



Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Genesis Traffic Manager to Interoperate with Avaya Communication Server 1000 R7.5 – Issue 1.0

Abstract

These Application Notes describe a compliance-tested configuration consisting of Genesis Systems Corporation Traffic Manager solution and Avaya Communication Server 1000 7.5.

Genesis offers a unified management and reporting solution for Avaya Communication Server 1000. This compliance test focused on the interoperability of Genesis Traffic Manager with Avaya Communication Server 1000 R7.5.

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 a compliance-tested configuration consisting of Genesis Systems Corporation Traffic Manager solution and Avaya Communication Server 1000 R7.5.

Genesis offers a unified management and reporting solution for a variety of communication systems, including Avaya Communication Server 1000. This compliance test focused on the integration of Genesis Traffic Manager with Communication Server 1000 R7.5.

The Traffic Manager solution uses RLogin interface from an application server to communicate with Communication Server 1000 using one of Communication Server 1000 pseudo TTY (PTY) ports. Users access the server using a web browser in order to perform administrative tasks.

2. General Test Approach and Test Results

The compliance test focused on the ability for the Genesis Traffic Manager application to accurately report Traffic Report data from Avaya Communication Server 1000.

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 compliance test validated the accuracy of Traffic data that was downloaded by the Traffic Manager solution from Communication Server 1000 in its day to day operation. Additionally, tests were performed to confirm the ability to recover from network outages and server reboots.

2.2. Test Results

The objectives described in **Section 2.1** were verified.

2.3. Support

Information, Documentation and Technical support for Genesis products can be obtained at:

- Phone: 1 (888) 993-2288 or 1 (604) 530-9348
- Web: <http://www.buygenesis.com>
- Email: support@buygenesis.com

3. Reference Configuration

Figure 1 illustrates the compliance test configuration consisting of:

- Avaya Communication Server 1000
- Various IP and Digital endpoints
- Windows PC hosting the Genesis Server and browser access to the Traffic Manager UI.

The Genesis Server connects to the Communication Server 1000 using Rlogin interface and is thereby able to administer the system using the Traffic Manager UI.

