Avaya Solution & Interoperability Test Lab

Application Notes for CallTech CTLog® with Avaya Aura® Application Enablement Services and Avaya Aura® Communication Manager using DMCC – Issue 1.0

Abstract

These Application Notes contain instructions for CallTech CTLog with Avaya Aura® Application Enablement Services and Avaya Aura® Communication Manager to successfully interoperate.

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

CallTech CTLog® (Active Recording) monitors Avaya Extensions/Stations through connectivity to Avaya Aura® Application Enablement Services. CTLog uses the Avaya Aura® Application Enablement Services TSAPI and Device, Media and Call Control (DMCC) services to capture real-time CTI data and RTP streams from Avaya Aura® Communication Manager to produce recordings of phone activity.

When the services are started, the CTLog server registers with Communication Manager as a Dependent registration using the DMCC service on stations that are administered with Softphone enabled in Communication Manager and administered to be recorded in CTLog . Once DMCC registration is successfully completed, Communication Manager will send audio for all calls that originate or terminate on the registered stations to both the phone, and the recorder.

2. General Test Approach and Test Results

The compliance test focused on the ability for calls to be recorded. Calls were manually placed from the public switched telephone network (PSTN) directly to and from recorded devices, and to Automatic Call Distributor (ACD) queues.

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 ability of CTLog to successfully record calls routed to and from Analog, Digital, IP and SIP endpoints.

Additionally, testing confirmed the ability for CTLog to recover from common outages such as network outages and server reboots

2.2. Test Results

All planned test cases were passed.

2.3. Support

Technical support from Calltech S.A. can be obtained from
Web: www.calltechsa.com
E-mail: support@calltechsa.com
Phone: +57 1 6356535

3. Reference Configuration

Figure 1 illustrates a sample configuration that consists of Avaya products and CallTech CTLog®. Configuration diagram below displays CallTech CTLog connected to AES via a TSAPI link.

