

NICE



UPTIVITY
Agile WFO for SMB

Customer Guide to Avaya SMS Integrations

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Version: This guide should be used with NICE Uptivity (formerly Uptivity WFO Premise) v5.6 and higher.

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Table of Contents

Introduction.....	5
Audience.....	5
Goals.....	5
Assumptions.....	5
Need-to-Knows	5
Terminology.....	6
Customer Responsibilities	6
Avaya SMS Integration Overview.....	7
Avaya Requirements	8
Hardware	8
Software & Licensing	8
NICE Uptivity Requirements	8
Customer Configuration Overview	9
Customer Integration Tasks.....	10
Configure the CTI Link on the Avaya CM.....	10
Create the CTI User Account on the AES Server.....	12
Verify the TSAPI Link on the AES Server.....	14
Verify TSAPI License Availability.....	16
Configure UCID (Optional)	17
Verify Installation of AES Web Service RPMs	17
Configure SMS	18
 Customer Guide to Avaya SMS Integrations	 3

Introduction

Customer Administration Tasks 19

Verify SMS Functioning 19

Introduction

Audience

This document is written for customers and prospective customers interested in using NICE Uptivity Call Recording in an Avaya SMS telephony environment. Readers who will perform procedures in this guide should have a basic level of familiarity with IP telephony, general networking, the Windows operating system, Avaya System Management Service (SMS), and NICE Uptivity.

Goals

The goal of this document is to provide knowledge, reference, and procedural information necessary to understand a proposed Avaya/NICE Uptivity integration using Avaya SMS, and to configure the Avaya equipment to support the integration.

This document is NOT intended as a specific system or network design document. If further clarification is needed, consult with your telephony vendor(s).

Assumptions

This document assumes the reader has access to an Uptivity Sales Engineer, Project Manager, or other resource to assist in applying this information to the reader's environment.

Need-to-Knows



To facilitate ease of use, this document takes advantage of PDF bookmarks. By opening the bookmark pane, readers can easily refer to the portion(s) of the guide that are relevant to their needs. For example, the Uptivity application administrator can click on the **Customer Administration Tasks** bookmark to jump directly to that section.

To expand and collapse the bookmark pane, click on the bookmark icon on the left side of the document window.

For information and procedures related to Uptivity configuration, consult the Uptivity installation team.

Terminology

To ensure a common frame of reference, this guide uses the following terms in conjunction with this Avaya integration:

