



## **Avaya Solution & Interoperability Test Lab**

---

# **Application Notes for Teleopti CCC with Teleopti Log Server and Avaya Call Management System - Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required for Teleopti CCC with Teleopti Log Server to successfully interoperate with Avaya Call Management System (CMS).

Teleopti CCC is a workforce management solution for contact centres and uses the Avaya CMS Generic Real-Time Adherence (RTA) package to gain access to real-time agent information from the Avaya CMS.

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 Teleopti CCC with Teleopti Log Server to successfully interoperate with Avaya Call Management System (CMS).

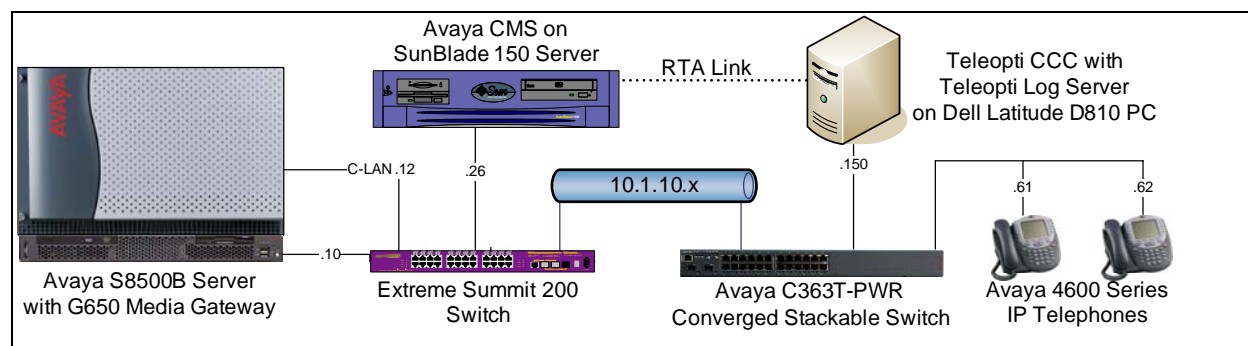
Teleopti CCC is a Workforce Management application suite. It is designed to help plan customer contact centres in optimising customer satisfaction, profitability, and employee satisfaction.

The Teleopti Log Server is an optional component providing real-time updates from an Avaya CMS running the Generic-Real-Time Adherence (RTA) package. This allows the supervisor to see at a glance both the planned call centre activities overlaid with the actual situation. Coloured text is used to highlight discrepancies between the two situations, and whether these discrepancies are having a positive or negative effect on the performance of the contact centre.

Although the link between Avaya CMS and Teleopti Log Server is the Generic-RTA package of CMS, it is necessary for an ACD to be configured on Avaya Communication Manager for this interface to generate data. Whilst a full description of the configuration of a CMS is beyond the scope of these Application Notes, it is important to understand that this is essential for an operational system.

These Application Notes focus on the configuration of the Generic-RTA package on Avaya CMS and the configuration of the Teleopti Log Server on the Teleopti CCC server.

The configuration shown in the diagram below shows the compliance-tested configuration.



## 2. Equipment and Software Validated

The following equipment and software were used in the compliance-tested configuration.

Equipment	Software
Avaya S8500B Server	Avaya Communication Manager 4.0.1
Avaya G650 Media Gateway C-LAN TN799DP	N/A HW1 FW24
Sun Blade 150	Sun Solaris 9.0 Avaya CMSr14aa.h Generic-RTA package v6.0_pl2
Avaya 4610SW IP Telephones (H.323)	2.8
Avaya 4602SW IP Telephones (H.323)	2.3
Avaya 9620SW IP Telephones (H.323)	1.5
Dell Latitude D810	Microsoft Windows XP, Service Pack 2 Teleopti CCC 6.6 Teleopti Log Server 7.0 Microsoft SQL Server 2000

### 3. Configure Avaya CMS

This section provides the procedures for configuring the Generic-RTA package on Avaya CMS.

