



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

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# **Application Notes for TASKE Contact with Avaya Aura® Communication Manager using Avaya Aura® Application Enablement Services – Issue 1.0**

### **Abstract**

These Application Notes describe the configuration steps required for TASKE Contact to interoperate with Avaya Aura® Communication Manager using Avaya Aura® Application Enablement Services.

In the compliance testing, TASKE Contact used the Telephony Services Application Programming Interface from Avaya Aura® Application Enablement Services to monitor contact center devices on Avaya Aura® Communication Manager, and used the event reports from the monitored devices to produce real-time and historical reports.

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 TASKE Contact to interoperate with Avaya Aura® Communication Manager using Avaya Aura® Application Enablement Services.

In the compliance testing, TASKE Contact used the Telephony Services Application Programming Interface (TSAPI) from Avaya Aura® Application Enablement Services to monitor contact center devices on Avaya Aura® Communication Manager, and used the event reports from the monitored devices to produce real-time and historical reports.

## 2. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of the TASKE Contact application, the application automatically queried for device status and requested monitoring.

For the manual part of the testing, incoming and outgoing calls were made involving the contact center devices to enable event reports to be sent to TASKE Contact. Manual call controls from the customer and agent telephones were exercised to verify remaining events reports and reported device status by TASKE Contact.

The serviceability test cases were performed manually by disconnecting and reconnecting the LAN cable to the TASKE Contact 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.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in this DevConnect Application Note included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with this Application Note, the interface between Avaya systems and TASKE Contact did not include use of any specific encryption features.

## 2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following on TASKE Contact:

- Handling of TSAPI messages in the areas of event notification and value queries.
- Proper display of monitored device status in the real-time reports.

The serviceability testing focused on verifying the ability of TASKE Contact to recover from adverse conditions, such as disconnecting/reconnecting the Ethernet cable to the TASKE Contact server.

## 2.2. Test Results

All test cases were executed and passed.

## 2.3. Support

Technical support on TASKE Contact can be obtained through the following:

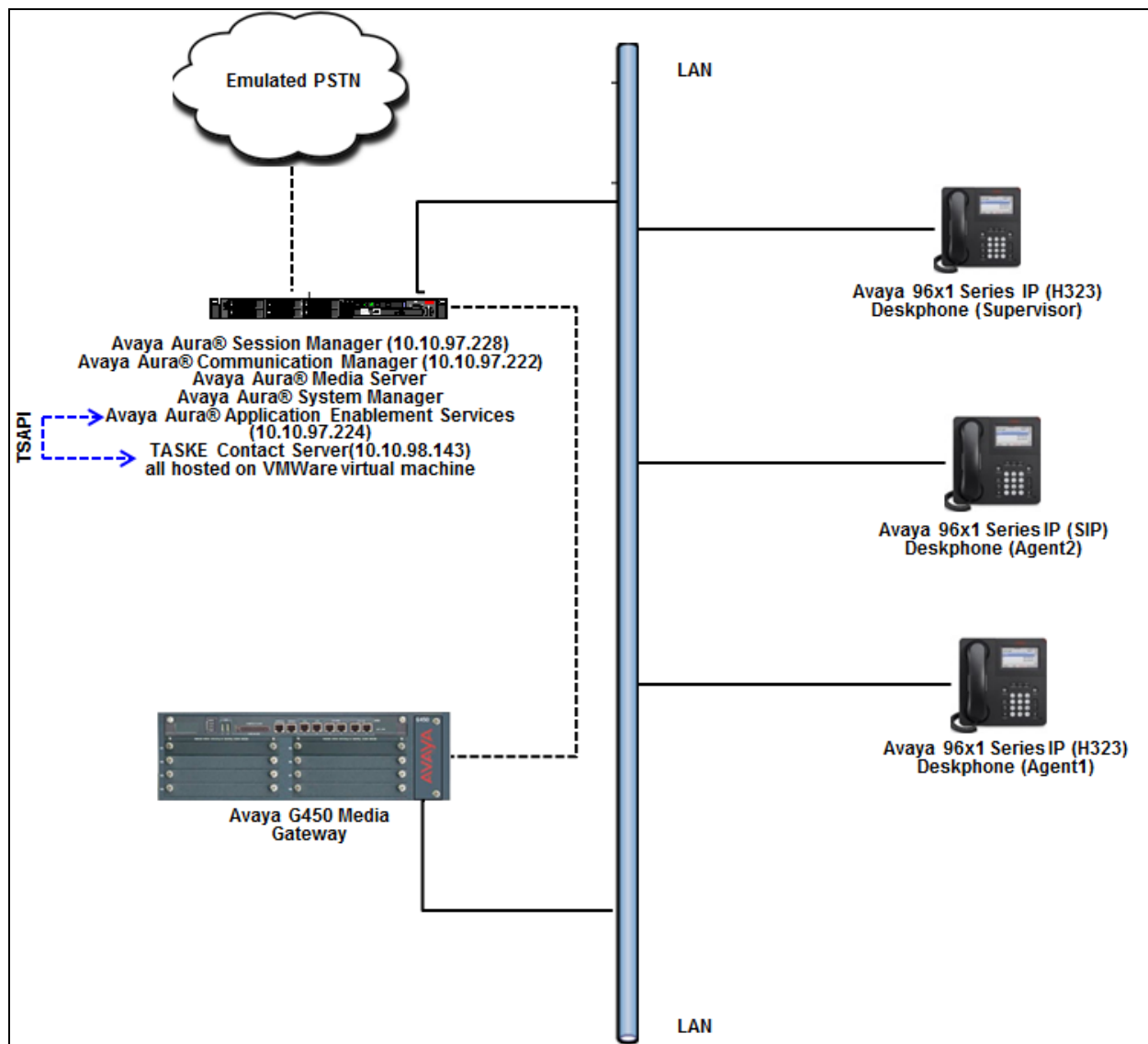
- **Phone:** (877) 778-2753
- **Web:** [http://www.taske.com/forms/form\\_asksupport.html](http://www.taske.com/forms/form_asksupport.html)

### 3. Reference Configuration

The detailed administration of basic connectivity between Avaya Aura® Communication Manager and Avaya Aura® 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, the contact center devices consisted of one VDN, one skill group, one supervisor, and two agents shown in the table below. TASKE Contact requested monitoring on the VDN, skill group, and agent telephone extensions.

Device Type	Extension
VDN	56001
Skill Group	56300
Supervisor Telephone	56103
Agent IDs	1001, 1004
Agent Telephone	56104, 56204



**Figure 1: Avaya Network with TASKE Contact Server**

## 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 running on virtualized environment	7.1.0.0.532
Avaya Aura® Application Enablement Services running on virtualized environment	7.1.0.0.0.17-0
Avaya Aura® Session Manager running on virtualized environment	7.1.0.0.710028
Avaya Aura® System Manager	7.1.0.0.1125193
Avaya Aura® Media Server	7.8.0.312
Avaya G450 Media Gateway	38.18.0 /1
Avaya 96x1 Series IP Telephone <ul style="list-style-type: none"><li>9611G (H.323)</li><li>9641GS (SIP)</li></ul>	6.6401 7.0.1.2.9
TASKE Contact on Windows 2008 R2 Standard Server with Service Pack 1 <ul style="list-style-type: none"><li>Avaya TSAPI Windows Client</li></ul>	2017  tsapi-client-win32-7.1.0-67.zip

## 5. Configure Avaya Aura® Communication Manager

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

- Verify Communication Manager License
- Administer CTI link

### 5.1. Verify Communication Manager License

Log in to the System Access Terminal (SAT) 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	<b>Computer Telephony Adjunct Links?</b>	<b>y</b>
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	Digital Loss Plan Modification?	y
Async. Transfer Mode (ATM) Trunking?	n	DS1 MSP?	y
ATM WAN Spare Processor?	n	DS1 Echo Cancellation?	y
ATMS?	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			
<b>Extension: 56000</b>			
<b>Type: ADJ-IP</b>			
COR: 1			
<b>Name: DevvmAES</b>			

## 6. Configure Avaya Aura® Application Enablement Services

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

- Verify TSAPI license
- Launch OAM interface
- Administer TSAPI link
- Enable security database
- Restart TSAPI service
- Administer security database
- Obtain Tlink name
- Administer TASKE user

### 6.1. Verify TSAPI License

Access the Web License Manager interface by using the URL “https://ip-address/WebLM/index.jsp” in an Internet browser window, where “ip-address” is the IP address of the server hosting the Web License Manager. During compliance testing, the Web License Manager was part of Avaya Aura® System Manager (System Manager).

