



# Customer Guide to Avaya DT-SSC Integrations

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**Recording**

## **Customer Guide to Avaya DT-SSC Integrations**

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## Introduction

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### Audience

This document is written for customers and prospective customers interested in using inContact Call Recording 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 inContact WFO.

### Goals

The goal of this document is to provide knowledge, reference, and procedural information necessary to understand a proposed Avaya/inContact WFO 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 inContact WFO 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 inContact WFO 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 inContact WFO configuration, consult the inContact WFO installation team.

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

### Terminology

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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 inContact WFO.
- **S8300, S8500, S8700:** Common models of Avaya PBX equipment.

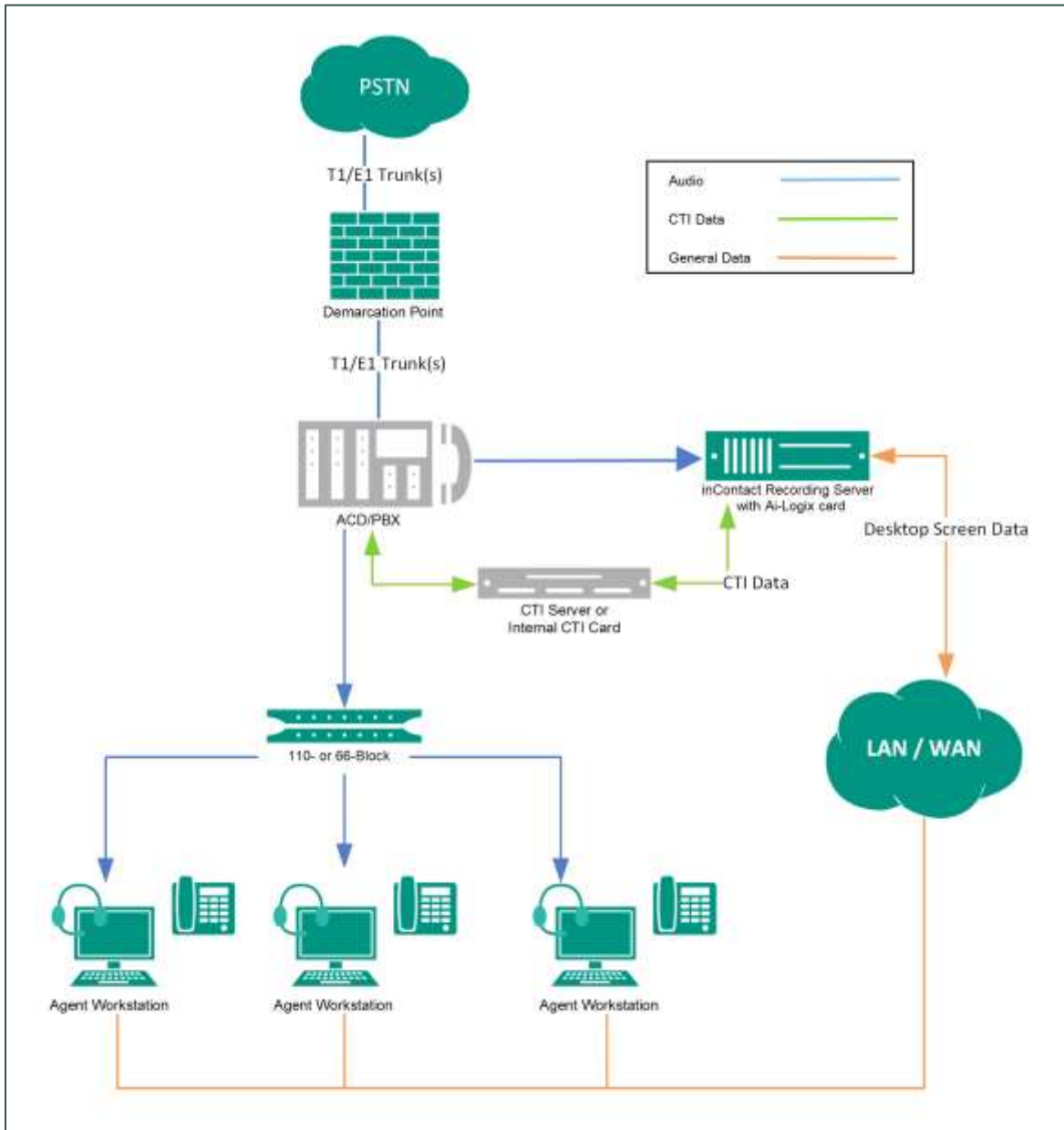
## Customer Responsibilities

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. inContact WFO detects when a station joins a call and makes a request for a single step conference between inContact WFO, the agent's phone and the corresponding softphone on the AES server.