Please note that it is expected that the installer is familiar with configuring the switch integration, storage intervals etc. on the Avaya CMS as the focus of these Application Notes is on the configuration of the Generic-RTA interface only. For all other provisioning information, such as software installation, installation of optional components, basic configuration of Avaya CMS, etc., refer to the Avaya CMS product documentation in reference [1].

#### 3.1. Configure the Generic-RTA package on Avaya CMS

A file, “install.txt”, with instructions on how to configure the Generic-RTA package, accompanies the Generic-RTA Package for CMS. The parts of this file relevant to these Application Notes have been included below with informational annotations in italics.

```
Installation Instructions for Generic-RTA Interface
-----

----- ON THE CUSTOMER MACHINE -----

You'll need to know:
  Is each ACD EAS or non-EAS?
  The maximum skill range for each ACD?
  Which ACD(s) will be monitored?
  What is the IP address & node name of the Remote server?

1) add the Remote server's IP address & node name to /etc/hosts

2) mkdir -p /export/home/pserv/rta_gen

3) cd /export/home/pserv/rta_gen
   cp usr/spool/uucppublic/genCpio.Z .
   cp usr/spool/uucppublic/license .

Step 4 assumes that the Generic-RTA package (genCpio.Z) is installed in the /usr/spool/uucppublic directory. This command must be changed if this path is not correct.

4) uncompress genCpio.Z

5) cpio -iv < genCpio

6) sh setup
```

*The “setup” shell script from Step 6 then asks a few questions about the installation so that the files can be customised. These include the name of the installer and ticket number, which were fictional in this configuration. It also asks the name of the remote host (this is the Teleopti RTA Server) and whether EAS has been configured. In this configuration, the remote host was called RTAHost and EAS was configured on the ACD.*

```

7) if using multiple sessions:
    ln rta_gen1 rta_gen2
    cp .rtainp1 .rtainp2
    chown cms .rtainp*
    chgrp cms .rtainp*
    edit .rtainp* for each session

```

*For Step 7 only a single ACD, and therefore a single session, was used in this configuration, although a customer environment may have several configured.*

```

8) edit starttrta, stoptrta & testtrta
    change rta_XXX to rta_gen
    change "HOST" & "acd1" as needed
    the last command line arg should be 'acd1'
    acdX is the ACD that will be used for the time stamp
    If non-EAS add "-n" as the 1st command line option.

```

*The files in Step 8 should have been configured by the install script – verify the values are correct.*

*The 1<sup>st</sup> section of Step 9 must be performed from the CMS menus and not from the command prompt. Many installations do not have a “root2” user and so use “root” instead. It is necessary to start “screen painter” having created the report, so that the last copy command has a destination file name. The actual command is “cp” rather than “copy”.*

```

9) As 'cmssvc', create a private Custom Real Time report named 'rta_gen'.
    "F3" to Unix
    su root2
    cd /cms/db/gem/r_custom
    ls -ltr
    copy '/export/home/pserv/rta_gen/rta_gen.gem' to the newly created file

```

Note:  
 If EAS or EAS-Phd, use rta\_gen.gem.  
 If non-EAS, use Nrta\_gen.gem.

Note: If they do not have at least r3v6as.g you will have to change  
 AGDURATION to AGTIME.

```

10) Create a main menu addition
    Main Menu - Sys Setup
        Main Menu Addition
            name - Generic-RTA
            path - /export/home/pserv/rta_gen/menurta
            add
    Main Menu - User Permissions
        Main Menu Addition Access
            User IDs = cms
            Addition = Generic-RTA
            Access = y
            Modify

```

```

11) If this is an HA CMS configuration, and Generic-RTA is installed on both
    CMS's, edit "starttrta" and make the indicated "CHANGE".

```

NOTE: If this is an HA CMS and they have RTA solely on the Secondary,  
 the Screen Painter report must still be installed on both.

