Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Genesis Call Accounting 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 Call Accounting solution and Avaya Communication Server 1000 R7.5.

Genesis offers a unified management and reporting solution for Avaya Communication Server 1000. This compliance test focused on the interoperability of Genesis Call Accounting 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.

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1. Introduction

These Application Notes describe a compliance-tested configuration consisting of Genesis Systems Corporation Call Accounting 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 interoperability of Genesis Call Accounting with Avaya Communication Server 1000 R7.5.

The Call Accounting solution receives Call Detail Report (CDR) data from Communication Server 1000 using the Data Buffering and Access (DBA) Toolkit. Users access the server using a web browser in order to perform administrative tasks and administer and run scheduled and ad-hoc reports.

2. General Test Approach and Test Results

The compliance test focused on the ability for the Genesis Call Accounting application to accurately report Call Detail 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 CDR data that was generated by Communication Server 1000 during basic internal and external calls, features like hold, call forward, transfer and conference and calls with account and authorization codes. 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

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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, browser access to the Genesis Call Accounting UI and DBA Toolkit

The DBA Toolkit collects the CDR data generated by Communication Server 1000 and Genesis Server processes this data for its Call Accounting solution.

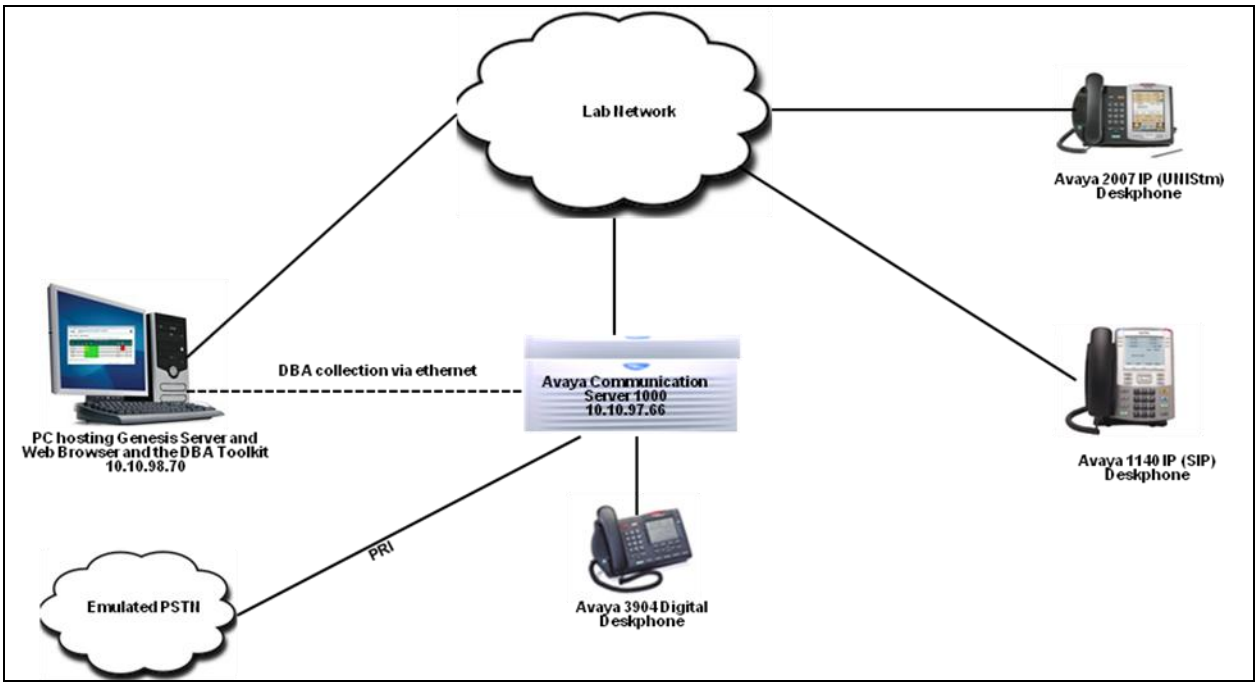

Figure 1 – Genesis Compliance Test Configuration

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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 • 2007(UNIStm) • 1140 (SIP)	0621C8L 4.03.12.00
Avaya Digital Phones • 3904	N/A
Genesis Call Accounting installed on MS Windows XP Pro	6.11 (rev. 5.3.6)
DBA Toolkit installed on MS Windows XP Pro	2.0.0.8