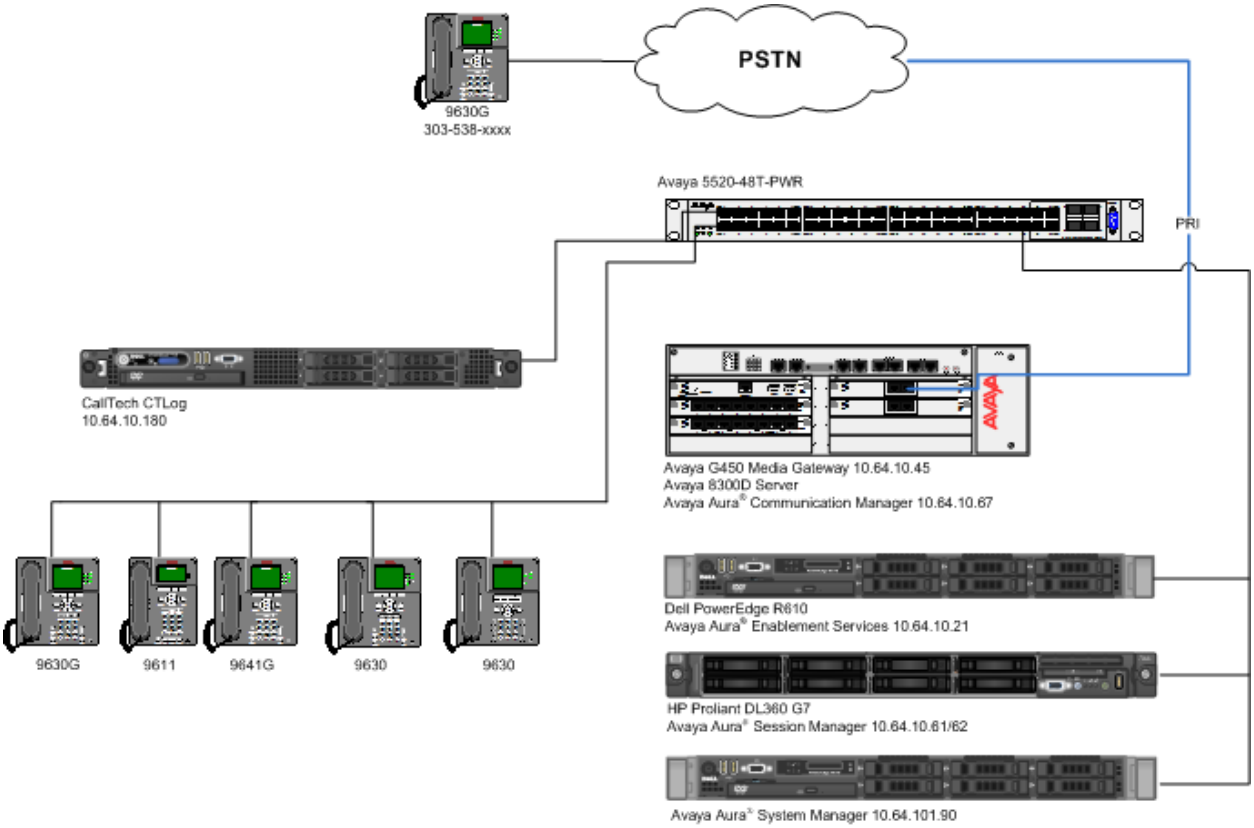


Figure 1: Test Configuration for CallTech CTLog

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya S8300D Server Avaya Aura®Communication Manager	6.3 SP5
Avaya G450 Media Gateway	31.20.0
Avaya Aura® Application Enablement Services	6.3.0.0.212
CallTech CTLog	5.4

5. Configure Avaya Aura® Communication Manager

This section contains steps necessary to configure CTLog successfully with Avaya Aura® Communication Manager.

All configurations in Communication Manager were performed via SAT terminal.

5.1. Verify Feature and License

Enter the **display system-parameters customer-options** command and ensure that the following features are enabled.

One Page 3, verify **Computer Telephony Adjunct Links** is set to **y.**

```
display system-parameters customer-options                    Page   3 of  11
                              OPTIONAL FEATURES

    Abbreviated Dialing Enhanced List? y          Audible Message Waiting? y
        Access Security Gateway (ASG)? n              Authorization Codes? y
        Analog Trunk Incoming Call ID? y                      CAS Branch? n
 A/D Grp/Sys List Dialing Start at 01? y                        CAS Main? n
Answer Supervision by Call Classifier? y                Change COR by FAC? n
                                ARS? y  Computer Telephony Adjunct Links? y
                ARS/AAR Partitioning? y   Cvg Of Calls Redirected Off-net? y
          ARS/AAR Dialing without FAC? y                      DCS (Basic)? y
          ASAI Link Core Capabilities? y                DCS Call Coverage? y
          ASAI Link Plus Capabilities? y               DCS with Rerouting? y
       Async. Transfer Mode (ATM) PNC? n
  Async. Transfer Mode (ATM) Trunking? n    Digital Loss Plan Modification? y
             ATM WAN Spare Processor? n                           DS1 MSP? y
                                ATMS? y             DS1 Echo Cancellation? y
                  Attendant Vectoring? y
```

5.2. Configure Stations

Use **add station *n*** command to add a station, where ***n*** is an available station extension. This station will be monitored by CTLog . Configure the station as follows, on Page 1:

- In **Name** field, enter a descriptive name
- Set **Type** to the type of the telephones
- Enter a **Security Code**
- Set **IP SoftPhone** to **y**

```
add station 25002                                          Page   1 of   5
                                    STATION

Extension: 25002                        Lock Messages? n               BCC: 0
     Type: 9630                         Security Code: 123456           TN: 1
     Port: IP                         Coverage Path 1: 1               COR: 1
     Name: IP Station 1               Coverage Path 2:                 COS: 1
                                      Hunt-to Station:
STATION OPTIONS
                                           Time of Day Lock Table:
             Loss Group: 19          Personalized Ringing Pattern: 1
                                               Message Lamp Ext: 25001
           Speakerphone: 2-way              Mute Button Enabled? y
       Display Language: english                 Button Modules: 0
 Survivable GK Node Name:
         Survivable COR: internal             Media Complex Ext:
   Survivable Trunk Dest? y                        IP SoftPhone? y

                                         IP Video Softphone? n
                                Short/Prefixed Registration Allowed: default

                                        Customizable Labels? y
```

