



DTK Overview

Zendesk Connector

[Abstract](#)

DTK Zendesk connector overview and configuration document.



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DTK Overview

Description

The DTK Server is designed to provide a highly extensible platform by utilizing configurable “Connectors”. Each “Connector” provides specific functionality enabling rapid and flexible integration. The DTK server hosts connectors for a variety of telephony systems and for systems wishing to send/receive data from these telephony systems. The telephony connector is responsible for managing the connection to the telephony environment, standardizing the data and events generated by the individual systems, and publishing the standardized events and data to the DTK Engine. Any other connector can then subscribe to events published by the telephony connectors and multiple connectors can act on a single published event. A single connector can both publish and subscribe to events while published events support both synchronous and asynchronous modes.

The DTK engine supports filtering of events, data translation, and custom data mapping at both the point of ingress to the DTK engine (event published) and at egress (event received by subscriber). An example of a simple filter at point of egress would be “subscribe to all DTK Telephony events from the CTiOS connector that has a value in a data element named Callvariable2”. The connector receiving an event matching these conditions, based on its own configuration, would then use the data to interact with the target system (E.g. Search for a ticket using the value in “Callvariable2”).

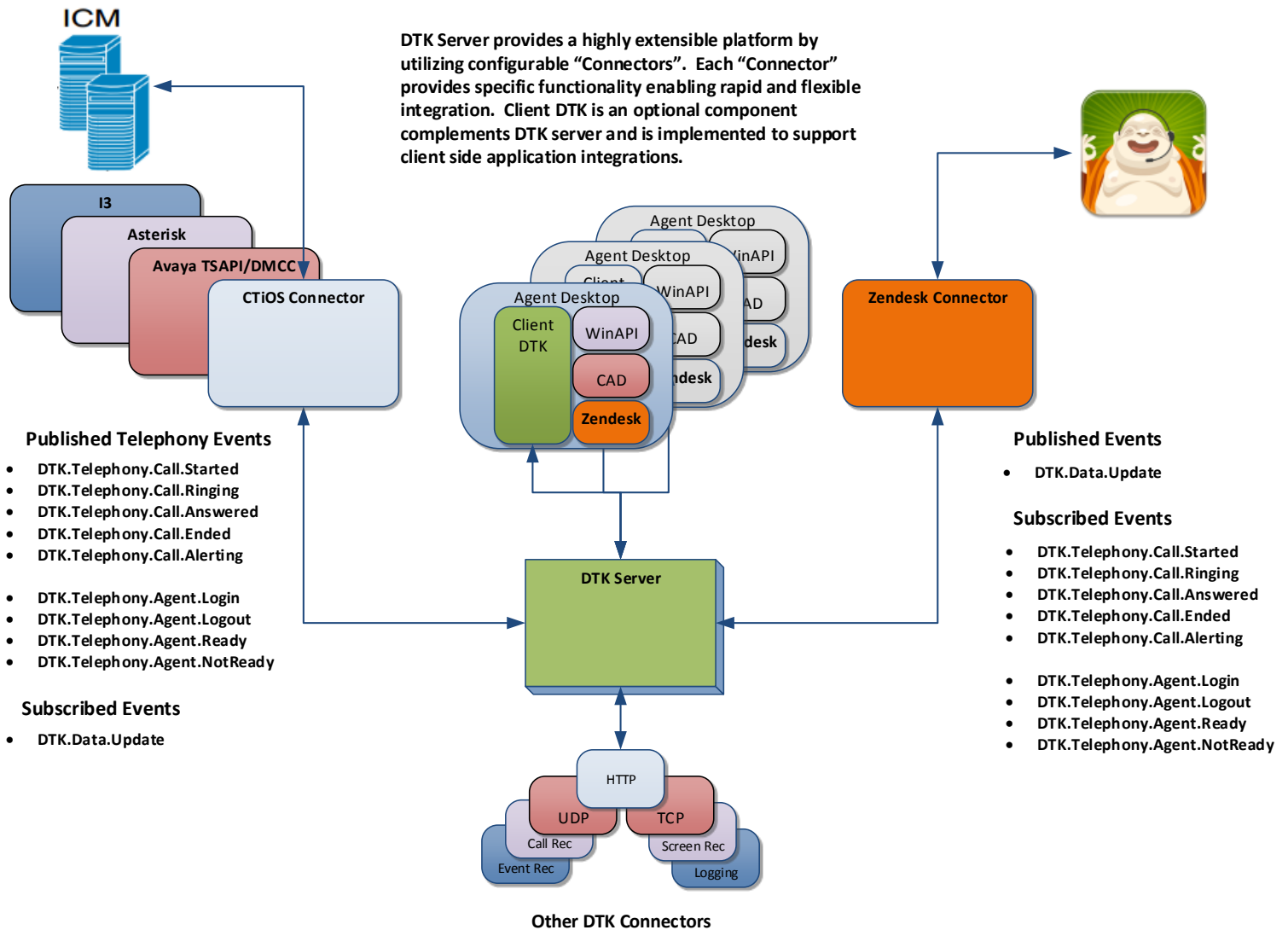
In summary the DTK Server, through its connectors, allows the contact center to utilize data from their telephony systems in any system for which a connector is available and vice versa.