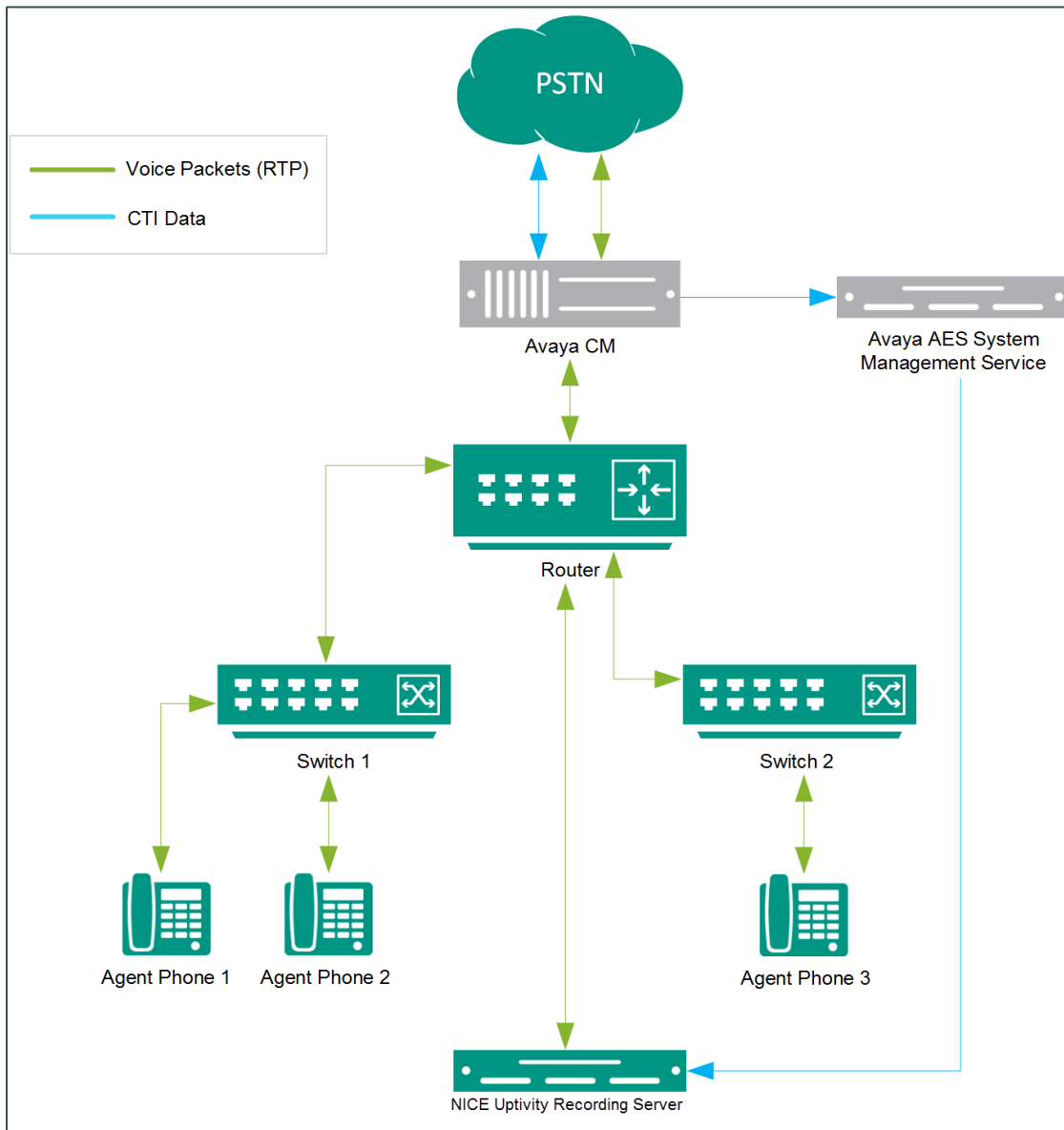
- **AES** — Application Enablement Services. The AES server in an Avaya contact center hosts software that provides CTI events.
- **Avaya CMS** — Avaya Call Management System. This contact center product is designed for businesses with complex contact center operations and high call volume. Sometimes referred to as Avaya CM.
- **SMS** — System Management Service. This is a web service hosted on the AES server that allows Uptivity to access certain features of the Avaya CMS.
- **S8300, S8500, S8700** — These are common models of Avaya PBX equipment

Customer Responsibilities

You are responsible for supplying the physical connection(s), IP connection(s), or both to your telephone system, as well as any licensing required by Avaya. You may also be responsible for configuring Avaya system components to support the recording integration. See your specific integration in the [Customer Integration Tasks](#) section for additional information.

Avaya SMS Integration Overview

This integration uses Avaya SMS along with VoIP recording, eliminating the need for port mirroring on CLAN/PE interfaces to obtain device registration when recording on a VoIP network. Instead, this information is pulled directly from the station registration database on the CM. Call control events and metadata are provided through AES using TSAPI. The Avaya SMS integration does not stand alone but is meant to work with an existing **CTI Core**.



General architectural example of an Avaya SMS integration

Component	Function
Avaya Communication Manager	The Avaya CM manages users, call routing, and telephone registration.
Avaya AES	The AES server hosts SMS.
Avaya SMS	The SMS service enables Uptivity to retrieve the registration status of devices (that is, telephones) on the Avaya CM.
NICE Uptivity Server	Provides an interface to NICE Uptivity to start/stop call recording. Generates call records in the Uptivity database that store Agent ID and other information. May also host the Web Portal for playback and system administration.

Avaya Requirements

Hardware

- Avaya S8300, S8500, or S8700 PBX
- Avaya AES/SMS 5.2 – 6.1

These requirements are in addition to the audio source requirements documented in the relevant integration guides.

Software & Licensing

Avaya SMS requires no additional software or licensing for AES 5.2 – 6.1.

NICE Uptivity Requirements

The Uptivity hardware, software, and licensing requirements are specified in the integration guides for the audio source configurations. No additional NICE Uptivity software or licensing is needed for SMS.

Customer Configuration Overview


The following table provides a high-level overview of the customer configuration steps in Avaya SMS integrations. Links are provided for tasks that are covered in this guide.

Customer Configuration Steps for Avaya SMS Integrations	
1	Perform any required configurations for the audio source integration.
2	<p>If not already configured as part of the audio source integration:</p> <ul style="list-style-type: none"> • Configure the CTI Link on the Avaya CM. • Create the CTI User Account on the AES Server. • Verify the TSAPI Link on the AES Server. • Verify TSAPI License Availability. • Configure UCID (Optional).
3	Create a CTI Link between the Avaya CM and SMS.
4	Create an SMS user account for Uptivity on the Avaya CM and provide the credentials to the Uptivity installation team. In order to get a list of registered stations for the Uptivity SMS module, SMS must use a CM account with a SAT user profile that has the Stations setting enabled.
5	Verify Installation of AES Web Service RPMs.
6	Configure SMS.
7	Verify SMS Functioning if needed.

