Customer Guide to Avaya DT-SSC Integrations

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Version:	This guide should be used with NICE Uptivity (formerly Uptivity WFO Premise) 16.2 or later.
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Introduction

Audience

This document is written for customers and prospective customers interested in using NICE Uptivity in an Avaya DT-SSC telephony environment. Readers who will perform procedures in this guide should have a basic level of familiarity with traditional wired telephony, general networking, the Windows operating system, Avaya hardware and software, 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 digital telephony trunks and Avaya SSC, 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. It also assumes that the telephony trunks have been added to your Avaya PBX and are working correctly.

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 questions related to Uptivity configuration, consult the Uptivity installation team.

This integration uses Avaya TSAPI. Refer to the *Customer Guide to Avaya TSAPI Integrations* for additional limitations, licensing requirements, and customer integration tasks.

Terminology

To ensure a common frame of reference, this guide uses the following terms:

- **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.

- **GEDI —** Graphically-Enhanced DEFINITY Interface. Used by the customer or Avaya vendor to configure the Avaya CMS.

- **SSC —** Single Step Conference. Avaya functionality that can be used to establish a conference between a recording device, the agent's phone and a corresponding softphone on the AES server.

- **TDM —** Time Division Multiplexing. Commonly-used as an acronym for traditional wired telephony, as opposed to VoIP.

- **TSAPI —** Telephone Services Application Programming Interface. Avaya TSAPI is software provides the call control events and metadata to Uptivity.

- **S8300, S8500, S8700 —** 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 and LAN, and for obtaining and loading any licensing required by Avaya. You are also responsible for configuring Avaya system components to support the recording integration. See the Customer Integration Tasks section for additional information.

If you supply the server hardware for the installation, then you are also responsible for installing the physical Ai-Logix cards in the server.

Avaya DT-SSC Integration Overview

The Avaya DT-SSC integration uses Ai-Logix terminating (DT) cards to connect to a T1/E1 trunk as an audio source, and receives call control events and metadata through AES using TSAPI. NICE Uptivity detects when a station joins a call and makes a request for a single step conference between Uptivity, the agent's phone and the corresponding softphone on the AES server.
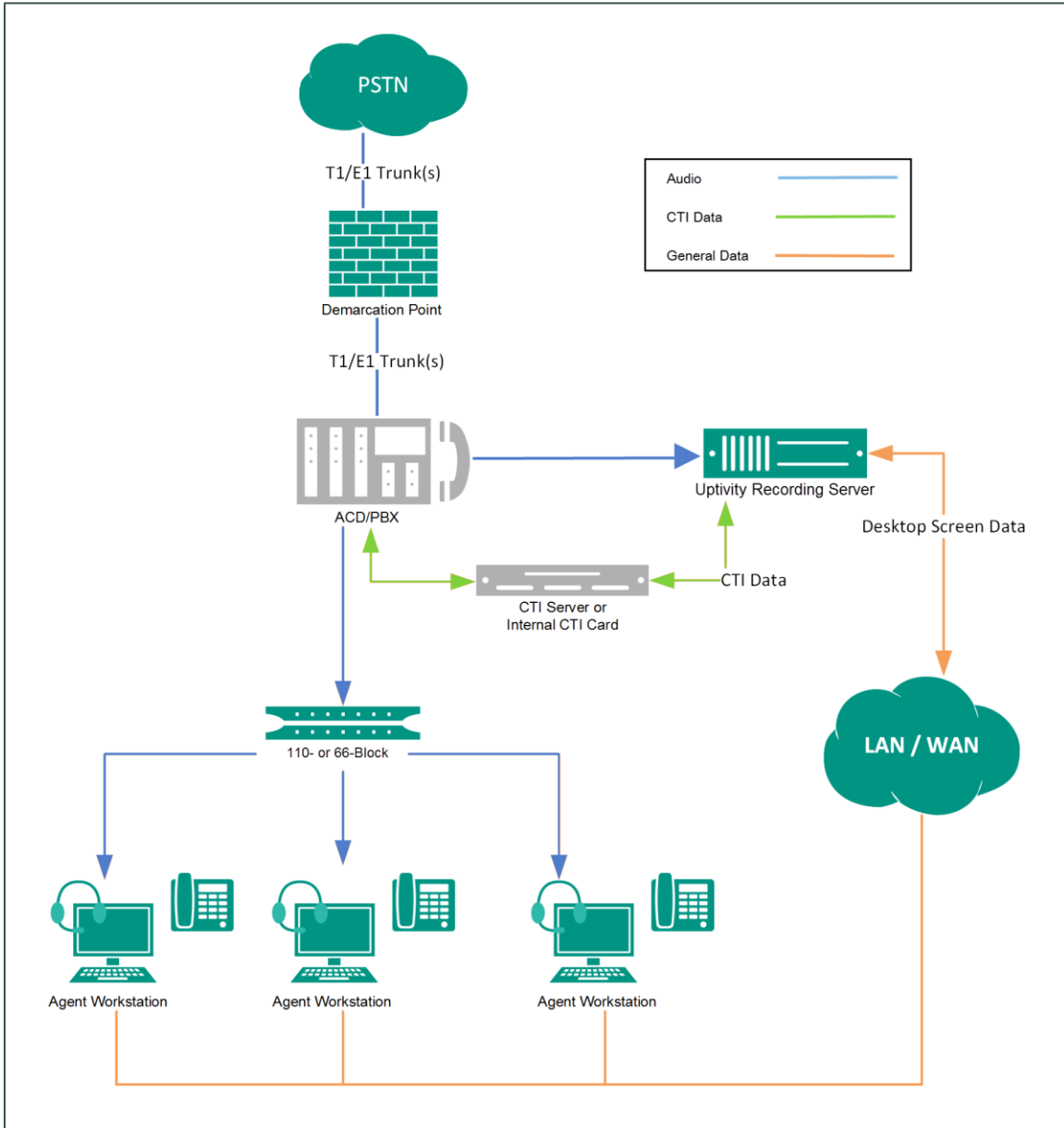

