Application Notes for Maximizer CRM 2016 R2 with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services R7.0 using Telephony Web Service – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Maximizer CRM 2016 R2 to interoperate with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services R7.0 using Telephony Web Service. Maximizer CRM 2016 R2 is a CRM software application.

In the compliance testing, Maximizer CRM 2016 R2 used the Telephony Web Services from Avaya Aura® Application Enablement Services to access to a subset of the third-party call control capabilities provided by Avaya Aura® Communication Manager. The Telephony Web Service supports many requests however only Make Call and Disconnect Active Call were relevant for this testing.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

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 Maximizer CRM 2016 R2 to interoperate with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services R7.0 using Telephony Web Service. Maximizer CRM 2016 R2 is CRM software and the click to call feature of this software was tested.

In the compliance testing, Maximizer CRM 2016 R2 used the Telephony Web Service from Avaya Aura® Application Enablement Services (hereafter referred as Application Enablement Services) to make a call from stations on Avaya Aura® Communication Manager (hereafter referred as Communication Manager) to a client phone number configured in their application's address book.

The Telephony Web Service provides high level call control functionality over standard web service interfaces (SOAP/XML). All operations are treated as being independent, and the only parameters required are extension and telephone numbers.

The Telephony Web Service is resident on the Avaya Aura® Application Enablement Services server and enables access to a subset of the third-party call control capabilities provided by Avaya Aura® Communication Manager. The web service allows client applications to control a device's participation in calls on a switch.

2. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of Maximum CRM 2016 R2 (hereafter referred to as Maximizer CRM), the application automatically connects to Application Enablement Services and using the Telephony Web Service can make a call or disconnect an active call.

For the manual part of the testing, a call was initiated by opening the web based client of Maximizer CRM and clicking on a client number from the address book. Also using the same click to call feature, an active call was disconnected too.

The serviceability test cases were performed manually by restarting the server hosting the Maximizer CRM or the client PC that is running the web based client of Maximizer CRM.

The verification of tests included answering the call made and ensure there was proper speech path and also if the call was disconnected correctly. Also the notes section of Maximizer CRM was verified for consistency.

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 following:

- Making a call using the click to call feature.
- Disconnecting a call using the click to call feature.
- Ensuring that clear speech path is established for an active call.
- Ensure Maximizer CRM can disconnect the call correctly when called number is busy or invalid.
- Ensure that the information in the notes section of Maximizer CRM is correct and valid.

The serviceability testing focused on verifying the ability of Maximizer CRM to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet connection to its server or to a client PC.

2.2. Test Results

All test cases were executed. The following were the observations on Maximizer CRM from the compliance testing.

- The click to call feature can only make active calls or disconnect an active call. Any other features like Transfer, Conference, Hold etc., are not supported.
- The dial plan in Maximizer CRM is hard coded to dial only telephone numbers that are 10 digits or higher.
- Avaya Deskphones of 96x1 types (for example 9641) with SIP firmware are unable to make the call using the Telephony Web Services via Application Enablement Services. Avaya is aware of the issue (JIRA PHONEX6-1448).

2.3. Support

Technical support on Maximizer CRM can be obtained through the following:

- **Phone:** 1-866-275-1254
- **Email:** support@maximizercrmlive.com

3. Reference Configuration

The detailed administration of the basic connectivity between Communication Manager and Application Enablement Services and of the Maximizer CRM are not the focus of these Application Notes and will not be described.

In the compliance testing, both H323 and SIP desk phones were used and therefore Avaya Aura® Session Manager (Session Manager) is shown in the figure below since the SIP desk phones were registered to the Session Manager

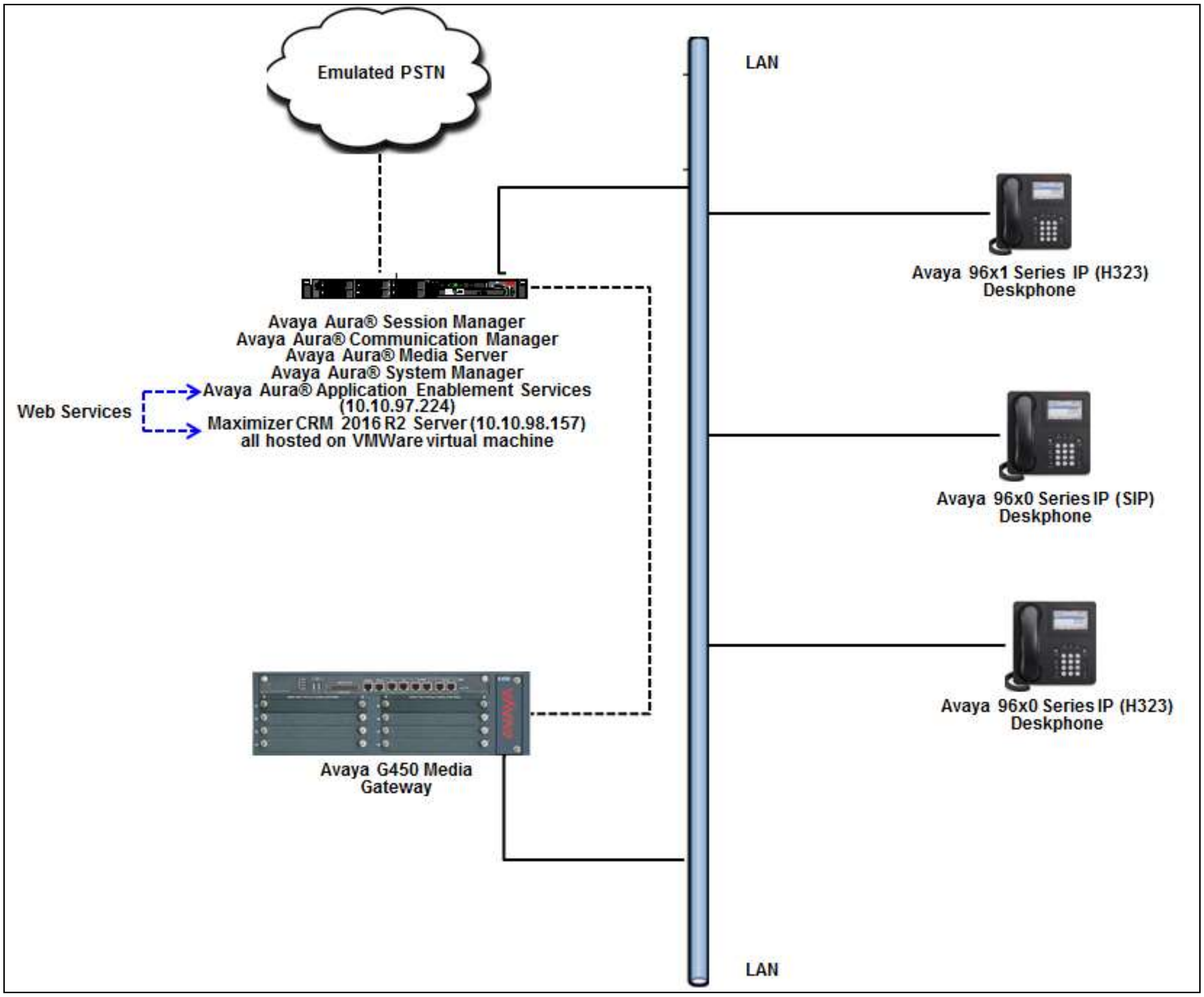

Emulated PSTN
LAN
Avaya Aura® Session Manager
Avaya Aura® Communication Manager
Avaya Aura® Media Server
Avaya Aura® System Manager
Avaya Aura® Application Enablement Services
(10.10.97.224)
Web Services
Maximizer CRM 2016 R2 Server (10.10.98.157)
all hosted on VMWare virtual machine
Avaya 96x1 Series IP (H323)
Deskphone
Avaya 96x0 Series IP (SIP)
Deskphone
Avaya 96x0 Series IP (H323)
Deskphone
Avaya G450 Media
Gateway
LAN

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	7.0.0.1.0-SP1 (R017x.00.0.441.0)
Avaya Aura® Application Enablement Services	7.0.0.0.1.13
Avaya Aura® Session Manager	7.0.0.0.700007
Avaya Aura® System Manager	7.0.0.0
Avaya Aura® Media Server	7.7.0.226
Avaya G450 Media Gateway	37 .19 .0 /1
Avaya IP Deskphones: 9608 (H323) 9641 (H323) 9650 (SIP) 9650 (H323)	 6.6115 6.6115 2.6.15 3.250A
Maximizer Server running on VM Ware with Windows Server Standard without Hyper-V SP2 32-bit	Maximizer CRM 2016 R2 Package 14.0

