Application Notes for InGenius Connector Enterprise 4.0 with Avaya Aura® Communication Manager 7.0 and Avaya Aura® Application Enablement Services 7.0 using Salesforce.com – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for InGenius Connector Enterprise 4.0 to interoperate with Avaya Aura® Communication Manager 7.0 and Avaya Aura® Application Enablement Services 7.0 using Salesforce.com. InGenius Connector Enterprise is a CRM-VoIP integration tool that sits between the customer's phone system and a CRM application.

In the compliance testing, InGenius Connector Enterprise used the Device, Media, and Call Control interface from Avaya Aura® Application Enablement Services to monitor contact center agents on Avaya Aura® Communication Manager, to provide screen pop, call control, and click-to-dial features from the agent desktops connected to Salesforce.com.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as any 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 InGenius Connector Enterprise (ICE) 4.0 to interoperate with Avaya Aura® Communication Manager 7.0 and Avaya Aura® Application Enablement Services 7.0 using Salesforce.com. InGenius Connector Enterprise is a CRM-VoIP integration tool that sits between the customer's phone system and a CRM application.

In the compliance testing, ICE used the Device, Media, and Call Control (DMCC) XML interface from Avaya Aura® Application Enablement Services to monitor contact center agents on Avaya Aura® Communication Manager, to provide screen pop, call control, and click-to-dial features from the agent desktops. The agent desktops used a web browser to connect to the ICE server and to the InGenius Connector Enterprise Open CTI running on the Salesforce.com cloud.

2. General Test Approach and Test Results

The feature test cases were performed manually. Upon an agent log in, the application used DMCC to query device information and agent state, logged the agent into Communication Manager if needed, and requested device monitoring.

For the manual part of the testing, incoming ACD calls were placed with available agents that have web browser connections to Salesforce.com. All necessary call actions were initiated from the agent desktops and/or telephones. The click-to-dial calls were initiated by clicking on the contact phone number displayed on the agent desktops.

The serviceability test cases were performed manually by disconnecting/reconnecting the Ethernet connection to the ICE server.

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 on ICE:

- Use of DMCC logical device services to set agent states, including log in, log out, and work mode changes with support for reason codes and pending aux work.
- Use of DMCC snapshot services to obtain information on agent stations and existing calls.
- Use of DMCC monitoring services to monitor agent stations and existing calls.
- Use of DMCC call control services to support call control and click-to-dial features.
- Proper handling of call scenarios involving inbound, outbound, internal, external, ACD, non-ACD, screen pop, drop, hold/resume, multiple calls, multiple agents, conference, transfer, long duration, send DTMF, click-to-dial from contact phone number, pending aux work, and reason codes.

The serviceability testing focused on verifying the ability of ICE to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet connection to ICE.

2.2. Test Results

All test cases were executed, and the following were observations on ICE:

- By design, the agent desktop does not support initiation of unattended conference.
- In general, mixed use of agent desktop and telephone to perform call control actions are supported. For the transfer and conference features, however, all actions need to start and complete from the same source.
- For transfer and conference of outbound calls, the transfer-to and conference-to agents may not receive a screen pop of the contact record associated with the called party on the PSTN. The screen pop is dependent on the PSTN service provider sending the connected number.

2.3. Support

Technical support on ICE can be obtained through the following:

- **Phone:** (613) 591-9002
- **Email:** icesupport@ingenius.com
- **Web :** http://ingenius.com/resources/support/

3. Reference Configuration

The configuration used for the compliance testing is shown in **Figure 1**.   The detailed administration of basic connectivity between Communication Manager and Application Enablement Services, and of contact center devices are not the focus of these Application Notes and will not be described.

In the compliance testing, ICE monitored the agent stations shown in the table below.

Device Type	Extension
VDNs	60001, 60002
Skill Groups	65081, 65082
Supervisor	65000
Agent Stations	65001, 65002, 65003
Agent IDs	65881, 65882, 65883
Agent Passwords	65881, 65882, 65883

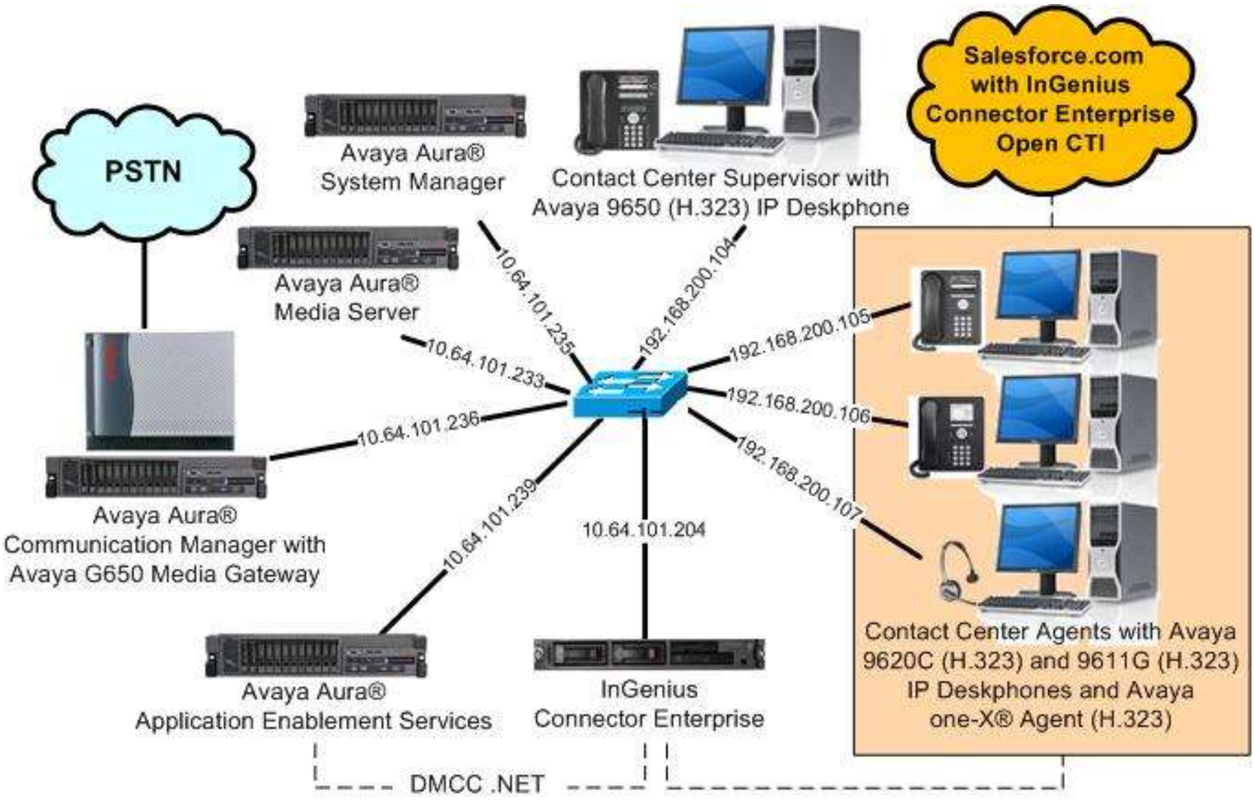


Figure 1: Compliance Testing Configuration

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 in Virtual Environment	7.0 SP1 (7.0.0.1.0.441.22477)
Avaya G650 Media Gateway	NA
Avaya Aura® Media Server in Virtual Environment	7.7.0.236
Avaya Aura® Application Enablement Services in Virtual Environment	7.0 Patch 1 (7.0.0.0.1.13)
Avaya one-X® Agent	2.5.8 (2.5.58020.0)
Avaya 9611G IP Deskphone (H.323)	6.6029
Avaya 9620C & 9650 IP Deskphones (H.323)	3.250A
InGenius Connector Enterprise on Windows Server 2012 • Avaya DMCC XML • Configuration Tool	4.0.1000.10784 R2 Standard 6.2 4.0.1000.10784
InGenius Connector Enterprise Open CTI on Salesforce.com	1.19 Winter 2016

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
- Obtain reason codes

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)? 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? n                       DCS (Basic)? y
          ASAI Link Core Capabilities? n                 DCS Call Coverage? y
          ASAI Link Plus Capabilities? n                DCS with Rerouting? y
```

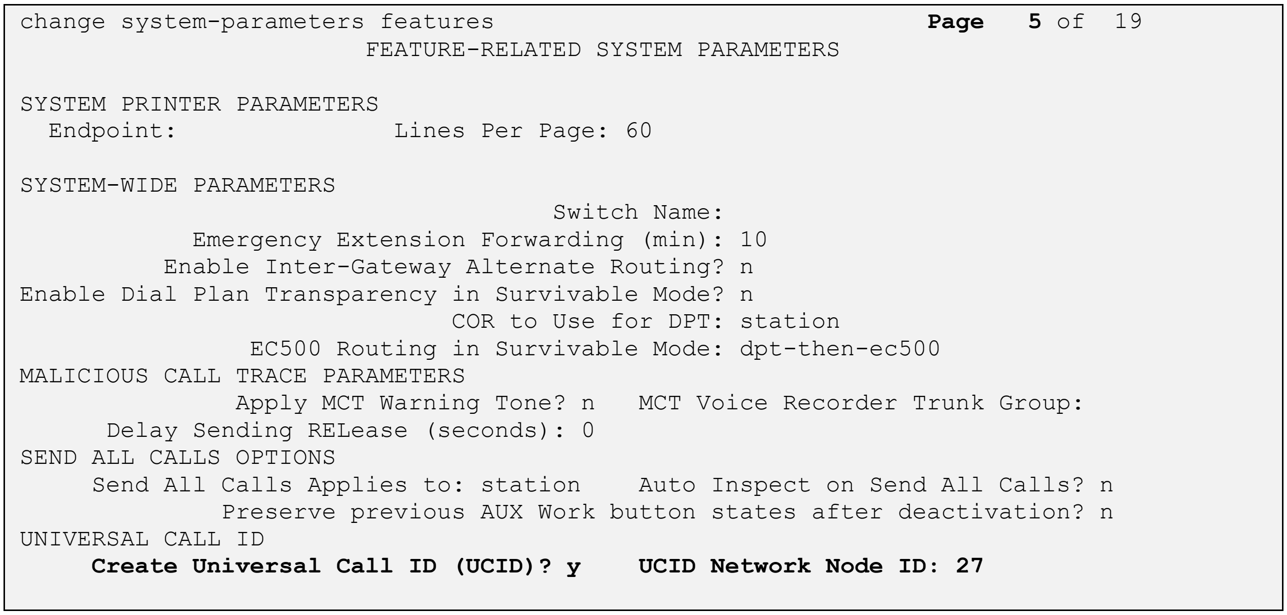
5.2. Administer CTI Link

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: 60111
     Type: ADJ-IP
                                                                         COR: 1
     Name: AES CTI Link
```

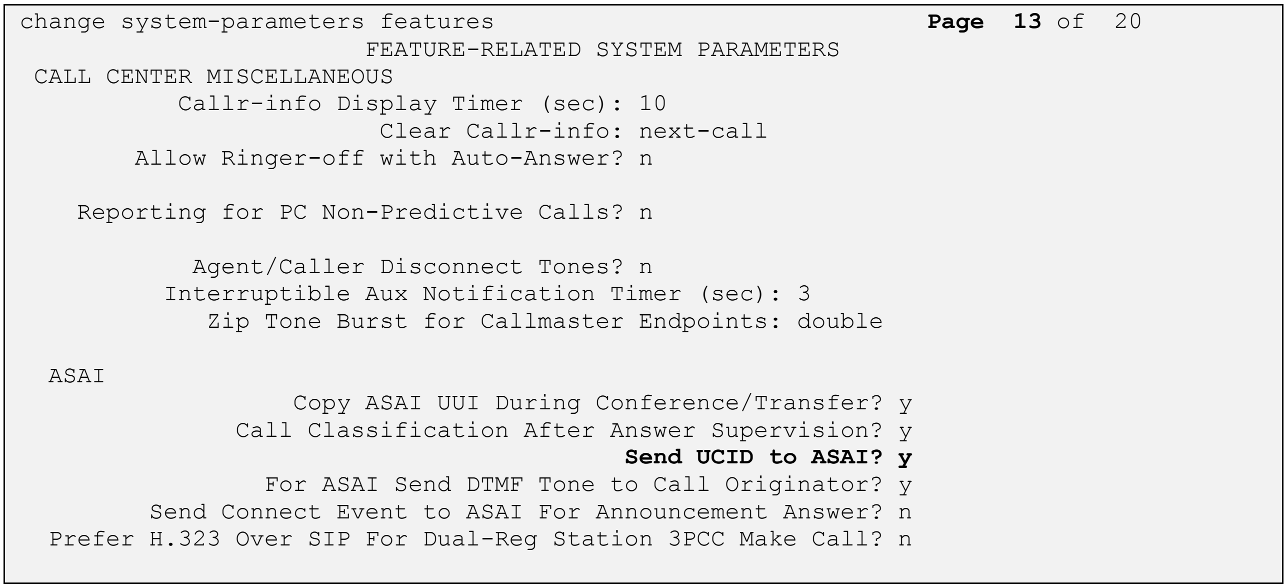
5.3. Administer System Parameters Features

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: 27
```

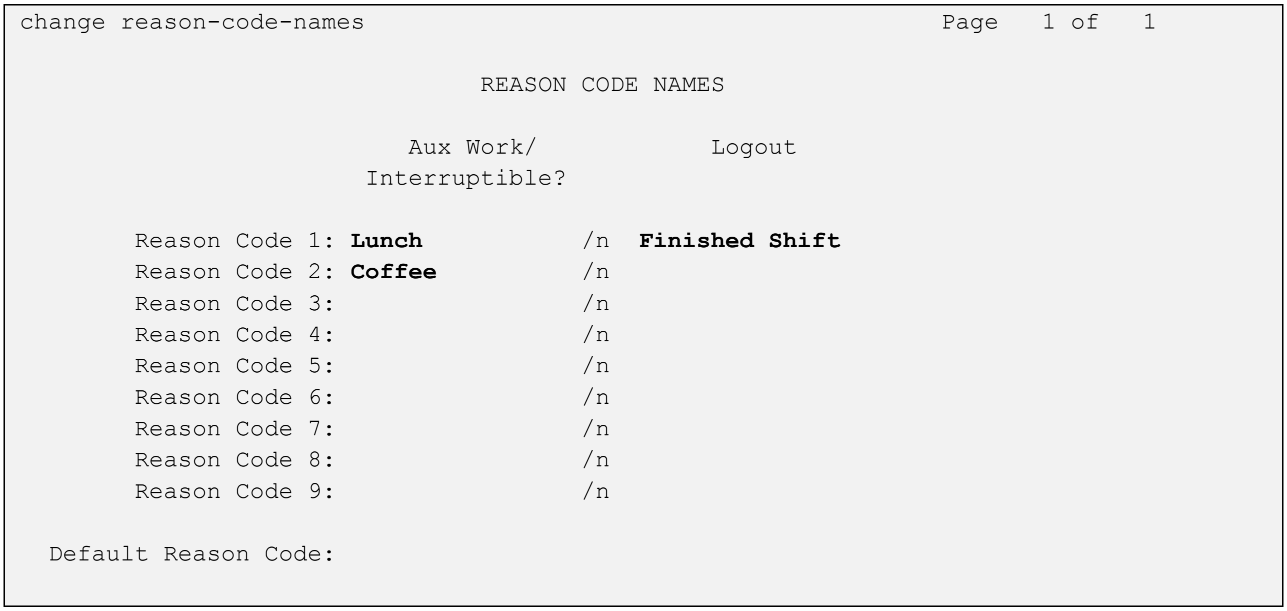
Navigate to **Page 13**, and enable **Send UCID to ASAI**. This parameter allows for the universal call ID to be sent to ICE.