5.3. Configure CTI-Link

An existing configuration was used for CTI-link, and is not shown as part of this document. Screen capture below displays the configured CTI-link that was used during compliance testing.

```
display cti-link 1                                         Page   1 of   3
                                  CTI LINK
 CTI Link: 1
Extension: 6201
     Type: ADJ-IP
                                                                   COR: 1
```

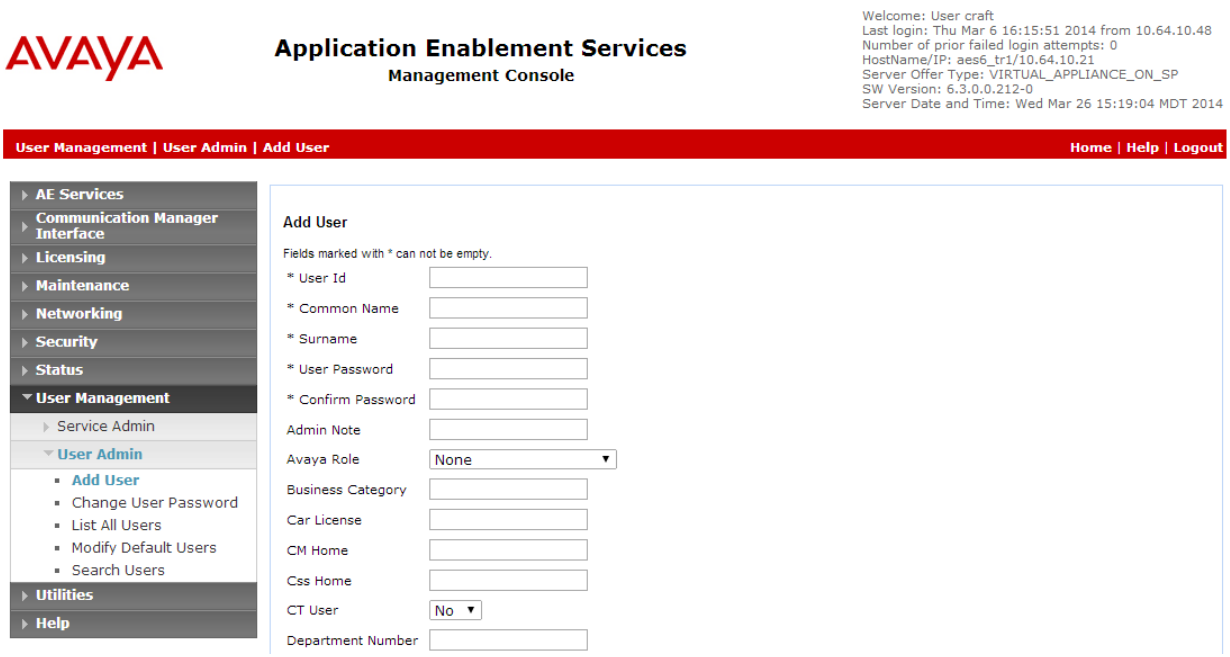
6. Configure Avaya Aura® Application Enablement Services

Configuration of Avaya Aura® Application Enablement Services requires a user account be configured for CTLog .