Customer Integration Tasks

The information in this section is provided for your reference only. Detailed steps for the Avaya configuration can be found in Avaya's documentation, which is available on the Avaya website. You should always use the appropriate documentation from Avaya to install and configure Avaya components.

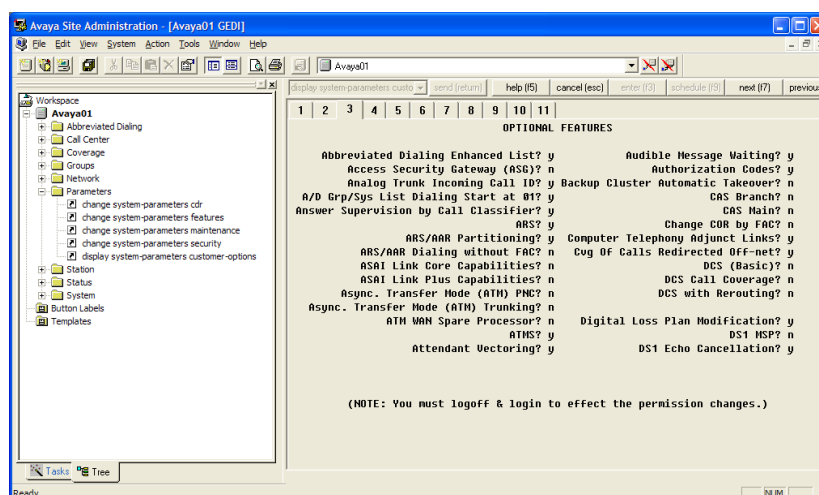
Configure the CTI Link on the Avaya CM

 This task may have been completed when you configured the audio source integration.

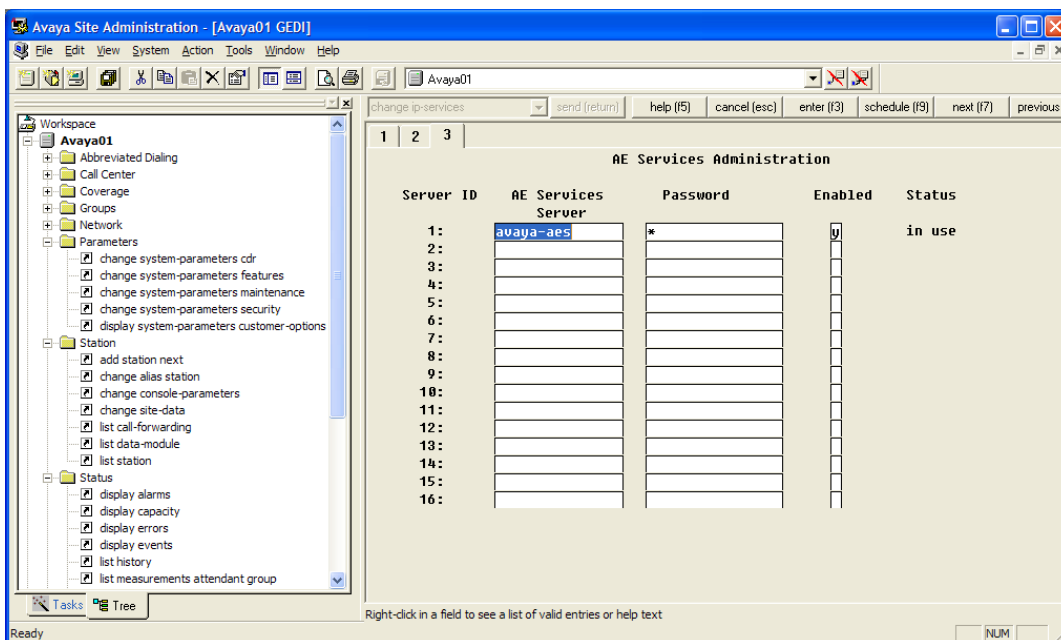
A CTI Link (also known as a T-Link) between the Avaya Communication Manager and AES is required for communication of events via TSAPI. The Avaya CM can be configured via the Avaya Site Administration tool (GEDi) or through a telnet session.

