured, as shown below.

```
change meas-selection trunk-group                                     Page 1 of 1

TRUNK GROUP MEASUREMENT SELECTION

Trunk Group Numbers

1: 13      16:      31:      46:      61:
2: 431     17:      32:      47:      62:
3:         18:      33:      48:      63:
4:         19:      34:      49:      64:
5:         20:      35:      50:      65:
6:         21:      36:      51:      66:
7:         22:      37:      52:      67:
8:         23:      38:      53:      68:
9:         24:      39:      54:      69:
10:        25:      40:      55:      70:
11:        26:      41:      56:      71:
12:        27:      42:      57:      72:
13:        28:      43:      58:      73:
14:        29:      44:      59:      74:
15:        30:      45:      60:      75:
```

6. Configure TONE Software ReliaTel

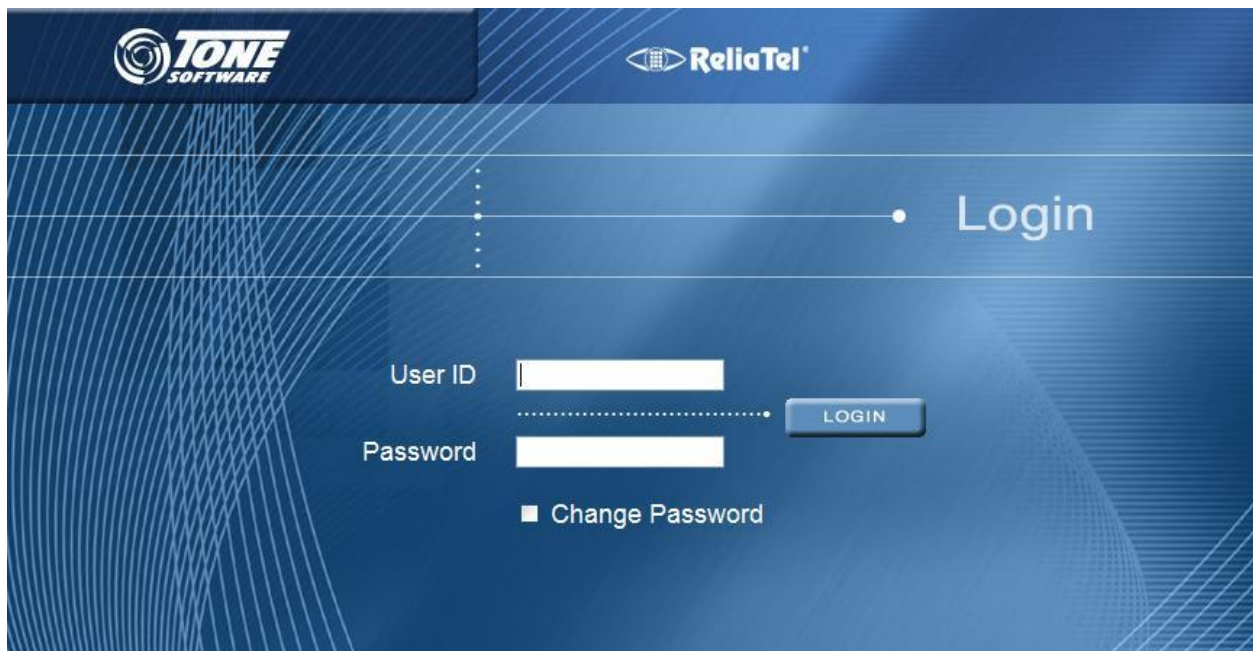
This section provides the procedures for configuring ReliaTel. The procedures include the following areas:

- Launch web interface
- Administer centers
- Administer DAPs
- Administer entities