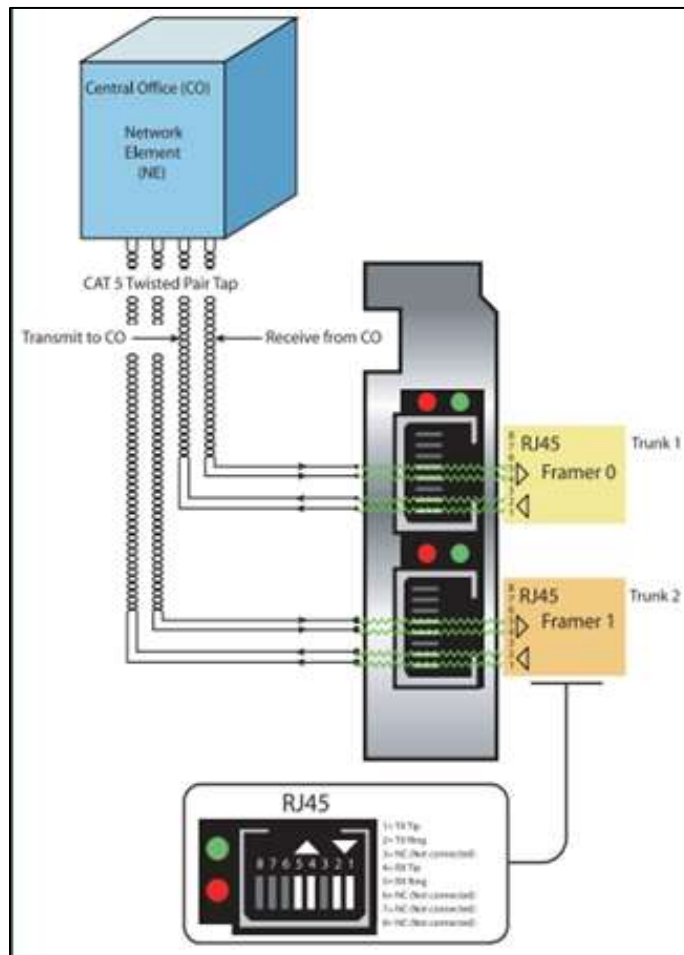
General architectural example of the Avaya DT-SSC integration



Component	Function
<b>Avaya CM</b>	Controls the audio presented to and from digital phones, IP phones, or both.
<b>Avaya AES</b>	CTI interface providing call control events for the purpose of call recording and to provide call metadata.
<b>Ai-Logix DT Card</b>	Audio capture card(s) installed in the inContact WFO recording server.
<b>inContact WFO Server</b>	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 “muted” (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 inContact WFO.

### Avaya Requirements

#### Hardware

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- Avaya S8300, S8500, or S8700 media server

#### Software

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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

#### Licensing

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- One (1) Station License per channel.

## inContact WFO Requirements

### Hardware

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inContact WFO hardware requirements vary depending on system configurations. Appropriate hardware is identified during the system implementation process. For additional information, see *Customer Site Requirements for inContact WFO*.

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

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This guide covers the following release:

- inContact WFO, 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

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- One (1) Voice seat license per trunk channel.
- Additional licensing may be required if the system includes optional features (for example, inContact 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 <i>inContact WFO Customer Guide to Avaya TSAPI Integrations</i> .
6	<a href="#">Confirm Avaya Licensing</a> .
7	<a href="#">Create a Class of Restriction (COR)</a> .
8	<a href="#">Configure the DS1 Circuit Pack</a> .
9	<a href="#">Configure Channels on the DS1 Board</a> .

## Customer Integration Tasks

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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 manuals and/or guides 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. Type the command: **display system-parameters customer-options**.
3. On page 3 of the display, verify that the **Computer Telephony Adjunct Links** option is set to **y**.
4. On page 4 of the display, verify that the **Enhanced Conferencing** option 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.

To create a COR:

1. Log in to GEDI with an appropriately-permissioned account.
2. Type the command: **change cor n** to create a COR (*n* can be any number).
3. Type a description (optional).
4. On page 1 of the display, for **Calling Party Restriction**, type the value: **none**.

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

## Configure the DS1 Circuit Pack

```
CC Avaya: display dsl 01v3 (page 1) 10/27/2008 5:29:20 PM
DS1 CIRCUIT PACK
Location: 001V3                               Name: * Survey Trunk
Bit Rate: 1.544                               Line Coding: b8za
Line Compensation: 1                           Framing Mode: esf
Signaling Mode: isdn-pri                      Interface: network
Connect: pbx                                  Country Protocol: 1
TW-C Long Timers? n                           Protocol Version: b
Interworking Message: PROGRESS                 CRC? n
Interface Companding: mulaw                    DCP/Analog Bearer Capability: 3.1kHz
Idle Code: 1111111                            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
```

To verify/configure required settings on the DS1 circuit pack:

1. Log in to GEDI with an appropriately-permissioned account.
2. Type the command: **display ds1**.
3. Verify that the settings match those shown in the image shown here.
4. Make a note of the settings and provide them to your inContact WFO installation team.

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

## 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
Loss Group: 4
OFF Premises Station? y
R Balance Network? n

Time of Day Lock Table:

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.