The following instructions use CM 5.2.1. Other software versions may differ.

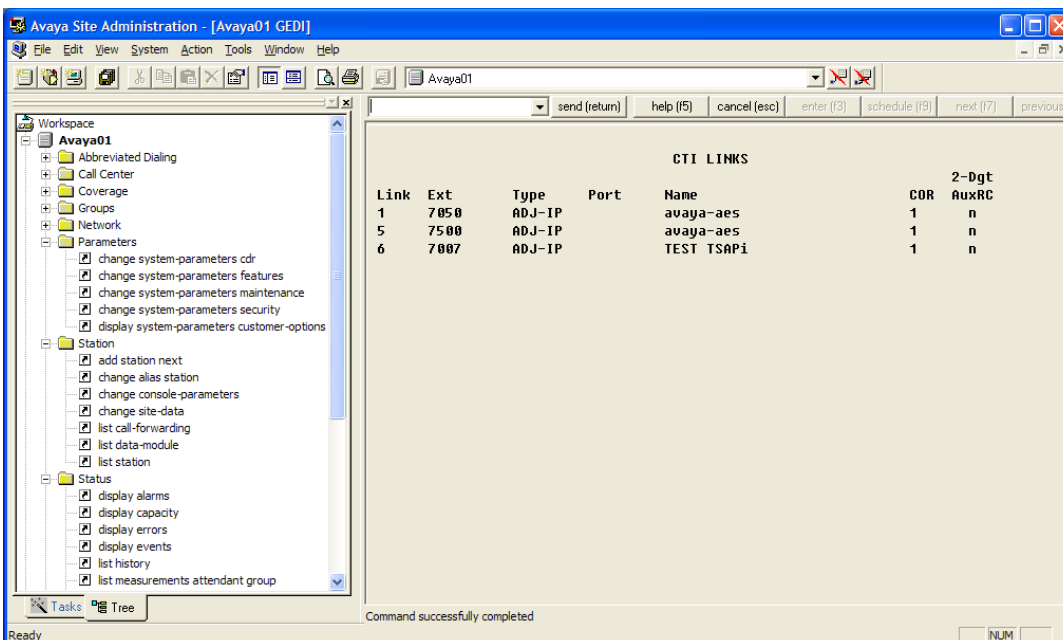
1. In GEDi, select the **Parameters-> display system-parameters customer-options** command.
2. On page 3 of the display, verify that the **Computer Telephony Adjunct Links** value is set to **y**. If this parameter is set to **n**, contact your Avaya Representative to obtain licensing for this feature.



3. Enter the **change ip-services** command and go to page 3 of the display. Verify the AE Services Server is configured and enabled, as shown in the following image.



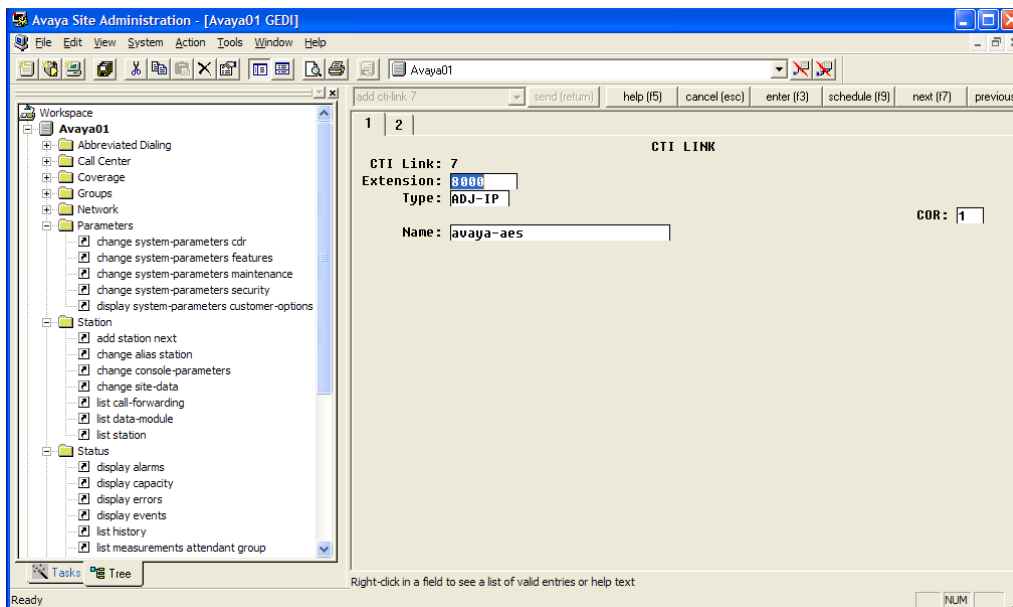
4. To view existing CTI links, enter the **list cti-link** command.