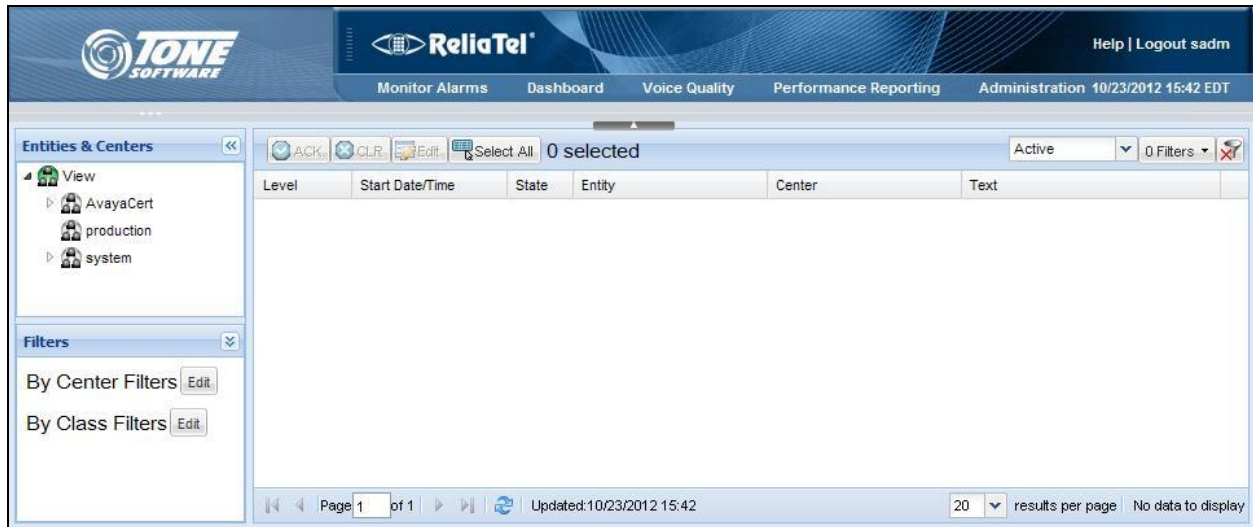
The configuration of ReliaTel is typically performed by TONE Software technicians. The procedural steps are presented in these Application Notes for informational purposes.

6.1. Launch Web Interface

Access the ReliaTel web interface by using the URL “http://ip-address:8080/ems/app” in an Internet browser window, where “ip-address” is the IP address of the ReliaTel server. Log in using the appropriate credentials.

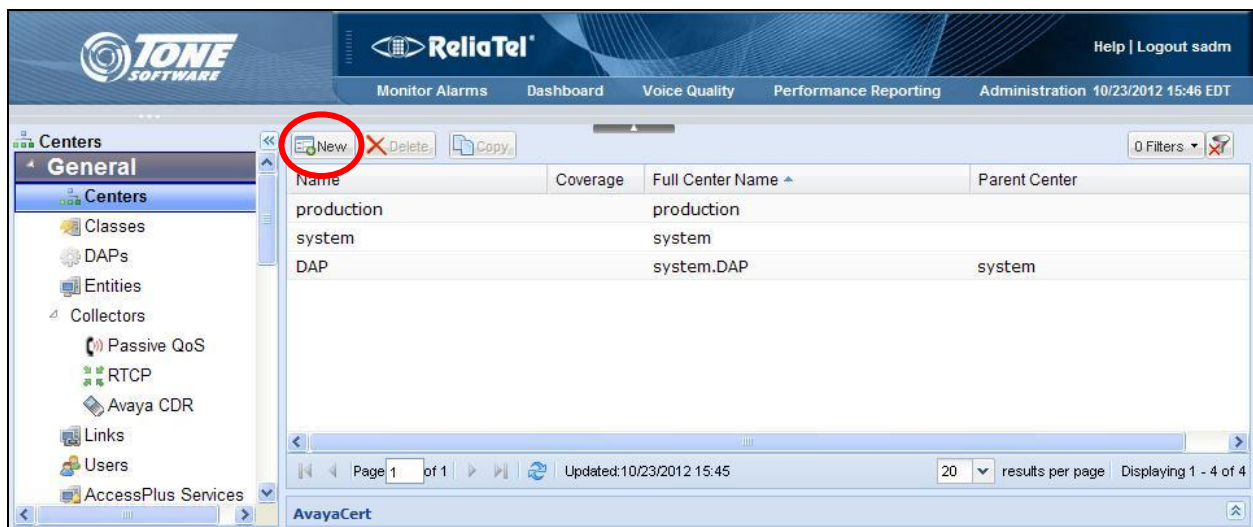


The **ReliaTel** screen is displayed. Select **Administration > General Administration** from the top menu.