The Login screen of System Manager is displayed. Log in using the appropriate credentials.

Recommended access to System Manager is via FQDN.

[Go to central login for Single Sign-On](#)

If IP address access is your only option, then note that authentication will fail in the following cases:

- First time login with "admin" account
- Expired/Reset passwords

Use the "Change Password" hyperlink on this page to change the password manually, and then login.

Also note that single sign-on between servers in the same security domain is not supported when accessing via IP address.

User ID:

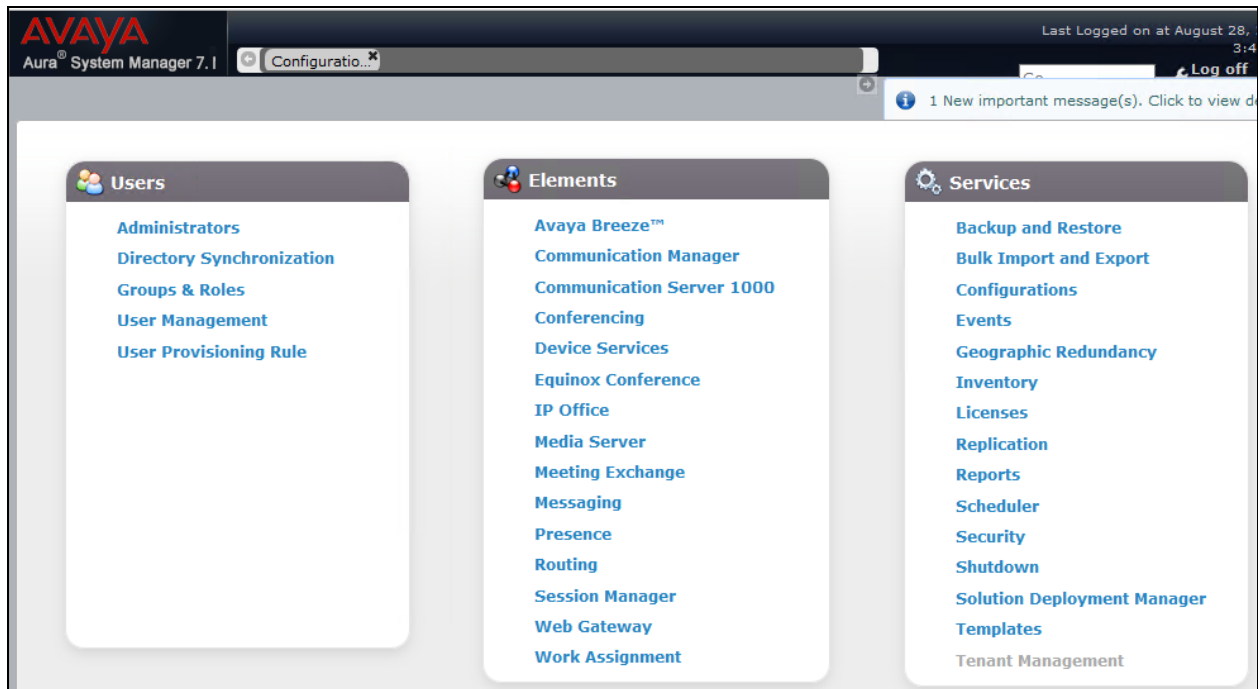
Password:

[Change Password](#)

**Supported Browsers:** Internet Explorer 11.x or Firefox 48.0, 49.0 and 50.0.



From the System Manager dashboard, select the service **Licenses** under the **Services** column.



The **Licenses** screen below is displayed next. Select **Licensed Products** → **APPL\_ENAB** → **Application\_Enablement** in the left pane, to display the **Licensed Features** screen in the right pane.

Verify that there are sufficient licenses for **TSAPI Simultaneous Users**, as shown below.

**Application Enablement (CTI) - Release: 7 - SID: [redacted]**

You are here: Licensed Products > Application\_Enablement > View License Capacity

License installed on: May 19, 2017 8:11:40 PM +00:00

**License File Host IDs:** [redacted]

**Licensed Features**

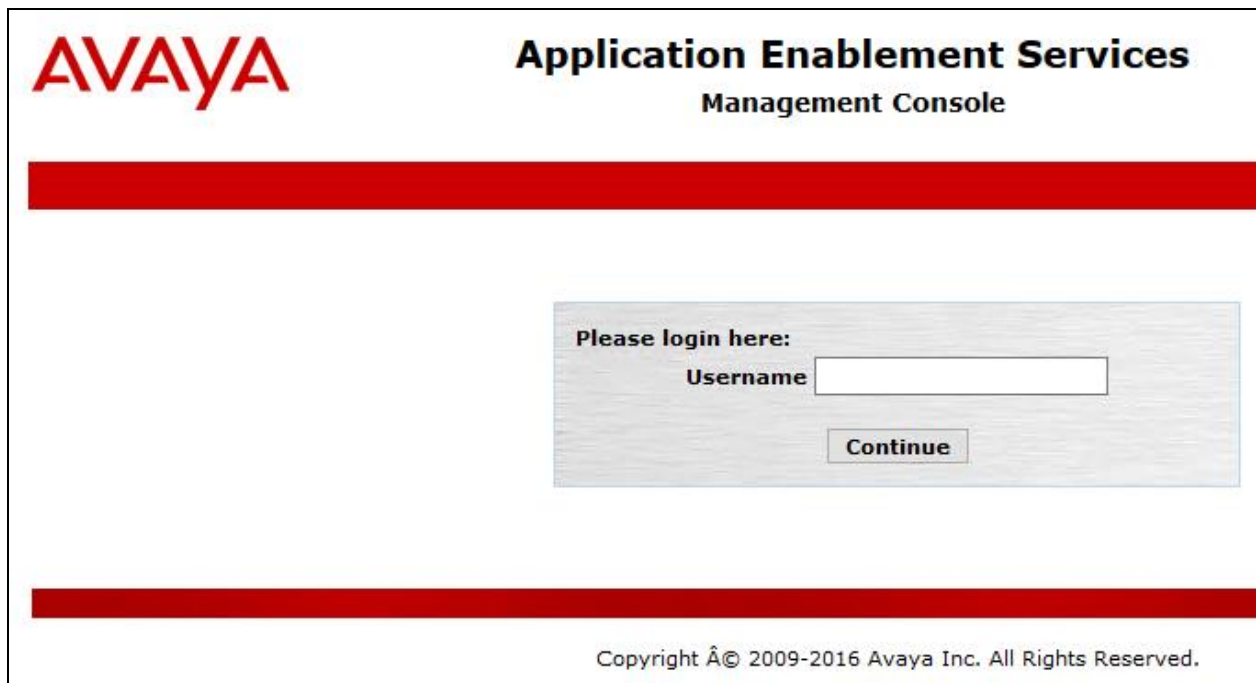
10 Items Show All

Feature (License Keyword)	Expiration date	Licensed capacity
Unified CC API Desktop Edition VALUE_AES_AEC_UNIFIED_CC_DESKTOP	permanent	1000
CVLAN ASAI VALUE_AES_CVLAN_ASAI	permanent	16
Device Media and Call Control VALUE_AES_DMCC_DMC	permanent	1000
AES ADVANCED SMALL SWITCH VALUE_AES_AEC_SMALL_ADVANCED	permanent	3
DLG VALUE_AES_DLG	permanent	16
TSAPI Simultaneous Users VALUE_AES_TSAPI_USERS	permanent	1000

## 6.2. 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.



The screenshot shows the Avaya Application Enablement Services Management Console login interface. At the top left is the Avaya logo in red. To its right, the text "Application Enablement Services" is displayed in bold black, with "Management Console" below it in a smaller font. A thick red horizontal bar spans the width of the page below the header. In the center, there is a light gray rectangular box containing the text "Please login here:" followed by a "Username" label and a text input field. Below the input field is a "Continue" button. Another thick red horizontal bar is located at the bottom of the page, just above the copyright notice. The copyright notice at the very bottom reads: "Copyright © 2009-2016 Avaya Inc. All Rights Reserved."