5. If no valid CTI link is available, enter the **add cti-link m** command, where "m" is a valid link number that is not already in use.


Customer Integration Tasks

6. In the **Extension** field, enter a valid extension number for the link.
7. In the **Type** field, select **ADJ-IP** from the available types.
8. In the **Name** field, enter a descriptive name for the link.



After completing this procedure, return to the [Customer Configuration Overview](#).

Create the CTI User Account on the AES Server

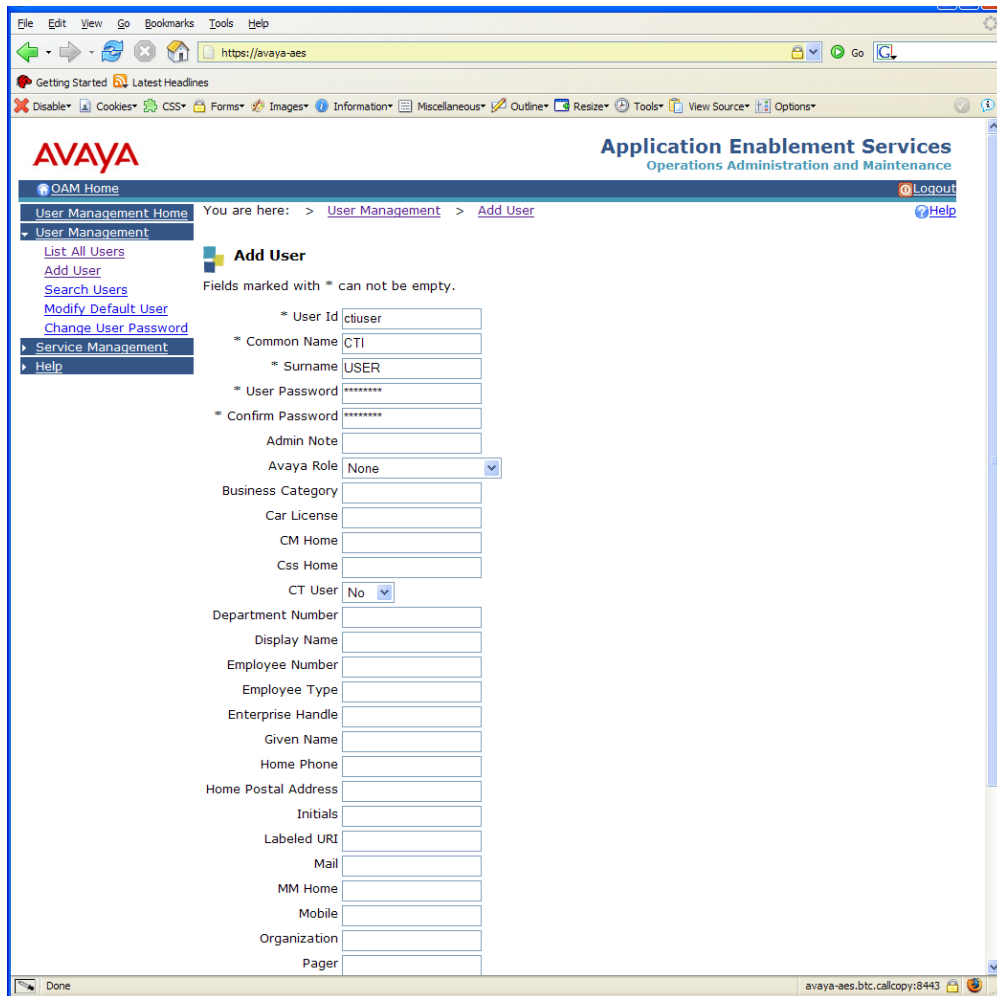
 This task may have been completed when you configured the audio source integration.

Uptivity requires a CTI User account with proper permissions on the AES server in order to connect to the TSAPI service via the CTI Link. You can create and configure this account on the AES Operations Administration & Maintenance (OAM) site.

These instructions use AES 5.2.1. Other software versions may differ.

1. Enter the IP address or hostname of your AES server in a web browser.
2. Log in to the OAM site with a User Admin-level account.

3. Expand the **User Management** section in the left menu and click **Add User**.



4. On the **Add User** page, create a user ID and password for the Uptivity CTI User by entering information in all required (*) fields.