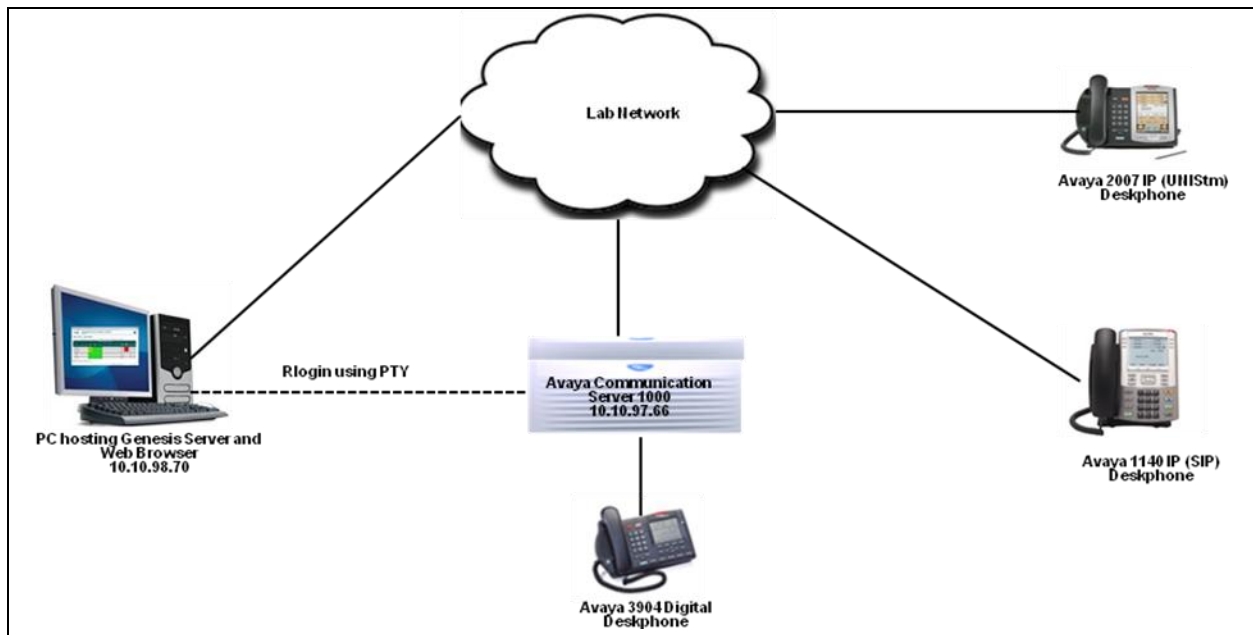


Figure 1 – Genesis Compliance Test Configuration

4. Equipment and Software Validated

The following equipment and version were used in the reference configuration described above:

| Equipment/Software | Release/Version |
|---|------------------------|
| Avaya Communication Server 1000 | 7.50 |
| Avaya IP Phones <ul style="list-style-type: none">• 2007(UNIStm)• 1140 (SIP) | 0621C8L 4.03.12.00 |
| Avaya Digital Phones <ul style="list-style-type: none">• 3904 | N/A |
| Genesis Traffic Manager installed on MS Windows XP Pro | 5.11 (rev. 1.33) |

5. Configure Avaya Communication Server 1000

This document assumes that the Communication Server 1000 was properly installed and configured. For detailed information on how to install, configure and administer Communication Server 1000 refer to **Section 9**. Assumption is also made that an administrative user account is created on the Communication Server 1000 that provides access to overlay (LD) 2. Access to this overlay is required by Traffic Manager for collecting Traffic data from Communication Server 1000.

5.1. Configure Pseudo TTY (PTY) Port

Communication Server 1000 Command Line Interface (CLI) was used in configuring the PTY port. Login to the Communication Server 1000 CLI (not shown) and access overlay (LD) **17** to add a PTY port. A PTY port is required so that Traffic Manager server can access the Communication Server 1000 using Rlogin. Screen below shows an already configured PTY port that was used during compliance testing.

```
ADAN TTY 5
CTYP PTY
DNUM 5
PORT 0
DES Traffic
FLOW NO
USER MTC SCH BUG
TTYLOG 0
BANR YES
```

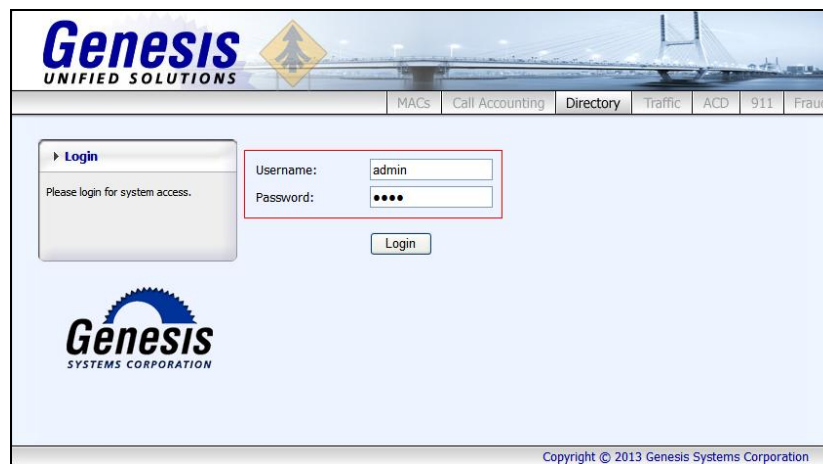
6. Configure Genesis Traffic Manager

Genesis engineer or an approved installer will install and initially configure all server components including Site information. Details of the steps are beyond the scope of this document. Refer to **Section 9** for detail configuration of Genesis Server.