General architectural example of the Avaya DT-SSC integration

Component	Function
Avaya CM	Controls audio presented to and from digital phones, IP phones, or both.
Avaya AES	CTI interface providing call control events for call recording and to provide call metadata.
Ai-Logix DT Card	Audio capture card(s) installed in the Uptivity recording server.
NICE Uptivity Recording Server	Receives audio, call control events, and business data. Provides a CTI interface for recording.

Wiring Example

In many cases, a T1 Crossover cable or adapter is needed to connect the Ai-Logix card to the Avaya DS1 Circuit pack. For more information, refer to AudioCodes documentation available on the AudioCodes Support website or from inContact.
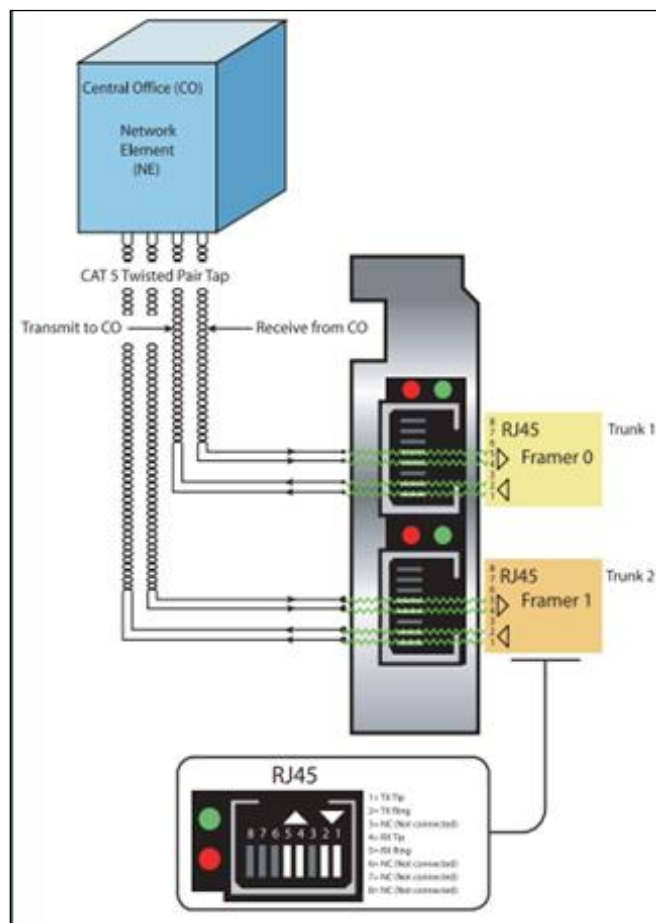
Wiring diagram for terminating trunks

Known Limitations

- This integration provides "muxed" (mono) audio and therefore does not support speaker separation for reporting or analytics.