*For Step 11 high availability was NOT tested as part of this process.*

- 12) Test the software.
- `./testrpt` - runs the report - no logging
  - `./testrta` - sends the output to the port & Log & screen
- Note:
- if no data - vi `.rtainpl`
  - field 1 = ACD(s)
  - field 2 = skills
  - field 3 = refresh
- 13) Test the Main Menu addition.
- run the Main Menu addition - 1) Start Generic-RTA
  - shut off Gen-RTA from the menu addition - 2) Stop Generic-RTA
- from Unix:
- >Log (to clear the log)
- 14) If there are multiple ACDs and they are in different time zones, edit "offset" and make the necessary CHANGE(s).

Since the Generic RTA package needs a license in order to run as a Main Menu addition, contact the Avaya Professional Services Organisation to request a license file. This is linked to the Avaya CMS server's MAC address for security purposes. The command "hostid" will return the value as required by the license generation process.

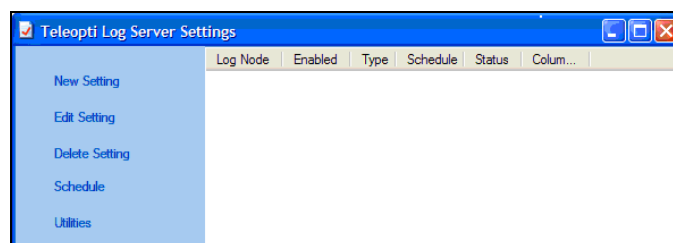
## 4. Configure Teleopti CCC with Teleopti Log Server

This section provides the procedures for configuring Teleopti Log Server on the Windows XP server used by Teleopti CCC.

Please note that it is expected that the installer is familiar with configuring the database mappings, data collection, etc., on the Teleopti CCC server as the focus of these Application Notes is on the configuration of the CMS Generic RTA interface only. For all other provisioning information, such as software installation, installation of optional components, basic configuration of Teleopti CCC, etc., refer to the Teleopti CCC product documentation in reference [2].

### 4.1. Configure Teleopti Log Server on Teleopti CCC

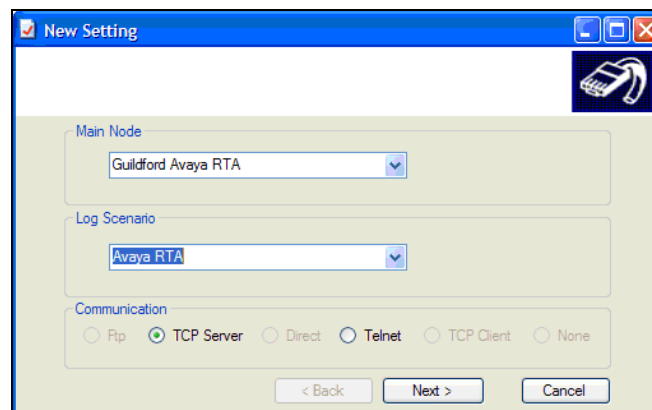
Select **Start > Programs > Teleopti Log > Teleopti Log Server Settings**. On the Teleopti Log Server Settings screen, select **New Setting**.



Configure the fields on the **New Setting** screen as follows.

- **Main Node:** Select the node name that was created during the install of Teleopti Log Server from the drop down box.
- **Log Scenario:** Select Avaya RTA from the drop down box.

Select the **TCP Server** radio button and select **Next**.



Configure the fields on the Edit Setting screen as follows.

- **Port:** Enter “6996”, this is the default port for RTA
- **RowDelimiter:** “VBLF”
- **ShowDebug:** “False”
- **StartTag:** “TS”
- **StoppTag:** “EOD”
- **WriteToTextFile:** “False”

Select **Finish**.

parameter	value
Port	6996
RowDelimiter	VBLF
ShowDebug	False
StartTag	TS
StoppTag	EOD
WriteToTextFile	False



## **5. Interoperability Compliance Testing**

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying Teleopti CCC w/Teleopti Log Server's ability to receive Real-Time Adherence data from Avaya CMS using the CMS Generic-RTA package. A small call centre was setup in Avaya Communication Manager and various tests were executed including.