5. For **CT User**, select **Yes** from the drop-down list.

6. Click **Apply**.

7. Expand **Administration** in the left menu and click **Security Database**.

8. Click **List All**.

CTI Users			
User ID	Common Name	Worktop Name	Device ID
<input checked="" type="radio"/> ctiuser	ctiuser	NONE	NONE

Customer Integration Tasks

9. Select the desired user account and click **Edit** to display the CTI User settings.

Edit CTI User		
User Profile:	User ID	ctiuser
	Common Name	ctiuser
	Worktop Name	NONE
	Unrestricted Access	<input checked="" type="checkbox"/>
Call Origination and Termination / Device Status		Any
Call and Device Monitoring:	Device	Any
	Call / Device	Any
	Call	<input checked="" type="checkbox"/>
Routing Control:	Allow Routing on Listed Devices	None
<input type="button" value="Apply Changes"/> <input type="button" value="Cancel Changes"/>		

10. Select the **Unrestricted Access** checkbox.

If the Uptivity user cannot have permission to monitor all devices (Unrestricted Access), you must ensure that this user account is allowed to monitor all relevant extensions, hunt groups, and VDNs, both initially and on a continuing basis.

11. Click **Apply Changes**.

After completing this procedure, return to the [Customer Configuration Overview](#).

Verify the TSAPI Link on the AES Server

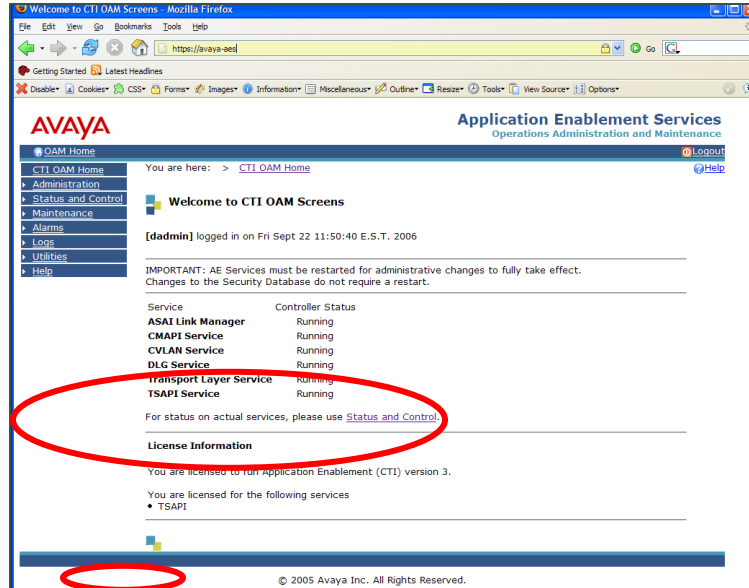
This task may have been completed when you configured the audio source integration.

A CTI Link (also known as a T-Link) between the Avaya Communication Manager (CM) and AES is required for communication of events via TSAPI. This link is configured on the Avaya CM. For details, see [Configure the CTI Link on the Avaya CM](#).

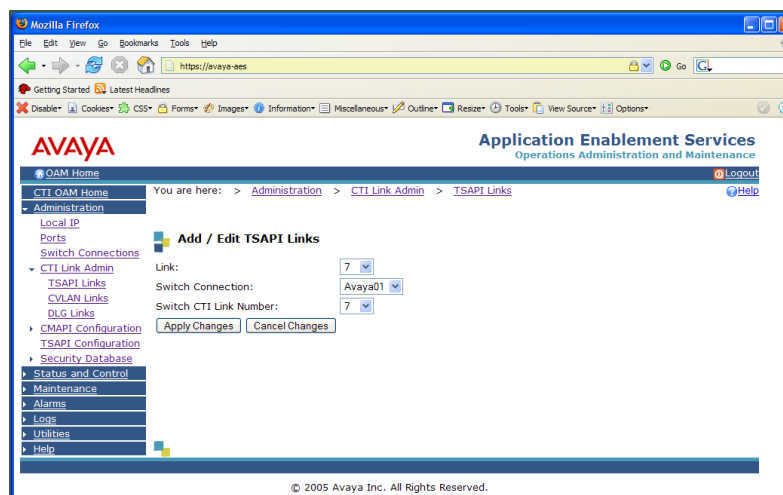
These instructions use AES 5.2.1. Other software versions may differ.

1. Enter the IP address or hostname of your AES server in a web browser.
2. Log in to the OAM site with a User Admin-level account.

- Click **CTI OAM Home** in the left menu.