- The Avaya DT-SSC integration does not support the real-time blackout functionality in NICE Uptivity.

Avaya Requirements

Hardware

- Avaya S8300, S8500, or S8700 media server

Software

This integration has been tested with and is supported for:

- Avaya CM v3.1 through 7.0
- Avaya AES v3.1 with SP 4 or higher through 7.0.1

Licensing

- One (1) Station License per channel

NICE Uptivity Requirements

Hardware

NICE Uptivity hardware requirements vary depending on system configurations. Appropriate hardware is identified during the system implementation process. For additional information, search online help for keyword *site requirements*.

Along with standard hardware, one or more of the following is specifically required for this integration based on the number of trunks to be recorded:

- AudioCodes DT 6409 T1/E1 Terminating Tap Call Recording Blade

This card is dual-port and can connect to up to two (2) T1/E1 trunks. The number of channels that can be recorded per trunk varies depending on the configuration of the trunk itself:

- **Single T1** — 24 channels (23 channels for ISDN-signaled T1)
- **Dual T1** — 48 channels (46 channels for ISDN-signaled T1)
- **Single E1** — 30 channels
- **Dual E1** — 60 channels

Software

This guide covers the following release:

- NICE Uptivity, v5.6 or later

Additional third-party software is required for the Ai-Logix digital trunk integration:

- AudioCodes SmartWORKS v3.11 – 5.4
- AudioCodes SmartWORKS v5.9 in MS 2012 environments

Licensing

- One (1) Voice seat license per trunk channel.
- Additional licensing may be required if the system includes optional features (for example, Uptivity Screen Recording)

Customer Configuration Overview

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

	Customer Configuration Steps for Avaya DT–SSC Integrations
1	Install the Ai-Logix card(s) in customer-supplied server(s).
2	Complete all necessary physical connections between the recording server(s) and the telephony system.
3	Complete all necessary physical and IP connections between the recording server(s) and the LAN.
4	Obtain any necessary Avaya software and licensing.
5	Complete the tasks and procedures detailed in the *Customer Guide to Avaya TSAPI Integrations*.
6	Confirm Avaya Licensing.
7	Create a Class of Restriction (COR).
8	Configure the DS1 Circuit Pack.
9	Configure Channels on the DS1 Board.

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.

Confirm Avaya Licensing

The Avaya Communication Manager must be licensed for computer telephony links and enhanced conferencing. If these settings are not enabled, contact your Avaya representative for information.

1. Log in to the Systems Access Terminal (SAT) with an appropriately-permissioned account.

2. Enter the command: **display system-parameters customer-options**.

3. On page 3 of the display, verify that the **Computer Telephony Adjunct Links** field is set to *y*.

4. On page 4 of the display, verify that the **Enhanced Conferencing** field is set to *y*.

After completing this procedure, return to the Customer Configuration Overview.

Create a Class of Restriction (COR)

You must create a class of restriction that will be used to configure the stations to be recorded.

1. Log in to GEDI with an appropriately-permissioned account.

2. Enter the command: **change cor *n*** to create a COR (*n* can be any number).

3. **Optional**: Enter a description.

4. On page 1 of the display, for **Calling Party Restriction**, enter the value *none*.

After completing this procedure, return to the Customer Configuration Overview.

Configure the DS1 Circuit Pack

```
CC Avaya: display ds1 01v3 (page 1) 10/27/2008 5:29:20 PM

                          DS1 CIRCUIT PACK

           Location: 001V3                    Name: * Survey Trunk
           Bit Rate: 1.544              Line Coding: b8zs
    Line Compensation: 1               Framing Mode: esf
      Signaling Mode: isdn-pri
             Connect: pbx                  Interface: network
      TN-C7 Long Timers? n          Country Protocol: 1
 Interworking Message: PROGress      Protocol Version: b
  Interface Companding: mulaw                    CRC? n
           Idle Code: 11111111
                          DCP/Analog Bearer Capability: 3.1kHz

                                    T303 Timer(sec): 4


       Slip Detection? y            Near-end CSU Type: other

     Echo Cancellation? y       Block Progress Indicator? n
         EC Direction: inward
     EC Configuration: 4
```

1. Log in to GEDI with an appropriately-permissioned account.

2. Enter the command: **display ds1**.

3. Verify that the settings match those shown in the preceding image.

4. Make a note of the settings and provide them to your Uptivity installation team.

After completing this procedure, return to the .