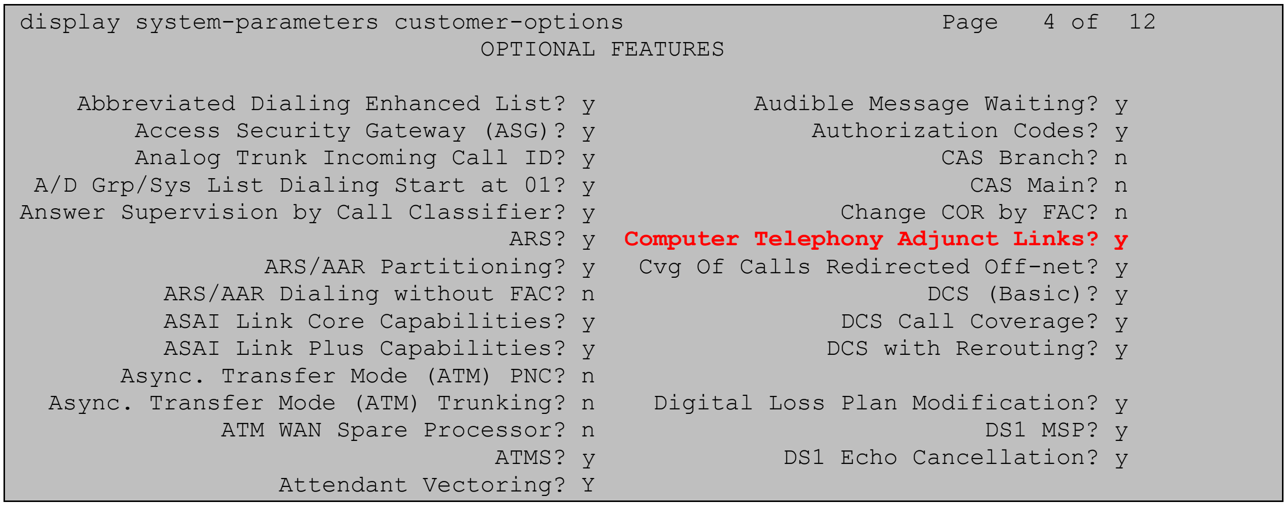
5. Configure Avaya Aura® Communication Manager

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

- Verify License
- Administer CTI link
- Administer System Parameters Features
- Administer a User's Station

5.1. Verify License

Log in to the System Access Terminal to verify that the Communication Manager license has proper permissions for features illustrated in these Application Notes. Use the "display system-parameters customer-options" command to verify that the **Computer Telephony Adjunct Links** customer option is set to "y" on **Page 4**. If this option is not set to "y", then contact the Avaya sales team or business partner for a proper license file.



```
display system-parameters customer-options                      Page   4 of  12
                                OPTIONAL FEATURES

    Abbreviated Dialing Enhanced List? y           Audible Message Waiting? y
        Access Security Gateway (ASG)? y               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? n                       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. Administer CTI Link

Add a CTI link using the “add cti-link n” command, where “n” is an available CTI link number. Enter an available extension number in the **Extension** field. Note that the CTI link number and extension number may vary. Enter “ADJ-IP” in the **Type** field, and a descriptive name in the **Name** field. Default values may be used in the remaining fields.

```
add cti-link 1                                              Page   1 of   3
                                    CTI LINK
 CTI Link: 1
Extension: 56000
     Type: ADJ-IP
                                                                        COR: 1
     Name: DevvmAES
```

5.3. Administer System Parameters Features

Use the “change system-parameters features” command to enable **Create Universal Call ID (UCID)**, which is located on **Page 5**. For **UCID Network Node ID**, enter an available node ID.

```
change system-parameters features                               Page   5 of  19
                        FEATURE-RELATED SYSTEM PARAMETERS

SYSTEM PRINTER PARAMETERS
  Endpoint:                Lines Per Page: 60

SYSTEM-WIDE PARAMETERS
                                     Switch Name:
            Emergency Extension Forwarding (min): 10
          Enable Inter-Gateway Alternate Routing? n
Enable Dial Plan Transparency in Survivable Mode? n
                              COR to Use for DPT: station
                EC500 Routing in Survivable Mode: dpt-then-ec500
MALICIOUS CALL TRACE PARAMETERS
               Apply MCT Warning Tone? n   MCT Voice Recorder Trunk Group:
      Delay Sending RELease (seconds): 0
SEND ALL CALLS OPTIONS
     Send All Calls Applies to: station    Auto Inspect on Send All Calls? n
              Preserve previous AUX Work button states after deactivation? n
UNIVERSAL CALL ID
     Create Universal Call ID (UCID)? y    UCID Network Node ID: 1
```

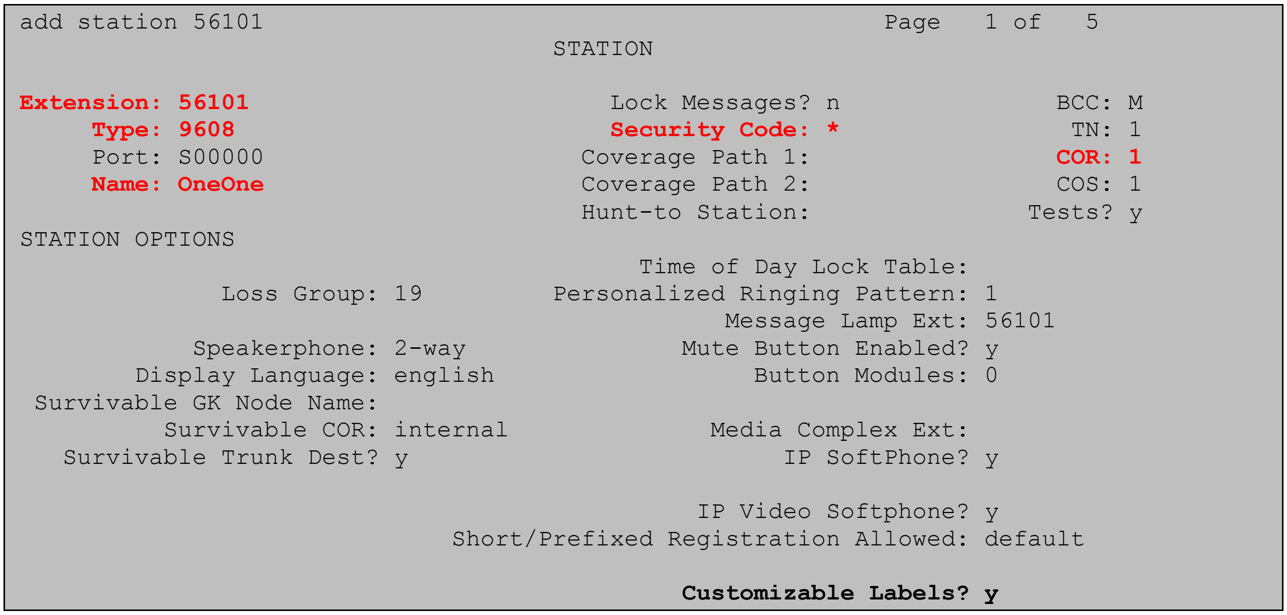
Navigate to **Page 13**, and enable **Send UCID to ASAI**. This parameter allows for the universal call ID to be sent to Maximizer CRM.

```
change system-parameters features                             Page  13 of  19
                        FEATURE-RELATED SYSTEM PARAMETERS
 CALL CENTER MISCELLANEOUS
          Callr-info Display Timer (sec): 10
                        Clear Callr-info: next-call
       Allow Ringer-off with Auto-Answer? n

   Reporting for PC Non-Predictive Calls? n

           Agent/Caller Disconnect Tones? n

            Zip Tone Burst for Callmaster Endpoints: double

  ASAI
                   Copy ASAI UUI During Conference/Transfer? n
               Call Classification After Answer Supervision? n
                                          Send UCID to ASAI? y
                 For ASAI Send DTMF Tone to Call Originator? y
        Send Connect Event to ASAI For Announcement Answer? n
  Prefer H.323 Over SIP For Dual-Reg Station 3PCC Make Call? n
```

5.4. Administer a User’s Station

Add a desk phone that will be assigned to a user on Maximizer CRM using the “add station n” command, where “n” is an available extension number. Enter the following values for the specified fields, and retain the default values for the remaining fields.

- **Extension:** The available extension number.
- **Type:** Any IP telephone type, such as “9608”.
- **Name:** A descriptive name.
- **Security Code:** A desired code.
- **COR:** The COR number.