```
change system-parameters features                              Page  13 of  20
                        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
          Interruptible Aux Notification Timer (sec): 3
             Zip Tone Burst for Callmaster Endpoints: double

  ASAI
                   Copy ASAI UUI During Conference/Transfer? y
               Call Classification After Answer Supervision? y
                                          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. Obtain Reason Codes

For contact centers that use reason codes, enter the “change reason-code-names” command to display the configured reason codes. Make a note of the reason codes, which will be used later to configure ICE.



```
change reason-code-names                                        Page   1 of   1

                                REASON CODE NAMES

                           Aux Work/            Logout
                        Interruptible?

        Reason Code 1: Lunch           /n  Finished Shift
        Reason Code 2: Coffee          /n
        Reason Code 3:                 /n
        Reason Code 4:                 /n
        Reason Code 5:                 /n
        Reason Code 6:                 /n
        Reason Code 7:                 /n
        Reason Code 8:                 /n
        Reason Code 9:                 /n

  Default Reason Code:
```

6. Configure Avaya Aura® Application Enablement Services

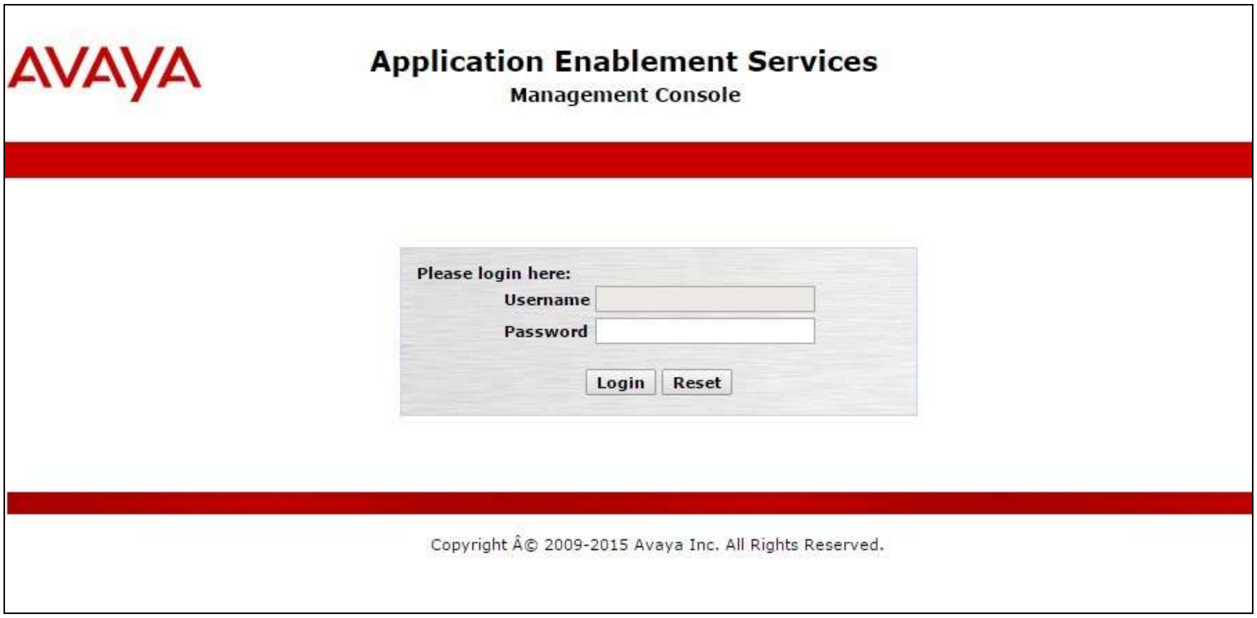
This section provides the procedures for configuring Application Enablement Services. The procedures include the following areas:

- Launch OAM interface
- Verify license
- Administer TSAPI link
- Administer InGenius user
- Disable security database
- Administer ports
- Restart services

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.



Application Enablement Services

Management Console

Please login here:

Username

Password

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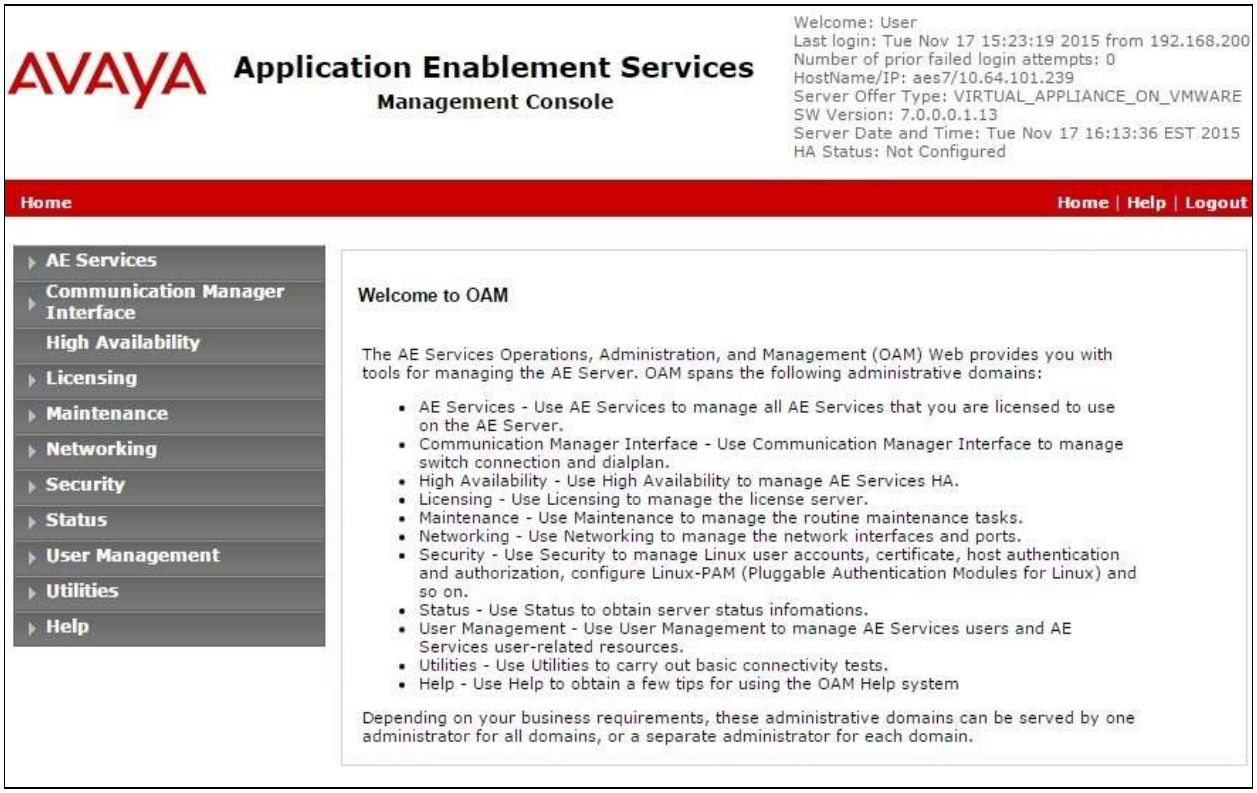
The **Welcome to OAM** screen is displayed next.



Welcome: User
Last login: Tue Nov 17 15:23:19 2015 from 192.168.200
Number of prior failed login attempts: 0
HostName/IP: aes7/10.64.101.239
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Tue Nov 17 16:13:36 EST 2015
HA Status: Not Configured

Welcome to OAM

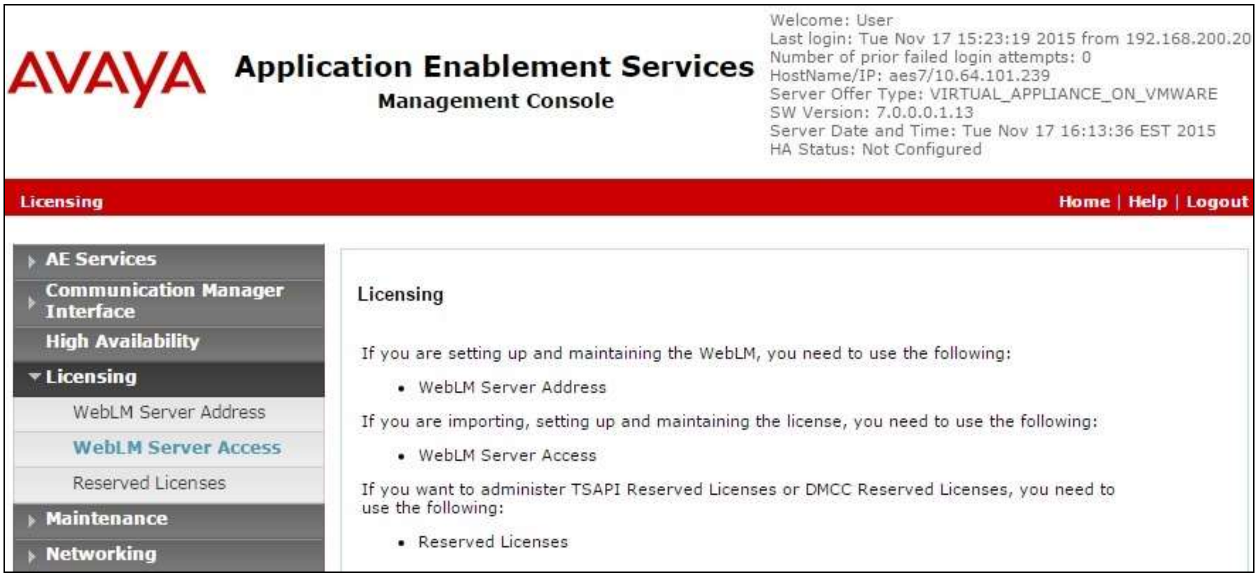
The AE Services Operations, Administration, and Management (OAM) Web provides you with tools for managing the AE Server. OAM spans the following administrative domains:

- 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.
- User Management - Use User Management to manage AE Services users and AE Services user-related resources.
- 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 applicable WebLM server log in screen (not shown). Log in using the appropriate credentials, and navigate to display installed licenses (not shown).



Welcome: User
Last login: Tue Nov 17 15:23:19 2015 from 192.168.200.20
Number of prior failed login attempts: 0
HostName/IP: aes7/10.64.101.239
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Tue Nov 17 16:13:36 EST 2015
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:

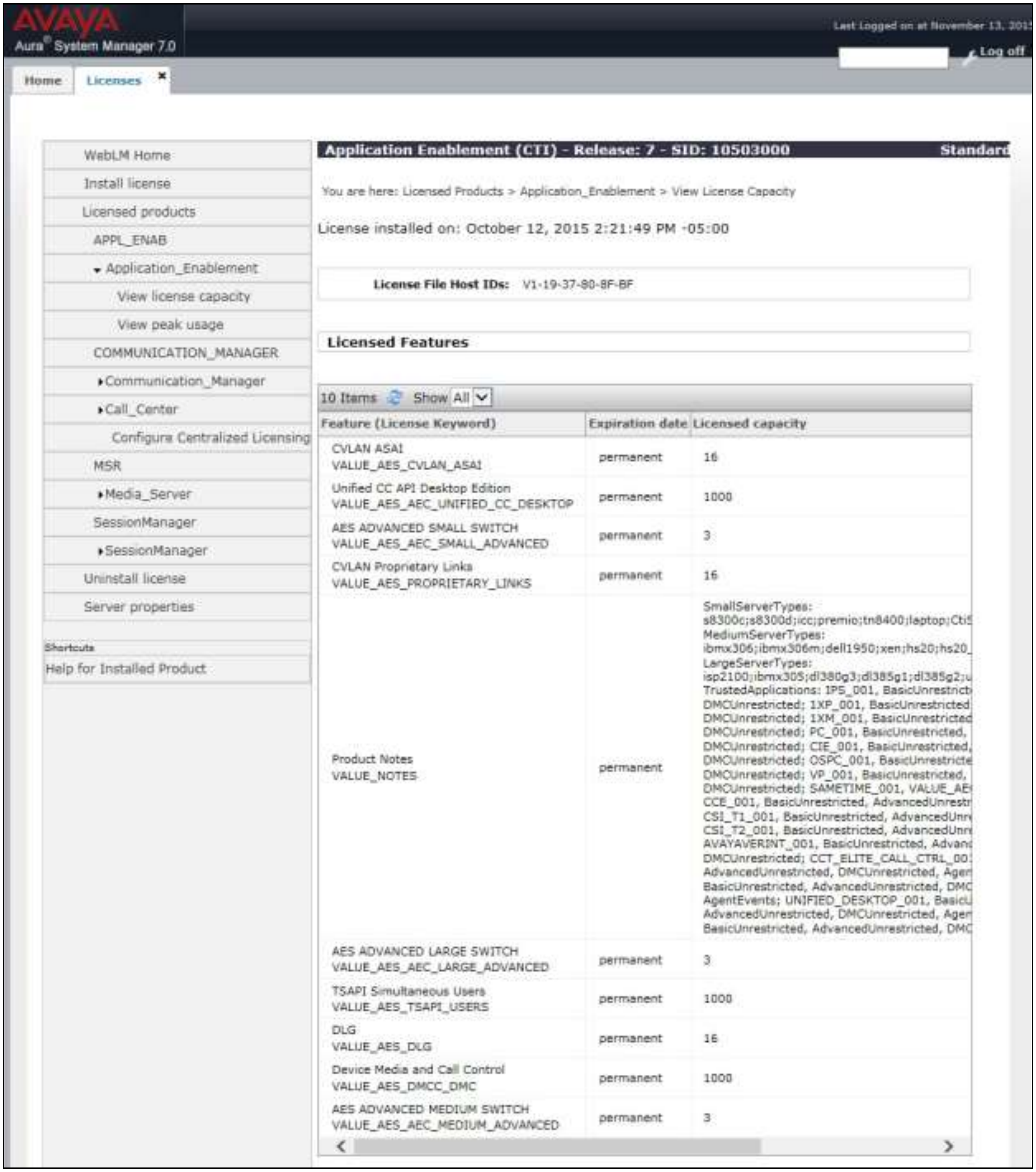
- WebLM Server Access

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

- Reserved Licenses

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 used for device monitoring and call control via DMCC, and that no specific DMCC license is required for integration with ICE.