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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**. This document only provides steps on how to configure the CDR feature on the Communication Server1000. Assumption is also made that the DBA Toolkit has been correctly installed and configured. For detailed information on how to install and configure DBA Toolkit refer to **Section 9.**

5.1. Configure Call Detail Recording on Communication Server 1000

Communication Server 1000 Command Line Interface (CLI) was used in configuring the CDR. Login to the Communication Server 1000 CLI (not shown) and access overlay (LD) **22** to view if all packages necessary for CDR feature are available as shown in the screen below.

```
>ld 22

REQ  prt
TYPE pkg
CDR                   4   (Call Detail Recording)
CTY                   5   (Call Detail Recording on Teletype Terminal)
CHG                   23  (Charge Account for CDR)
BAUT                  25  (Basic Authorization Code)
ICDR                  108 (Internal Call Detail Recording)
CDRE                  151 (Call Detail Recording Expansion)
FCDR                  234 (New Call Detail Recording)
CDRX                  259 (Call Detail Recording Enhancement)
```


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Use **LD 15** to enable CDR feature in customer data block (CDB) of Communication Server 1000 as shown in the screen below.

```
>ld 15
REQ: chg
TYPE: CDR

TYPE CDR_DATA
CUST 0
CDR YES
  IMPH NO
  OMPH NO
  AXID YES
  TRCR No
  CDPR YES
  ECDR YES
  BDI  YES
  OTCR YES
  PORT
  CNI  DGTS
  BCAP NO
CHLN 5
FCAF NO
```

Use **LD 17** to change format for CDR to new as shown in screen below.

```
>ld 17
REQ  chg
TYPE parm
FCDR NEW
```

User **LD 16** to enable CDR feature on the route data block (RDB).

```
>ld 16
REQ  chg
TYPE rdb
CUST 0
ROUT 10
CDR  YES (Call Detail Recording)
INC  YES (CDR records generated on incoming calls)
LAST YES (CDR record printing content option for redirected calls)
TTA  YES (Time To Answer output in CDR)
ABAN YES (Abandoned call records output for this route)
CDRB YES (Abandoned call on busy tone records)
QREC Yes (CDR ACD Q initial connection records to be generated)
OAL  YES (CDR on outgoing calls)
AIA  YES (CDR on Outgoing Toll calls)
OAN  YES (CDR timing starts On Answer supervision of outgoing calls)
OPD  YES (Outpulsed Digits in CDR)
```


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User overlay **LD 117** to enable buffering for CDR on the Communication Server 1000 system. During compliance testing only CDR data buffering was enabled. Note: do not use **ENL BUF ALL** to enable all kinds of buffer. This results in the accumulation of additional data that is not collected by DBA Toolkit and unnecessarily consumes storage space. If this command is inadvertently entered, enter **DIS BUF ALL**. This command flushes any CDR data that has been buffered on the Call Server since the last DBA Collection Session.

```
>ld 117
=> enl buf cdr
```


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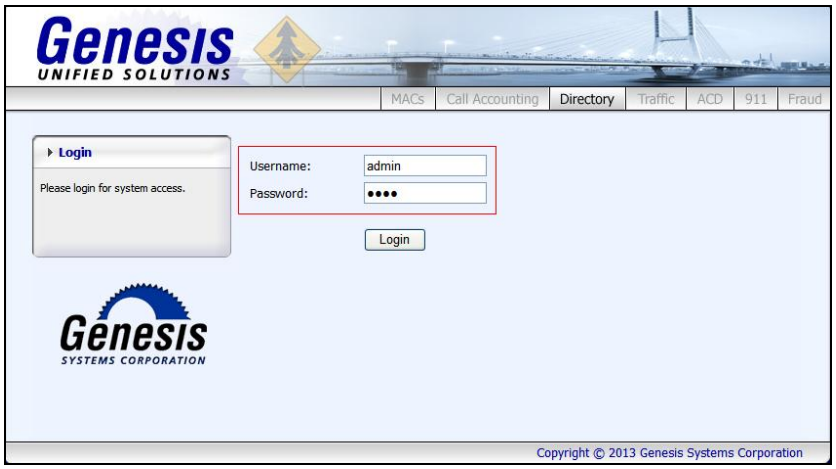
6. Configure Genesis Call Accounting

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. Please refer to **Section 9** for detailed configuration of Genesis Server.