Architecture

The below diagram describes, at a high level, the logical connectivity of an example deployment. This example includes the optional client DTK component.

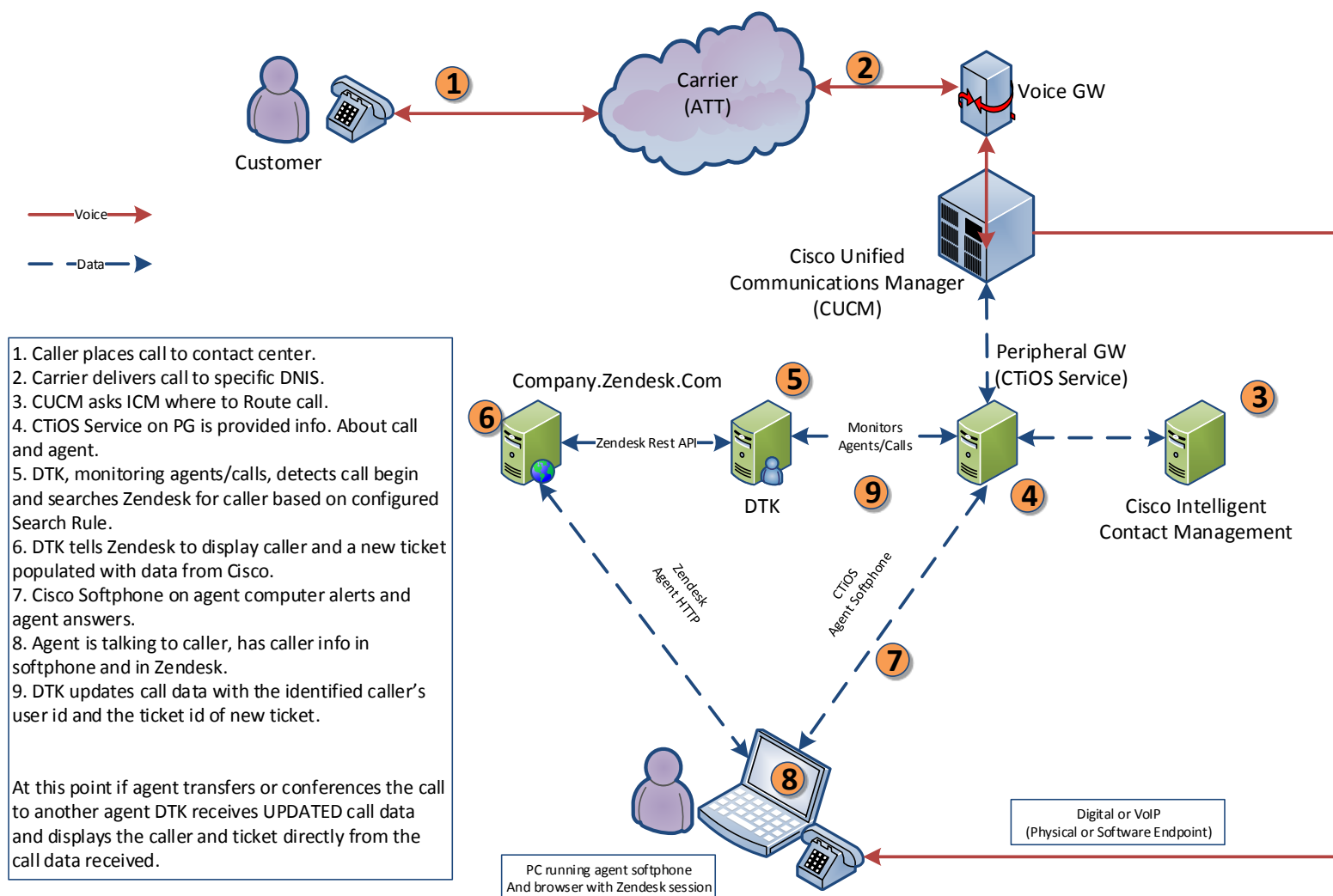


DTK and Connector Architecture



Cisco CTiOS and Zendesk Connector Example Deployment

In this example we show a simple high level physical architecture for Cisco based telephony system that supports CTiOS connectivity with a connector for the Zendesk CRM system. One of the benefits of this implementation is that it requires no DTK client component which greatly simplifies the deployment, maintenance, and upgrade process.



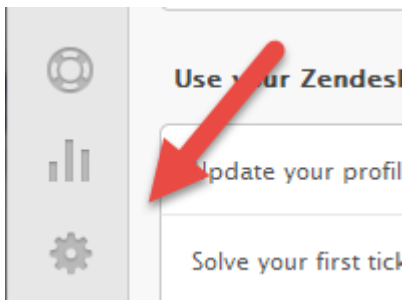
DTK Zendesk Connector Configuration

Before you start configuring the Zendesk connector you need to configure your Zendesk account to work with the DTK Zendesk Connector. The connector needs to be configured with proper API access credentials and in order for the connector to properly associate the telephony agent to their corresponding Zendesk agent session a Zendesk user field needs to be setup to contain the identifier used by the agent in their telephony system.