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

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

License installed on: October 12, 2015 2:21:49 PM -05:00

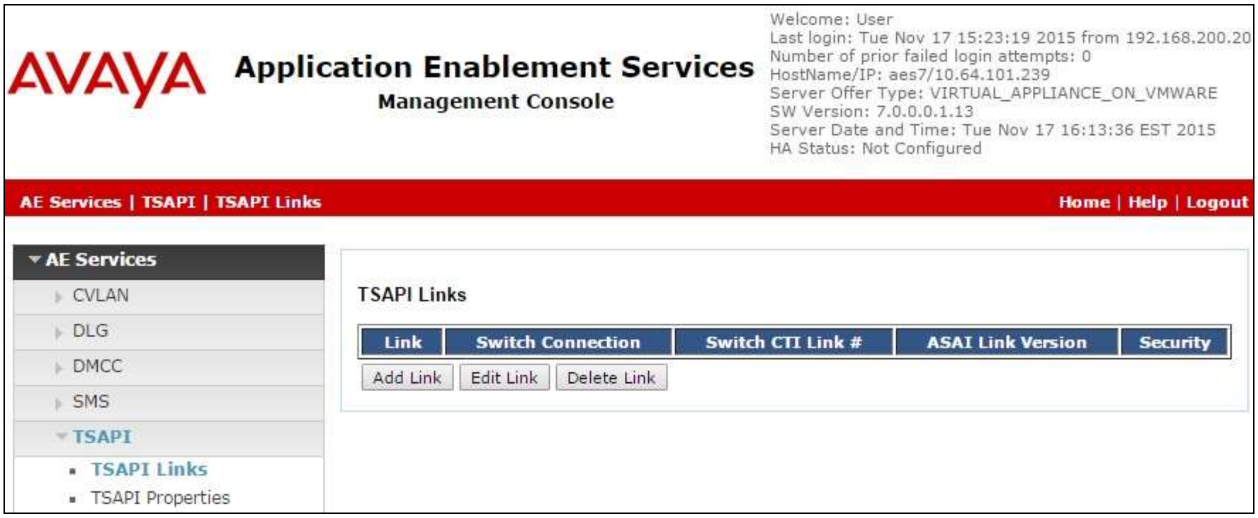
License File Host IDs: V1-19-37-80-8F-BF

Licensed Features

Feature (License Keyword)	Expiration date	Licensed capacity
CVLAN ASAI VALUE_AES_CVLAN_ASAI	permanent	16
Unified CC API Desktop Edition VALUE_AES_AEC_UNIFIED_CC_DESKTOP	permanent	1000
AES ADVANCED SMALL SWITCH VALUE_AES_AEC_SMALL_ADVANCED	permanent	3
CVLAN Proprietary Links VALUE_AES_PROPRIETARY_LINKS	permanent	16
Product Notes VALUE_NOTES	permanent	SmallServerTypes: s8300c;s8300d;icc;premio;tn8400;laptop;Cti MediumServerTypes: ibmx306;ibmx306m;dell1950;xen;hs20;hs20_ LargeServerTypes: isp2100;ibmx305;dl380g3;dl385g1;dl385g2;u TrustedApplications: IPS_001, BasicUnrestrict DMCUnrestricted; 1XP_001, BasicUnrestricted DMCUnrestricted; 1XM_001, BasicUnrestricted DMCUnrestricted; PC_001, BasicUnrestricted, DMCUnrestricted; CIE_001, BasicUnrestricted, DMCUnrestricted; OSPC_001, BasicUnrestricte DMCUnrestricted; VP_001, BasicUnrestricted, DMCUnrestricted; SAMETIME_001, VALUE_AE CCE_001, BasicUnrestricted, AdvancedUnrestr CSI_T1_001, BasicUnrestricted, AdvancedUnr CSI_T2_001, BasicUnrestricted, AdvancedUnr AVAYAVERINT_001, BasicUnrestricted, Advanc DMCUnrestricted; CCT_ELITE_CALL_CTRL_00 AdvancedUnrestricted, DMCUnrestricted, Ager BasicUnrestricted, AdvancedUnrestricted, DMC AgentEvents; UNIFIED_DESKTOP_001, BasicU AdvancedUnrestricted, DMCUnrestricted, Ager BasicUnrestricted, AdvancedUnrestricted, DMC
AES ADVANCED LARGE SWITCH VALUE_AES_AEC_LARGE_ADVANCED	permanent	3
TSAPI Simultaneous Users VALUE_AES_TSAPI_USERS	permanent	1000
DLG VALUE_AES_DLG	permanent	16
Device Media and Call Control VALUE_AES_DMCC_DMC	permanent	1000
AES ADVANCED MEDIUM SWITCH VALUE_AES_AEC_MEDIUM_ADVANCED	permanent	3

6.3. Administer TSAPI Link

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



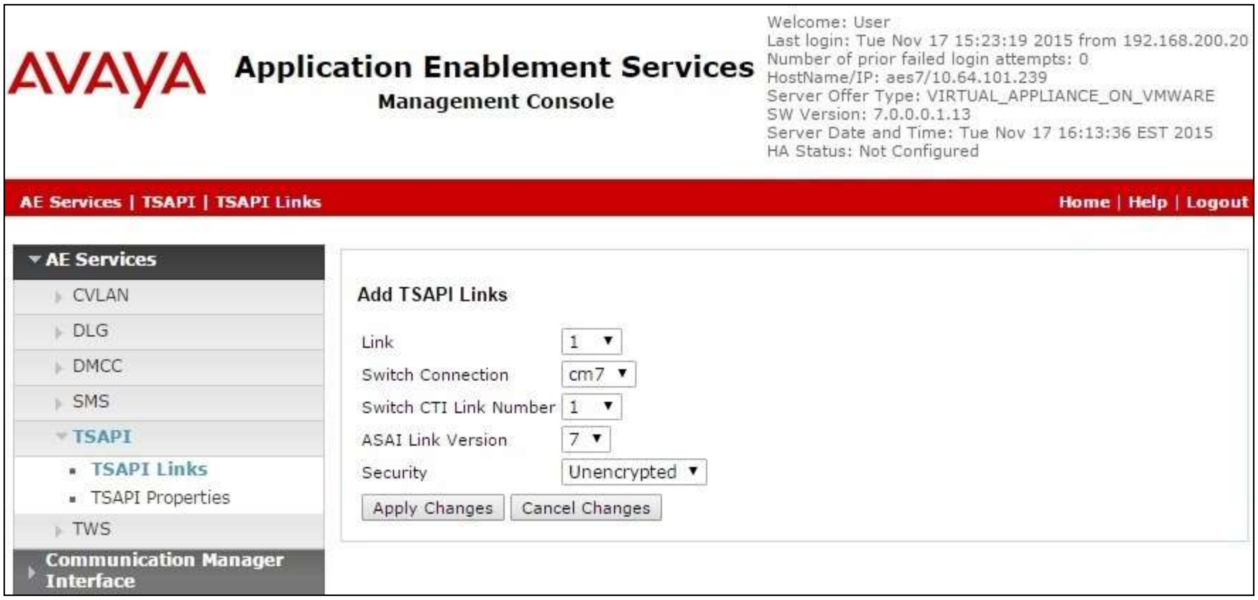
Welcome: User
Last login: Tue Nov 17 15:23:19 2015 from 192.168.200.20
Number of prior failed login attempts: 0
HostName/IP: aes7/10.64.101.239
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Tue Nov 17 16:13:36 EST 2015
HA Status: Not Configured

TSAPI Links

Link	Switch Connection	Switch CTI Link #	ASAI Link Version	Security

The **Add TSAPI Links** screen is displayed next.

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 "cm7" 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
Last login: Tue Nov 17 15:23:19 2015 from 192.168.200.20
Number of prior failed login attempts: 0
HostName/IP: aes7/10.64.101.239
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Tue Nov 17 16:13:36 EST 2015
HA Status: Not Configured

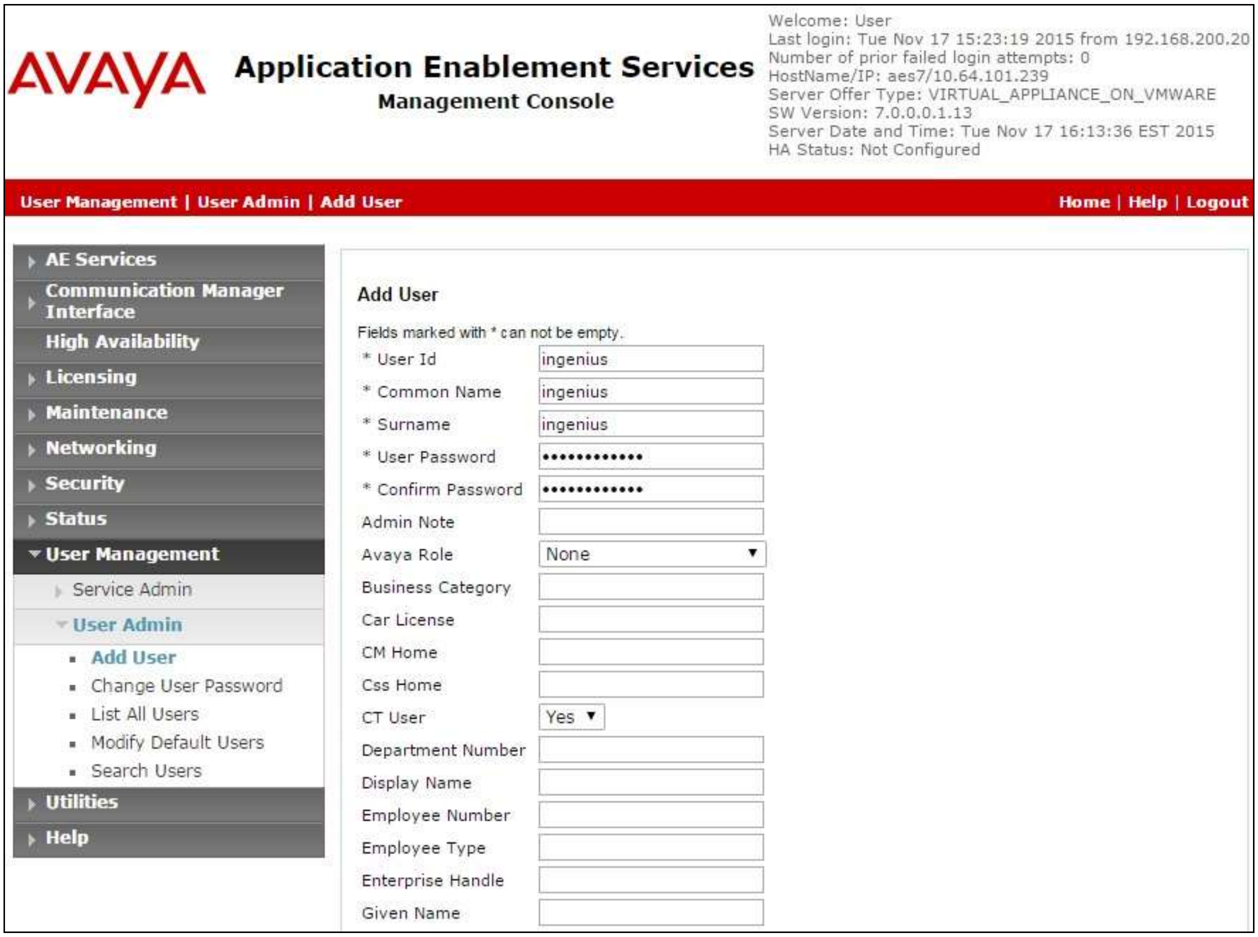
Add TSAPI Links

Link: 1
Switch Connection: cm7
Switch CTI Link Number: 1
ASAI Link Version: 7
Security: Unencrypted

6.4. Administer InGenius 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 **CT User**, select "Yes" from the drop-down list. Retain the default value in the remaining fields.