To configure DS1 channels:

1. Log in to GEDI with an appropriately-permissioned account.
2. Type the command: **add station n**, where *n* is a valid extension.
3. On page 1 of the display, for **Type**, type 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
LWC Log External Calls? n
CDR Privacy? n
Redirect Notification? y
Per Button Ring Control? n

Switchhook Flash? y
Ignore Rotary Digits? n
H.320 Conversion? n
Service Link Mode: as-needed
Multimedia Mode: basic
MWI Served User Type:
AUDIX Name:

Coverage Msg Retrieval? y
Auto Answer: all
Data Restriction? n
Call Waiting Indication: y
Att. Call Waiting Indication: y
Distinctive Audible Alert? y
Adjunct Supervision? y

Per Station CPN - Send Calling Number?
Audible Message Waiting? n

Coverage After Forwarding? s
Multimedia Early Answer? n

Emergency Location Ext: 7601

```

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

## Customer Administration Tasks

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

With this integration, the number of channels on the inContact WFO **Voice Board(s)** corresponds to the number of trunks configured on the physical DT card. Adding channels may require the purchase and installation of server hardware and inContact WFO licensing. Contact inContact WFO Support for additional information.

### Voice Boards Overview

**Voice Boards** control how inContact WFO acquires audio. This component provides *what* inContact WFO is to record. At least one **Voice Board** is required for most integrations. While **Voice Boards** can correspond to physical audio capture boards in some integrations, they are not those boards.

inContact WFO uses per-channel licensing, and each **Voice Board** software component maintains the count of licensed, used and available channels associated with it. The system will not use any **Voice Boards** or channels for which it is not licensed.

### Voice Board Configuration

The basic procedure for configuring **Voice Board** channels is the same for all integrations and can be found in the *inContact WFO Administration Manual*. For channel settings specific to this integration, see [Channel Configuration Settings](#). You will need to restart the **Recorder** service (cc\_cticore.exe) after any **Voice Board** or channel changes.

Any other **Voice Board** changes should only be done under direct supervision from inContact WFO 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.



## Channel Configuration Settings

The following settings apply when configuring channels for an Avaya DT-SSC integration:

Setting	Definition	Value
<b>Number of Channels</b>	<p>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:</p> <ul style="list-style-type: none"> <li>▪ <b>23 – T1 ISDN</b> for ISDN-signaled T1 trunks</li> <li>▪ <b>24 – T1 RBS</b> for T1 trunks with Robbed-bit</li> <li>▪ <b>30 – E1 ISDN</b> for ISDN-signaled E1 trunks</li> <li>▪ <b>30 – E1 RBS</b> for E1 trunks with Robbed-bit</li> </ul>	
<b>Assign</b>	<p>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, <a href="#">Appendix: Channel Assignment Settings Definitions</a>.</p>	<b>Anything</b>
<b>Assign Value</b>	Type one PBX Trunk Member/Port ID per channel.	
<b>Desc</b>	Type an optional description for the channel.	
<b>Name</b>	Type an optional name for the channel that can be used in channel scripting.	
<b>Trunk Tap</b>	Indicates whether to use the trunk-tap capability of the card.	<b>Unselected</b>

## Appendix: Channel Assignment Settings Definitions

The following table lists and defines the values that appear in the **Assign** setting drop-down list in **Channel Configuration**. Labels for these settings are affected by Terminology settings in the inContact WFO Web Portal.

This list is presented solely as a reference. You should always choose the **Assign** setting called for by your specific integration.

Setting	Definition
<b>Not in Use</b>	Identifies a channel that is licensed in the system but not currently used.
<b>Anything</b>	Allows channel to be used for all recording and playback events, as determined by schedule priorities.
<b>Playback Anything</b>	Limits channel to playback of recordings via telephone.
<b>Record Anything</b>	Allows channel to be used for any scheduled or API-triggered recording.
<b>Instant Record</b>	Dedicates channel to instant recording requests from the API.
<b>Dedicated Record ACD Group</b>	Limits channel to recording only the specified ACD/PBX group (not the inContact WFO Group), independently of any schedules.
<b>Dedicated Record Device ID</b>	Limits channel to recording a specific hardware resource (such as voice port or DN) on the ACD/PBX.
<b>Dedicated Record Agent ID</b>	Limits channel to recording a specific agent number or extension.
<b>Dedicated Record Dialed Number</b>	Limits channel to recording a specific inbound number, such as an 800-number carrying traffic to your facility.
<b>Dedicated Record Caller ID</b>	Limits channel to recording a specific ANI. Full or partial ANI matches may be used, for example, to limit to a matching area code.
<b>Dedicated Record User1(2)(3)(4)(5)</b>	Limits channel to recording a specific user-defined value as set by the API. Examples include Account and Case Number.
<b>Playback and Instant Record</b>	Limits channel to playback and instant recording requests from the API.
<b>Playback and Record</b>	Limit channel to scheduled recordings and playback.

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<b>Record and Instant Record</b>	Limit calls to recording only, but of any recording type.
<b>Unlicensed</b>	Identifies a channel which may be present (for example, on a physical audio capture card) but for which there is no license in the system.

## Document Revision History

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Revision	Change Description	Effective Date
0	Initial version for this release	2016-04-14