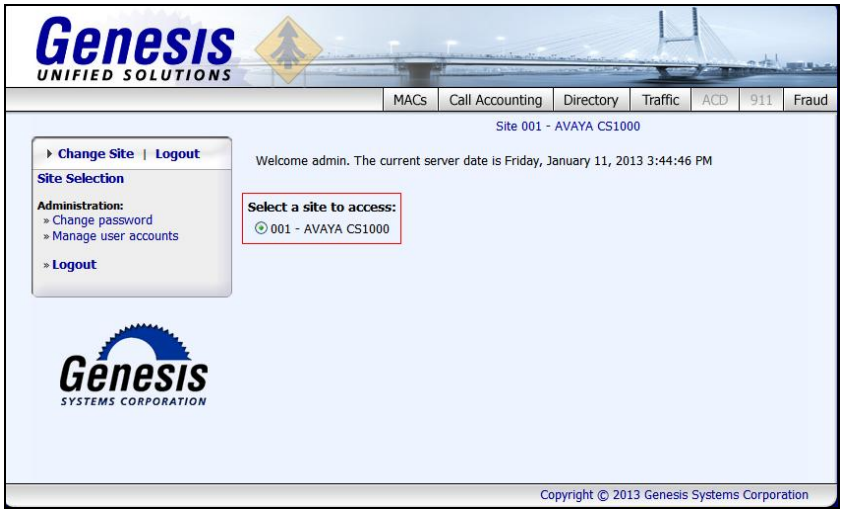
6.1. Genesis Configuration Details

The Call Accounting 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.



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



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The initial **Call Accounting** screen provides a list of recent call records in both a raw data format as received from Communication Server 1000 using the DBA Toolkit, as well as a processed format. 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.

Date	Time	Ext.	Trunk	Number dialed	Location	Length	Cost
2013/01/08	09:33	58720	T010032	2374371001		00:00:32	$0.00
2013/01/08	09:43	58303	58720	Internal		00:00:54	$0.00
2013/01/08	09:45	58303	CF00000	IN>		00:00:10	$0.00
2013/01/08	09:45	58303	58720	Internal		00:00:34	$0.00
2013/01/08	09:46	58717	58303	Internal		00:00:02	$0.00
2013/01/08	09:47	58303	58717	Internal		00:00:02	$0.00
2013/01/08	09:47	58303	CF00000	IN>		00:00:10	$0.00
2013/01/08	09:47	58303	58720	Internal		00:00:20	$0.00
2013/01/08	09:49	58720	T010001	IN>2374371001		00:00:12	$0.00
2013/01/08	09:50	58720	T010001	IN>2374371001		00:00:14	$0.00
2013/01/08	10:03	56754	T010001	IN>2143943764	Grd Prarcl TX	00:00:14	$0.00
2013/01/08	10:08	58007	58006	Internal		00:00:02	$0.00