Welcome: User
Last login: Tue Nov 17 15:23:19 2015 from 192.168.200.20
Number of prior failed login attempts: 0
HostName/IP: aes7/10.64.101.239
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Tue Nov 17 16:13:36 EST 2015
HA Status: Not Configured

Add User

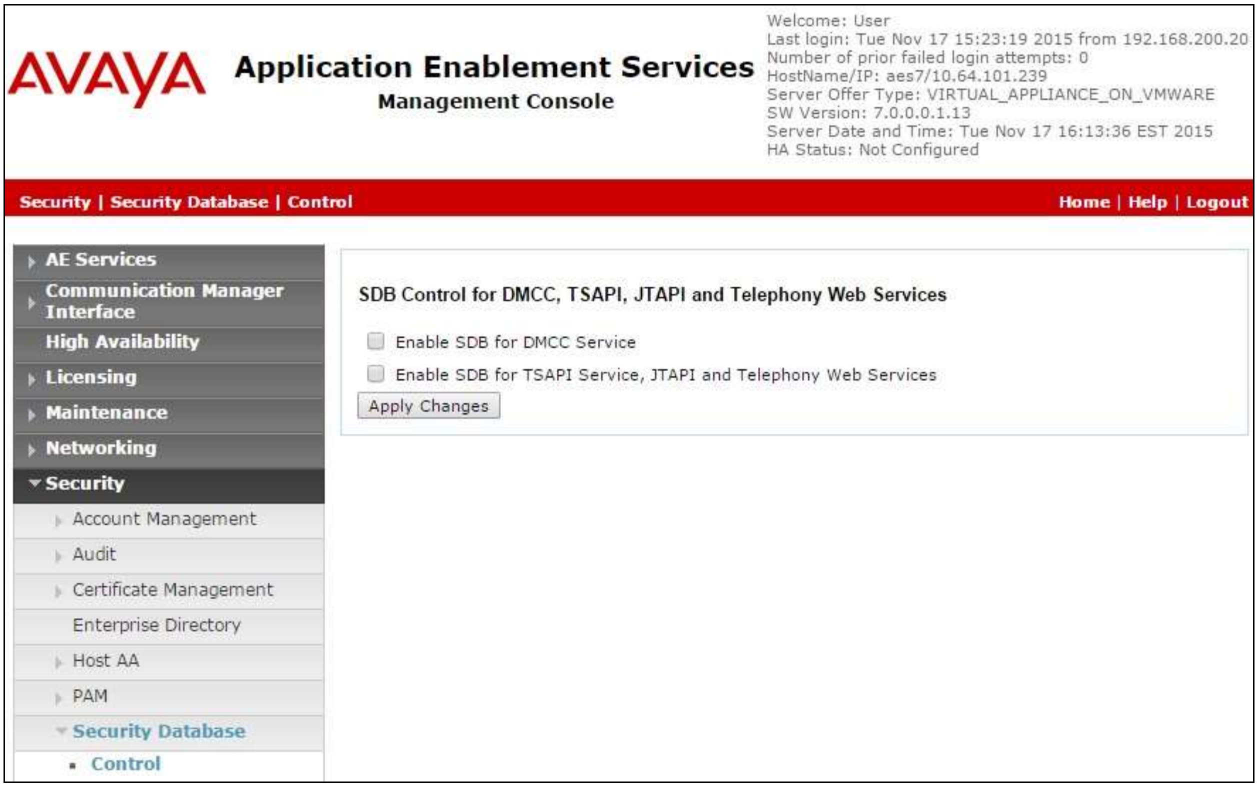
Fields marked with * can not be empty.

* User Id	ingenius
* Common Name	ingenius
* Surname	ingenius
* User Password	••••••••••••
* Confirm Password	••••••••••••
Admin Note	
Avaya Role	None ▾
Business Category	
Car License	
CM Home	
Css Home	
CT User	Yes ▾
Department Number	
Display Name	
Employee Number	
Employee Type	
Enterprise Handle	
Given Name	

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.

In the event that the security database is used by the customer with parameters already enabled, then follow reference [2] to configure access privileges for the InGenius user from **Section 6.4**.



Welcome: User
Last login: Tue Nov 17 15:23:19 2015 from 192.168.200.20
Number of prior failed login attempts: 0
HostName/IP: aes7/10.64.101.239
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Tue Nov 17 16:13:36 EST 2015
HA Status: Not Configured

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

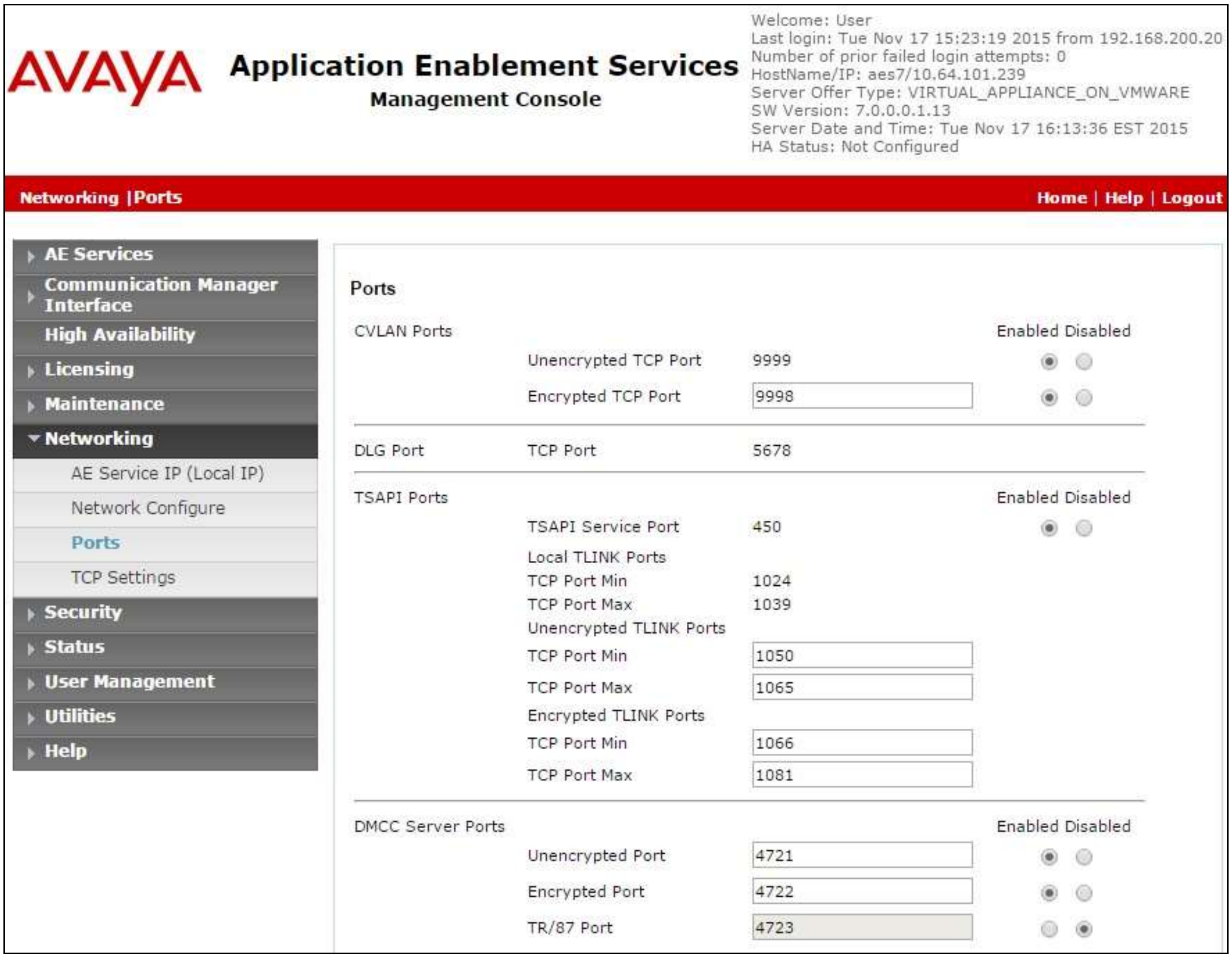
□ Enable SDB for DMCC Service

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

6.6. Administer Ports

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

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



Welcome: User
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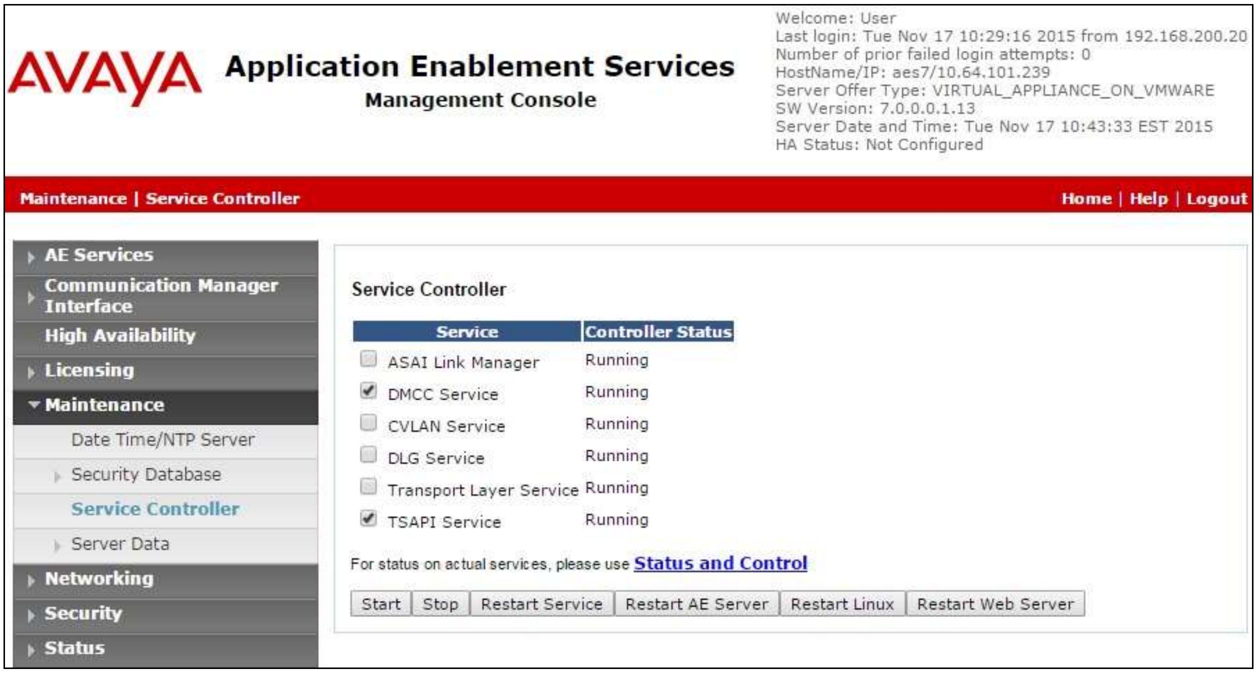
Number of prior failed login attempts: 0
HostName/IP: aes7/10.64.101.239
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Tue Nov 17 16:13:36 EST 2015
HA Status: Not Configured

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		
	Unencrypted TLINK Ports			
	TCP Port Min	1050		
	TCP Port Max	1065		
	Encrypted TLINK Ports			
	TCP Port Min	1066		
	TCP Port Max	1081		
DMCC Server Ports				
	Unencrypted Port	4721	●	○
	Encrypted Port	4722	●	○
	TR/87 Port	4723	○	●

6.7. Restart Services

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



Welcome: User
Last login: Tue Nov 17 10:29:16 2015 from 192.168.200.20
Number of prior failed login attempts: 0
HostName/IP: aes7/10.64.101.239
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Tue Nov 17 10:43:33 EST 2015
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**

7. Configure InGenius Connector Enterprise

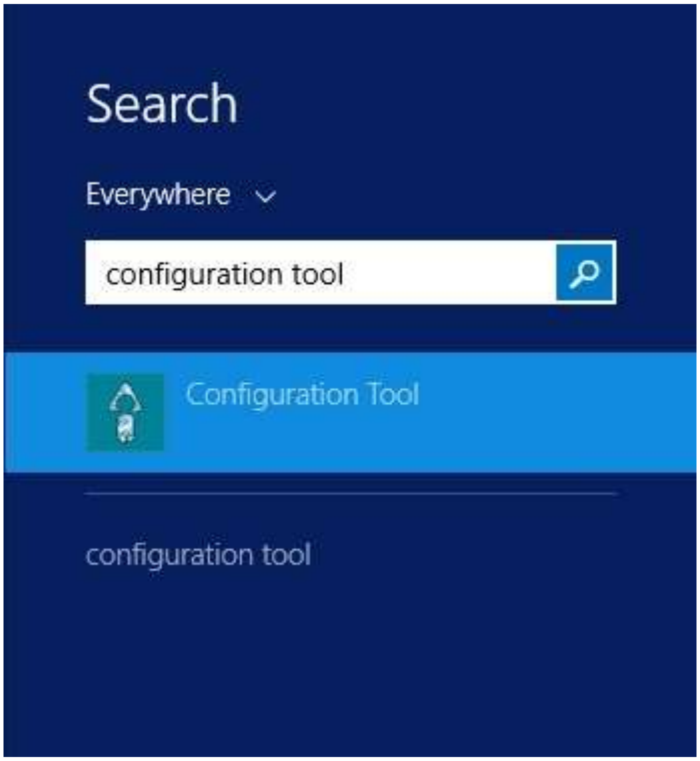
This section provides the procedures for configuring ICE. The procedures include the following areas:

- Launch configuration tool
- Administer dialing and number formatting
- Administer telephony
- Start service

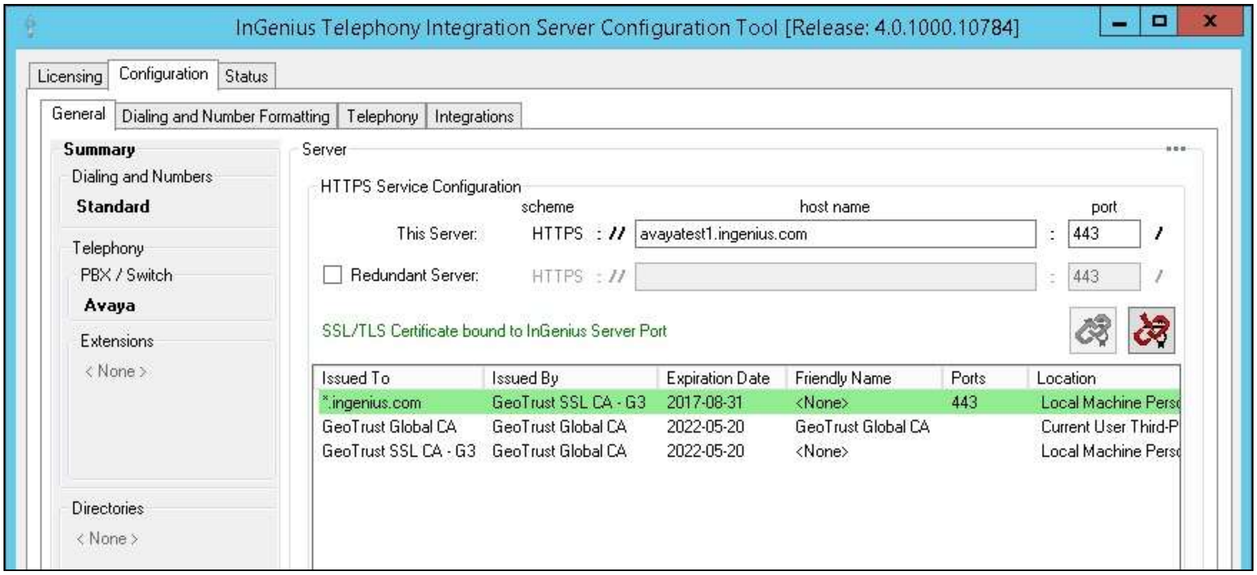
This section assumes the Connector Enterprise package has been imported and published, with the appropriate Security Role created, and users created and assigned to the Security Role. Refer to reference [3] for more details.