6.1. Configure User

All administration is performed by web browser, https://<aes-ip-address>/

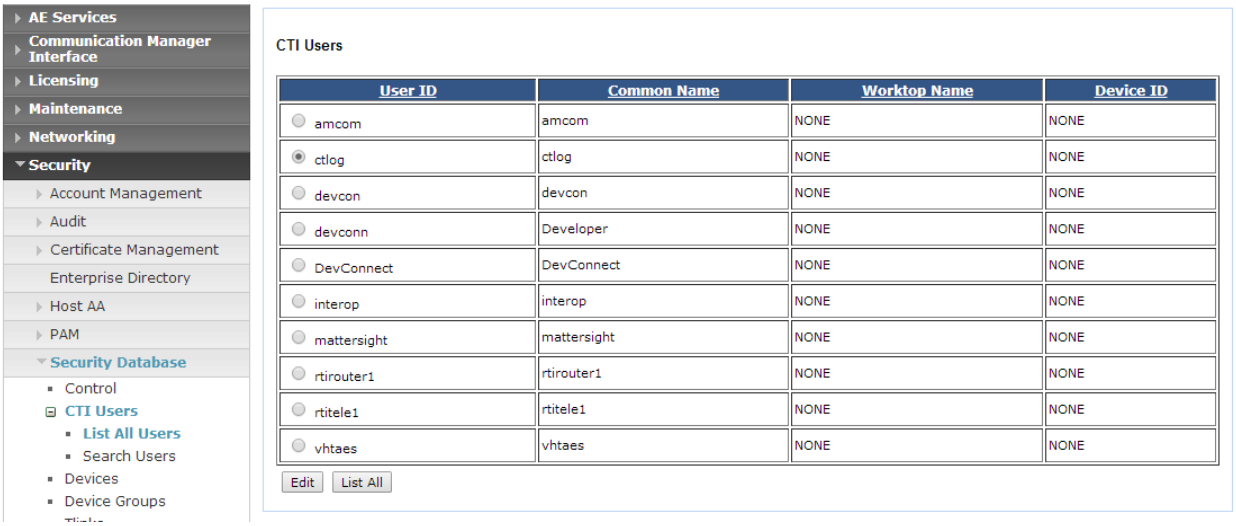
A user needs to be created for CTLog to communicate with AES. Navigate to **User Management → User Admin → Add User**.



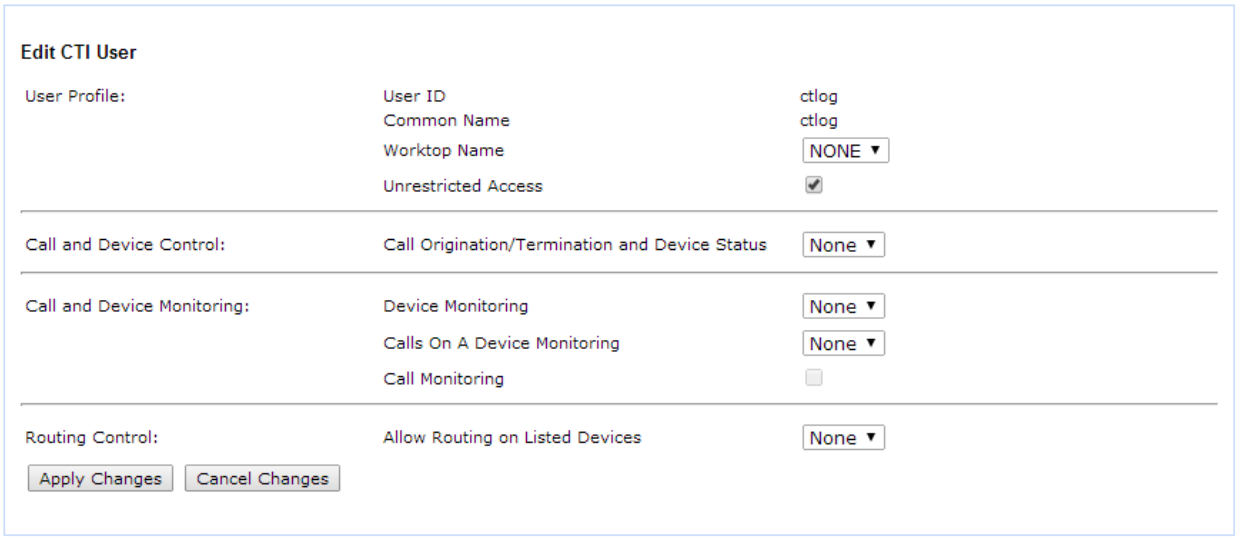
Fill in **User Id, Common Name, Surname, User Password** and **Confirm Password**. Set the **CT User** to **Yes,** and **Apply**.