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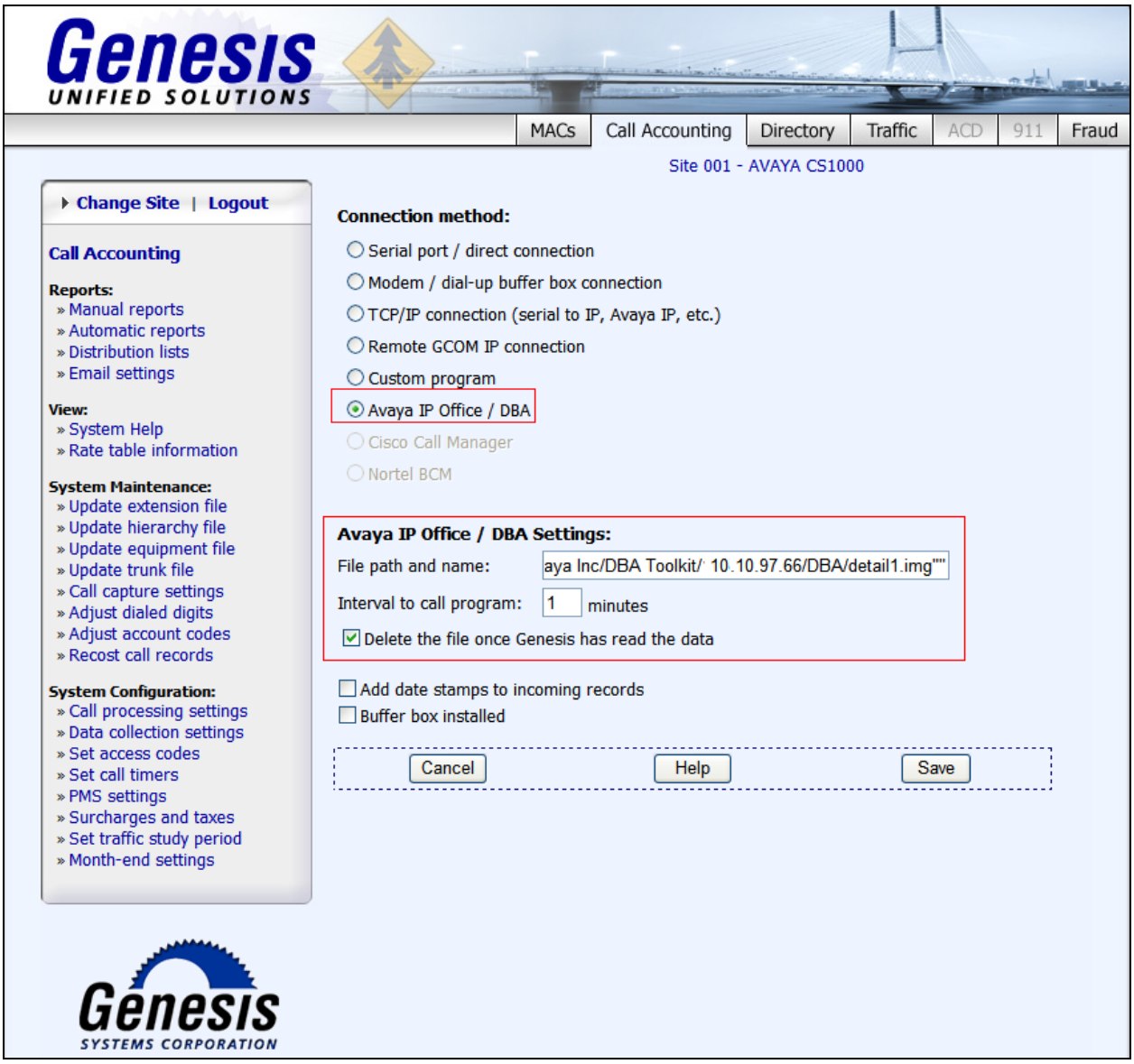
To configure data collection settings, on the navigation panel, click **System Configuration → Data collection settings** to define the way Call Accounting will connect to the CDR data sent from Communciation Server 1000. Select ***Avaya IP Office/DBA*** for the **Connection method**. In the **Avaya IP Office/DBA Settings**, provide the ***File path and name, Interval to call program*** and check the box ***Delete the file once Genesis has read the data.*** By default the detail1.img file generated by the DBA Toolkit is located in the directory, C:/Program File/Avaya Inc/DBA Toolkit/<IP address of the Communication Server 1000>/DBA.

Click **Save** to complete the task.



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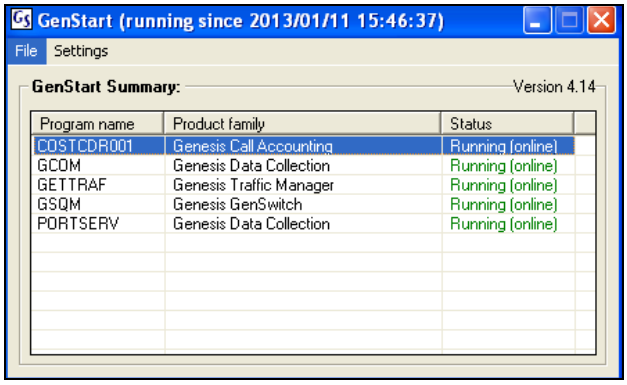
7. Verification Steps

Verify that the Genesis Call Accounting (COSTCDR001), Genesis Data Collection (GCOM) and Genesis Data Collection (PORTSERV) applications are 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 call details were verified by comparing the data collected from the DBA Toolkit (not shown) to the data in the Genesis Call Accounting application.