6.1. Genesis Traffic Manager Configuration Details

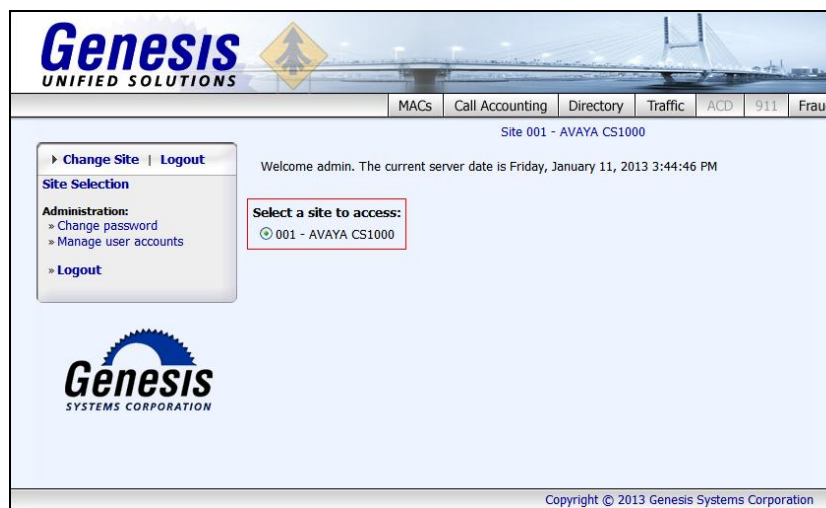
The Traffic Manager application is accessed via web browser. Enter <http://<hostname>/GenWeb/> where <hostname> is the IP address or qualified domain name of the Genesis server.

Login to the system using the credentials supplied by the installer as shown in the screen below.



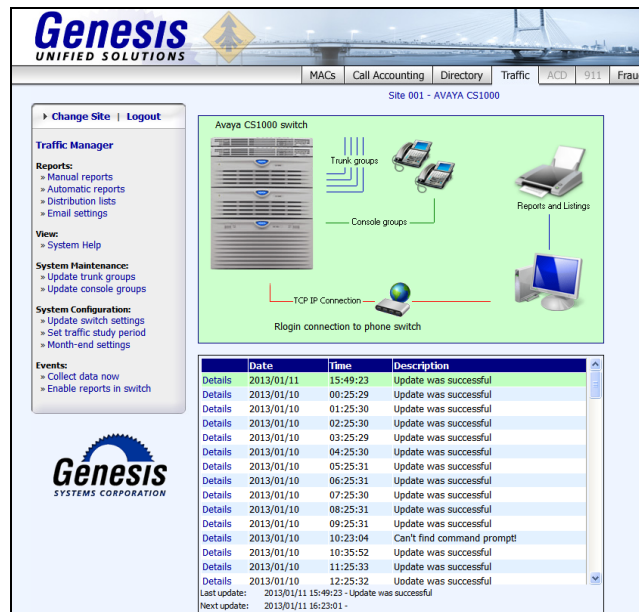
The screenshot shows the Genesis Traffic Manager login interface. At the top, there is a navigation bar with tabs for MACs, Call Accounting, Directory, Traffic, ACD, 911, and Fraud. The 'Traffic' tab is selected. Below the navigation bar, there is a 'Login' section with a message: 'Please login for system access.' To the right of this message, there are two input fields: 'Username:' with the value 'admin' and 'Password:' with masked characters. A 'Login' button is positioned below these fields. The Genesis logo and 'SYSTEMS CORPORATION' are visible at the bottom left. A copyright notice 'Copyright © 2013 Genesis Systems Corporation' is at the bottom right.

If the system is configured for more than one site, select the site to interact with and choose the tab for the **Traffic** application as shown in the screen below. During compliance testing only one site was configured on Genesis system.