```
add station 56101                                            Page   1 of   5
                                     STATION

Extension: 56101                       Lock Messages? n               BCC: M
     Type: 9608                        Security Code: *                TN: 1
     Port: S00000                    Coverage Path 1:                 COR: 1
     Name: OneOne                    Coverage Path 2:                 COS: 1
                                     Hunt-to Station:               Tests? y
STATION OPTIONS
                                         Time of Day Lock Table:
              Loss Group: 19       Personalized Ringing Pattern: 1
                                               Message Lamp Ext: 56101
            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? y
                              Short/Prefixed Registration Allowed: default

                                             Customizable Labels? y
```

6. Configure Avaya Aura® Application Enablement Services

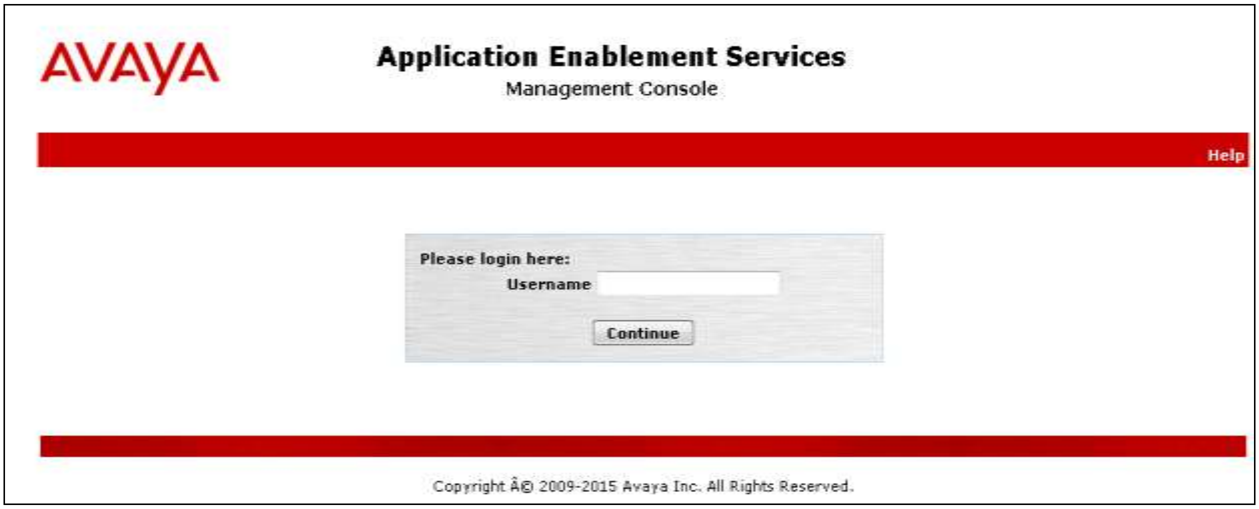
This section provides the procedures for configuring Application Enablement Services. The procedures include the following areas:

- Launch OAM interface
- Verify License
- Administer TSAPI link
- Administer H.323 gatekeeper
- Disable Security Database
- Restart Services
- Administer Maximizer CRM user
- Enable Call and Device Control for CTI user
- Enable Ports

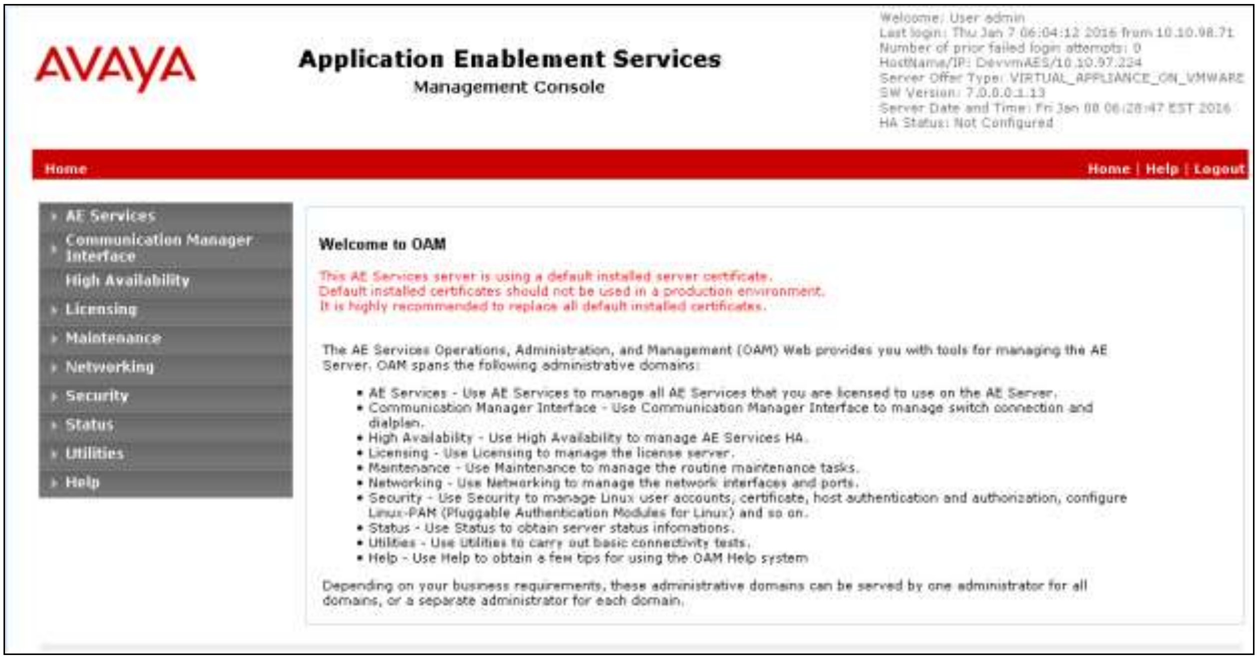
6.1. Launch OAM Interface

Access the OAM web-based interface by using the URL "https://ip-address" in an Internet browser window, where "ip-address" is the IP address of the Application Enablement Services server.

The **Please login here** screen is displayed. Log in using the appropriate credentials.


AVAYA
Application Enablement Services
Management Console
Help
Please login here:
Username
Continue
Copyright Â© 2009-2015 Avaya Inc. All Rights Reserved.

The **Welcome to OAM** screen is displayed next.



Welcome: User admin
Last login: Thu Jan 7 06:04:12 2016 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 06:28:47 EST 2016
HA Status: Not Configured

Welcome to OAM

This AE Services server is using a default installed server certificate.
Default installed certificates should not be used in a production environment.
It is highly recommended to replace all default installed certificates.

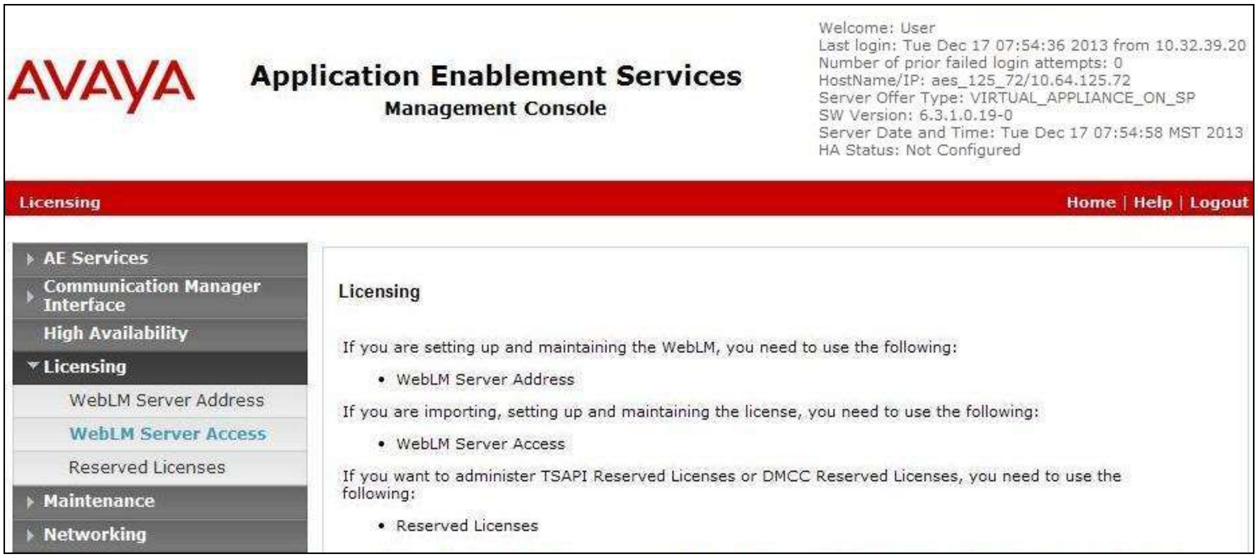
The AE Services Operations, Administration, and Management (OAM) Web provides you with tools for managing the AE Server. OAM spans the following administrative domains:

- AE Services - Use AE Services to manage all AE Services that you are licensed to use on the AE Server.
- Communication Manager Interface - Use Communication Manager Interface to manage switch connection and dialplan.
- High Availability - Use High Availability to manage AE Services HA.