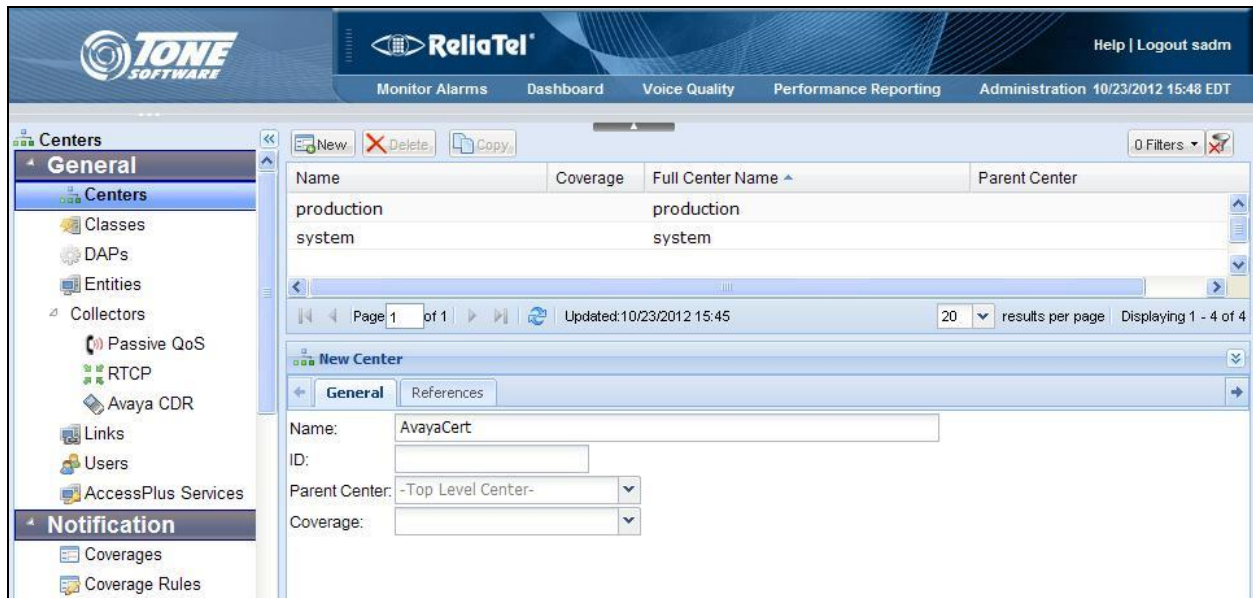


6.2. Administer Centers

The **ReliaTel** screen is updated as shown below. Select **General > Centers** in the left pane to display a list of centers in the right pane. Click **New** to add a new center.