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

**Application Enablement  
Services**  
**Management Console**

Welcome: User cust  
Last login: Fri Aug 25 15:30:14 2017 from  
Number of prior failed login attempts: 0  
HostName/IP: DevvmAES/  
Server Offer Type:  
VIRTUAL\_APPLIANCE\_ON\_VMWARE  
SW Version: 7.1.0.0.17-0  
Server Date and Time: Mon Aug 28 15:20:06  
EDT 2017  
HA Status: Not Configured

Home | Help | Logout

- ▶ AE Services
- ▶ Communication Manager Interface
- ▶ High Availability
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▶ Security
- ▶ Status
- ▶ User Management
- ▶ Utilities
- ▶ Help

### 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 informations.
- 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.

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### 6.3. Administer TSAPI Link

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

The screenshot displays the Avaya Application Enablement Services Management Console. At the top left is the Avaya logo and the text "Application Enablement Services Management Console". At the top right, a welcome message for user "cust" is shown, including login details and system status. A red navigation bar contains "AE Services | TSAPI | TSAPI Links" and "Home | Help | Logout". On the left, a sidebar lists "AE Services" with sub-items: CVLAN, DLG, DMCC, SMS, TSAPI (expanded), TSAPI Links (selected), TSAPI Properties, and TWS. The main area is titled "TSAPI Links" and contains a table with headers: Link, Switch Connection, Switch CTI Link #, ASAI Link Version, and Security. Below the table are buttons for "Add Link", "Edit Link", and "Delete Link".

Welcome: User cust  
Last login: Fri Aug 25 15:30:14 2017 from [REDACTED]  
Number of prior failed login attempts: 0  
HostName/IP: DevvmAES/[REDACTED]  
Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE  
SW Version: 7.1.0.0.17-0  
Server Date and Time: Mon Aug 28 15:23:24 EDT 2017  
HA Status: Not Configured

**AE Services | TSAPI | TSAPI Links** **Home | Help | Logout**

**▼ AE Services**

- ▶ CVLAN
- ▶ DLG
- ▶ DMCC
- ▶ SMS
- ▼ TSAPI**
  - **TSAPI Links**
  - TSAPI Properties
- ▶ TWS

**TSAPI Links**

Link	Switch Connection	Switch CTI Link #	ASAI Link Version	Security
------	-------------------	-------------------	-------------------	----------

**Add Link** **Edit Link** **Delete Link**

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 “devvmcm” is selected. For **Switch CTI Link Number**, select the CTI link number from **Section 5.2**. Retain the default values in the remaining fields.

The screenshot displays the Avaya Application Enablement Services Management Console. At the top right, a welcome message for user 'cust' is shown, including login details and system status. A red navigation bar contains links for 'AE Services', 'TSAPI', 'TSAPI Links', 'Home', 'Help', and 'Logout'. On the left, a sidebar menu lists 'AE Services' (with sub-items CVLAN, DLG, DMCC, SMS) and 'TSAPI' (with sub-items 'TSAPI Links' and 'TSAPI Properties'). The main content area is titled 'Add TSAPI Links' and contains the following configuration fields:

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

At the bottom of the form are two buttons: 'Apply Changes' and 'Cancel Changes'.

## 6.4. Enable Security Database

Enable the security database for use by TASKE Contact. 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. Check **Enable SDB TSAPI Service, JTAPI and Telephony Service**.

The screenshot displays the Avaya Application Enablement Services Management Console. The top right corner shows a welcome message for user 'cust' and system information including the last login time (Fri Aug 25 15:30:14 2017), number of failed login attempts (0), host name/IP (DevvmAES/...), server offer type (VIRTUAL\_APPLIANCE\_ON\_VMWARE), SW version (7.1.0.0.17-0), server date and time (Mon Aug 28 15:34:35 EDT 2017), and HA status (Not Configured).

The main interface features a red navigation bar with the following links: **Security | Security Database | Control** (active), **Home | Help | Logout**.

On the left is a sidebar menu with the following items:

- ▶ AE Services
- ▶ Communication Manager Interface
- High Availability
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▼ Security
  - ▶ Account Management
  - ▶ Audit
  - ▶ Certificate Management
  - Enterprise Directory
  - ▶ Host AA
  - ▶ PAM
  - ▼ Security Database
    - **Control**


The right pane displays the **SDB Control for DMCC, TSAPI, JTAPI and Telephony Web Services** configuration page. It contains two checkboxes:

- ☐ Enable SDB for DMCC Service
- ☒ Enable SDB for TSAPI Service, JTAPI and Telephony Web Services

Below the checkboxes is an **Apply Changes** button.

## 6.5. Restart TSAPI Service

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**.

**Application  
Enablement  
Services**  
**Management Console**

Welcome: User cust  
Last login: Mon Aug 28 15:18:55 2017  
from [REDACTED]  
Number of prior failed login attempts: 0  
HostName/IP: DevvmAES/[REDACTED]  
Server Offer Type:  
VIRTUAL\_APPLIANCE\_ON\_VMWARE  
SW Version: 7.1.0.0.17-0  
Server Date and Time: Mon Aug 28  
15:56:57 EDT 2017  
HA Status: Not Configured

**Maintenance | Service Controller****Home | Help | Logout**

▶ AE Services

▶ Communication Manager  
Interface

High Availability

▶ Licensing

▼ Maintenance

Date Time/NTP Server

▶ Security Database

**Service Controller**

▶ Server Data

▶ Networking

▶ Security

▶ Status

**Service Controller**

Service	Controller Status
<input type="checkbox"/> ASAI Link Manager	Running
<input type="checkbox"/> DMCC Service	Running
<input type="checkbox"/> CVLAN Service	Running
<input type="checkbox"/> DLG Service	Running
<input type="checkbox"/> Transport Layer Service	Running
<input checked="" type="checkbox"/> TSAPI Service	Running

For status on actual services, please use [Status and Control](#)

Start

Stop

Restart Service

Restart AE Server

Restart Linux

Restart Web Server



## 6.6. Administer Security Database

All devices that are monitored by TASKE Contact need to be configured in the security database. Select **Security → Security Database → Devices**, and add a device for each VDN, skill group, and agent telephone extensions from **Section 3**.

In the subsequent **Add / Edit Device** screen (not shown), select the appropriate **Device Type**, and select “Any” for **Tlink Group**.

A listing of the configured devices used for the compliance testing is shown below. Note the **Tlink Group** and **Device Type** settings.

**AVAYA** **Application Enablement Services**  
Management Console

Welcome: User cust  
Last login: Mon Aug 28 15:18:55 2017 from [REDACTED]  
Number of prior failed login attempts: 0  
HostName/IP: DevvmAES/[REDACTED]  
Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE  
SW Version: 7.1.0.0.17-0  
Server Date and Time: Mon Aug 28 16:06:33 EDT 2017  
HA Status: Not Configured

Security | Security Database | Devices

Home | Help | Logout

▶ AE Services

▶ Communication Manager Interface

▶ High Availability

▶ Licensing

▶ Maintenance

▶ Networking

▼ Security

▶ Account Management

▶ Audit

▶ Certificate Management

Enterprise Directory

▶ Host AA

▶ PAM

▼ Security Database

▪ Control

⊕ CTI Users

▪ **Devices**

Devices

Upload devices from file  No file selected.