If the Security Database is enabled on Application Enablement Services, set the CTLog user account to Unrestricted Access to enable any device to be used implicitly. This step avoids the need to duplicate administration.

Navigate to **Security → Security Database → CTI Users → List All Users**.



Select the recently added user and click **Edit**. Check the box for **Unrestricted Access** and click **Apply Changes**.



6.2. Configure Communication Manager Switch Connections

An existing configuration was used for Communication Manager Switch Connection. It is not shown in this document.

6.3. Configure TSAPI Link

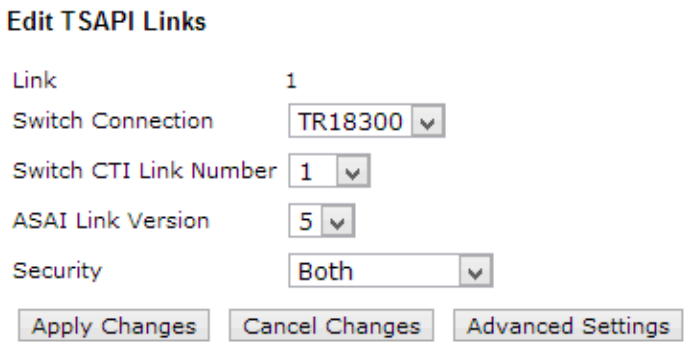
Navigate to the **AE Services → TSAPI → TSAPI Links** page to add the TSAPI CTI Link. Click **Add Link** (not shown).

Select a **Switch Connection** using the drop down menu. Select the **Switch CTI Link Number** using the drop down menu. The **Switch CTI Link Number** must match the number configured in the **cti-link** form for Communication Manager.

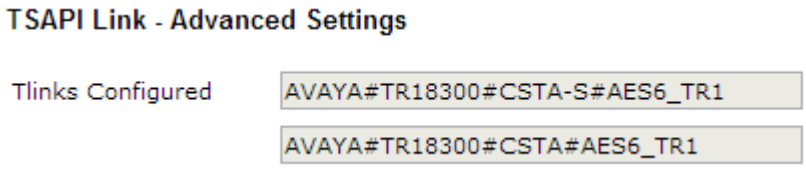
If the application will use Encrypted Links, select **Encrypted** in the **Security** selection box.

Click **Apply Changes**.

Configuration shown below was previously configured.



Click **Advanced Setting** to obtain the TSAPI Link that will be used by CTLog .



6.4. Configure TSAPI and DMCC Licenses

CTLog uses a DMCC (**VALUE_AES_DMCC_DMC**) license for each recording port. Additionally, a TSAPI Basic (VALUE_AES_TSAPI_USERS) license is used for each agent station, and each skill group being monitored. If DMCC_DMC is licensed on Application Enablement Services, then an IP_API_A is generally not required on Communication Manager R5 and later. Please consult product offer documentation for more details. If the licensed quantities are not sufficient for the implementation, contact the Avaya sales team or business partner for a proper license file.