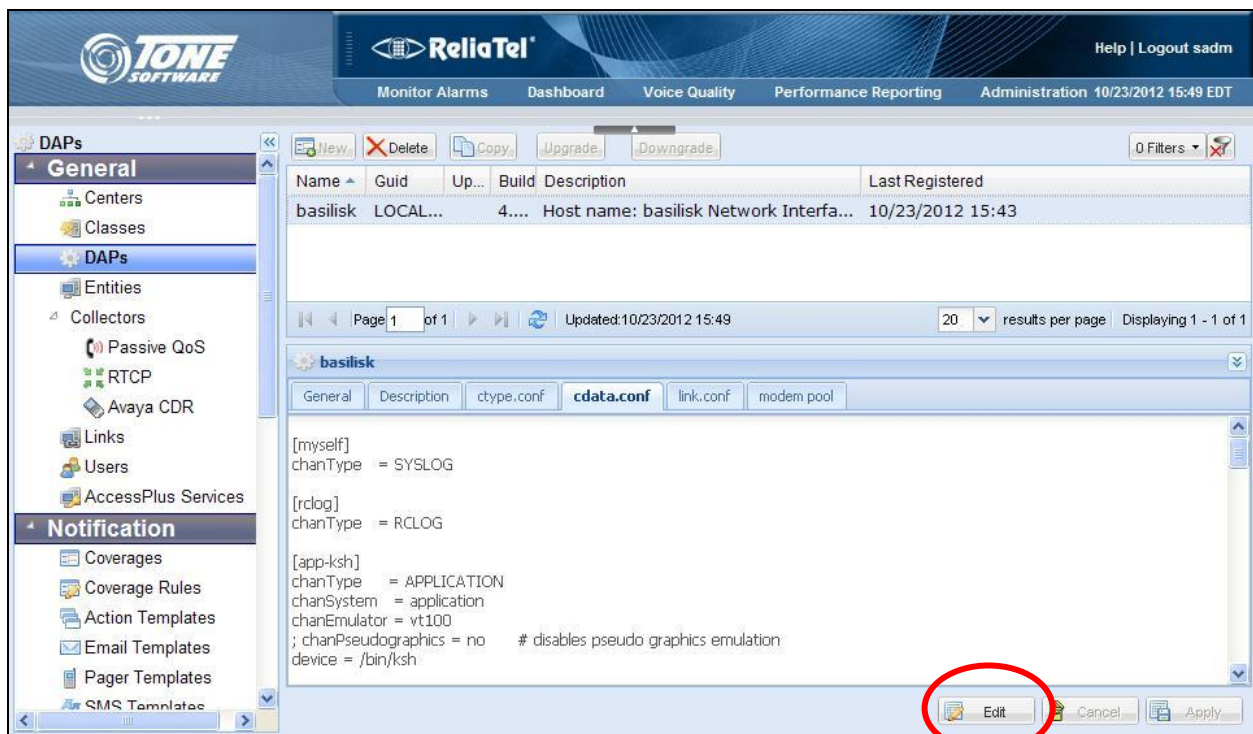


In the lower portion of the screen, select the **General** tab. Enter a descriptive **Name**, and retain the default values in the remaining fields.