<input type="checkbox"/>	Device ID	Tlink Group	Device Type	Location
<input type="checkbox"/>	56001	Any	VDN	
<input type="checkbox"/>	56104	Any	PHONE	
<input type="checkbox"/>	56204	Any	PHONE	
<input type="checkbox"/>	56300	Any	ACD	

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## 6.7. Obtain Tlink Name

Select **Security** → **Security Database** → **Tlinks** from the left pane. The **Tlinks** screen shows a listing of the Tlink names. A new Tlink name is automatically generated for the TSAPI service. Locate the Tlink name associated with the relevant switch connection, which would use the name of the switch connection as part of the Tlink name. Make a note of the associated Tlink name, to be used later for configuring TASKE.

In this case, the associated Tlink name is “**AVAYA#DEVVMCM#CSTA#DEVVMAES**”. Note the use of the switch connection “devvmcm” from **Section 6.3** as part of the Tlink name.

The screenshot displays the Avaya Enablement Services Management Console. At the top, the Avaya logo is on the left, and the title "Application Enablement Services Management Console" is on the right. A welcome message and system information are shown in the top right corner. Below the header, a red navigation bar contains "Security | Security Database | Tlinks" and "Home | Help | Logout". The left sidebar shows a tree view with "Security" expanded, and "Security Database" selected, with "Tlinks" highlighted. The main content area, titled "Tlinks", shows a single Tlink named "AVAYA#DEVVMCM#CSTA#DEVVMAES" with a radio button selected next to it. A "Delete Tlink" button is located below the Tlink name.

Welcome: User cust  
Last login: Mon Aug 28 15:18:55 2017 from 10.10.10.10  
Number of prior failed login attempts: 0  
HostName/IP: 10.10.10.10  
DevvmAES/10.10.10.10  
Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE  
SW Version: 7.1.0.0.0.17-0  
Server Date and Time: Mon Aug 28 16:12:03 EDT 2017  
HA Status: Not Configured

**Security | Security Database | Tlinks** **Home | Help | Logout**

▶ AE Services  
▶ Communication Manager Interface  
▶ High Availability  
▶ Licensing  
▶ Maintenance  
▶ Networking  
▼ **Security**  
▶ Account Management  
▶ Audit  
▶ Certificate Management  
Enterprise Directory  
▶ Host AA  
▶ PAM  
▼ **Security Database**  
▪ Control  
⊕ CTI Users  
▪ Devices  
▪ Device Groups  
▪ **Tlinks**

**Tlinks**

Tlink Name  
☒ AVAYA#DEVVMCM#CSTA#DEVVMAES

## 6.8. Administer TASKE 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 values in the remaining fields.

The screenshot displays the Avaya Application Enablement Services Management Console. The top header includes the Avaya logo and the text 'Application Enablement Services Management Console'. On the right, a welcome message for 'User cust' is shown, along with login details: 'Last login: Mon Aug 28 15:53:03 2017 from [redacted]', 'Number of prior failed login attempts: 0', 'HostName/IP: DevvmAES/[redacted]', 'Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE', 'SW Version: 7.1.0.0.17-0', 'Server Date and Time: Tue Aug 29 09:57:41 EDT 2017', and 'HA Status: Not Configured'.

A red navigation bar contains the breadcrumb 'User Management | User Admin | Add User' and links for 'Home | Help | Logout'.

The left sidebar lists various system components: AE Services, Communication Manager Interface, High Availability, Licensing, Maintenance, Networking, Security, Status, User Management (expanded), Service Admin, User Admin (expanded), and Utilities. Under 'User Admin', the 'Add User' option is selected.

The main content area is titled 'Add User' and includes a note: 'Fields marked with \* can not be empty.' The form contains the following fields:

- \* User Id: Taske
- \* Common Name: Taske
- \* Surname: Taske
- \* User Password: [masked with dots]
- \* Confirm Password: [masked with dots]
- Admin Note: [empty text box]
- Avaya Role: None (dropdown menu)
- Business Category: [empty text box]
- Car License: [empty text box]
- CM Home: [empty text box]
- Css Home: [empty text box]
- CT User: Yes (dropdown menu)
- Department Number: [empty text box]

Select **Security** → **Security Database** → **CTI Users** → **List All Users** from the left pane, and select the newly created TASKE user from the listing (not shown).

The **Edit CTI User** screen is displayed next. Set the permissions as shown below.

The screenshot displays the Avaya Application Enablement Services Management Console. The top right corner shows system information: Welcome: User cust, Last login: Mon Aug 28 15:53:03 2017 from [redacted], Number of prior failed login attempts: 0, HostName/IP: DevvmAES/[redacted], Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE, SW Version: 7.1.0.0.17-0, Server Date and Time: Tue Aug 29 10:00:09 EDT 2017, HA Status: Not Configured.

The navigation bar includes links for Security, Security Database, CTI Users, List All Users, Home, Help, and Logout. The left sidebar shows a tree view with categories like AE Services, Communication Manager Interface, High Availability, Licensing, Maintenance, Networking, Security, and Security Database. Under Security Database, the 'CTI Users' section is expanded, showing 'Control' and 'List All Users'.

The main content area is titled 'Edit CTI User' and contains the following configuration fields:

User Profile:	User ID	Tasker
	Common Name	Tasker
	Worktop Name	NONE
	Unrestricted Access	<input type="checkbox"/>

---

Call and Device Control:	Call Origination/Termination and Device Status	Any

---

Call and Device Monitoring:	Device Monitoring	Any
	Calls On A Device Monitoring	Any
	Call Monitoring	<input checked="" type="checkbox"/>

---

Routing Control:	Allow Routing on Listed Devices	Any

At the bottom of the form are two buttons: 'Apply Changes' and 'Cancel Changes'.