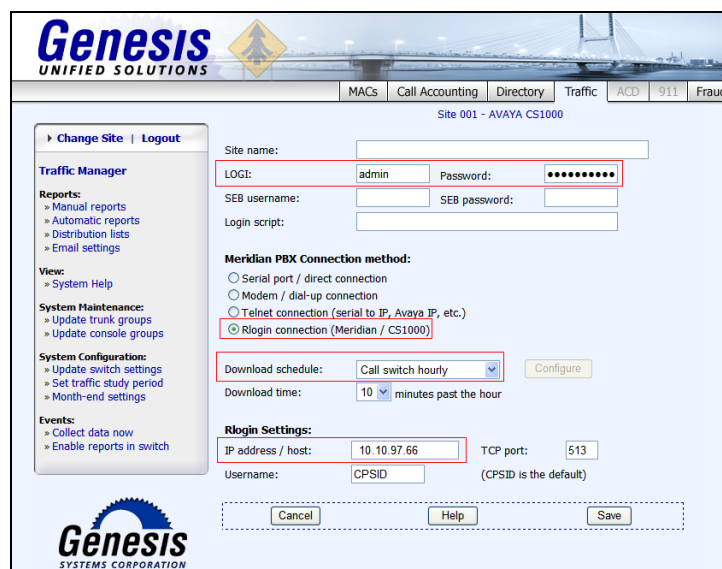
The screenshot shows the Genesis Traffic Manager site selection interface. At the top, there is a navigation bar with tabs for MACs, Call Accounting, Directory, Traffic, ACD, 911, and Fraud. The 'Traffic' tab is selected. Below the navigation bar, there is a 'Change Site' section with a message: 'Welcome admin. The current server date is Friday, January 11, 2013 3:44:46 PM'. To the right of this message, there is a 'Select a site to access:' section with a radio button and the text '001 - AVAYA CS1000'. The Genesis logo and 'SYSTEMS CORPORATION' are visible at the bottom left. A copyright notice 'Copyright © 2013 Genesis Systems Corporation' is at the bottom right.

The initial **Traffic** screen provides a list of recent traffic data download attempts (successful or not) from Communication Server 1000. Clicking on the objects in the diagram or the links in the navigation panel on the left side of the screen will navigate to the respective task screens.



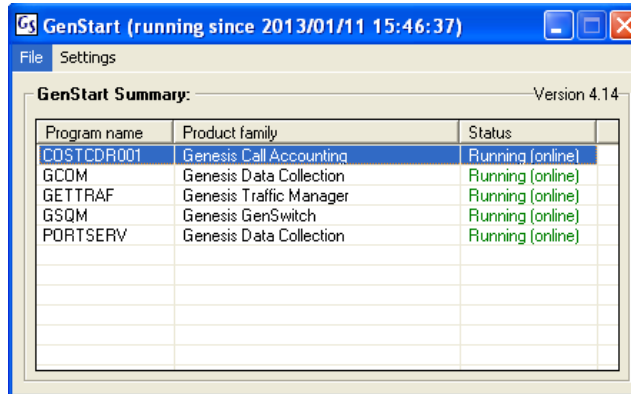
To configure the login settings: on the navigation panel, click **System Configuration** → **Update switch settings** and provide appropriate administrative account **Username** and **Password** as mentioned in **Section 5**. Select **Rlogin connection (Nortel Meridian/CS1000)** for the **Nortel PBX Connection method**. For **Download schedule** select **Call switch hourly** from the drop down menu. In the **Rlogin Settings**, enter the IP address of Communication Server 1000 in the **IP address/host** field. The rest of the values can remain at default.

Click **Save** to complete the task.



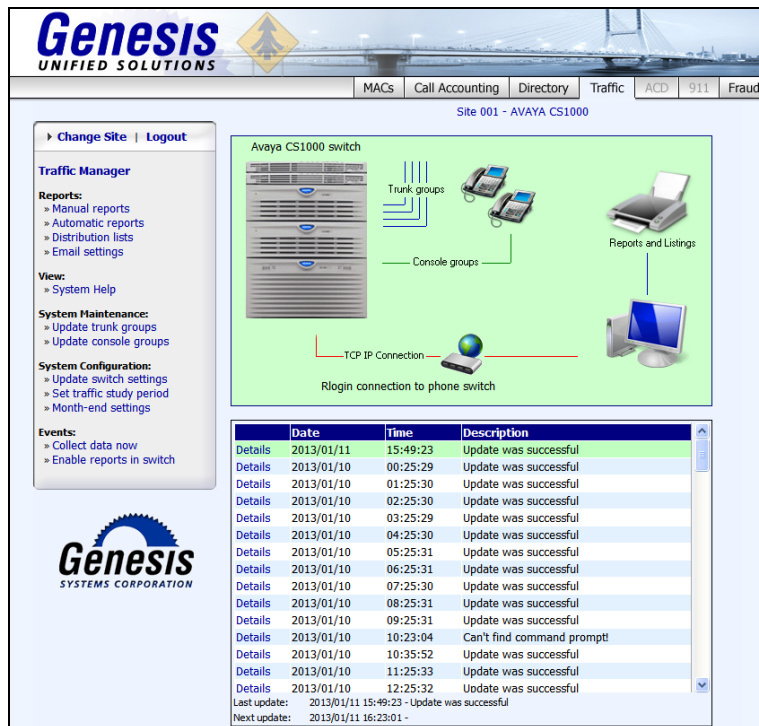
7. Verification Steps

Verify that the Traffic Manager (GETTRAF) application is online by selecting **show** from the **GenStart** icon (not shown) in the Windows System Tray on the Genesis server.