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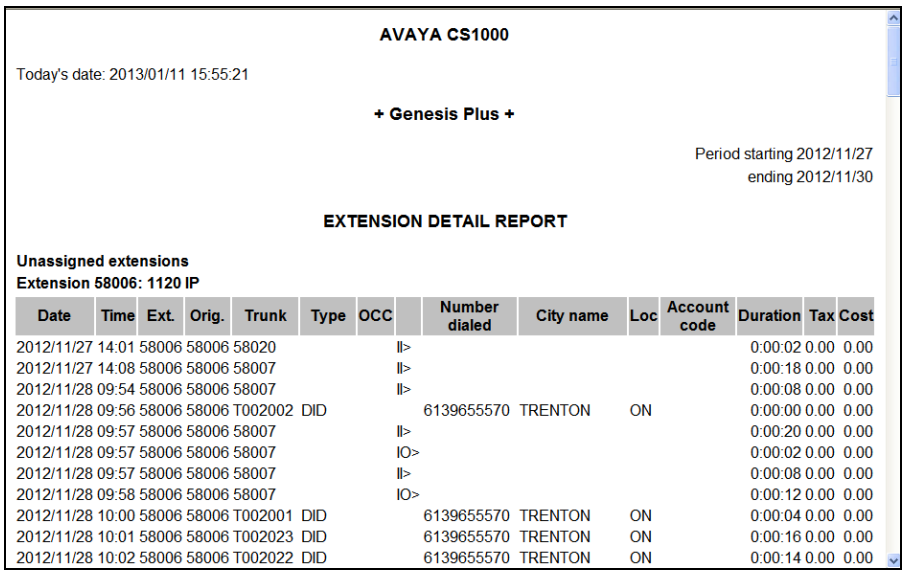
Additionally, reports were run from the Genesis Call Accounting application as shown below. The Genesis Call Accounting solution is capable of running reports Ad-hoc (Manual Reports) as well as configuring reports to be automatically run on regular intervals and being emailed to a single user, or to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



AVAYA CS1000

Today's date: 2013/01/11 15:55:21

+ Genesis Plus +

Period starting 2012/11/27
ending 2012/11/30

EXTENSION DETAIL REPORT

Unassigned extensions
Extension 58006: 1120 IP

Date	Time	Ext.	Orig.	Trunk	Type	OCC		Number dialed	City name	Loc	Account code	Duration	Tax	Cost
2012/11/27	14:01	58006	58006	58020			II>					0:00:02	0.00	0.00
2012/11/27	14:08	58006	58006	58007			II>					0:00:18	0.00	0.00
2012/11/28	09:54	58006	58006	58007			II>					0:00:08	0.00	0.00
2012/11/28	09:56	58006	58006	T002002	DID			6139655570	TRENTON	ON		0:00:00	0.00	0.00
2012/11/28	09:57	58006	58006	58007			II>					0:00:20	0.00	0.00
2012/11/28	09:57	58006	58006	58007			IO>					0:00:02	0.00	0.00
2012/11/28	09:57	58006	58006	58007			II>					0:00:08	0.00	0.00
2012/11/28	09:58	58006	58006	58007			IO>					0:00:12	0.00	0.00
2012/11/28	10:00	58006	58006	T002001	DID			6139655570	TRENTON	ON		0:00:04	0.00	0.00
2012/11/28	10:01	58006	58006	T002023	DID			6139655570	TRENTON	ON		0:00:16	0.00	0.00
2012/11/28	10:02	58006	58006	T002022	DID			6139655570	TRENTON	ON		0:00:14	0.00	0.00

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8. Conclusion

These Application Notes describe the procedures required to configure Genesis Systems Corporation Call Accounting solution to interoperate with Avaya Communication Server 1000 R7.5 for the purpose of collecting Call Detail Records. The Call Accounting 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 and https://devconnect.avaya.com/public/dyn/d_dyn.jsp?fn=625.

- *Software Input Output Reference — Administration Avaya Communication Server 1000 7.5 NN43001-611, Standard 05.13 September 2012.*
- *Call Detail Recording Fundamentals Avaya Communication Server 1000 7.5NN43001-550, 5.03 September 2011*
- *CS 1000 Data Buffering and Access CDR/Traffic Toolkit version 2.0 Documentation.*

Product documentation for Genesis Call Accounting Solution can be found at http://www.buygenesis.com/documents.htm.

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