7.1. Launch Configuration Tool

From the ICE server, enter “configuration tool” anywhere on the desktop to locate the **Configuration Tool** application. Click on the pertinent entry from the result to launch the application.



The **InGenius Telephony Integration Server Configuration Tool** screen is displayed.

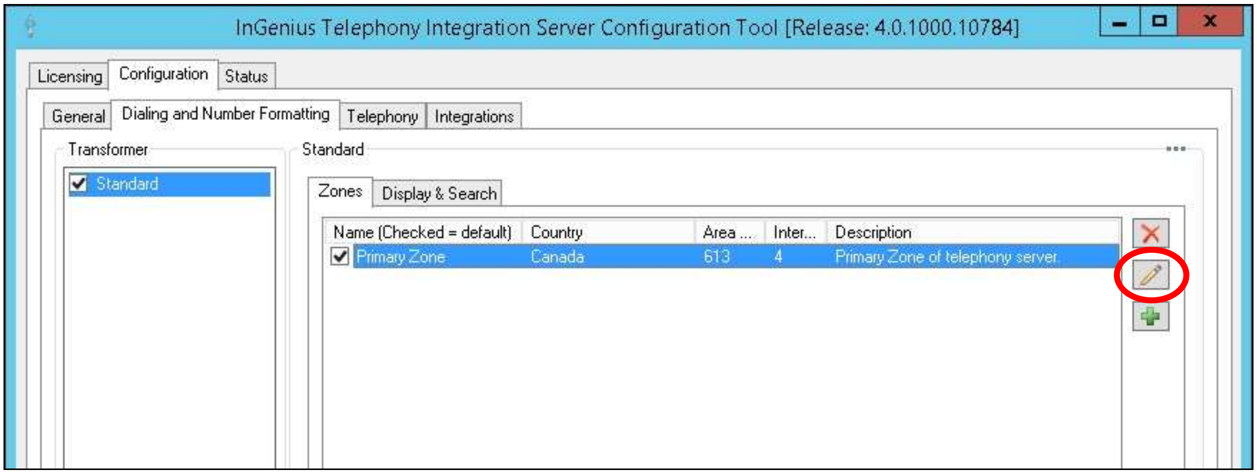

InGenius Telephony Integration Server Configuration Tool [Release: 4.0.1000.10784]
Licensing
Configuration
Status
General
Dialing and Number Formatting
Telephony
Integrations
Summary
Dialing and Numbers
Standard
Telephony
PBX / Switch
Avaya
Extensions
< None >
Directories
< None >
Server
HTTPS Service Configuration
SSL/TLS Certificate bound to InGenius Server Port

	scheme		host name		port	
This Server:	HTTPS	://	avayatest1.ingenius.com	:	443	/
□ Redundant Server:	HTTPS	://		:	443	/

Issued To	Issued By	Expiration Date	Friendly Name	Ports	Location
*.ingenius.com	GeoTrust SSL CA - G3	2017-08-31	<None>	443	Local Machine Perso
GeoTrust Global CA	GeoTrust Global CA	2022-05-20	GeoTrust Global CA		Current User Third-P
GeoTrust SSL CA - G3	GeoTrust Global CA	2022-05-20	<None>		Local Machine Perso

7.2. Administer Dialing and Number Formatting

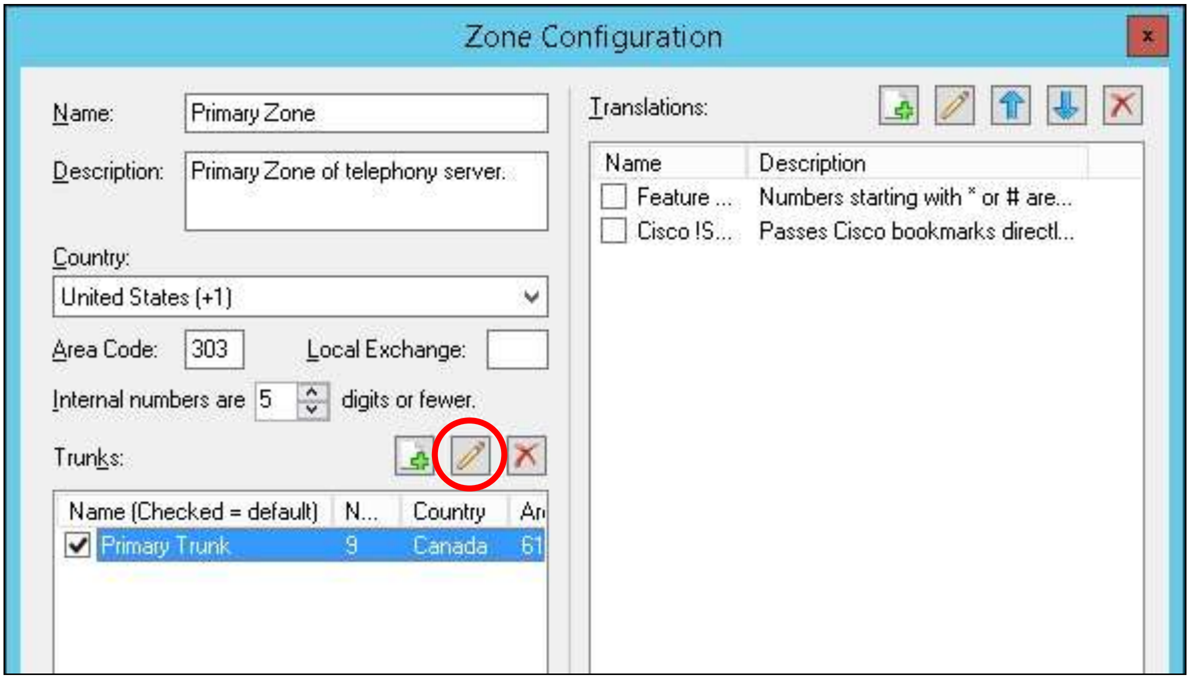
Select **Configuration → Dialing and Number Formatting** from the top menu, followed by the **Zones** tab in the right pane. Select the default entry, and click the **Edit translation** icon shown below.


InGenius Telephony Integration Server Configuration Tool [Release: 4.0.1000.10784]
Licensing
Configuration
Status
General
Dialing and Number Formatting
Telephony
Integrations
Transformer
☑ Standard
Standard
Zones
Display & Search

Name (Checked = default)	Country	Area ...	Inter...	Description
☑ Primary Zone	Canada	613	4	Primary Zone of telephony server.

The **Zone Configuration** screen is displayed next. For **Country**, **Area Code**, and **Internal numbers are**, select and enter the values to match the network configuration. Retain the default values in the remaining fields.

Select the default entry in the **Trunks** sub-section, and click on the **Edit Trunk** icon shown below.



Zone Configuration

Name: Primary Zone

Description: Primary Zone of telephony server.

Country: United States (+1)

Area Code: 303 Local Exchange:

Internal numbers are 5 digits or fewer.

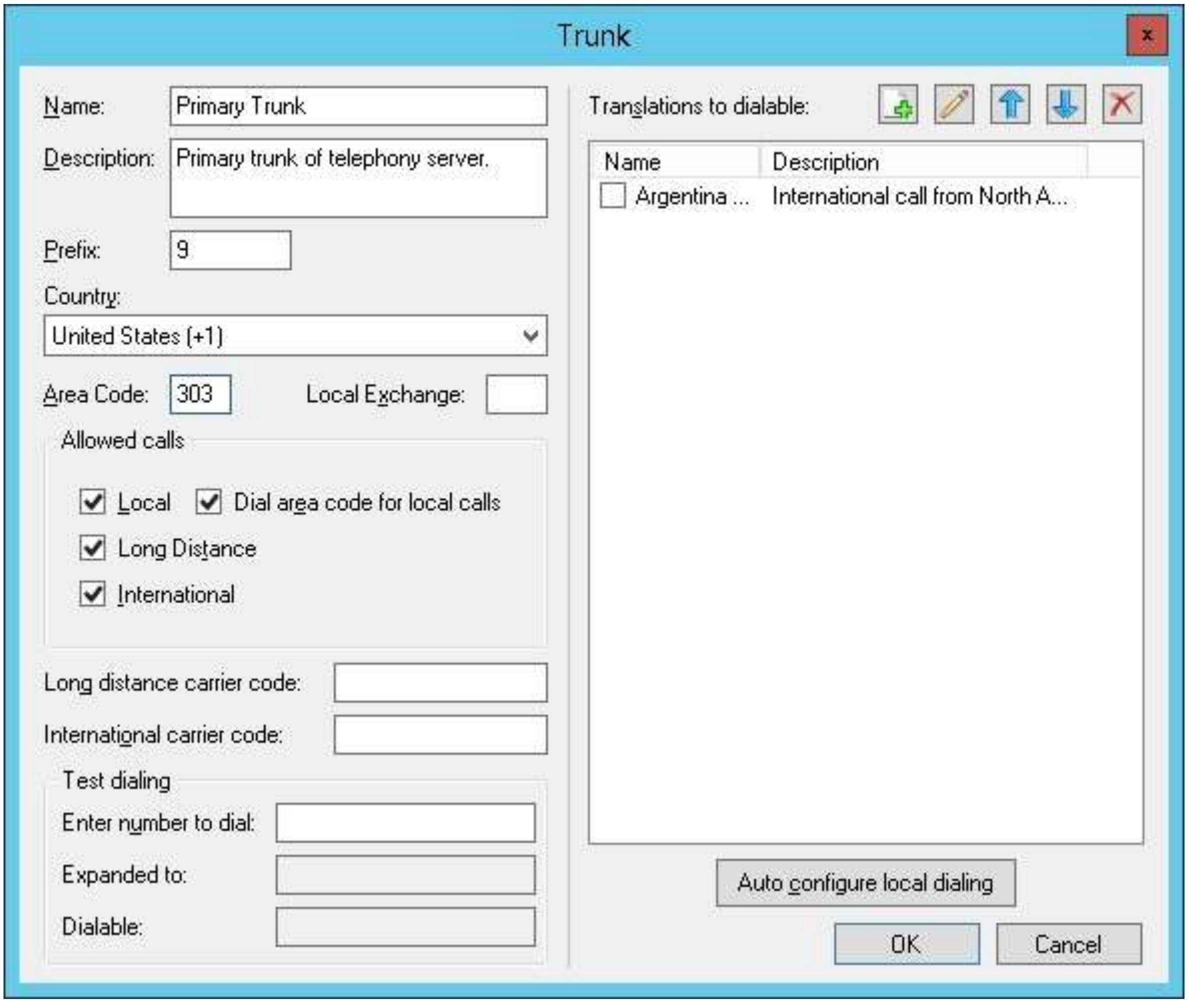
Trunks:

Name (Checked = default)	N...	Country	Ar
☑ Primary Trunk	9	Canada	61

Translations:

Name	Description
□ Feature ...	Numbers starting with * or # are...
□ Cisco IS...	Passes Cisco bookmarks directl...

The **Trunk** screen is displayed. Follow reference [4] to update trunk parameter values to match the network configuration. The screenshot below shows the values used in the compliance testing.



Trunk

Name: Primary Trunk

Description: Primary trunk of telephony server.

Prefix: 9

Country: United States (+1)

Area Code: 303

Local Exchange:

Allowed calls

☑ Local ☑ Dial area code for local calls

☑ Long Distance

☑ International

Long distance carrier code:

International carrier code:

Test dialing

Enter number to dial:

Expanded to:

Dialable:

Translations to dialable:

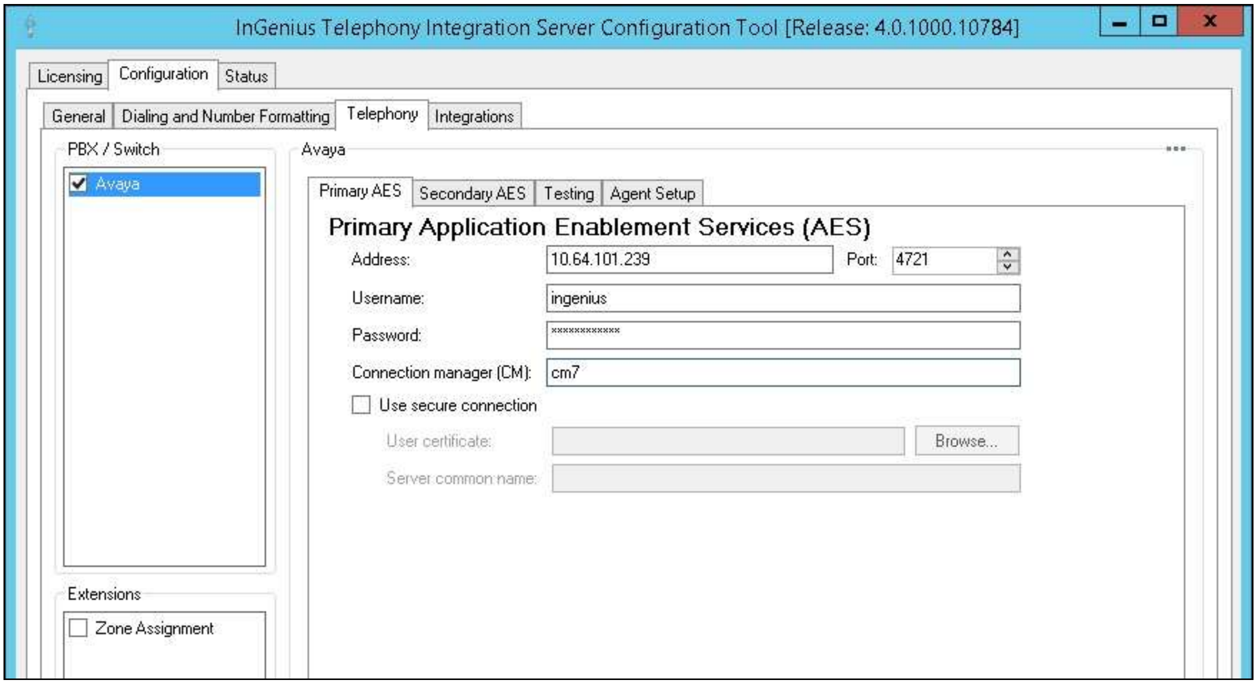
Name	Description
□ Argentina ...	International call from North A...

7.3. Administer Telephony

The **InGenius Telephony Integration Server Configuration Tool** screen is displayed again. Select **Configuration → Telephony** from the top menu, followed by the **Primary AES** tab in the right pane to display the screen below.

Enter the following values for the specified fields, and retain the default values in the remaining fields.