Each service can be started, shutdown or restarted by right clicking and choosing the appropriate option from the popup menu (not shown).

Calls were made to and from Communication Server 1000 endpoints and traffic details were verified by comparing the data generated by Communication Server 1000 with data downloaded by Genesis Traffic Manager application.



Additionally, reports were run from the Genesis Traffic Manager application as shown below. The Genesis Traffic Manager solution is capable of running reports Ad-hoc (Manual Reports) as well as configuring reports to be automatically run on regular intervals and being emailed to a single user, or to a distribution list. The full details of reports are beyond the scope of these Application Notes.

The screenshot shows the Genesis Traffic Manager web interface. The top navigation bar includes 'MACs', 'Call Accounting', 'Directory', 'Traffic', 'ACD', '911', and 'Fraud'. The current site is 'Site 001 - AVAYA CS1000'. On the left, there is a sidebar with 'Change Site | Logout' and a 'Traffic Manager' menu with options like 'Manual reports', 'Automatic reports', 'Distribution lists', and 'Email settings'. The main area is titled 'Report Selection:' and contains several sections:

- Type:** Trunk group reports
- Report:** Calls (total)
- Breakdown:** Calls (peak hour), Calls (total), Durations (peak hour), Durations (total), Calls & usage (peak), Calls & usage (total), Engineering, Hourly calls, Hourly usage, Cost analysis, Traffic analysis. Radio buttons for 'Monthly' and 'Yearly' are present.
- Optional Report:** A dropdown menu is open, showing the same list of report types as the 'Report' section.
- Reporting Period:** Includes 'Date Range Selection' and 'Period Selection' options.
- Report Destination:** Options include 'View in browser', 'Distribution list', and 'Email address'. It also has 'Output format' (HTML document) and 'Output options' (Print page headings, Print column headings, Print headings on page 1 only, Print traffic total lines).
- Custom Report Options:** A checkbox for 'Save this as a custom report'.

AVAYA CS1000

Today's date: 2013/01/11 16:33:01 Page 1

+ Genesis Traffic Manager +

Period starting 2012/11/26
ending 2013/01/11

TRUNK GROUP TRAFFIC - CALLS (daily totals)

| Peak hour | | Trunk group | | | | Incoming calls | | | Outgoing calls | | | Total calls | | |
|------------|----|-------------|------|-------------|-------|----------------|-------|-------|----------------|-------|-------|-------------|-------|--|
| Date | Hr | ID | Type | Description | Offer | Block | Carry | Offer | Block | Carry | Offer | Block | Carry | |
| 2012/11/26 | 13 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/11/27 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/11/28 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/11/29 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/11/30 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/12/03 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/12/04 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/12/05 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/12/06 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/12/07 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/12/10 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/12/11 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/12/12 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/12/13 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/12/14 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 2012/12/17 | 08 | 002 | DID | DID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

8. Conclusion

These Application Notes describe the procedures required to configure Genesis Systems Corporation Traffic Manager solution for collecting traffic data from Avaya Communication Server 1000 R7.5. The Traffic Manager application successfully passed compliance testing.

9. Additional References

This section references the product documentation relevant to these Application Notes. All Avaya documents can be found at <http://support.avaya.com>

- *Software Input Output Reference — Administration Avaya Communication Server 1000 7.5 NN43001-611, Standard 05.13 September 2012.*
- *Traffic Measurement Formats and Output Reference Avaya Communication Server 1000 7.5 NN43001-750, Standard 05.07 July 2012.*

Product documentation for Genesis Traffic Manager Solution can be found at <http://www.buygenesis.com/documents.htm>.

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