- Verify the TSAPI service is listed and the **Controller Status** reports as *Running*.
- Under the **License Information** section, verify TSAPI is listed as a licensed service.
- Expand **Administration** in the left menu and click **CTI Link Admin**.
- Click **TSAPI Links** to display the **Add/Edit TSAPI Links** page.

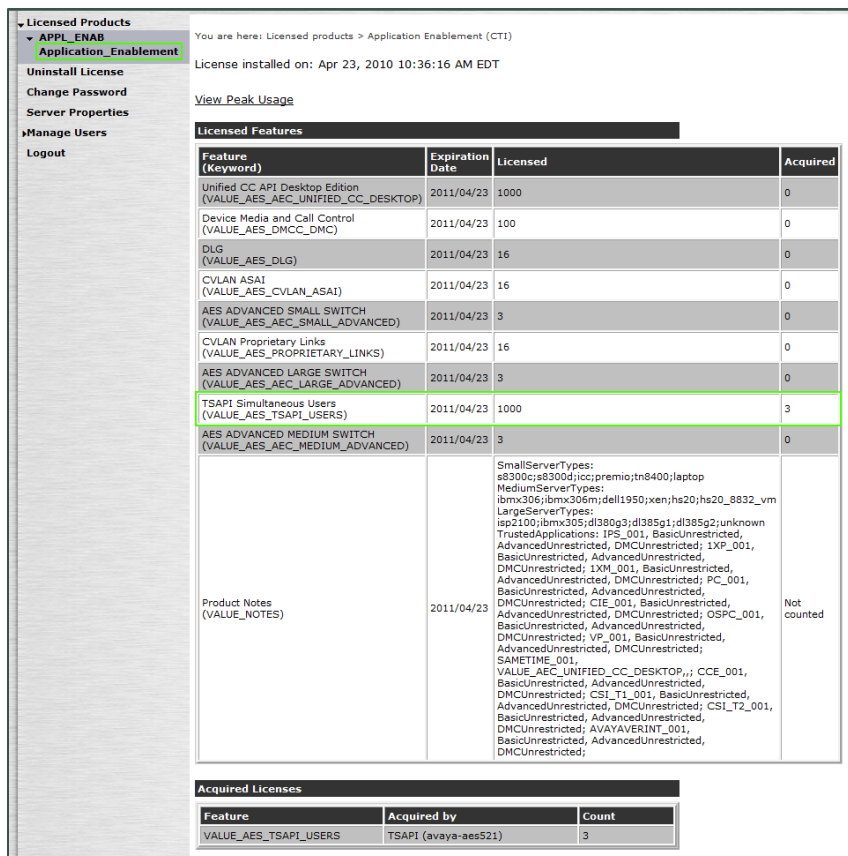


- Verify the appropriate **Link Number** and **Switch Connection** settings for your telephony network are listed and click the **Apply Changes** button.

After completing this procedure, return to the [Customer Configuration Overview](#).

Verify TSAPI License Availability

 This task may have been completed when you configured the audio source integration.



You are here: Licensed products > Application Enablement (CTI)

License installed on: Apr 23, 2010 10:36:16 AM EDT

View Peak Usage

Licensed Features

Feature (Keyword)	Expiration Date	Licensed	Acquired
Unified CC API Desktop Edition (VALUE_AES_AEC_UNIFIED_CC_DESKTOP)	2011/04/23	1000	0
Device Media and Call Control (VALUE_AES_DMCC_DMC)	2011/04/23	100	0
DLG (VALUE_AES_DLG)	2011/04/23	16	0
CVLAN ASAI (VALUE_AES_CVLAN_ASAI)	2011/04/23	16	0
AES ADVANCED SMALL SWITCH (VALUE_AES_AEC_SMALL_ADVANCED)	2011/04/23	3	0
CVLAN Proprietary Links (VALUE_AES_PROPRIETARY_LINKS)	2011/04/23	16	0
AES ADVANCED LARGE SWITCH (VALUE_AES_AEC_LARGE_ADVANCED)	2011/04/23	3	0
TSAPI Simultaneous Users (VALUE_AES_TSAPI_USERS)	2011/04/23	1000	3
AES ADVANCED MEDIUM SWITCH (VALUE_AES_AEC_MEDIUM_ADVANCED)	2011/04/23	3	0
Product Notes (VALUE_NOTES)	2011/04/23	SmallServerTypes: s8300c;s8300d;jcc;premio;tn8400;laptop MediumServerTypes: ibmx306;ibmx306m;dell1950;xen;hs20;hs20_8832_vm LargeServerTypes: isp2100;ibmx305;d1380g3;d1385g1;d1385g2;unknown TrustedApplications: IPS_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; 1XP_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; 1XM_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; PC_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; CIE_001, BasicUnrestricted, DMCUnrestricted; OSPC_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; VP_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; SAMETIME_001, VALUE_AES_UNIFIED_CC_DESKTOP,; CCE_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; CSI_T1_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; CSI_T2_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted; AVAYA/ERINT_001, BasicUnrestricted, AdvancedUnrestricted, DMCUnrestricted;	Not counted