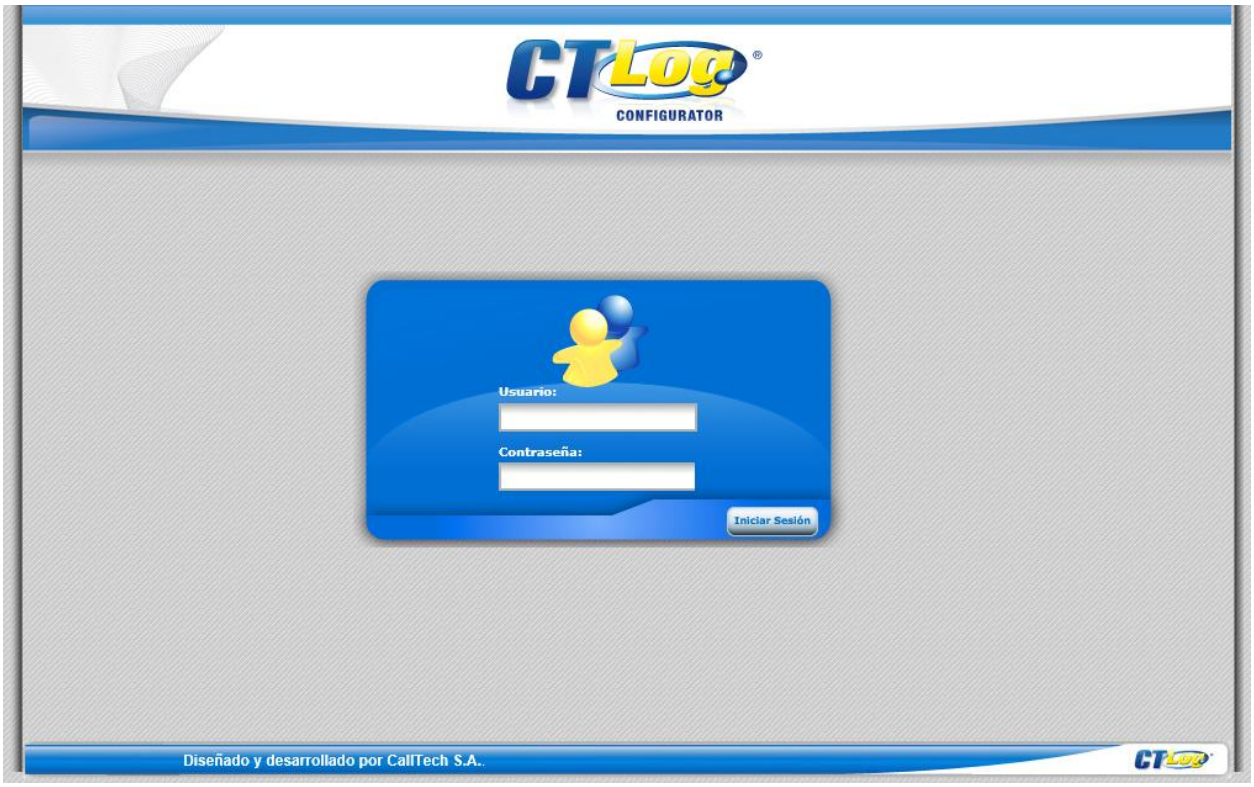
Licensed Features

Feature (Keyword)	Expiration date	Licensed	Acquired
CVLAN ASAI (VALUE_AES_CVLAN_ASAI)	permanent	16	0
Unified CC API Desktop Edition (VALUE_AES_AEC_UNIFIED_CC_DESKTOP)	permanent	10000	0
AES ADVANCED SMALL SWITCH (VALUE_AES_AEC_SMALL_ADVANCED)	permanent	16	0
CVLAN Proprietary Links (VALUE_AES_PROPRIETARY_LINKS)	permanent	16	0
Product Notes (VALUE_NOTES)	permanent	SmallServerTypes: s8300c;s8300d;icc;premio;tn8400;laptop;CtiSmallServer MediumServerTypes: ibmx306;ibmx306m;dell1950;xen;hs20;hs20_8832_vm;CtiMediumServer LargeServerTypes: isp2100;ibmx305;dl380g3;dl385g1;dl385g2;unknown;CtiLargeServer TrustedApplications: IPS_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; 1XP_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; 1XM_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; PC_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; CIE_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; OSPC_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; VP_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; SAMETIME_001, VALUE_AEC_UNIFIED_CC_DESKTOP,,; CCE_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; CSI_T1_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; CSI_T2_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; AVAYAVERINT_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; CCT_ELITE_CALL_CTRL_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted, AgentEvents;	Not counted
AES ADVANCED LARGE SWITCH (VALUE_AES_AEC_LARGE_ADVANCED)	permanent	16	0
TSAPI Simultaneous Users (VALUE_AES_TSAPI_USERS)	permanent	10000	0
DLG (VALUE_AES_DLG)	permanent	16	0
Device Media and Call Control (VALUE_AES_DMCC_DMC)	permanent	10000	0
AES ADVANCED MEDIUM SWITCH (VALUE_AES_AEC_MEDIUM_ADVANCED)	permanent	16	0