- **Address:** The IP address of Application Enablement Services.
- **Username:** The InGenius user credentials from **Section 6.4**.
- **Password:** The InGenius user credentials from **Section 6.4**.
- **Connection manager:** The relevant switch connection name from **Section 6.3**.



Primary Application Enablement Services (AES)

Address: 10.64.101.239 Port: 4721

Username: ingenius

Password: ************

Connection manager (CM): cm7

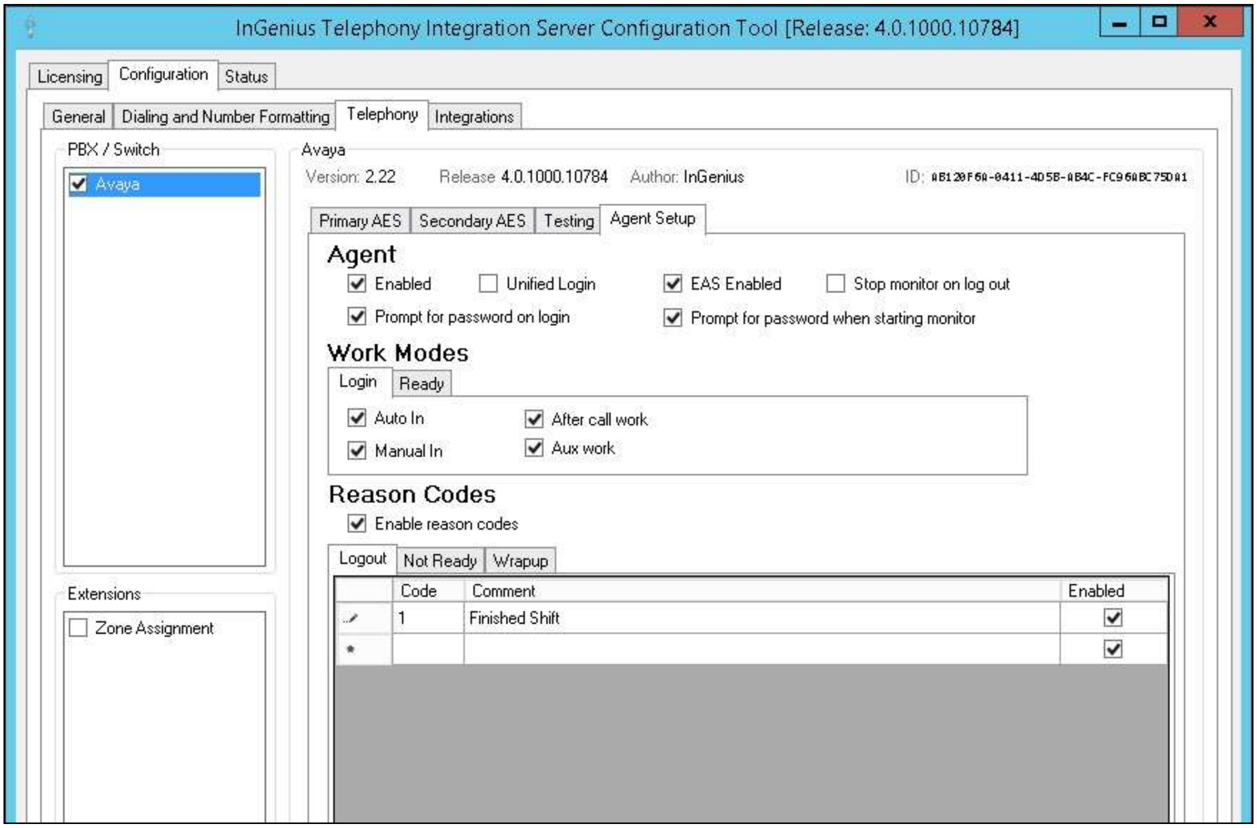
□ Use secure connection

User certificate:

Server common name:

Select the **Agent Setup** tab in the right pane to display the screen below. Follow reference [4] to update parameters in the **Agent** and **Work Modes** sub-sections to the proper settings. The screenshot below shows the values used in the compliance testing.

For contact centers that use reason codes, check **Enable reason codes** in the **Reason Codes** sub-section, and follow reference [4] to create reason code entries to match **Section 5.4**. In the compliance testing, one reason code was created under the **Logout** tab as shown below, and two reason codes were created under the **Not Ready** tab (not shown).



☑ Avaya

☐ Zone Assignment

Avaya

Version: 2.22 Release 4.0.1000.10784 Author: InGenius ID: AB120F6A-0411-4D5B-AB4C-FC96ABC75DA1

Agent

☑ Enabled ☐ Unified Login ☑ EAS Enabled ☐ Stop monitor on log out

☑ Prompt for password on login ☑ Prompt for password when starting monitor

Work Modes

Login | Ready

☑ Auto In ☑ After call work

☑ Manual In ☑ Aux work

Reason Codes

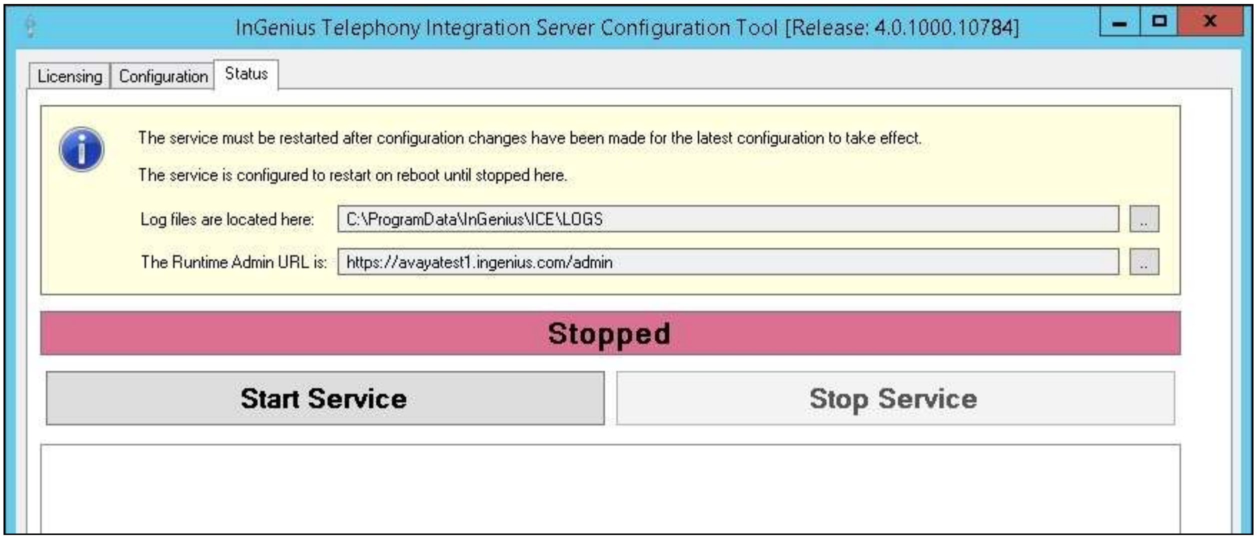
☑ Enable reason codes

Logout | Not Ready | Wrapup

	Code	Comment	Enabled
✎	1	Finished Shift	☑
*			☑

7.4. Start Service

Select **Status** from the top menu to display the screen below, and click **Start Service**.


InGenius Telephony Integration Server Configuration Tool [Release: 4.0.1000.10784]
Licensing
Configuration
Status
Stopped
Start Service
Stop Service

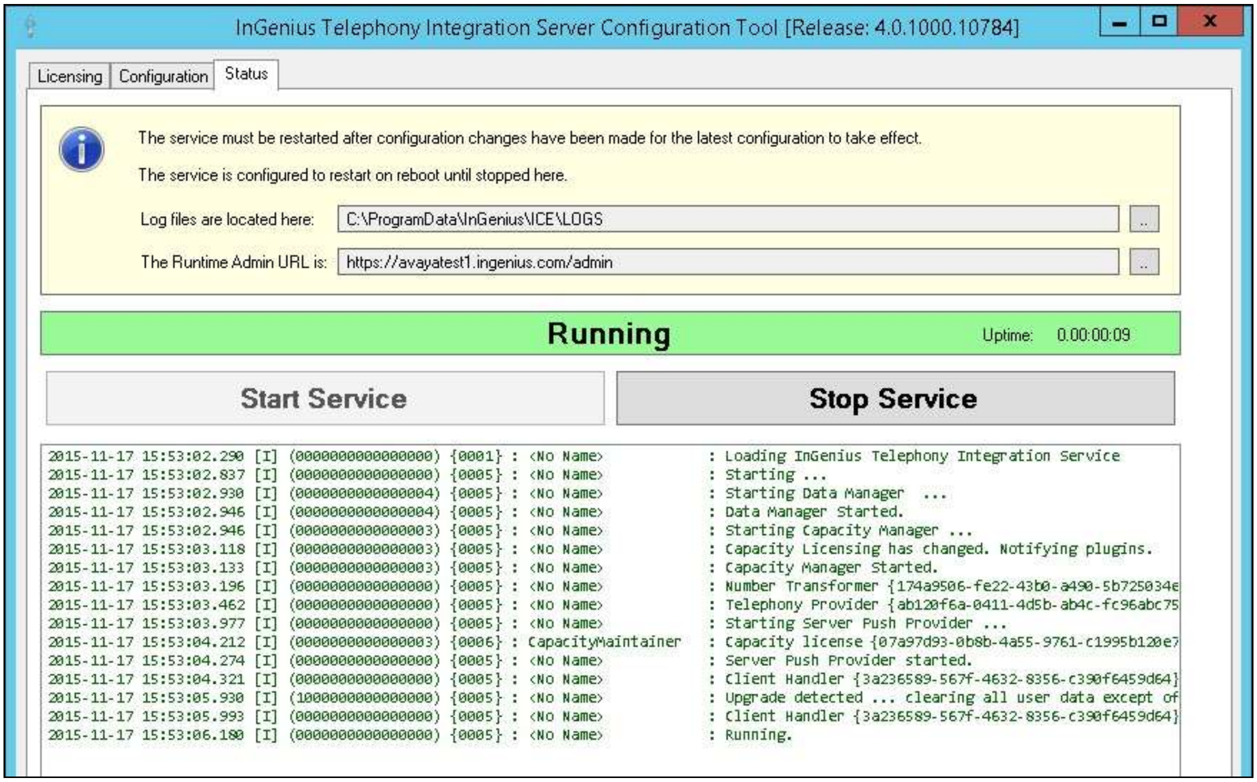
The service must be restarted after configuration changes have been made for the latest configuration to take effect.

The service is configured to restart on reboot until stopped here.

Log files are located here: C:\ProgramData\InGenius\ICE\LOGS

The Runtime Admin URL is: https://avayatest1.ingenius.com/admin

The screen is updated, as shown below.


InGenius Telephony Integration Server Configuration Tool [Release: 4.0.1000.10784]
Licensing
Configuration
Status
Running
Uptime: 0.00:00:09
Start Service
Stop Service

The service must be restarted after configuration changes have been made for the latest configuration to take effect.

The service is configured to restart on reboot until stopped here.

Log files are located here: C:\ProgramData\InGenius\ICE\LOGS

The Runtime Admin URL is: https://avayatest1.ingenius.com/admin

```
2015-11-17 15:53:02.290 [I] (0000000000000000) {0001} : <No Name>           : Loading InGenius Telephony Integration Service
2015-11-17 15:53:02.837 [I] (0000000000000000) {0005} : <No Name>           : Starting ...
2015-11-17 15:53:02.930 [I] (0000000000000004) {0005} : <No Name>           : Starting Data Manager  ...
2015-11-17 15:53:02.946 [I] (0000000000000004) {0005} : <No Name>           : Data Manager Started.
2015-11-17 15:53:02.946 [I] (0000000000000003) {0005} : <No Name>           : Starting Capacity Manager ...
2015-11-17 15:53:03.118 [I] (0000000000000003) {0005} : <No Name>           : Capacity Licensing has changed. Notifying plugins.
2015-11-17 15:53:03.133 [I] (0000000000000003) {0005} : <No Name>           : Capacity Manager Started.
2015-11-17 15:53:03.196 [I] (0000000000000000) {0005} : <No Name>           : Number Transformer {174a9506-fe22-43b0-a490-5b725034e
2015-11-17 15:53:03.462 [I] (0000000000000000) {0005} : <No Name>           : Telephony Provider {ab120f6a-0411-4d5b-ab4c-fc96abc75
2015-11-17 15:53:03.977 [I] (0000000000000000) {0005} : <No Name>           : Starting Server Push Provider ...
2015-11-17 15:53:04.212 [I] (0000000000000003) {0006} : CapacityMaintainer  : Capacity license {07a97d93-0b8b-4a55-9761-c1995b120e7
2015-11-17 15:53:04.274 [I] (0000000000000000) {0005} : <No Name>           : Server Push Provider started.
2015-11-17 15:53:04.321 [I] (0000000000000000) {0005} : <No Name>           : Client Handler {3a236589-567f-4632-8356-c390f6459d64}
2015-11-17 15:53:05.930 [I] (1000000000000000) {0005} : <No Name>           : Upgrade detected ... clearing all user data except of
2015-11-17 15:53:05.993 [I] (0000000000000000) {0005} : <No Name>           : Client Handler {3a236589-567f-4632-8356-c390f6459d64}
2015-11-17 15:53:06.180 [I] (0000000000000000) {0005} : <No Name>           : Running.
```