- Licensing - Use Licensing to manage the license server.
- Maintenance - Use Maintenance to manage the routine maintenance tasks.
- Networking - Use Networking to manage the network interfaces and ports.
- Security - Use Security to manage Linux user accounts, certificate, host authentication and authorization, configure Linux-PAM (Pluggable Authentication Modules for Linux) and so on.
- Status - Use Status to obtain server status infomations.
- Utilities - Use Utilities to carry out basic connectivity tests.
- Help - Use Help to obtain a few tips for using the OAM Help system

Depending on your business requirements, these administrative domains can be served by one administrator for all domains, or a separate administrator for each domain.

6.2. Verify License

Select **Licensing → WebLM Server Access** in the left pane, to display the **Web License Manager** pop-up screen (not shown), and log in using the appropriate credentials.



Welcome: User
Last login: Tue Dec 17 07:54:36 2013 from 10.32.39.20
Number of prior failed login attempts: 0
HostName/IP: aes_125_72/10.64.125.72
Server Offer Type: VIRTUAL_APPLIANCE_ON_SP
SW Version: 6.3.1.0.19-0
Server Date and Time: Tue Dec 17 07:54:58 MST 2013
HA Status: Not Configured

Licensing

If you are setting up and maintaining the WebLM, you need to use the following:

- WebLM Server Address

If you are importing, setting up and maintaining the license, you need to use the following:

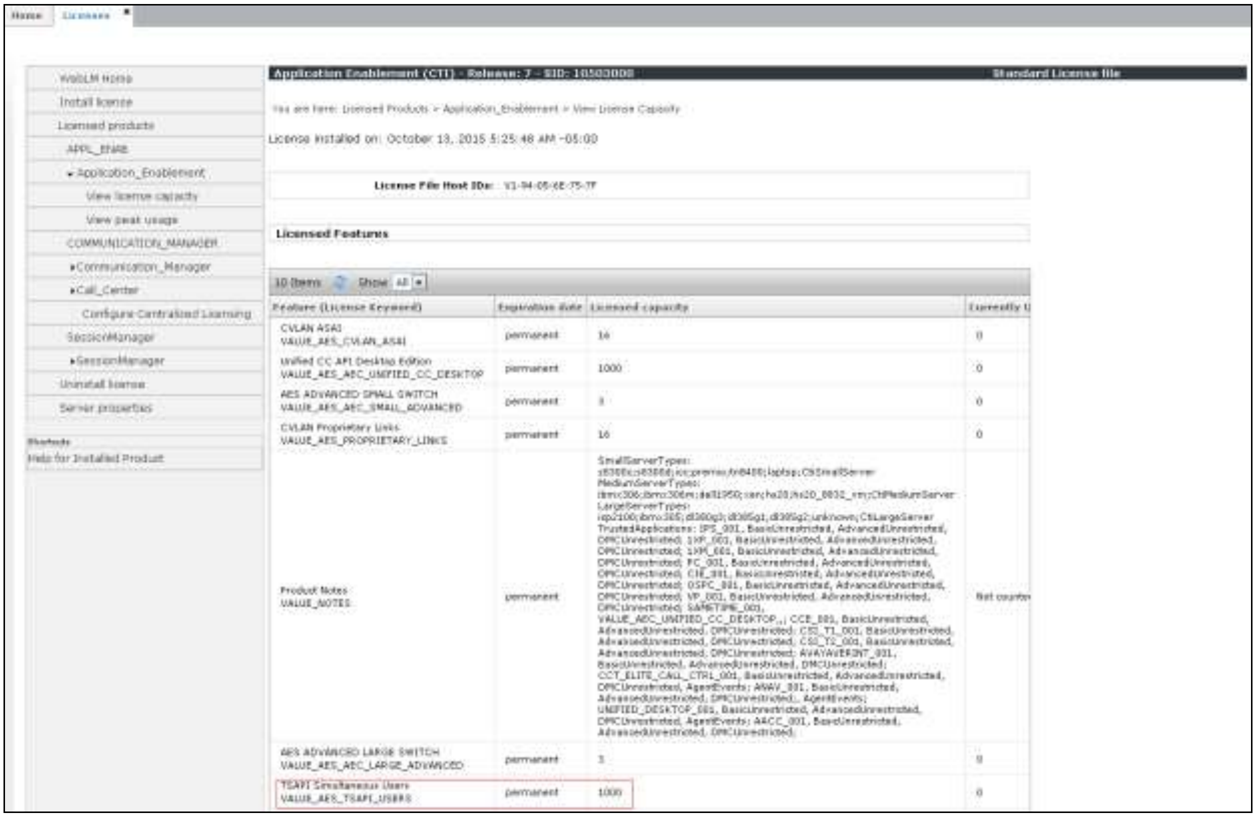
- WebLM Server Access

If you want to administer TSAPI Reserved Licenses or DMCC Reserved Licenses, you need to use the following:

- Reserved Licenses

The **Web License Manager** screen below is displayed. Select **Licensed products → APPL_ENAB → Application_Enablement** in the left pane, to display the **Application Enablement (CTI)** screen in the right pane.

Verify that there are sufficient licenses for **TSAPI Simultaneous Users** as shown below. Note that the TSAPI license is required for Telephony Web Service.



Application Enablement (CTI) - Release: 7 - SID: 10503000

You are here: Licensed Products > Application_Enablement > View License Capacity

License installed on: October 13, 2015 5:25:48 AM -05:00

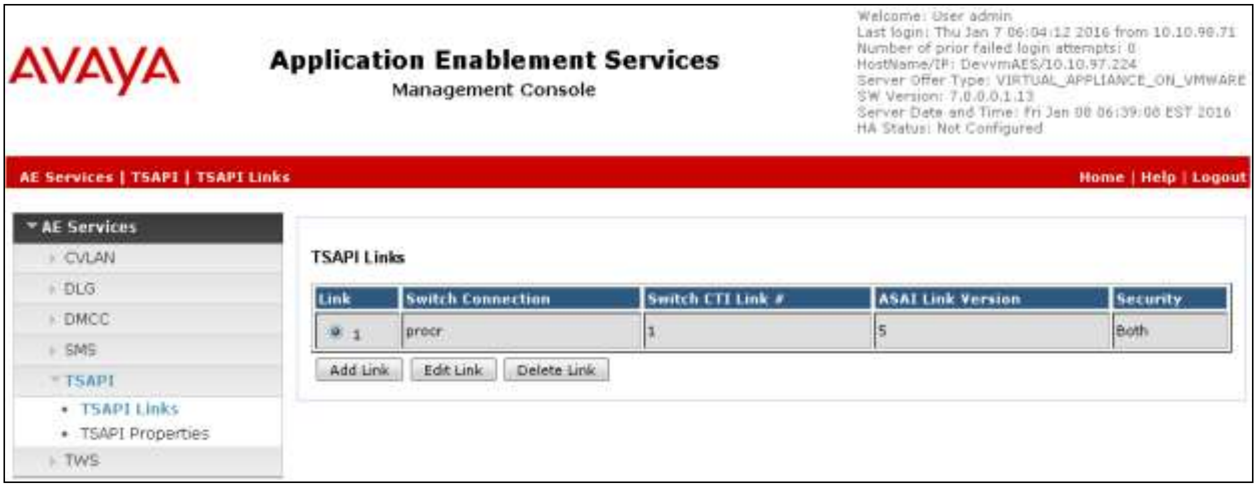
License File Host IDs: V1-94-05-6E-75-7F

Licensed Features

Feature (License Keyword)	Expiration date	Licensed capacity	Currently U
CVLAN ASAI VALUE_AES_CVLAN_ASAI	permanent	16	0
Unified CC API Desktop Edition VALUE_AES_AEC_UNIFIED_CC_DESKTOP	permanent	1000	0
AES ADVANCED SMALL SWITCH VALUE_AES_AEC_SMALL_ADVANCED	permanent	3	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; FC_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; ANAV_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted,, AgentEvents; UNIFIED_DESKTOP_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted, AgentEvents; AACC_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted;	Not counte