7. Configure CallTech

7.1. Configure CTLog

Configuration for CTLog is performed via a web interface, which can be reached via browser, http://<ip-address>. ip-address is the IP Address of CTLog . Please note that the entire configuration for CTLog is displayed in Spanish.



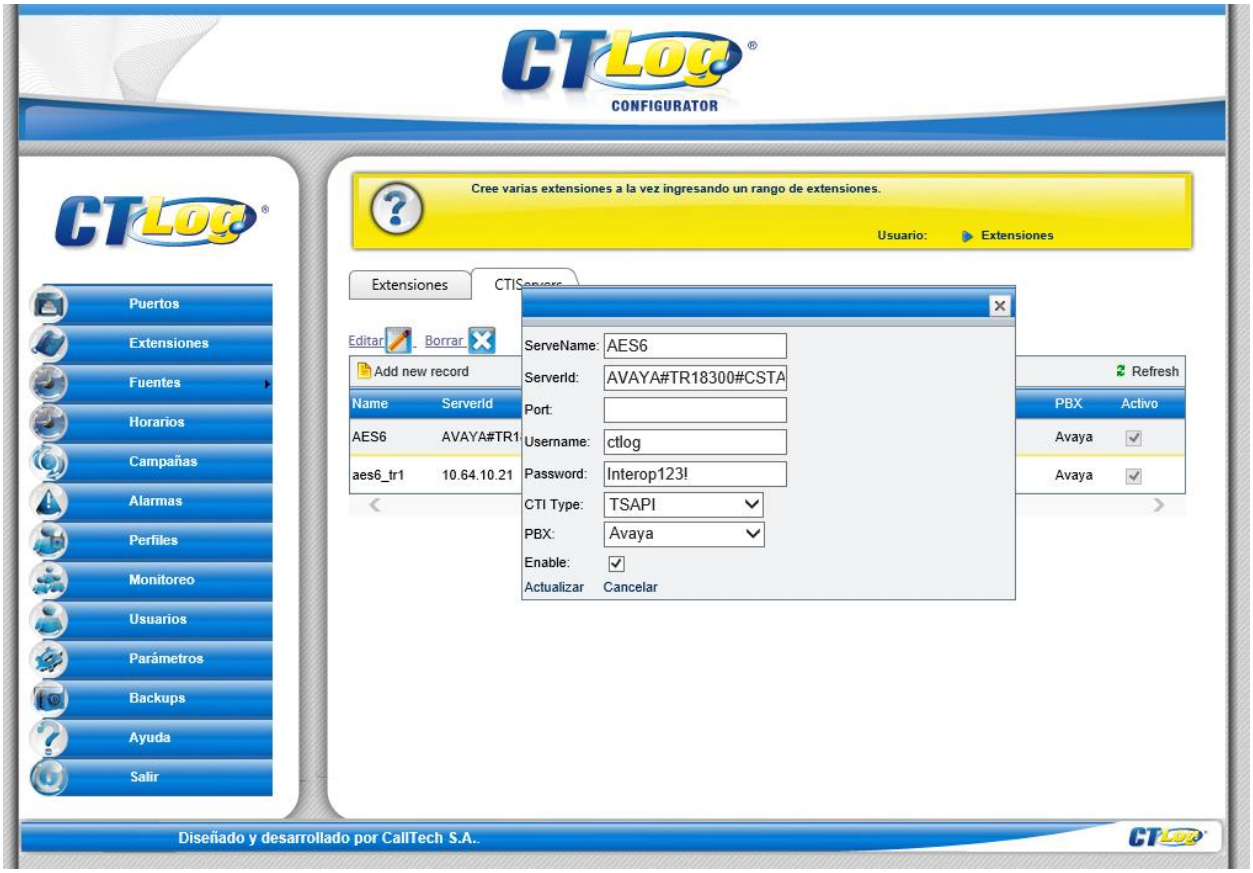
Once logged in, navigate to **Puertos → Tipo**.