- Agent in various states, e.g. Available, Aux Work, After Call Work, etc.
- Agent on ACD calls.
- Agent on non-ACD calls.

The serviceability testing focused on verifying Teleopti CCC w/Teleopti Log Server's ability to recover from outages between itself and Avaya CMS.

### **5.1. General Test Approach**

All feature and serviceability tests were performed manually. The verification included checking the agent states on the Teleopti web client and comparing them with the agent states on the Avaya CMS and Avaya Communication Manager.

### **5.2. Test Results**

All test cases were executed and passed.

## 6. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya CMS and Teleopti CCC with Teleopti Log Server.

### 6.1. Verify Avaya CMS

Log into Avaya CMS as user “cms”. From the main menu choose **Generic\_RTA** (not shown). From the Generic-RTA Menu choose option 3, **Check Status**. If RTA is running and connected to Teleopti CCC with Teleopti Log Server, the following message should appear.

**Generic-RTA session 1 is running and connected.**

### 6.2. Verify Teleopti CCC

Log into the Teleopti CCC Real Time Adherence web client. The correct agent states should be shown under the **Agent State** column.

Teleopti CCC Real Time Adherence - Microsoft Internet Explorer

Show/Hide Profile

Show/Hide Agent Overview

Current profile: Profile 1 Last update: 19/09/2007 17:16 Stop

Overall # non-adhering	
Positive staffing effect	1
Negative staffing effect	0
<b>Total</b>	<b>1</b>
<b>Net staffing effect</b>	<b>1</b>

Overall % non-adhering	
Positive staffing effect <sup>1</sup>	20%
Negative staffing effect <sup>2</sup>	0%
<b>Total</b>	<b>20%</b>

Agent state	
<b>Available</b>	
ACD	0
ACW	0
DACD	0
DACW	0
RING	0
<b>Total</b>	<b>0</b>
<b>Not available</b>	
AUX	0
AUX1	0
AUX2	0

Show/Hide Agent Adherence

Current profile: Profile 1 Last update: 19/09/2007 17:16 Stop

Pin top	Pin end	Name	Group	Login	Activity	Agent state	Alarm name	Alarm time	Staffing effect	Next activity	Next activity start
<input type="checkbox"/>	<input type="checkbox"/>	Andeen Ashley	Team Preferences	15002	Not scheduled	AVAIL	Positiv	00:02	1	Not scheduled	
<input type="checkbox"/>	<input type="checkbox"/>	Arora Prashant	Team Preferences	15006	Phone	AVAIL	OK		0	Short break	17:45
<input type="checkbox"/>	<input type="checkbox"/>	Baldi Pierre	Team Preferences	15004	Phone	AVAIL	OK		0	Short break	19:45
<input type="checkbox"/>	<input type="checkbox"/>	Banaag Juancho	Team Preferences	15007	Phone	AVAIL	OK		0	Not scheduled	18:30
<input type="checkbox"/>	<input type="checkbox"/>	Klashner Robert	Team Preferences	15001	Phone	AVAIL	OK		0	Short break	18:15

Done Local intranet

## 7. Support

For technical support on Teleopti CCC w/Teleopti Log Server, use the following information.

- Email: [support@teleopti.com](mailto:support@teleopti.com)
- Phone: +46 8 544 90 560

## 8. Conclusion

These Application Notes describe the configuration steps required for Teleopti CCC with the Teleopti Log Server module to successfully interoperate with Avaya Call Management System (CMS). All tests were executed and passed successfully.

## 9. Additional References

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

[1] *Avaya Call Management System, Release 14, Software Installation, Maintenance, and Troubleshooting Guide*, Document ID 07-601578, February 2007, available at: <http://support.avaya.com>.

[2] Teleopti CCC product documentation is available, on request, from <http://www.teleopti.com>.

---

**©2007 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](mailto:devconnect@avaya.com).