AES ADVANCED LARGE SWITCH VALUE_AES_AEC_LARGE_ADVANCED	permanent	3	0
TSAPI Simultaneous Users VALUE_AES_TSAPI_USERS	permanent	1000	0

6.3. Administer TSAPI Link

To administer a TSAPI link, select **AE Services → TSAPI → TSAPI Links** from the left pane of the **Management Console**. The **TSAPI Links** screen is displayed, as shown below. Click **Add Link**.



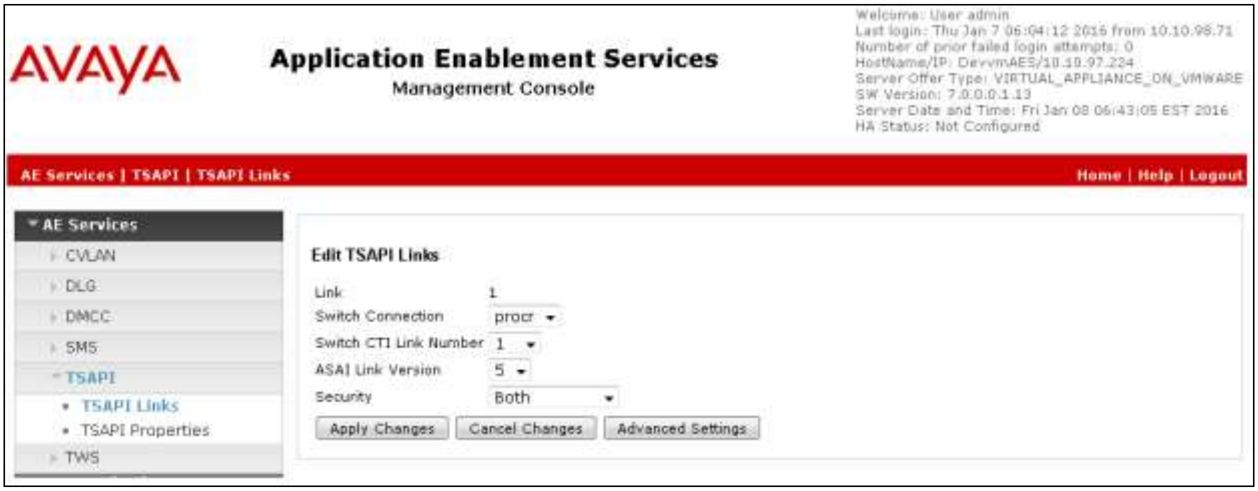
Welcome: User admin
Last login: Thu Jan 7 06:04:12 2016 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 06:39:08 EST 2016
HA Status: Not Configured

TSAPI Links

Link	Switch Connection	Switch CTI Link #	ASAI Link Version	Security
● 1	procr	1	5	Both

The **Add TSAPI Links** screen is seen next however the screen below shows the screen after the Link has been added.

The **Link** field is only local to the Application Enablement Services server, and may be set to any available number. For **Switch Connection**, select the relevant switch connection from the drop-down list. In this case, the existing switch connection "procr" is selected. For **Switch CTI Link Number**, select the CTI link number from **Section 5.2**. Retain the default values in the remaining fields.



Welcome: User admin
Last login: Thu Jan 7 06:04:12 2016 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 06:43:05 EST 2016
HA Status: Not Configured

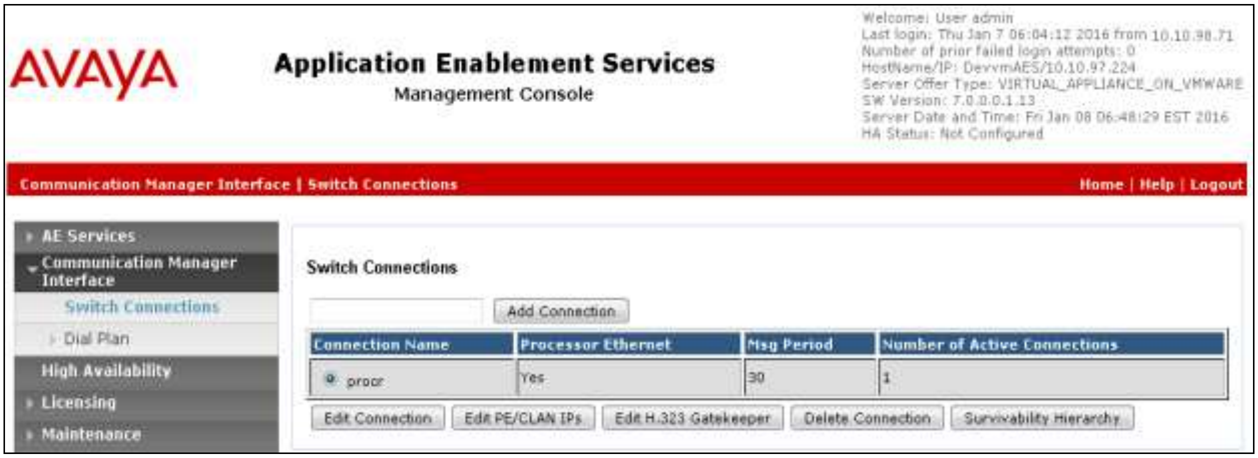
Edit TSAPI Links

Link	1
Switch Connection	procr
Switch CTI Link Number	1
ASAI Link Version	5
Security	Both

6.4. Administer H.323 Gatekeeper

Select **Communication Manager Interface → Switch Connections** from the left pane. The **Switch Connections** screen shows a listing of the existing switch connections.

Locate the connection name associated with the relevant Communication Manager, in this case "procr", and select the corresponding radio button. Click **Edit H.323 Gatekeeper**.

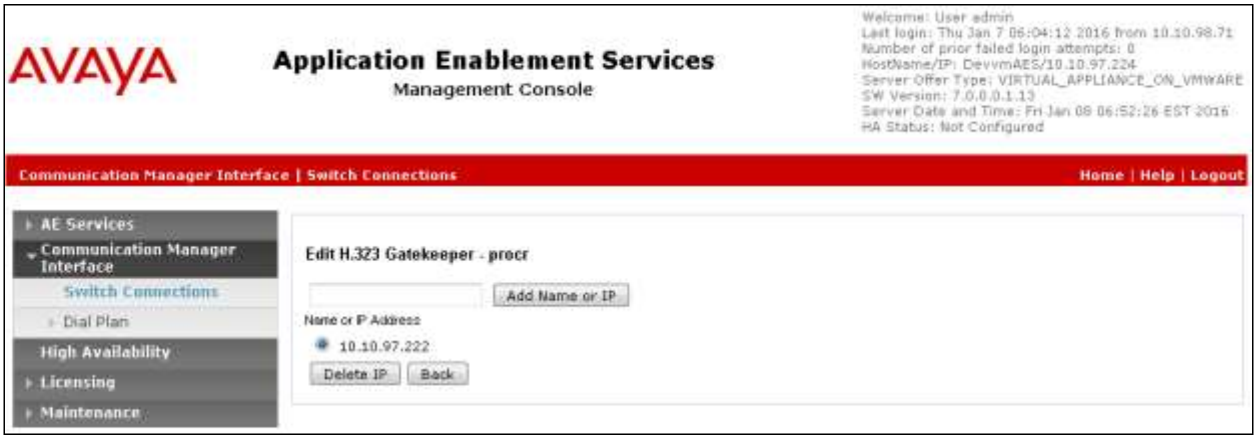


Welcome: User admin
Last login: Thu Jan 7 06:04:12 2016 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 06:48:29 EST 2016
HA Status: Not Configured

Switch Connections

Connection Name	Processor Ethernet	Msg Period	Number of Active Connections
● procr	Yes	30	1

The **Edit H.323 Gatekeeper** screen is displayed. Enter the IP address of a C-LAN circuit pack or the Processor C-LAN on Communication Manager to be used as the H.323 gatekeeper, in this case "10.10.97.222" as shown below, which is the Processor C-LAN on Communication Manager. Click **Add Name or IP**. Screen below shows the already added IP.



Welcome: User admin
Last login: Thu Jan 7 06:04:12 2016 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 06:52:26 EST 2016
HA Status: Not Configured

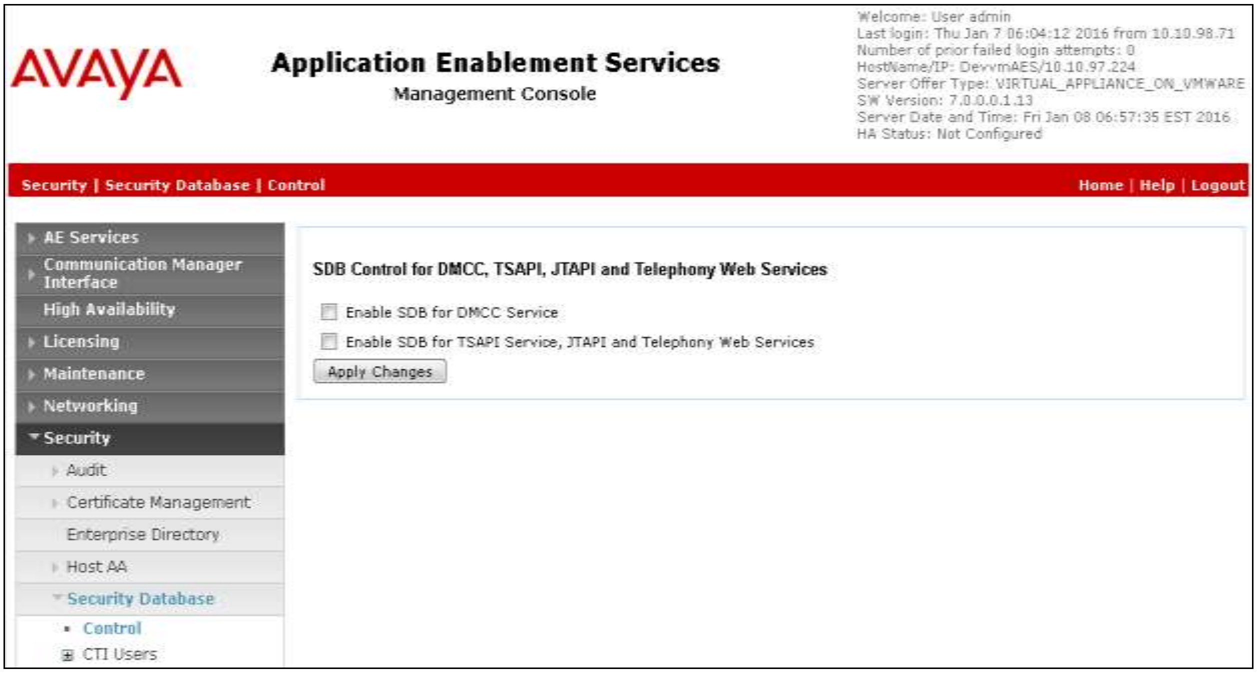
Edit H.323 Gatekeeper - procr

Name or IP Address

● 10.10.97.222

6.5. Disable Security Database