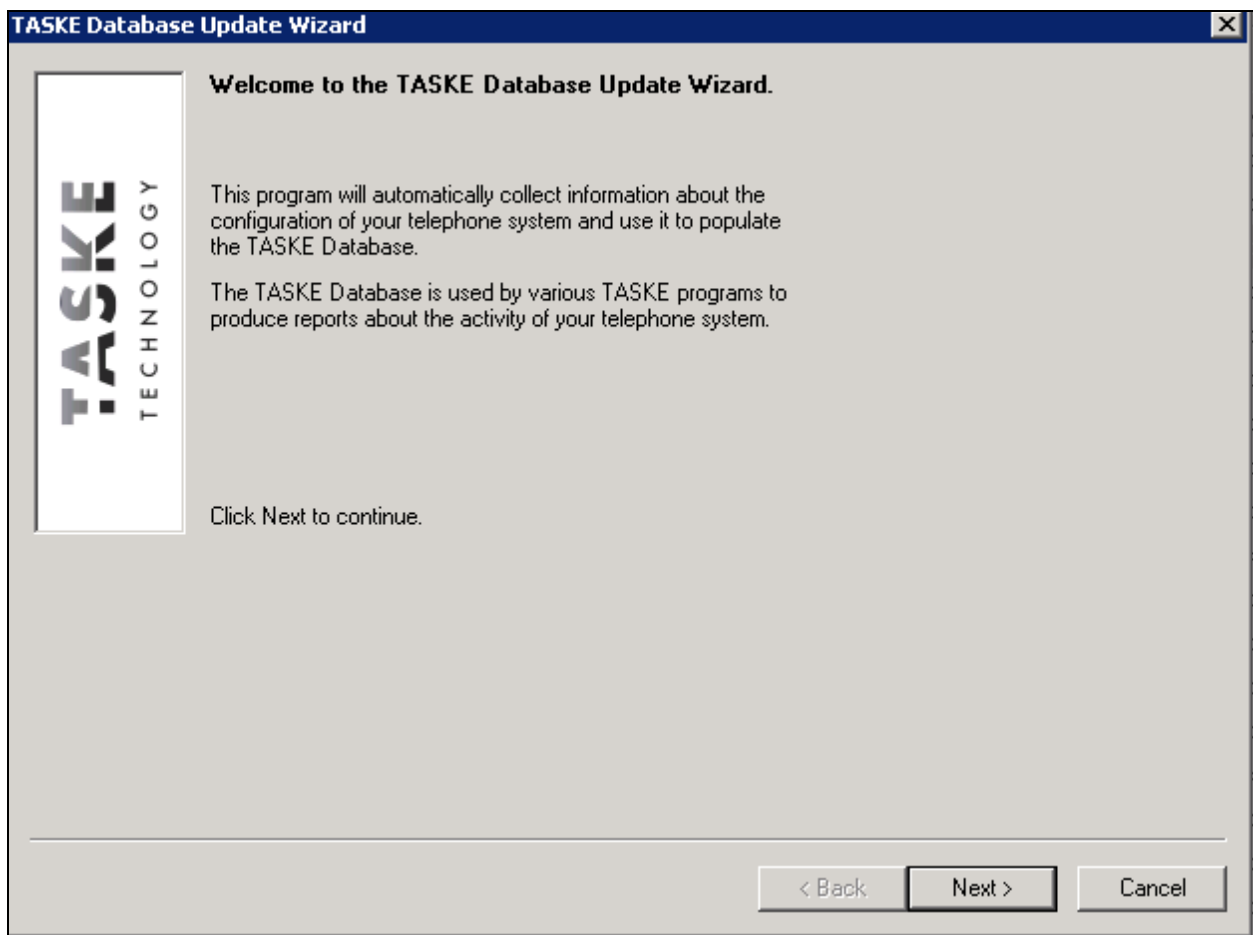
## 7. Configure TASKE Contact

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

- Administer TASKE Database Update Wizard
- Administer TASKE Collector
- Administer extensions
- Administer agents
- Administer agent groups
- Administer queues
- Administer supervisors
- Restart components

### 7.1. Administer TASKE Database Update Wizard

At the conclusion of the TASKE Contact installation, the TASKE Database Update Wizard is invoked automatically and displays the **Welcome to the TASKE Database Update Wizard** screen shown below.



Navigate forward to the **Import Communication Manager Information** screen. If Avaya Site Administration is used to obtain the configured contact center devices from Communication Manager, then the path to where the data files reside can be entered in **Folder**.

In the compliance testing, the manual method was used to configure the contact center devices on TASKE, therefore all default values were retained on the TASKE Database Update Wizard.

The screenshot shows a Windows-style dialog box titled "TASKE Database Update Wizard". On the left is a vertical logo for "TASKE TECHNOLOGY". The main area is titled "Import Communication Manager Information." and contains the instruction: "Select the folder which contains the data files exported from the Avaya Site Administration utility." Below this is a "Folder:" label followed by a text input field and a "Browse" button. Further down is the instruction "Click Import to collect updated information." followed by an "Import" button. At the bottom right are three buttons: "< Back", "Next >", and "Cancel".

## 7.2. Administer TASKE Collector

After completing the TASKE Database Update Wizard, the **TASKE Collector** screen is displayed. For **Tlink name**, select the Tlink name from **Section 6.7**.

For **User name** and **Password**, enter the TASKE user credentials from **Section 6.8**. Check **Remember password** if desired.

The screenshot shows the 'TASKE Information Server' window with the 'CTI' tab selected. The window contains the following text and controls:

The TASKE Collector connects to the Avaya Aura Application Enablement Services TSAPI Service to monitor telephone system activity. The connection is made through a Tlink, which represents a specific service.

Primary Tlink:

Secondary Tlink:

The Application Enablement Services can be configured to use a Security Database to control access. This connection requires a CTI User which must exist in the Security Database and must have permission to monitor all devices.

Connect to the Application Enablement Services as:

User name:  Password:

☒ Remember password

OK

The **TASKE Console** screen is displayed next. Select **Tools** → **Administrator** from the top menu.

The screenshot shows the 'TASKE Console' window with a menu bar (File, Action, View, Tools, Help) and a toolbar. Below the toolbar is a table listing various components and their status.

Component	Status	Startup	Category
TASKE Collector	Started	Automatic	TASKE Contact
TASKE Information Server	Started	Automatic	TASKE Contact
TASKE Upgrade Server	Started	Automatic	TASKE Contact
TASKE Add-On Server	Started	Automatic	TASKE Add-On
TASKE Integration Server	Started	Manual	TASKE Add-On
TASKE Widget Server	Started	Automatic	TASKE Web
TASKE Web Server	Started	Automatic	TASKE Web
World Wide Web Publishing	Started	Automatic	Microsoft IIS

### 7.3. Administer Extensions

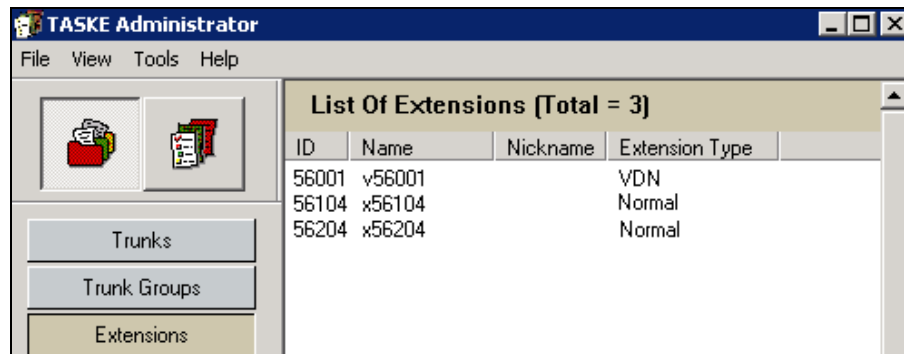
The **TASKE Administrator** screen is displayed. Select **Extensions** from the left pane, followed by **New** in the right pane to create an extension record.

In the lower right pane, enter the first agent telephone extension from **Section 3** in the **ID** field. Enter a desired **Name**. For **Extension Type**, select “Normal” for agent telephone extensions and “VDN” for VDN extensions.

The screenshot shows the TASKE Administrator application window. The title bar reads "TASKE Administrator". The menu bar includes "File", "View", "Tools", and "Help". On the left is a vertical navigation pane with buttons for "Trunks", "Trunk Groups", "Extensions" (highlighted), "Extension Groups", "Agents", "Agent Groups", "Queues", "Queue Groups", "DNIS", "DNIS Groups", "Spectrums", "Report Options", "Range", and "Users". The main area is titled "List Of Extensions [Total = 0]" and contains a table with columns "ID", "Name", "Nickname", and "Extension Type". Below this is the "Extension Record Details:" section, which includes buttons for "New", "Duplicate", "Update", and "Delete". The form fields are: "ID" (56104), "Name" (x56104), "Nickname" (empty), and "Is a Member Of:" (empty). Below these are fields for "ID", "Name", "Nickname", and "Extension Type" (set to "Normal" in a dropdown menu). A "Go To" button is at the bottom left of the details section.