Configure Channels on the DS1 Board

```
display station 7601                                    Page   1 of   4
                                  STATION

Extension: 7601                   Lock Messages? n              BCC: 0
     Type: DS1FD                  Security Code: *               TN: 1
     Port: X                     Coverage Path 1:               COR: 1
     Name: * SSC                 Coverage Path 2:               COS: 1
                                 Hunt-to Station:             Tests? y
STATION OPTIONS
                                     Time of Day Lock Table:
           Loss Group: 4
   Off Premises Station? y
     R Balance Network? n


       Survivable COR: internal
 Survivable Trunk Dest? y
```

Each channel on the DS1 board must be configured as a station. You must repeat this procedure for every channel.

1. Log in to GEDI with an appropriately-permissioned account.
2. Enter the command: **add station n**, where *n* is a valid extension.
3. On page 1 of the display, for **Type**, enter the value *DS1FD*.
4. On page 1 of the display, for **Port**, type an unused channel on the DS1 board.
5. On page 1 of the display, for **COR**, set the value to the number of the COR created in Create a Class of Restriction (COR).

```
display station 7601                                    Page   2 of   4
                                  STATION
FEATURE OPTIONS
           LWC Reception: spe
           LWC Activation? y                Coverage Msg Retrieval? y
 LWC Log External Calls? n                         Auto Answer: all
             CDR Privacy? n                       Data Restriction? n
    Redirect Notification? y                 Call Waiting Indication: y
 Per Button Ring Control? n             Att. Call Waiting Indication: y
                                           Distinctive Audible Alert? y
        Switchhook Flash? y                  Adjunct Supervision? y
    Ignore Rotary Digits? n
       H.320 Conversion? n       Per Station CPN - Send Calling Number?
      Service Link Mode: as-needed
         Multimedia Mode: basic             Audible Message Waiting? n
    MWI Served User Type:
             AUDIX Name:
                                          Coverage After Forwarding? s
                                          Multimedia Early Answer? n

  Emergency Location Ext: 7601
```

6. On page 2 of the display, for **Auto Answer**, enter the value *all*.

Customer Administration Tasks

During ongoing use of the system, your Uptivity administrator may need to configure new channels or reconfigure existing channels. This integration requires changes to the **Voice Boards** page in the Uptivity **Web Portal** when channels are added or must be reconfigured.

The number of voice board channels corresponds to the number of trunks configured on the physical Ai-Logix card. Adding channels may require purchase and installation of server hardware and Uptivity licensing. Contact Support for additional information.

For more information on voice boards, search online help for keyword *voice boards*.

Channel Configuration Settings

This section provides a reference to channel settings that must be configured for the Avaya DT-SSC integration. You should refer to this section whenever you add new channels to your NICE Uptivity system.

Any other voice board changes should only be done under direct supervision of Uptivity Support. Done incorrectly, voice board modifications can have serious negative impact to your system. In addition, altering the hardware configuration of your system may void your warranty.

The following table shows the settings that apply when configuring channels for Avaya DT-SSC integrations.

Setting	Definition	Value
Number of Channels	This will already be configured unless you are adding a new Ai-Logix card. In that scenario, select the value from the drop-down list based on the trunk configuration: ▪ **23 – T1 ISDN** for ISDN-signaled T1 trunks ▪ **24 – T1 RBS** for T1 trunks with Robbed-bit ▪ **30 – E1 ISDN** for ISDN-signaled E1 trunks ▪ **30 – E1 RBS** for E1 trunks with Robbed-bit	
Assign	Used in deployments where physical devices and channels have a one-to-one correspondence, or to allocate specific channels to specific types of recording. For details, search online help for keyword *channel assignment*.	*Anything*
Assign Value	Enter one PBX Trunk Member/Port ID per channel. This value is case sensitive.	
Desc	Enter an optional description for the channel.	
Name	Enter an optional name for the channel that can be used in channel scripting.	
Trunk Tap	Indicates whether to use the trunk-tap capability of the card.	*Cleared*

⧉ You must restart the **CTI Core** service after any changes to voice boards, channels, or both.

Document Revision History

Revision	Change Description	Effective Date
0	Initial version for this release	2016-04-14
1	Rebranded for NICE Uptivity.	2017-03-31
2	Updated to show support for AES 7.0.1.	2017-07-17