Select **Security → Security Database → Control** from the left pane, to display the **SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services** screen in the right pane. Uncheck both fields below.



AVAYA
Application Enablement Services
Management Console
Welcome: User admin
Last login: Thu Jan 7 06:04:12 2016 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 06:57:35 EST 2016
HA Status: Not Configured
Security | Security Database | Control
Home | Help | Logout
AE Services
Communication Manager Interface
High Availability
Licensing
Maintenance
Networking
Security
Audit
Certificate Management
Enterprise Directory
Host AA
Security Database
Control
CTI Users
Apply Changes

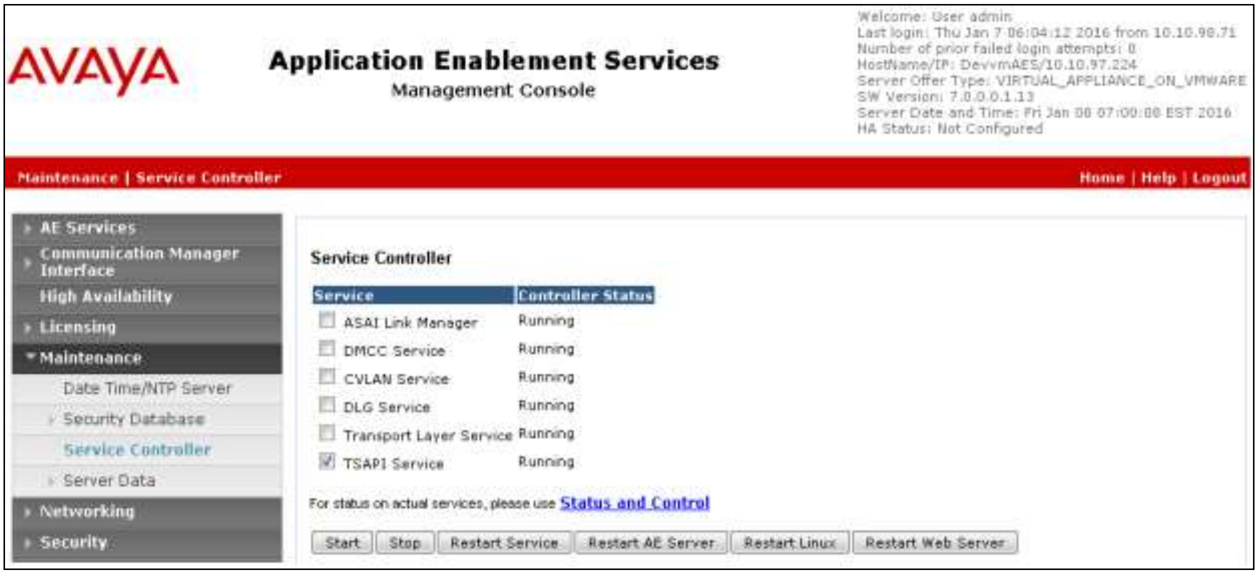
SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services

□ Enable SDB for DMCC Service

□ Enable SDB for TSAPI Service, JTAPI and Telephony Web Services

6.6. Restart Services

Select **Maintenance → Service Controller** from the left pane, to display the **Service Controller** screen in the right pane. Check the **TSAPI Service**, and click **Restart Service**.



Welcome: User admin
Last login: Thu Jan 7 06:04:12 2016 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 07:00:08 EST 2016
HA Status: Not Configured

Service Controller

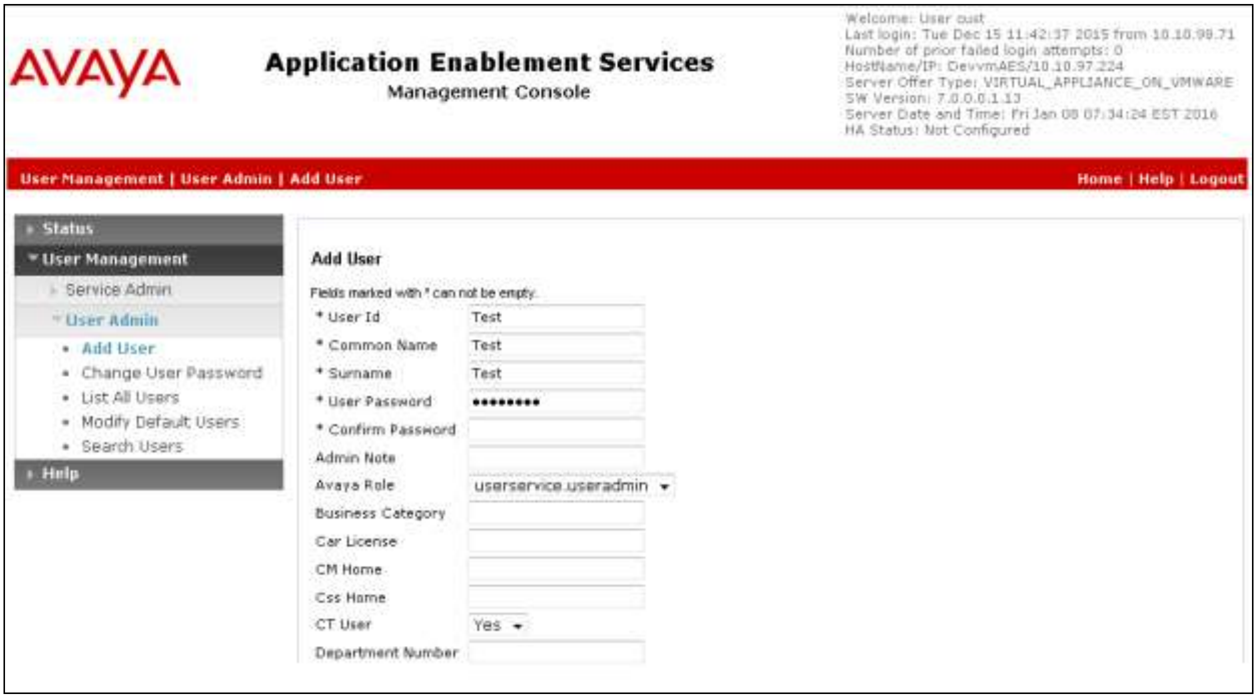
Service	Controller Status
□ ASAI Link Manager	Running
□ DMCC Service	Running
□ CVLAN Service	Running
□ DLG Service	Running
□ Transport Layer Service	Running
☑ TSAPI Service	Running

For status on actual services, please use Status and Control

6.7. Administer Maximizer CRM User

Select **User Management → User Admin → Add User** from the left pane, to display the **Add User** screen in the right pane.

Enter desired values for **User Id**, **Common Name**, **Surname**, **User Password**, and **Confirm Password**. For **Avaya Role**, select "userservice.useradmin" from the drop-down list. For **CT User**, select "Yes" from the drop-down list. Retain the default value in the remaining fields.



Welcome: User cust
Last login: Tue Dec 15 11:42:37 2015 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 07:34:24 EST 2016
HA Status: Not Configured

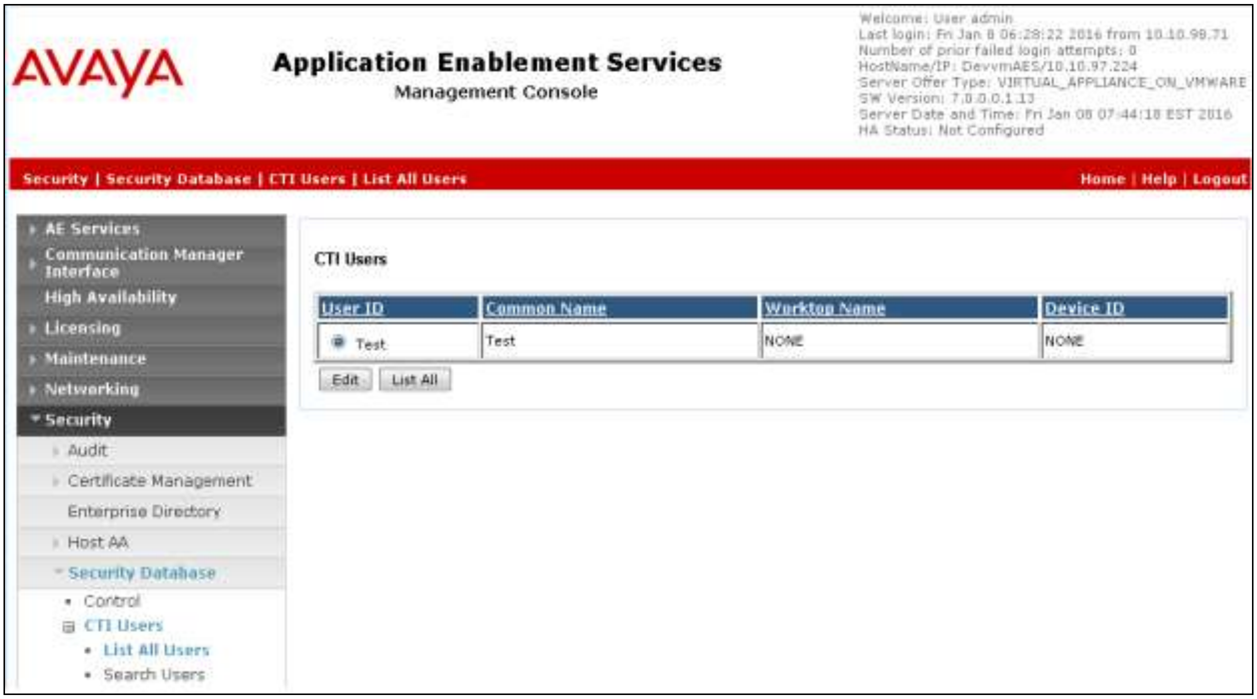
Add User

Fields marked with * can not be empty.

* User Id	Test
* Common Name	Test
* Surname	Test
* User Password	••••••••
* Confirm Password	
Admin Note	
Avaya Role	userservice.useradmin
Business Category	
Car License	
CM Home	
Css Home	
CT User	Yes
Department Number	

6.8. Enable Call and Device Control for CTI User

Select **Security → Security Database → CTI Users → List All Users** from the left pane, to display the **CTI Users** screen in the right pane as shown below. Select the User ID created in **Section 6.7** and click on the **Edit** button.

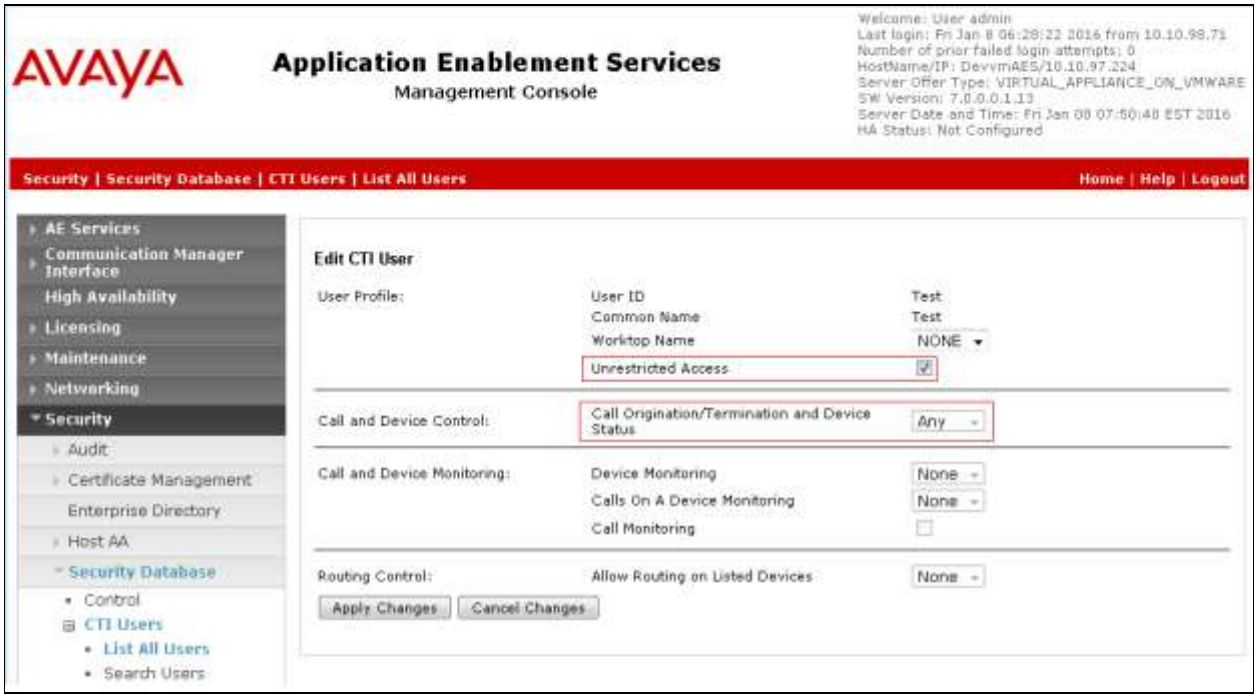


Welcome: User admin
Last login: Fri Jan 8 06:28:22 2016 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 07:44:18 EST 2016