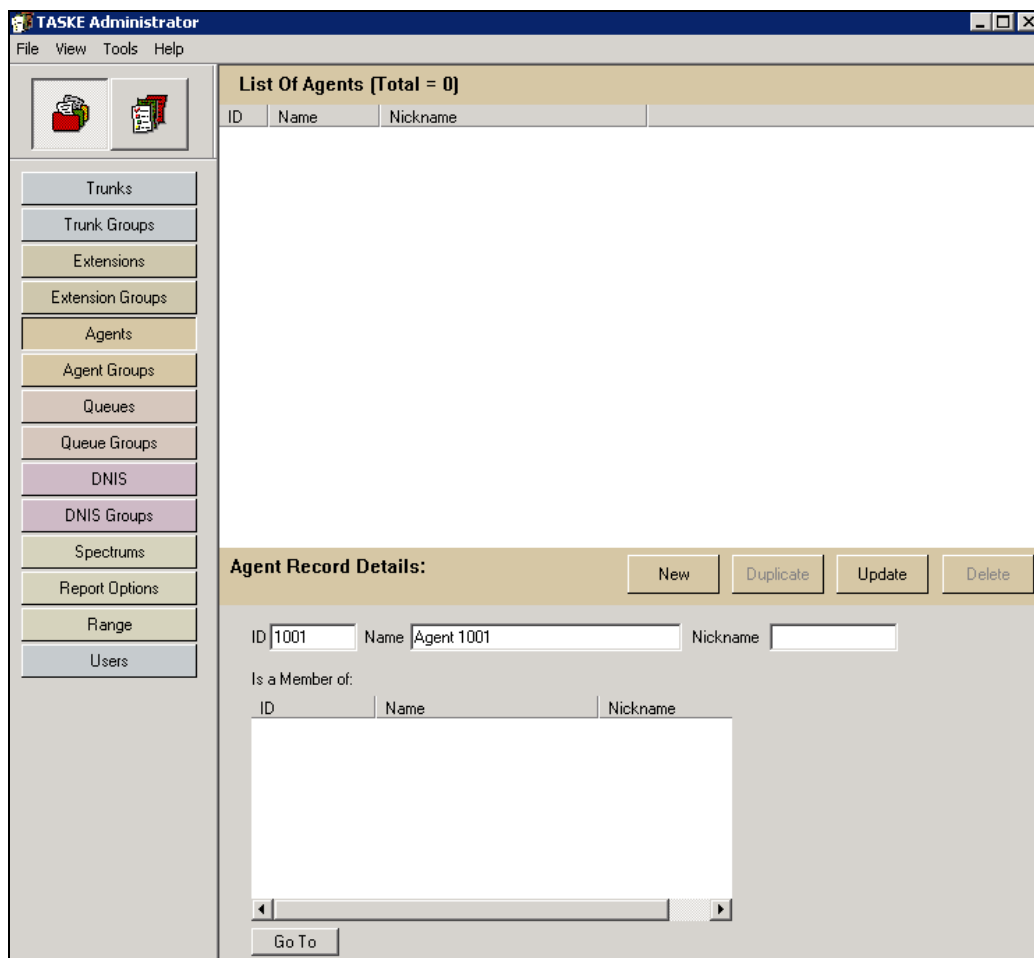
Repeat this procedure for all agent telephone and VDN extensions from **Section 3**. In the compliance testing, three extension records were created as shown below.



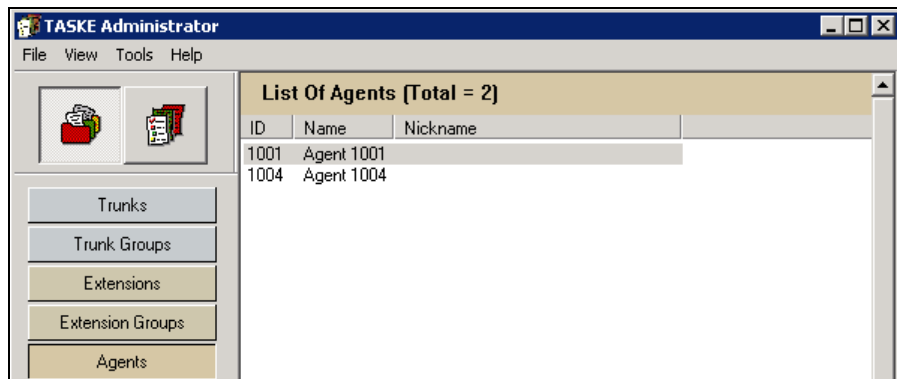
## 7.4. Administer Agents

Select **Agents** from the left pane, followed by **New** in the right pane to create an agent record.

In the lower right pane, enter the first agent ID from **Section 3** in the **ID** field. Enter a desired **Name**.



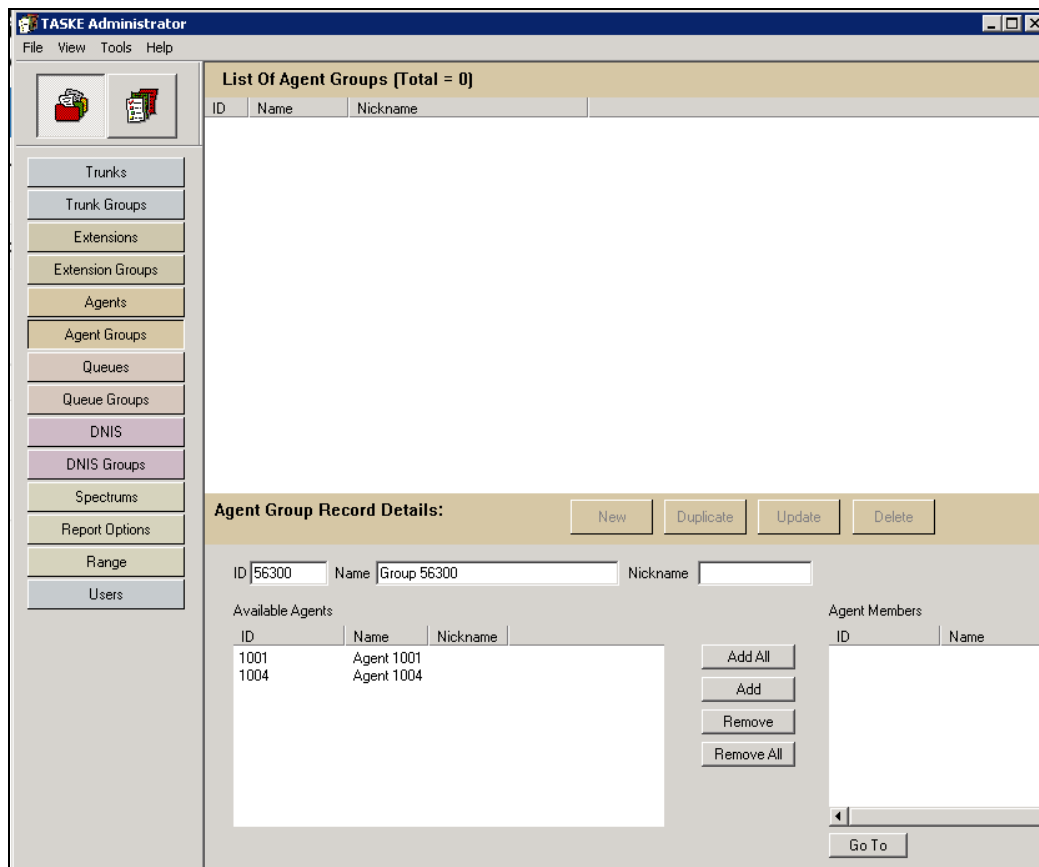
Repeat this procedure for all agent IDs from **Section 3**. In the compliance testing, two agent records were created as shown below.



## 7.5. Administer Agent Groups

Select **Agent Groups** from the left pane, followed by **New** in the right pane to create an agent group record.

In the lower right pane, enter the first skill group extension from **Section 3** in the **ID** field. Enter a desired **Name**. Under **Available Agents**, select all agents and click the **Add All** button to move under **Agent Members**.



Repeat this procedure for all skill groups from **Section 3**. In the compliance testing, one agent group record was created.

The screenshot shows the TASKE Administrator application window. The title bar reads 'TASKE Administrator'. The menu bar includes 'File', 'View', 'Tools', and 'Help'. On the left is a vertical navigation pane with buttons for 'Trunks', 'Trunk Groups', 'Extensions', 'Extension Groups', 'Agents', 'Agent Groups' (highlighted), 'Queues', 'Queue Groups', 'DNIS', 'DNIS Groups', 'Spectrums', 'Report Options', 'Range', and 'Users'. The main area is divided into two sections. The top section, titled 'List Of Agent Groups [Total = 1]', contains a table with one row: ID 56300, Name Group 56300, and an empty Nickname field. The bottom section, titled 'Agent Group Record Details:', contains buttons for 'New', 'Duplicate', 'Update', and 'Delete'. Below these are input fields for ID (56300), Name (Group 56300), and Nickname. The section is further divided into 'Available Agents' and 'Agent Members'. The 'Available Agents' table is empty. The 'Agent Members' table contains two rows: ID 1001, Name Agent 1001, and ID 1004, Name Agent 1004. Between the two tables are buttons for 'Add All', 'Add', 'Remove', and 'Remove All'. A 'Go To' button is at the bottom right of the 'Agent Members' table.