Acquired Licenses


Feature	Acquired by	Count
VALUE_AES_TSAPI_USERS	TSAPI (avaya-aes521)	3

For this integration, Avaya requires that one TSAPI license be available for every station that Uptivity will monitor for audio. Licensing on the AES is managed through the Web License Manager (WebLM) interface. This site is located at the following address: <http://aes-server/WebLM/>, where "aes-server" is the hostname or IP Address of your AES server.

1. Browse to the WebLM site for your AES server in a web browser and log in with an administrative account.
2. Under the Licensed Products menu section, click **Application Enablement**.
3. On the **Licensed Features** table, the **TSAPI Simultaneous Users** entry will list the Licensed (total) and Acquired (used) values for TSAPI licenses.

After completing this procedure, return to the [Customer Configuration Overview](#).

Configure UCID (Optional)

 This task may have been completed when you configured the audio source integration.

The Uptivity integration with Avaya TSAPI optionally supports Call Segments. This functionality allows users to locate and play separate, related recording files that are part of the same call interaction. If you want to use this feature, you must configure the Avaya CM to send the Universal Call ID (UCID) to Uptivity so that it is captured on every call.

1. Log into the Avaya CM.
2. Run the following command: `change system-parameters features.`
3. On screen 5 of Feature-Related System Parameters, set **Create Universal Call ID (UCID)?** to *Y*.
4. On screen 5 of Feature-Related System Parameters, enter a value in the **UCID Network Node ID** field (the system may not save changes if this field is blank).
5. On screen 13 of Feature-Related System Parameters, set **Send UCID to ASAI?** to *Y*.

After completing this procedure, return to the [Customer Configuration Overview](#).


Verify Installation of AES Web Service RPMs

Several Web Service RPMs that are required for this integration should have been installed on your AES server when it was set up. You should verify that they have been installed and are configured correctly. These instructions are from the *Avaya Application Enablement Services Web Services Programmer's Guide Release 5.2*; other AES versions may differ.

1. Log in to the AES Operations Administration & Maintenance (OAM) site with an appropriately-permissioned account.
2. Navigate to **CTI OAM Administration > Help > About AE Services**.
3. From the list of installed aesvcs RPMs, confirm the SMS RPM is present as shown:
 - **Telephony Web Service RPM:** `aesvcs-telephonysvc-<version number>.<build number>`

Customer Integration Tasks

- **System Management Service RPM:** aesvcs-sms-<version number>.<build number>
- **Call Control RPM for Telephony Web Service:** aesvcs-callcontrol-<version number>.<load number>

 This information can also be accessed from the command line:

```
 /opt/mvap/bin/swversion -a .
```

After completing this procedure, return to the [Customer Configuration Overview](#).

Configure SMS

These instructions are from the *Avaya Application Enablement Services Web Services Programmer's Guide Release 5.2*; other AES version may differ.

1. Log in to the AES Management Console with System Administrator privileges.
2. From the main menu, select **AE Services > SMS**.
3. On the **SMS Configuration** page, in the **Default CM Host Address** field, enter the CM IP address.
4. Leave any remaining settings at the default values and save.

Customer Administration Tasks

There are no ongoing administrative tasks related to this integration other than those required by the audio acquisition method. If you add or reconfigure channels, you must perform the tasks associated with passive VoIP, which can be found in the *Customer Guide to Passive VoIP Recording*.

Verify SMS Functioning

This task is not required. However, there may be times when you need to verify that SMS is returning the correct information. These instructions are from the *Avaya Application Enablement Services Web Services Programmer's Guide Release 5.2*; other AES version may differ.

1. In a web browser, navigate to `https://<ip address>/sms/sms_test.php`, where `<ip address>` is the IP address of the Application Enablement Services server.
2. Log in with the username and password configured for SMS.
3. Enter these **Request Parameters**:
 - **Model** — Station
 - **Operation** — list
 - **Objectname** — * will return all fields.
 - **Fields** — * will return all fields.
4. Click **Submit Request**.