HA Status: Not Configured

CTI Users

User ID	Common Name	Worktop Name	Device ID
● Test	Test	NONE	NONE

The **Edit CTI User** screen is seen as shown below. Under **Call and Device Control**, select the “Any” option from the drop down for the **Call Origination/Termination and Device Status** field. Under **User Profile**, check the box for the **Unrestricted Access** field. Retain default values for all other field and click on the **Apply Changes** button.



Welcome: User admin
Last login: Fri Jan 8 06:28:22 2016 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 07:50:48 EST 2016
HA Status: Not Configured

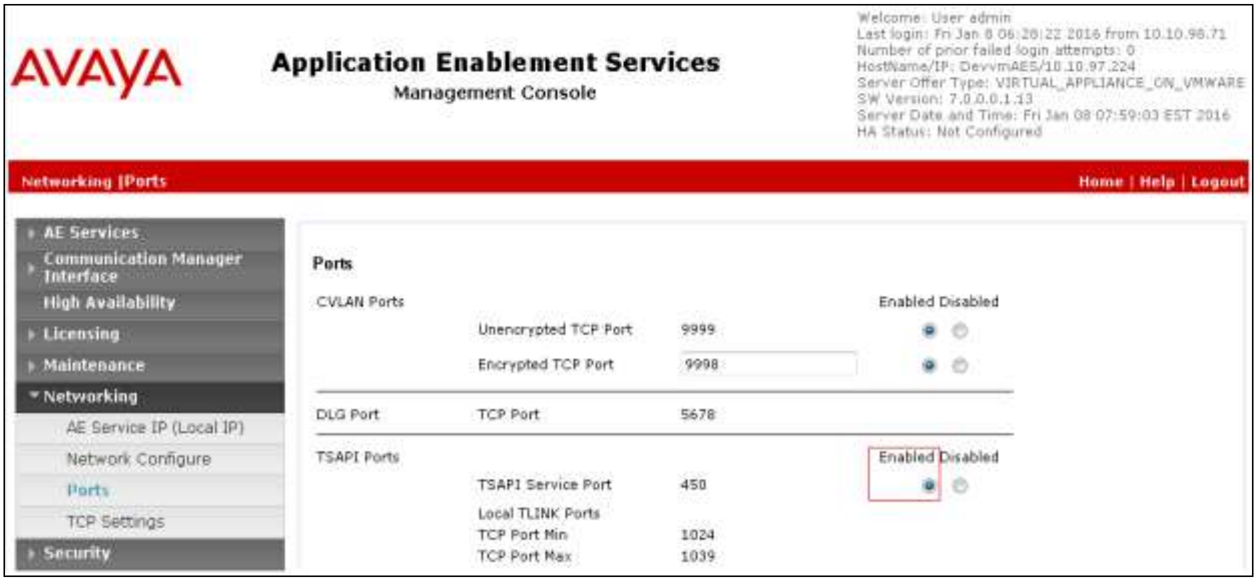
Edit CTI User

User Profile:	User ID	Test
	Common Name	Test
	Worktop Name	NONE
	Unrestricted Access	☑
Call and Device Control:	Call Origination/Termination and Device Status	Any
Call and Device Monitoring:	Device Monitoring	None
	Calls On A Device Monitoring	None
	Call Monitoring	☐
Routing Control:	Allow Routing on Listed Devices	None

6.9. Enable Ports

Select **Networking → Ports** from the left pane, to display the **Ports** screen in the right pane.

In the **TSAPI Ports** section, select the radio button for **TSAPI Service Port** under the **Enabled** column, as shown below. Retain the default values in the remaining fields.



Welcome: User admin
Last login: Fri Jan 8 06:26:22 2016 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 07:59:03 EST 2016
HA Status: Not Configured

Ports

			Enabled	Disabled
CVLAN Ports	Unencrypted TCP Port	9999	●	○
	Encrypted TCP Port	9998	●	○
DLG Port	TCP Port	5678		
TSAPI Ports	TSAPI Service Port	450	●	○
	Local TLINK Ports			
	TCP Port Min	1024		
	TCP Port Max	1039		

7. Configure Maximizer CRM 2016 R2

This section provides the procedures for configuring Maximizer CRM. The procedure includes the configuration of the “web.config” file in the Maximizer CRM server. It is also assumed that the station configured in **Section 5.4** is assigned to a user on the Maximizer CRM.

The configuration of Maximizer is performed by their installers and dealers. The procedural steps are presented in these Application Notes for informational purposes.

7.1. Administer the Web.Config File

Login to the Maximizer CRM server; navigate to the **C:\Program Files\Maximizer\Portals\Employee\Dialogs\CustomDialogs** directory to edit the **web.config** file as shown below.

Replace the text in yellow with the appropriate values.

Setting	Description
MakeCallDialog_AvayaAESWS_TelephonyServiceService	The URL to the Application Enablement Services web service to be used with the Make Call Dialog
AESCredentialLogin	The login name for the Application Enablement Services web service UserID created in **Section 6.7**.
AESCredentialPwd	The password for the Application Enablement Services web service UserID created in **Section 6.7**.