ID	Name	Nickname
56300	Group 56300	

ID	Name	Nickname
----	------	----------

ID	Name
1001	Agent 1001
1004	Agent 1004

## 7.6. Administer Queues

Select **Queues** from the left pane, followed by **New** in the right pane to create a queue record.

In the lower right pane, enter the first skill group extension from **Section 3** in the **ID** field. Enter a desired **Name**. For **Agent Group**, select the appropriate agent group ID from **Section 7.5**.

The screenshot shows the TASKE Administrator application window. On the left is a navigation pane with buttons for Trunks, Trunk Groups, Extensions, Extension Groups, Agents, Agent Groups, Queues (highlighted), Queue Groups, DNIS, DNIS Groups, Spectrums, Report Options, Range, and Users. The main area is titled 'List Of Queues (Total = 0)' and contains a table with columns ID, Name, and Nickname. Below this is the 'Queue Record Details' section, which includes buttons for New, Duplicate, Update, and Delete. The form fields are: ID (56300), Name (Hunt Group 56300), Nickname (empty), and TSF Time (30). There is a section 'Is a Member Of:' with a table for ID, Name, and Nickname. To the right of this table is a checkbox for 'Interflow Diverted Calls' (checked) and a dropdown for 'Agent Group' (56300). A 'Go To' button is at the bottom left of the details section.

ID	Name	Nickname
----	------	----------

**Queue Record Details:** [New] [Duplicate] [Update] [Delete]

ID: 56300 Name: Hunt Group 56300 Nickname: TSF Time: 30

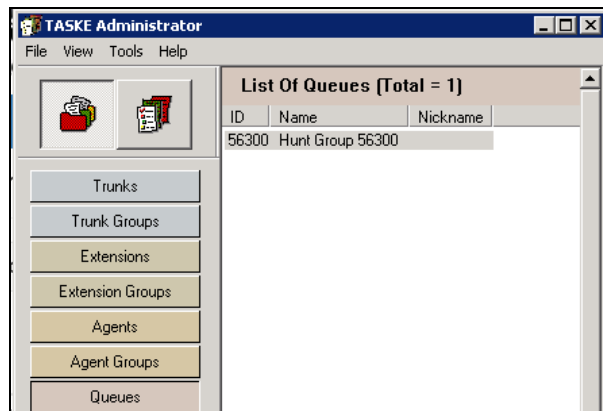
Is a Member Of:

ID	Name	Nickname
----	------	----------

☒ Interflow Diverted Calls  
Agent Group: 56300

[Go To]

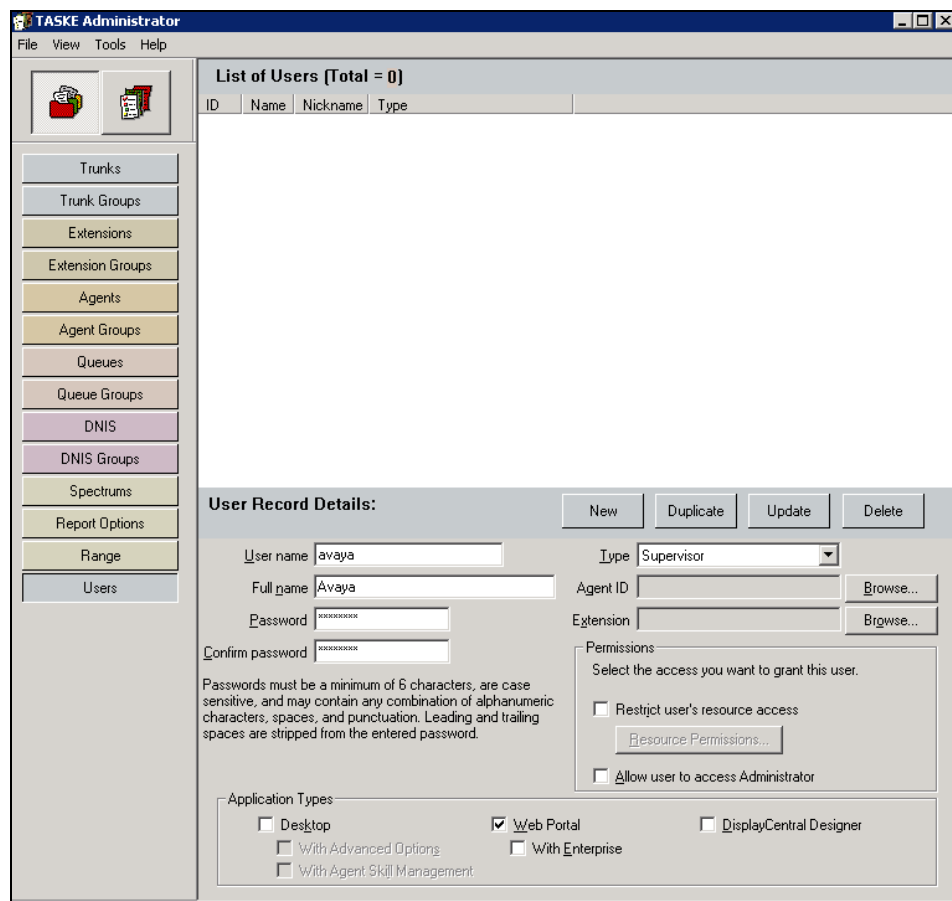
Repeat this procedure for all skill groups from **Section 3**. In the compliance testing, one queue record was created.



## 7.7. Administer Supervisors

Select **Users** from the left pane, followed by **New** in the right pane to create a user record.

In the lower right pane, enter the desired **User name**, **Full name**, **Password**, and **Confirm password**. For **Type**, select “Supervisor” from the drop-down list.



Repeat this procedure for all supervisors from **Section 3**. In the compliance testing, one user record was created.

ID	Name	Nickname	Type
avaya	Avaya		Supervisor

**User Record Details:**

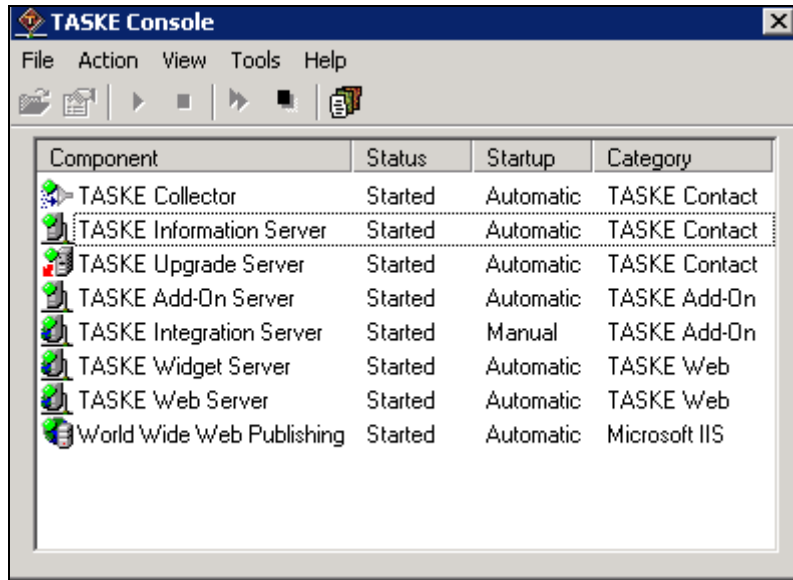
User name

Full name

Select **File → Exit** from the top menu to close the **TASKE Administrator** screen.

## 7.8. Restart Components

The **TASKE Console** screen is displayed next. Restart all components by selecting **Action → Stop All TASKE Servers** from the top menu, followed by **Action → Start All TASKE Servers**.



## 8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Avaya Aura® Communication Manager, Avaya Aura® Application Enablement Services, and TASKE Contact.