8. Verification Steps

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

8.1. Verify Avaya Aura® Communication Manager

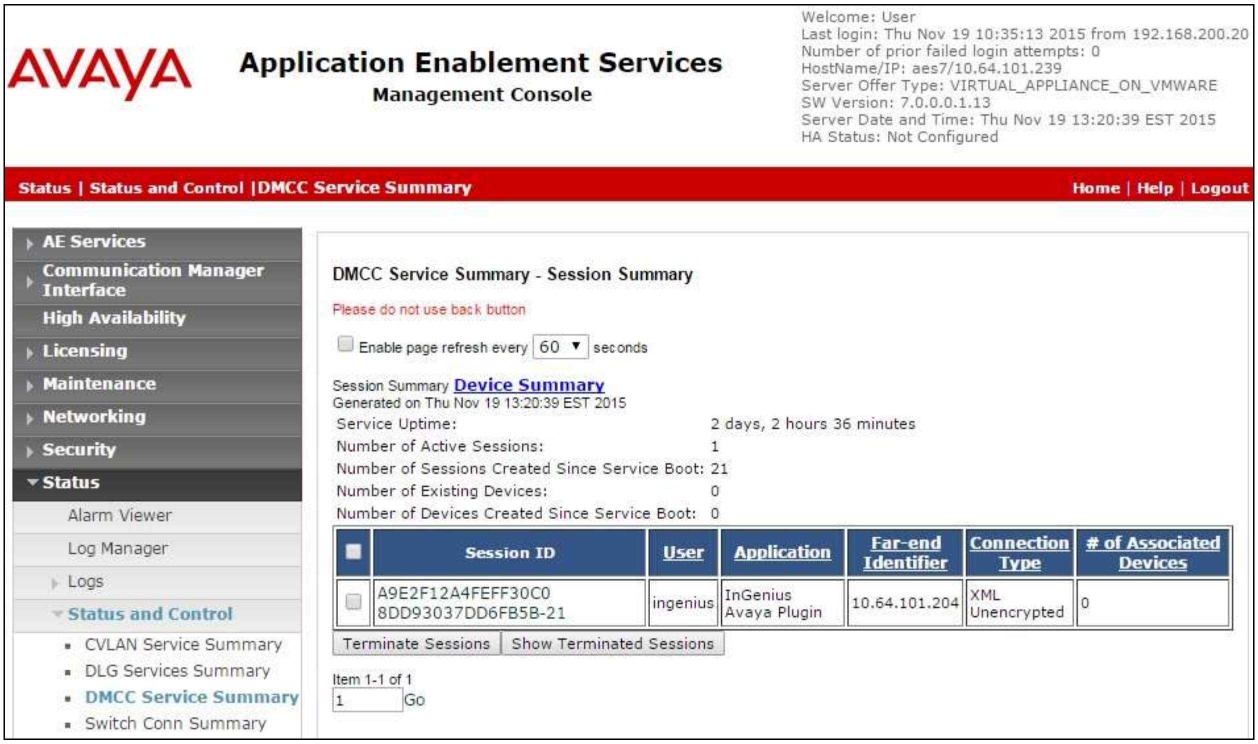
On Communication Manager, verify the status of the administered CTI link by using the "status aesvcs cti-link" command. Verify that the **Service State** is "established" for the CTI link number administered in **Section 5.2**, as shown below.

```
status aesvcs cti-link

                          AE SERVICES CTI LINK STATUS

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

1     7        no    aes7             established   2063     1924
```

8.2. Verify Avaya Aura® Application Enablement Services

On Application Enablement Services, verify the status of the DMCC service by selecting **Status → Status and Control → DMCC Service Summary** from the left pane. The **DMCC Service Summary – Session Summary** screen is displayed.

Verify the **User** column shows an active session with the InGenius user name from **Section 6.4**.



Welcome: User
Last login: Thu Nov 19 10:35:13 2015 from 192.168.200.20
Number of prior failed login attempts: 0
HostName/IP: aes7/10.64.101.239
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Thu Nov 19 13:20:39 EST 2015
HA Status: Not Configured

DMCC Service Summary - Session Summary

Please do not use back button

☐ Enable page refresh every 60 ▼ seconds

Session Summary Device Summary
Generated on Thu Nov 19 13:20:39 EST 2015

Service Uptime:	2 days, 2 hours 36 minutes
Number of Active Sessions:	1
Number of Sessions Created Since Service Boot:	21
Number of Existing Devices:	0
Number of Devices Created Since Service Boot:	0

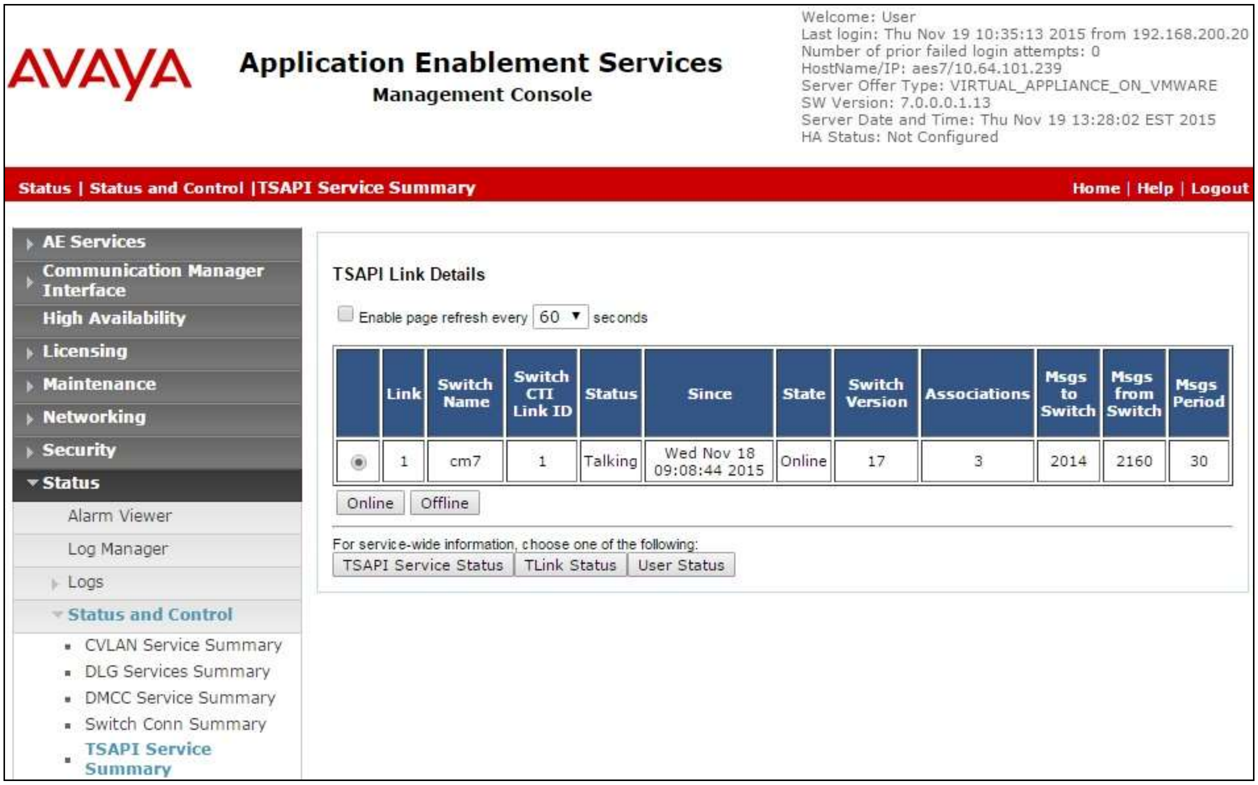
☐	Session ID	User	Application	Far-end Identifier	Connection Type	# of Associated Devices
☐	A9E2F12A4FEFF30C0 8DD93037DD6FB5B-21	ingenius	InGenius Avaya Plugin	10.64.101.204	XML Unencrypted	0

Terminate Sessions | Show Terminated Sessions

Item 1-1 of 1
1 Go

Verify the status of the TSAPI service by selecting **Status → Status and Control → TSAPI Service Summary** from the left pane. The **TSAPI Link Details** screen is displayed.

Verify that the **Status** is "Talking" for the TSAPI link administered in **Section 6.3**, and that the **Associations** column reflects the number of agents from **Section 3** that are currently logged into ICE and therefore monitored, in this case "3".



Welcome: User
Last login: Thu Nov 19 10:35:13 2015 from 192.168.200.20
Number of prior failed login attempts: 0
HostName/IP: aes7/10.64.101.239
Server Offer Type: VIRTUAL_APPLIANCE_ON_VMWARE
SW Version: 7.0.0.0.1.13
Server Date and Time: Thu Nov 19 13:28:02 EST 2015
HA Status: Not Configured

TSAPI Link Details

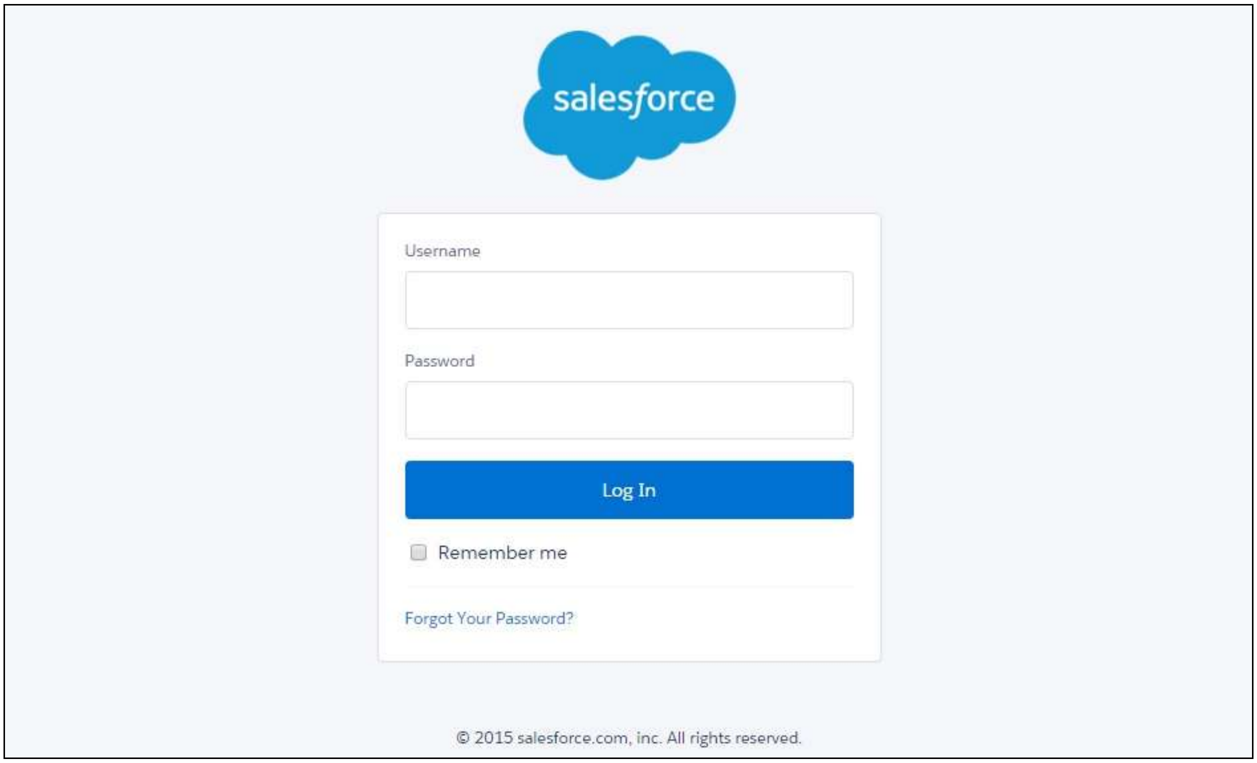
☐ Enable page refresh every 60 ▾ seconds

	Link	Switch Name	Switch CTI Link ID	Status	Since	State	Switch Version	Associations	Msgs to Switch	Msgs from Switch	Msgs Period
●	1	cm7	1	Talking	Wed Nov 18 09:08:44 2015	Online	17	3	2014	2160	30

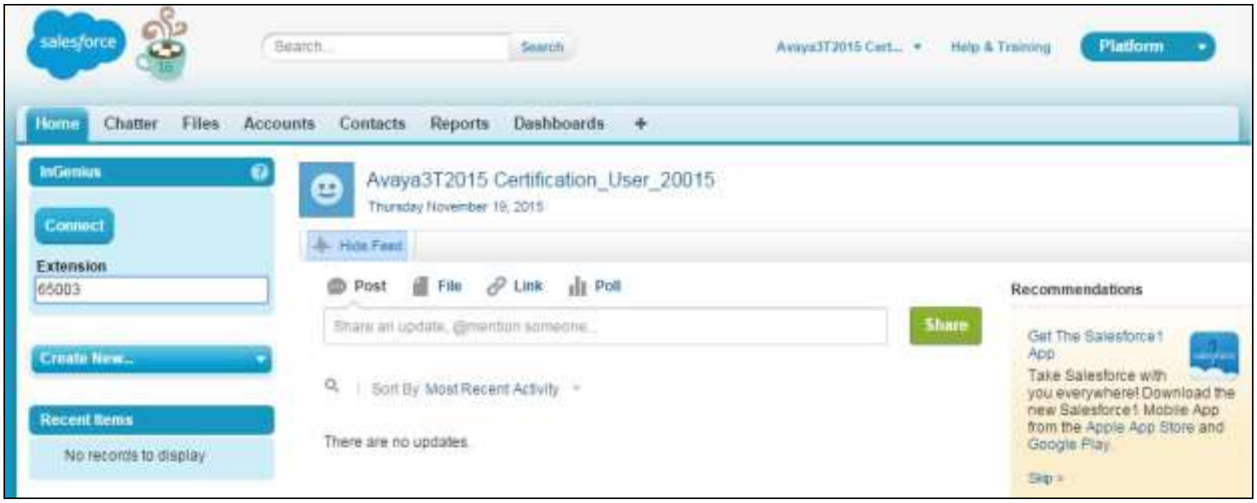
For service-wide information, choose one of the following:

8.3. Verify InGenius Connector Enterprise

From an agent PC, launch an Internet browser window and enter the URL provided by the end customer for Salesforce.com. Log in with the relevant user credentials provided by InGenius.

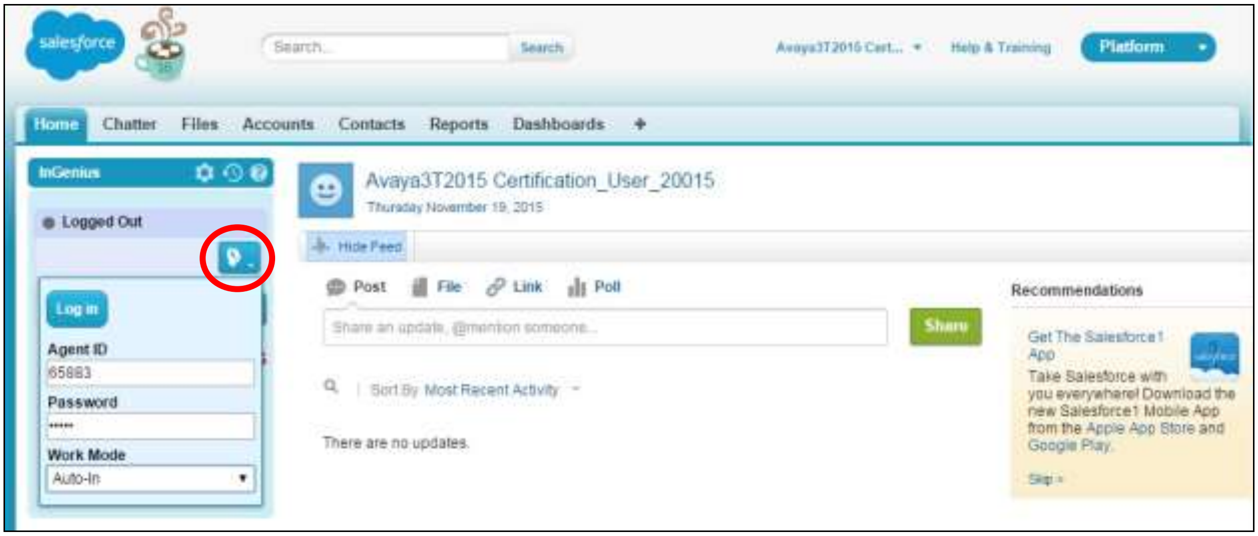


The screen below is displayed next. In the left pane, enter the relevant agent station extension from **Section 3**, and click **Connect**.