Locate an Entry for **RTP** and select it; click **Editar**, set **Audio Compression** to **GSM** and **Channel type** to **DMCC.**

Navigate to **Puertos→ Configuration**. Select a Port and click **Editar;** check box for **Activo**; Select "**RTP**" for "**Configuración",** type in the extension number in "**ID Dispositivo**" field and select "**Selectivo**" for "**Modo Grabación**"

To configure CTI, navigate to **Extensiones → CTIServers**. To add an entry for TSAPI, select **Add new record**:

- Type in a name in **ServerName**
- Type in the T-Link from **Section 6.3** in **ServerID**
- Type in the **Username** and **Password** from **Section 6.1**
- Set **CTI Type** to **TSAPI**
- Set **PBX** to **Avaya**
- Check box for **Enable**



To add an entry for DMCC, select **Add new record**:

- Type in the hostname of AES in **ServerName**
- Type in the IP Address of AES in **ServerID**
- Type in the AES Port number in **Port**
- Type in the **Username** and **Password** from **Section 6.1**
- Set **CTI Type** to **Avaya_DMCC**
- Set **PBX** to **Avaya**
- Check box for **Enable**

To insert extensions that need to be monitored, on the left pane, select **Extensiones → Extensiones**.

To insert a range of extensions, type in the starting range in **Ext. Incial** and ending range in **Ext. Final**; click **Insert**.

For each extension, select and click on "**Editar**". Check "**Activo**" and "**Modulo CTIM**". Select "**Selectivo**" for "**Modo de grabación**", select the assigned server for **"Servidor**",Uncheck "**Nulo**", select the assigned recording port for this extension in "**Puerto**" and select the assigned CTI Server for "**Servidor CTI**". Finally click on "**Update**"

To insert a range of DMCC Device, in the same **Extensions** page type in the starting range in **Ext. Incial** and ending range in **Ext. Final**; click **Insert**.

For each newly created DMCC Device, select and click on "**Editar**". Check "**Activo**" and "**Modulo CTIM**". Select "**Selectivo**" for "**Modo de grabación**", select the assigned server for **"Servidor**",Uncheck "**Nulo**", select the assigned recording port for this extension in "**Puerto**" and select the assigned CTI Server created for DMCC for "**Servidor CTI**". Finally, click on "**Update**"

8. Verification Steps

To verify the status for ISDN Trunk to CTLog , via SAT, use the **status trunk *n***, where ***n*** is the number of trunk that was configured in this document. The **Service State** of **in-service/idle** indicates that the trunk is in an operational state.

```
status trunk 9

                            TRUNK GROUP STATUS

Member    Port      Service State       Mtce Connected Ports
                                        Busy

0009/001 T00303   in-service/idle     no
0009/002 T00304   in-service/idle     no
0009/003 T00305   in-service/idle     no
0009/004 T00306   in-service/idle     no
0009/005 T00307   in-service/idle     no
0009/006 T00308   in-service/idle     no
0009/007 T00309   in-service/idle     no
0009/008 T00310   in-service/idle     no
0009/009 T00311   in-service/idle     no
0009/010 T00312   in-service/idle     no
```

Place a call from an Avaya station and verify that the audio for the call was retrieved and saved by CTLog .

9. Conclusion

CallTech CTLog® was able to successfully interoperate with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services.

10. Additional References

Documentation related to Avaya can be obtained from https://support.avaya.com.

[1] Administering Avaya Aura® Communication Manager, Release 6.3, Issue 3, October 2013

[2] Avaya Aura® Application Enablement Service Administration and Maintenance Guide, Issue 2, Release 6.3, October 2013

Documentation related to CTLog ® can be obtained from http://www.calltechsa.com

[3] CTLog Configurator

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.