### 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 Link	Version	Mnt Busy	AE Services Server	Service State	Msgs Sent	Msgs Rcvd
1	5	no	DevvmAES	established	1083	1083

### 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**, as shown below.

**Application Enablement Services**  
Management Console

Welcome: User cust  
Last login: Mon Aug 28 15:53:03 2017 from [redacted]  
Number of prior failed login attempts: 0  
HostName/IP: DevvmAES/[redacted]  
Server Offer Type: VIRTUAL\_APPLIANCE\_ON\_VMWARE  
SW Version: 7.1.0.0.0.17-0  
Server Date and Time: Tue Aug 29 10:06:07 EDT 2017  
HA Status: Not Configured

Status | Status and Control | TSAPI Service Summary

Home | Help | Logout

▶ AE Services

▶ Communication Manager Interface

▶ High Availability

▶ Licensing

▶ Maintenance

▶ Networking

▶ Security

▼ Status

Alarm Viewer

▶ Log Manager

▶ Logs

▼ Status and Control

■ CVLAN Service Summary

■ DLG Services Summary

■ DMCC Service Summary

■ Switch Conn Summary

■ TSAPI Service Summary

TSAPI Link Details

☐ Enable page refresh every  seconds

	Link	Switch Name	Switch CTI Link ID	Status	Since	State	Switch Version	Associations	Msgs to Switch	Msgs from Switch	Msgs Period
<input checked="" type="radio"/>	1	devvmcm	1	Talking	Fri Aug 25 11:12:14 2017	Online	17	6	735	735	30

Online Offline

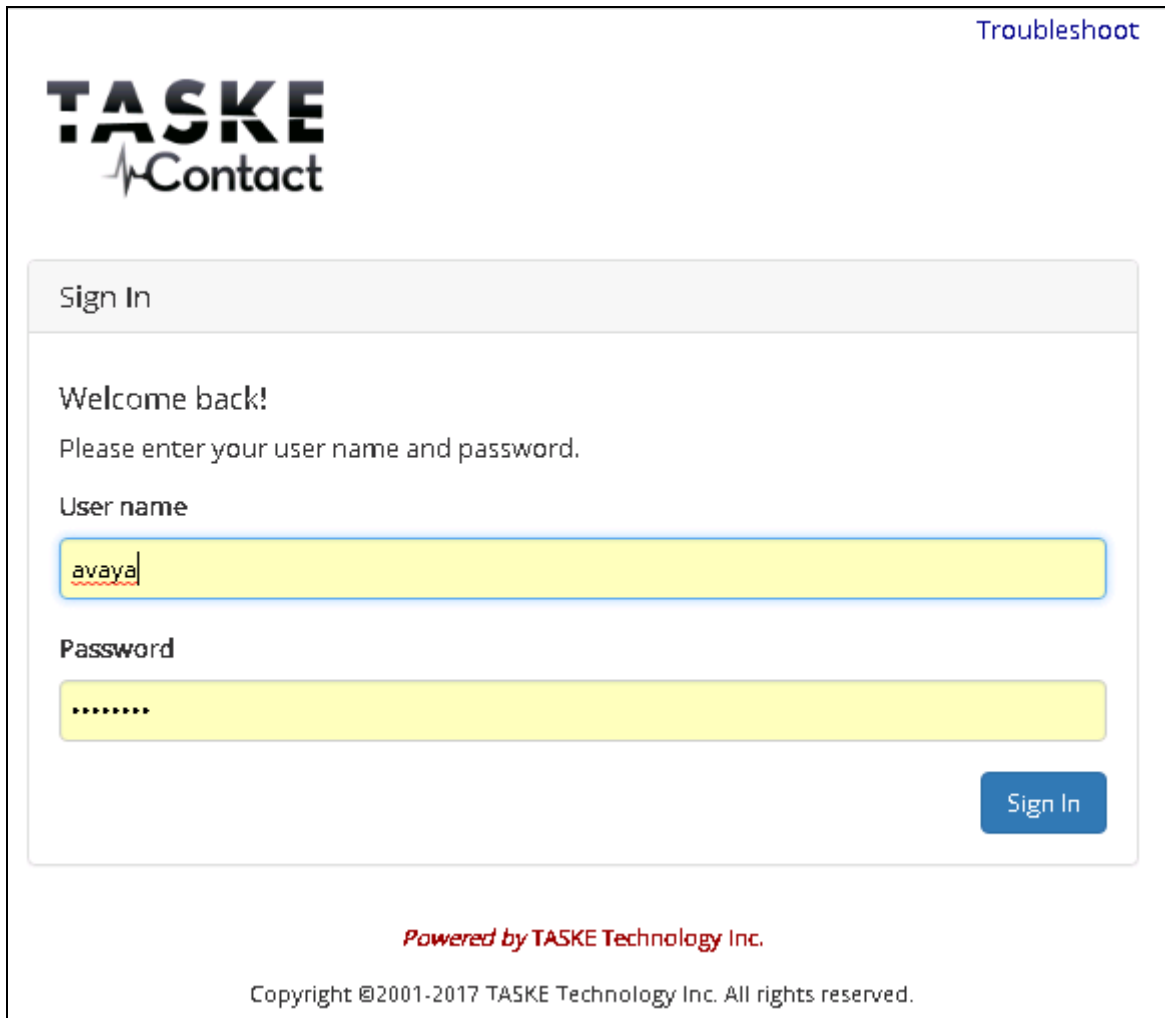
For service-wide information, choose one of the following:

TSAPI Service Status TLink Status User Status



### 8.3. Verify TASKE Contact

Access the supervisor web-based interface by using the URL “http://ip-address/taske/login.htm” in an Internet browser window, where “ip-address” is the IP address of TASKE Contact server. The **Sign In** screen is displayed. Log in using the appropriate credentials from **Section 7.7**.



Troubleshoot

**TASKE**  
Contact

Sign In

Welcome back!

Please enter your user name and password.

User name

avaya

Password

\*\*\*\*\*

Sign In

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The **My Home** screen is displayed next. Log an agent in and answer an ACD call. Verify that the screen is automatically updated with the proper status, as shown below.

56300 Hunt Group 56300  
Calls Waiting 0   Longest Waiting Call 0:00:00   Agents on ACD 1   Agents on Non-ACD 0   Agents Logged In 1

[Preferences](#) | [Sign out](#) | [Help](#)

Home

Real-Time

Review

Replay

Reports

Visualizer

My Home

Last updated: 08/29/2017 11:52:14 AM

56300 Hunt Group 56300

✓

TSF: 0 %

✓

Maximum Wait Time: 0:00:02

✓

Avg Time to Answer: 0:00:00

✓

Answered: 0

✓

Abandoned: 0

CALLS WAITING (0)

IDLE (0)	ACD (1)	NON-ACD (0)	UNAVAILABLE (0)	LOGGED OUT (1)
	1001 A 0:01:57 Agent 1001			1004 L 15:20:32 Agent 1004

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## 9. Conclusion

These Application Notes describe the configuration steps required for TASKE Contact to successfully interoperate with Avaya Aura® Communication Manager using Avaya Aura® Application Enablement Services. All feature and serviceability test cases were completed with observations if any noted in **Section 2.2**.

## 10. Additional References

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

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

1. *Administering Avaya Aura® Session Manager*, Release 7.1, Issue 1 May 2017
2. *Deploying Avaya Aura® System Manager*, Release 7.1, Issue 1 May 2017
3. *Administering Avaya Aura® System Manager for Release 7.1*, Release 7.1, Issue 2 May 2017
4. *Avaya Aura® Communication Manager Feature Description and Implementation*, Release 7.1, Issue 1 May 2017
5. *Deploying Avaya Aura® Application Enablement Services in Virtualized Environment*, Release 7.1, Issue 1 May 2017
6. *Administering and Maintaining Avaya Aura® Application Enablement Services*, Release 7.1, Issue 1 May 2017

Product documentation for TASKE Contact may be found at <http://www.taske.com/support/documentation.php>.

1. *TASKE Installation Guide for Avaya Aura® Communication Manager with Aura® Application Enablement Services*.
2. *Administration Guide for TASKE Contact for Avaya Aura® Communication Manager with Aura® Application Enablement Services*.
3. *TASKE Contact Web Portal Report Reference Guide for Avaya Aura® Communication Manager with Aura® Application Enablement Services*.
4. *TASKE Contact Web Portal User Guide for Avaya Aura® Communication Manager with Aura® Application Enablement Services*.

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