```
<applicationSettings>
      <MakeCallDialog.Properties.Settings>
            <setting name="MakeCallDialog_AvayaAESWS_TelephonyServiceService"
                  serializeAs="String">

      <value>https://10.10.97.224/axis/services/TelephonyService</value>
            </setting>
            <setting name="AESCredentialLogin" serializeAs="String">
                  <value>Test</value>
            </setting>
            <setting name="AESCredentialPwd" serializeAs="String">
                  <value>Password</value>
            </setting>
      </MakeCallDialog.Properties.Settings>
  </applicationSettings>
```

8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Communication Manager, Application Enablement Services, and Maximizer CRM.

8.1. Verify Avaya Aura® Communication Manager

On Communication Manager, verify the status of the administered CTI link by using the “status aesvcs cti-link” command. Verify that the **Service State** is “established” for the CTI link number administered in **Section 5.2**, as shown below.

```
status aesvcs cti-link

                          AE SERVICES CTI LINK STATUS

CTI   Version  Mnt   AE Services      Service       Msgs     Msgs
Link           Busy  Server           State         Sent     Rcvd

1     5        no    DevvmAES         established   14       14
```

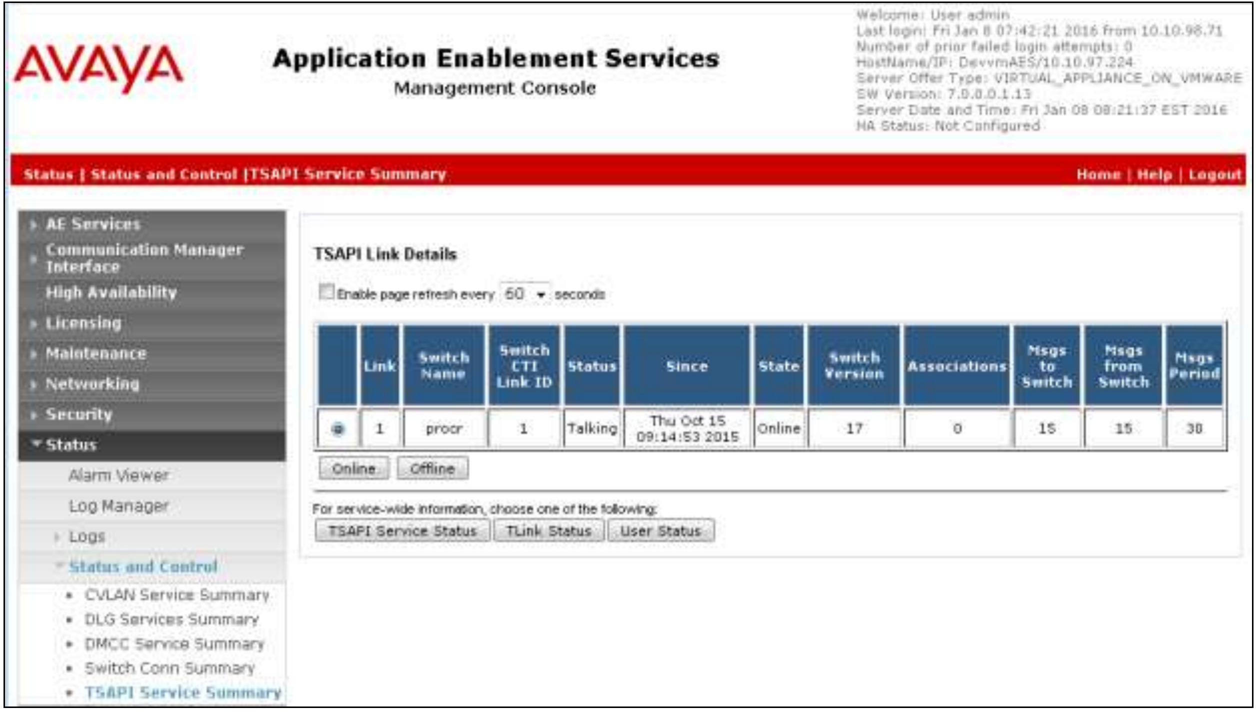
Verify the registration status of the IP desk phones by using the “list registered-ip-stations” command. Verify that the IP desk phone extension from **Section** Error! Reference source not found.**4** are displayed along with the IP address of the Communication Manager, as shown below.

```
list registered-ip-stations

                            REGISTERED IP STATIONS

Station Ext    Set Type/ Prod ID/   TCP Station IP Address/
or Orig Port   Net Rgn   Release    Skt Gatekeeper IP Address
-------------  --------- ---------- --- ---------------------------------------
56101          9608      IP_Phone    y  10.10.5.14
               1         6.6115         10.10.97.222
56102          9641      IP_Phone    y  10.10.5.16
               1         6.6115         10.10.97.222
56103          9650      IP_Phone    y  10.10.5.12
               1         3.250A         10.10.97.222
```

8.2. Verify Avaya Aura® Application Enablement Services

On Application Enablement Services, verify the status of the TSAPI link by selecting **Status → Status and Control → TSAPI Service Summary** from the left pane. The **TSAPI Link Details** screen is displayed.

Verify the **Status** is "Talking" for the TSAPI link administered in **Section 6.3**.



Welcome: User admin
Last login: Fri Jan 8 07:42:21 2016 from 10.10.98.71
Number of prior failed login attempts: 0
HostName/IP: DevvmAES/10.10.97.224
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Fri Jan 08 08:21:37 EST 2016
HA Status: Not Configured

TSAPI Link Details

□ Enable page refresh every 60 seconds

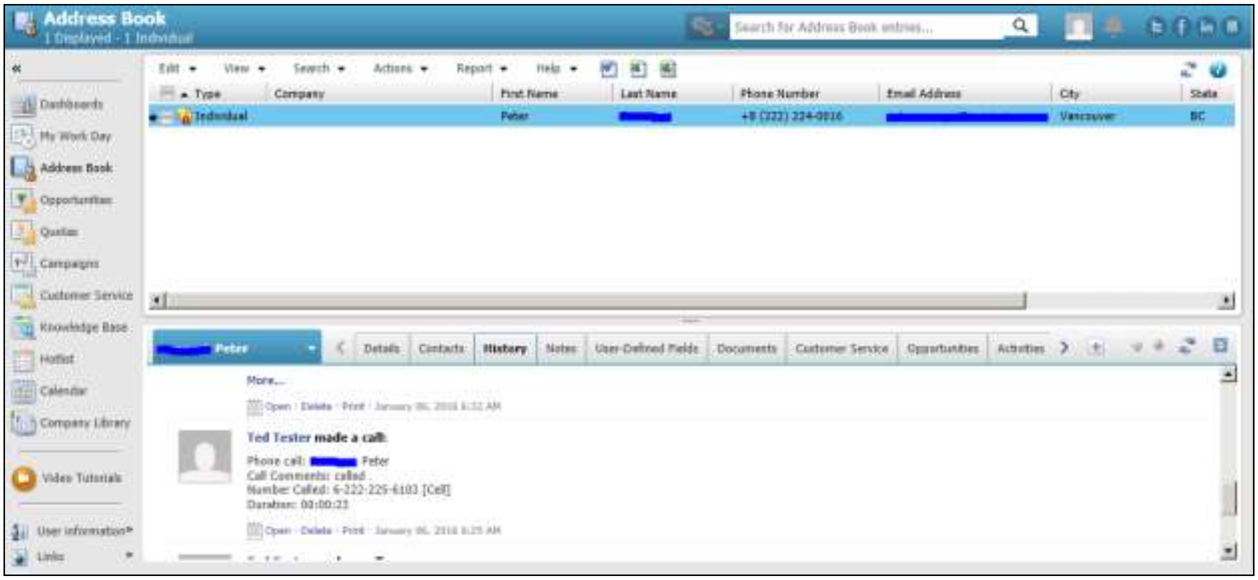
	Link	Switch Name	Switch CTI Link ID	Status	Since	State	Switch Version	Associations	Msgs to Switch	Msgs from Switch	Msgs Period
●	1	procr	1	Talking	Thu Oct 15 09:14:53 2015	Online	17	0	15	15	30

For service-wide information, choose one of the following:

8.3. Verify Maximizer CRM 2016 R2

Log into Maximizer CRM Web Access using one of the supported browsers. Follow the steps to make a call from user's address book to a valid telephone number by clicking the "Make Call" button. The far end telephone rings and answers the call, ensure clear speech path is established and the user is able to add notes in the call comments box and hang up the call by clicking the "Hang Up" button.

Screen below shows the details of the call made after it is completed.



Type	Company	First Name	Last Name	Phone Number	Email Address	City	State
Individual		Peter	[redacted]	+8 (222) 224-0016	[redacted]	Vancouver	BC

More...

Open · Delete · Print · January 06, 2016 6:32 AM

Ted Tester made a call:

Phone call: [redacted] Peter
Call Comments: called .
Number Called: 6-222-225-6103 [Cell]
Duration: 00:00:23

Open · Delete · Print · January 06, 2016 6:25 AM

9. Conclusion

These Application Notes describe the configuration steps required for Maximizer CRM 2016 R2 to successfully interoperate with Avaya Aura® Communication Manager and Avaya Aura® Application Enablement Services R7.0 using Telephony Web Service. All feature and serviceability test cases were completed with observations noted in **Section 2.2**.

10. Additional References

Product documentation for Avaya products may be found at http://support.avaya.com.

Avaya

1. *Implementing Avaya Aura® Session Manager* Document ID 03-603473.
2. *Administering Avaya Aura® Session Manager*, Doc ID 03-603324.
3. *Deploying Avaya Aura® System Manager*, Release 7.0.
4. *Administering Avaya Aura® System Manager for Release 7.0*, Release 7.0.
5. *Quick Start Guide to Using the Avaya Aura® Media Server with Avaya Aura® Communication Manager*.
6. *Deploying and Updating Avaya Aura® Media Server Appliance*, Release 7.7.
7. *Administering Avaya Aura® Communication Manager*, Release 7.0, 03-300509.
8. *Avaya Aura® Communication Manager Feature Description and Implementation*, Release 7.0, 555-245-205.
9. *Deploying Avaya Aura® Application Enablement Services in Virtualized Environment*, Release 7.0
10. *Administering and Maintaining Avaya Aura® Application Enablement Services*, Release 7.0

Maximizer CRM

Product information for Maximizer CRM products can be found at http://www.maximizer.com/

Deployment instructions for the Avaya Make Call Dialog can be obtained from Maximizer upon request.

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.