Extension
65003

The left pane is updated, as shown below. Click on the **Log in** drop-down, to display additional parameters. For **Agent ID** and **Password**, enter the relevant credentials from **Section 3**. For **Work Mode**, select the desired work mode, in this case "Auto-In". Click **Log in**.

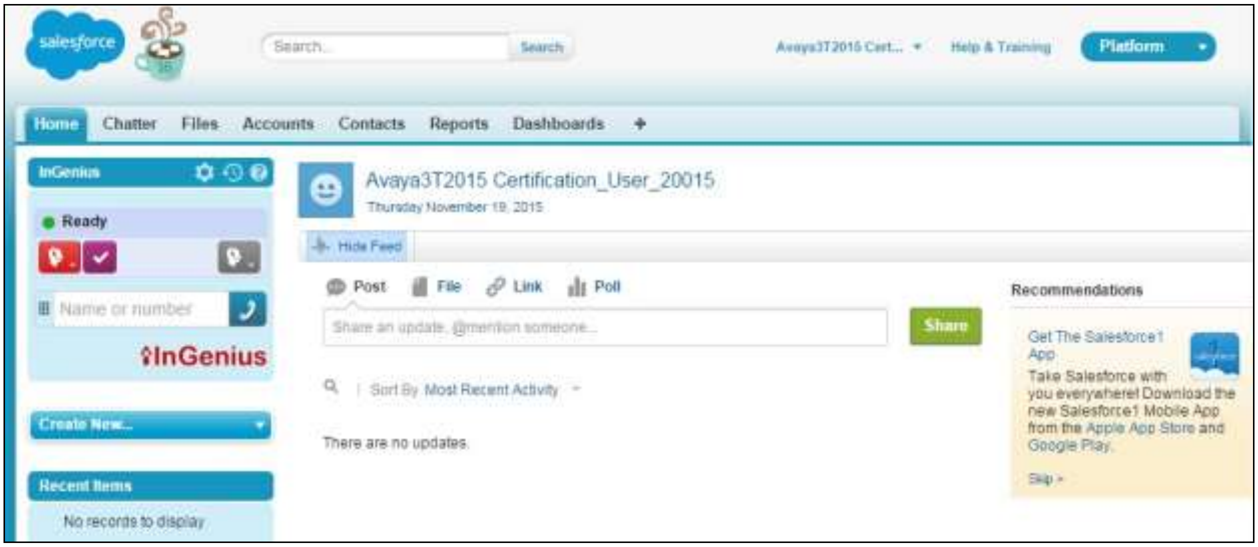

salesforce
Search...
Search
Avaya3T2015 Cert...
Help & Training
Platform
Home
Chatter
Files
Accounts
Contacts
Reports
Dashboards
+
InGenius
Logged Out
Log in
Avaya3T2015 Certification_User_20015
Thursday November 19, 2015
Hide Feed
Post
File
Link
Poll
Share an update, @mention someone...
Share
Sort By Most Recent Activity
There are no updates.
Recommendations
Get The Salesforce1 App
Take Salesforce with you everywhere! Download the new Salesforce1 Mobile App from the Apple App Store and Google Play.
Skip »

Agent ID
65883

Password
*****

Work Mode
Auto-In

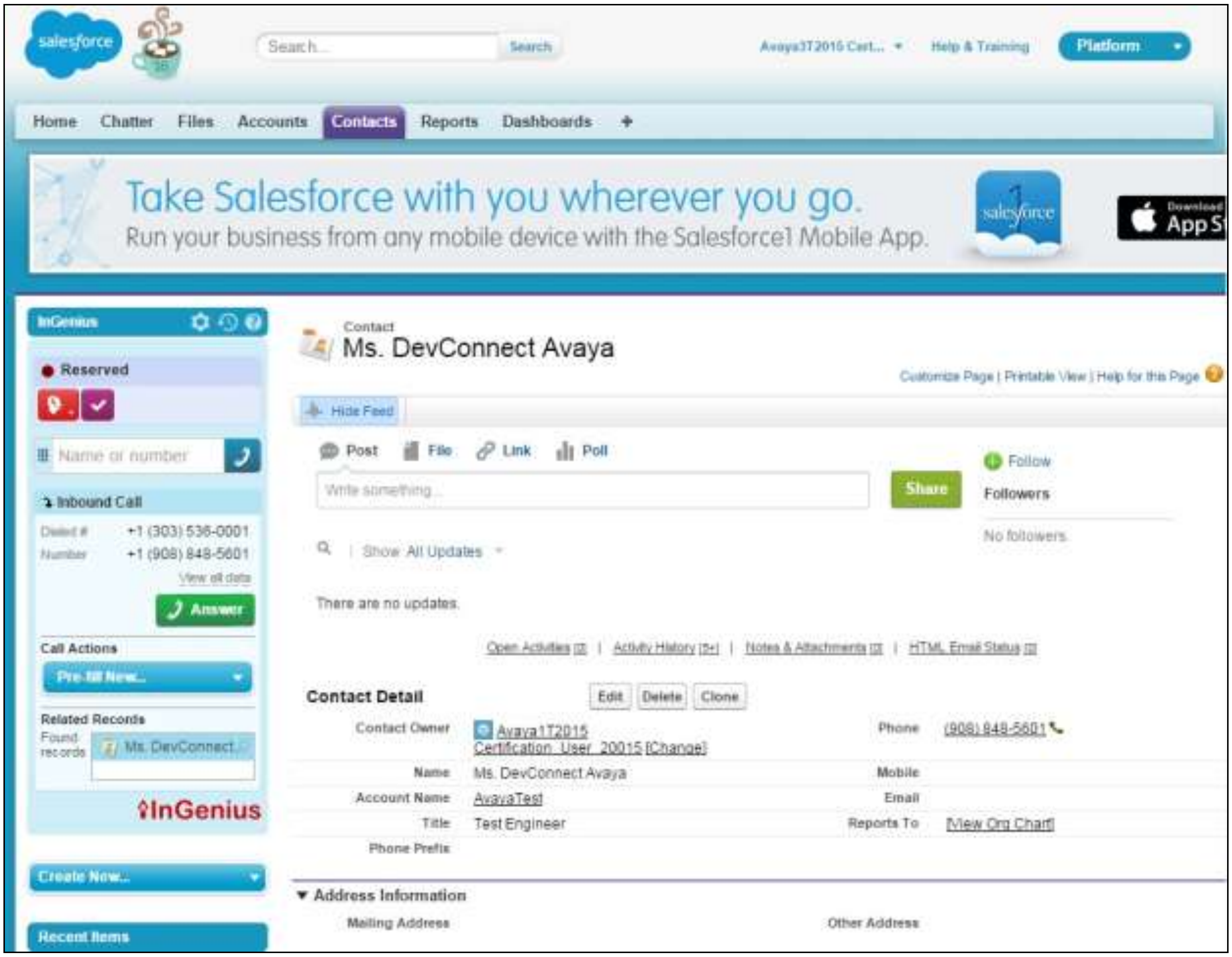
Verify that the left pane is updated, and showing the agent in the **Ready** state.



Make an incoming ACD call. Verify that the left pane of the available agent is updated to reflect **Reserved** and **Inbound Call**, along with proper call information. Also verify that the right pane is populated with the uniquely matching contact record associated with the PSTN caller number, as shown below.

In the event that there is more than one contact record matching to the PSTN caller number, then all records will be presented in the **Related Records** sub-section in the left pane, and the agent will need to manually select the pertinent one to populate in the right pane.

Click **Answer** in the left pane.



Inbound Call
Dialed # +1 (303) 536-0001
Number +1 (908) 848-5601
View all data

Related Records
Found records: Ms. DevConnect...

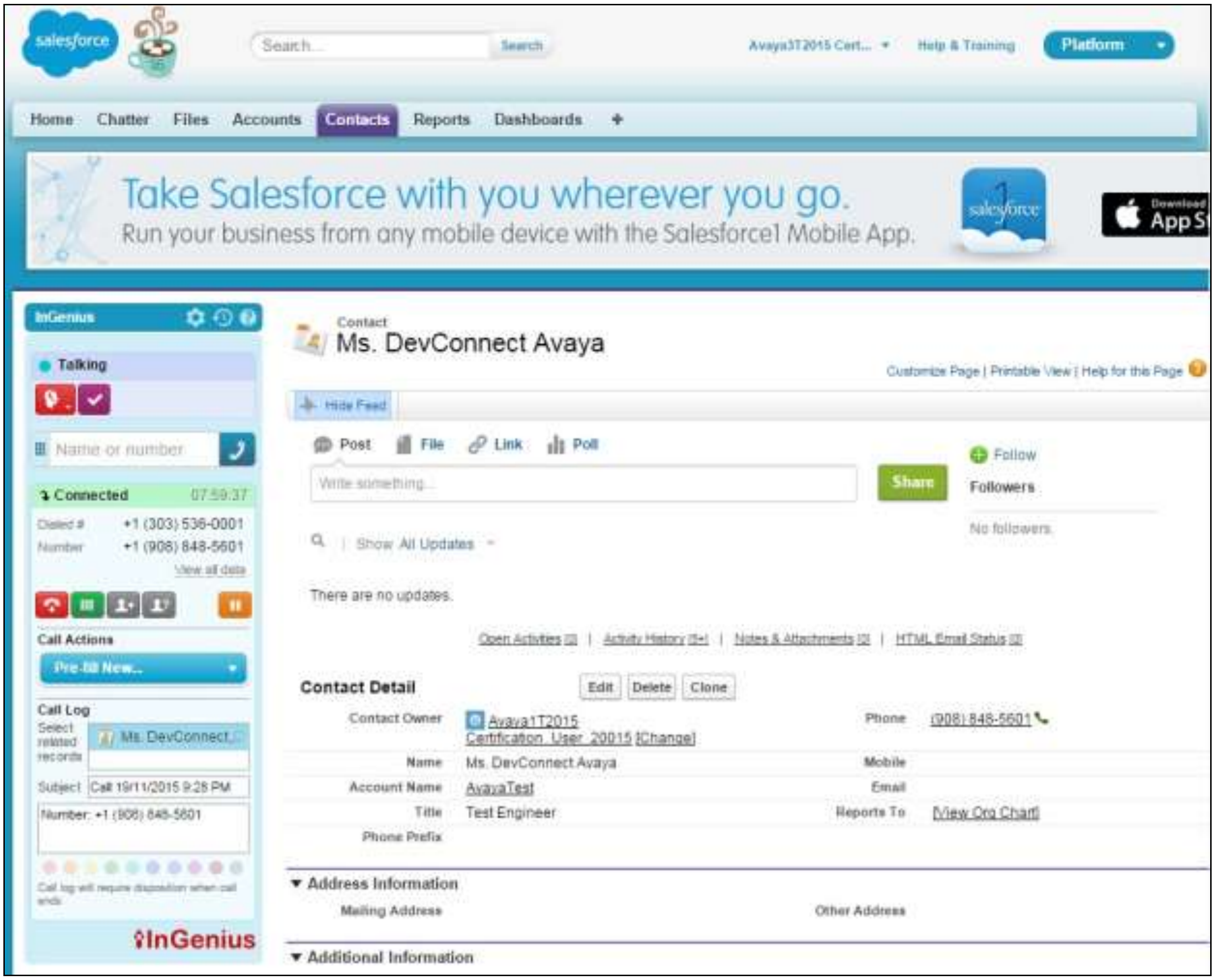
Ms. DevConnect Avaya

There are no updates.

Contact Detail

Contact Owner	Avaya1T2015 Certification_User_20015 [Change]	Phone	(908) 848-5601
Name	Ms. DevConnect Avaya	Mobile	
Account Name	AvayaTest	Email	
Title	Test Engineer	Reports To	[View Org Chart]
Phone Prefix			

Verify that the agent is connected to the PSTN caller with two-way talk paths, and that the left pane is updated to reflect **Talking** and **Connected**, as shown below.



Talking

Connected 07:59:37

Dialed # +1 (303) 536-0001
Number +1 (908) 848-5601

Call Log
Select related records: Ms. DevConnect...
Subject: Call 19/11/2015 9:28 PM
Number: +1 (908) 848-5601

Contact
Ms. DevConnect Avaya

There are no updates.

Contact Detail

Contact Owner	Avaya1T2015 Certification User 20015 [Change]	Phone	(908) 848-5601
Name	Ms. DevConnect Avaya	Mobile	
Account Name	AvayaTest	Email	
Title	Test Engineer	Reports To	[View Org Chart]
Phone Prefix			

▼ Address Information

Mailing Address | Other Address

▼ Additional Information

9. Conclusion

These Application Notes describe the configuration steps required for InGenius Connector Enterprise 4.0 to successfully interoperate with Avaya Aura® Communication Manager 7.0 and Avaya Aura® Application Enablement Services 7.0 using Salesforce.com. All feature and serviceability test cases were completed with observations noted in **Section 2.2**.

10. Additional References

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

1. *Administering Avaya Aura® Communication Manager*, Release 7.0, Issue 1, August 2015, available at http://support.avaya.com.

2. *Administering and Maintaining Aura® Application Enablement Services*, Release 7.0, Issue 1, August 2015, available at http://support.avaya.com.

1. *InGenius Connector Enterprise for Salesforce Server Installation Guide for IT Administrator*, Version 2.23.301, available at http://go.ingenius.com/iceavayasalesforceinstallguide.

2. *InGenius Connector Enterprise for Salesforce and Avaya Aura Communications Manager User Guide*, Version 2.23.301, available at http://go.ingenius.com/iceavayasalesforceuserguide.

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