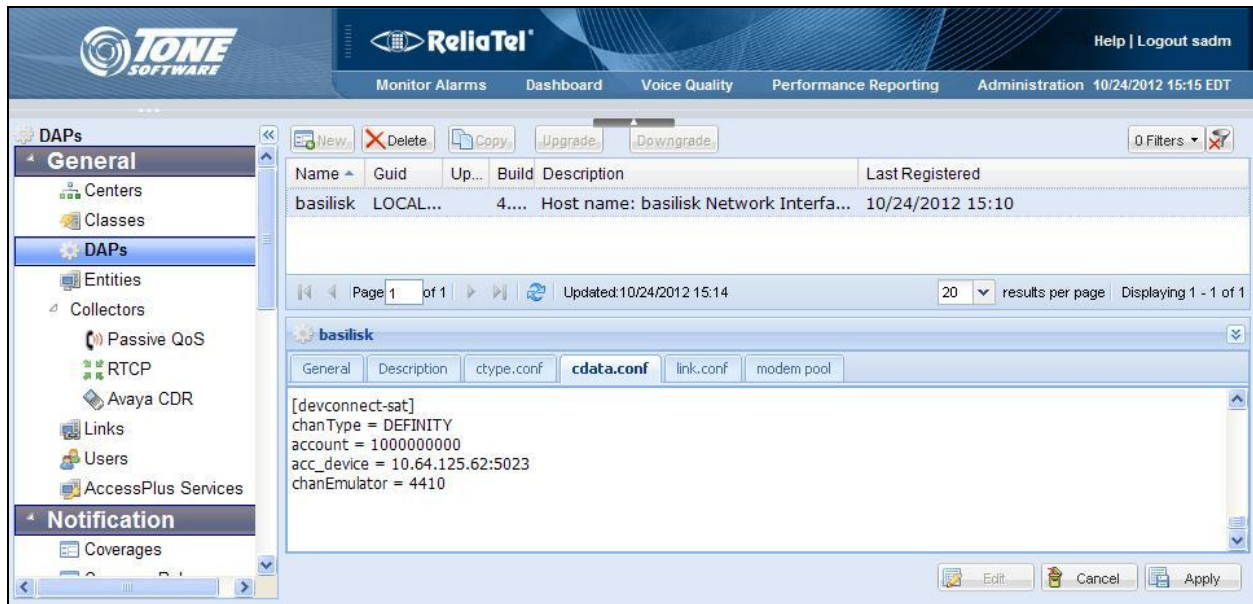
6.3. Administer DAPs

Select **General > DAPs** in the left pane to display the pre-configured DAPs. Select the applicable DAP in the upper pane, followed by the **cddata.conf** tab in the lower pane. Click **Edit**.



Scroll the lower pane to the bottom, and add the entries shown below for connectivity to Communication Manager.

In the example shown below, “devconnect-sat” can be any desired string to denote Communication Manager. Use the values shown below for **chanType** and **chanEmulator**. For **account**, use the product ID from **Section 5.1**. For **acc_device**, use “<ip-address>:5023”, where <ip-address> is the IP address of Communication Manager.



6.4. Administer Entities

From the **ReliaTel** screen, select **General > Entities** in the left pane to display a list of entities in the right pane. Click **New** to add a new entity.



In the lower portion of the screen, select the **General** tab. Enter a descriptive **Name** for Communication Manager. For **Center**, select the center name from **Section 6.2**, in this case “AvayaCert”. For **Class**, select “definity” from the drop-down list, as shown below.

The screenshot shows the ReliaTel administration interface. The left sidebar contains a tree view with 'Entities' selected, and 'General' is the active sub-tab. The main area displays a table of existing entities:

Name	Description	Center	Class	Coverage
basilisk		system.DAP	DAP	
DefaultSNMP	Catch all SNMP traps	AvayaCert	entity	
myself		system	entity	

Below the table is a 'New Entity' form with the following fields:

- Name:** Avaya-SAT
- Description:** (empty)
- Center:** AvayaCert (selected from a dropdown)
- Class:** definity (selected from a dropdown)
- Coverage:** (empty)
- Timezone:** (empty)
- DST/SummerTime Ob:** ☒

At the bottom right are buttons for 'Edit', 'Cancel', and 'Apply'.

In the lower portion of the screen, select the **Logging** tab. Check **Log State**. For **Channel**, enter the same string that denotes Communication Manager from **Section 6.3**. For **Log Pattern**, select “l-avayamdsrv” as shown below. Retain the default values in the remaining fields.

The screenshot shows the ReliaTel administration interface with the 'Logging' tab selected for the 'New Entity' form. The fields are as follows:

- Log State:** ☒
- Channel:** devconnect-sat
- Log Pattern:** l-avayamdsrv (selected from a dropdown)
- Log Age (days):** 30
- Message Timeout (seconds):** 10

At the bottom right are buttons for 'Edit', 'Cancel', and 'Apply'.

Select the **Attributes** tab. For **Admin Login Name** and **Current Admin Password**, enter the credentials for the Communication Manager SAT interface.

The screenshot shows the ReliaTel Administration interface. The left sidebar has a tree view with 'Entities' selected, and 'Attributes' is the active tab. The main area displays the 'New Entity' form. The 'Attributes' tab is selected, showing fields for 'Admin Login Name', 'Avaya Documentation', 'CM License', 'CM Version', 'Contact Name', 'Contact Phone', and 'Current Admin Password'. The 'Current Admin Password' field is masked with dots. The 'Default' column shows 'Default Value = (null)' for 'Admin Login Name' and 'Override' for the others. The top navigation bar includes 'Monitor Alarms', 'Dashboard', 'Voice Quality', 'Performance Reporting', and 'Administration'. The bottom status bar shows 'Page 1 of 1', 'Updated: 10/23/2012 15:54', '20 results per page', and 'Displaying 1 - 5 of 5'.

Select the **Schedules** tab. Select the desired schedules from the **Available Schedules** section, and use the arrow icons to move to the **Selected Schedules** section. In the compliance testing, the selection shown below enabled measurements hourly data to be polled on the hour, and the daily data polled at 10:15.

The screenshot shows the ReliaTel Administration interface. The left sidebar has a tree view with 'Entities' selected, and 'Schedules' is the active tab. The main area displays the 'Schedules' form for the 'Avaya-SAT' entity. The 'Schedules' tab is selected, showing two sections: 'Available Schedules' and 'Selected Schedules'. The 'Available Schedules' section lists 's-0000', 's-0015', 's-0030', 's-0045', 's-0100', and 's-0115'. The 'Selected Schedules' section lists 's-00' and 's-1015'. The top navigation bar includes 'Monitor Alarms', 'Dashboard', 'Voice Quality', 'Performance Reporting', and 'Administration'. The bottom status bar shows 'Page 1 of 1', 'Updated: 10/23/2012 17:59', '20 results per page', and 'Displaying 1 - 10 of 10'.

7. Verification Steps

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

Prior to verification, generate measurements data on Communication Manager, and wait until the daily poll had taken place.

From the **ReliaTel** screen, select **Performance Reporting** from the top menu. Select **Avaya Reports > Trunk Reports** in the left pane, followed by **Trunk Group Summary Hourly Report** in the right pane.



In the subsequent screen, select the desired **Date Range**. For **Switch Name**, select the Communication Manager name from **Section 6.4**. Click **Run Report**.

The screenshot shows the ReliaTel Performance Reporting interface. The top navigation bar includes links for Monitor Alarms, Dashboard, Voice Quality, Performance Reporting, and Administration. The main content area is titled 'PERFORMANCE REPORTING' and contains a 'Trunk Group Summary Hourly Report' section. This section includes a description: 'Provides traffic summary hourly measurements for the specified device and date range.' Below this is a 'Customize this report' link. The configuration area has the following fields:

- *Date Range:** Radio buttons for 'Relative Range' (selected) and 'Exact Range'. A dropdown menu shows 'Today'.
- *Switch Name:** A dropdown menu showing '- All Switches -' and 'Avaya-SAT' (selected).
- Trunk Group(s):** A text input field with a tooltip that says 'Specify one or more switches.'
- Include Time:** An unchecked checkbox.
- Run Report:** A button at the bottom.

 A note at the bottom states 'Required fields are marked with (*)'.

The **Trunk Group Summary Hourly Report** is displayed, as shown below. Verify that the reported data matches the trunk group measurements data from the Communication Manager SAT interface.

Trunk Group Summary Hourly Report

Trunk Group Summary Hourly Report

From: Thu Oct 25 00:00:00 EDT 2012

To: Thu Oct 25 23:59:59 EDT 2012

Switch Name: Avaya-SAT

Switch: AvayaCert.Avaya-SAT

Group Number: 431 TAC: 1044 Group Type: sip Group Name: TLT SIP to G430

Date: 25-Oct-12 Thu

Hour	Grp Type	Grp Size	Dir	Total Usage	Total Seize	Inc Seize	Grp Ovf	Que Size	Calls Qued	Que Ovf	Que Abd	Out Srv	% ATB	% Out Blk
00:00	sip	10	two	0	0	0	0	0	0	0	0	10	100.00	0.00
10:00	sip	10	two	3	10	6	0	0	0	0	0	0	1.00	0.00
Date Total				3	10	6	0		0	0	0	10		
Date Avg		10		2	5	3	0	0	0	0	0	5	50.50	0.00
Group Total				3	10	6	0		0	0	0	10		
Group Avg		10		2	5	3	0	0	0	0	0	5	50.50	0.00

8. Conclusion

These Application Notes describe the configuration steps required TONE Software ReliaTel to successfully interoperate with Avaya Aura® Communication Manager 6.2 using SAT. All feature and serviceability test cases were completed.

9. Additional References

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

1. *Administering Avaya Aura® Communication Manager*, Document 03-300509, Issue 7.0, Release 6.2, July 2012, available at <http://support.avaya.com>.
2. *ReliaTel Operator Guide*, Release 4.1, Guide Version 1.0, October 2012, contact ReliaTel support at info@tonesoft.com.

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