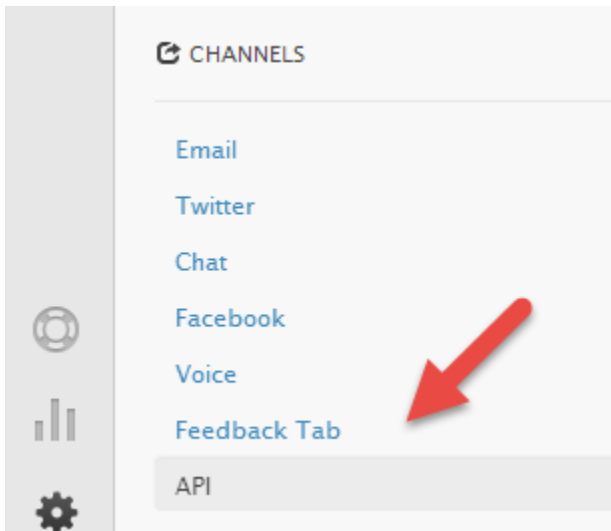
Steps to configure are:

1. Log into your Zendesk account with the administrator user account.
2. Click on the gear icon to access the administration settings





3. Click on API under Channels



4. You can authenticate using the API token or password. This example will use token. Make sure Token Access is enabled like below.

[Learn more](#)

Settings

OAuth Clients



Token Access

☒ Enabled

Enable REST API using tokens. If you use the API token rather than a password, use basic authentication and add /token to the email login when authenticating a user. Example:

```
curl -u administrator@awesomeearth.org/token:YOUR_TOKEN  
https://awesomeearth.zendesk.com/api/v2/users/me.json
```

[Learn more.](#)

Your API token is: MY SECRET TOKEN – **keep it secret, keep it safe**

[Generate new token](#)



Password Access

☒ Enabled

Enable REST API access using the email address and password for the authentication user.

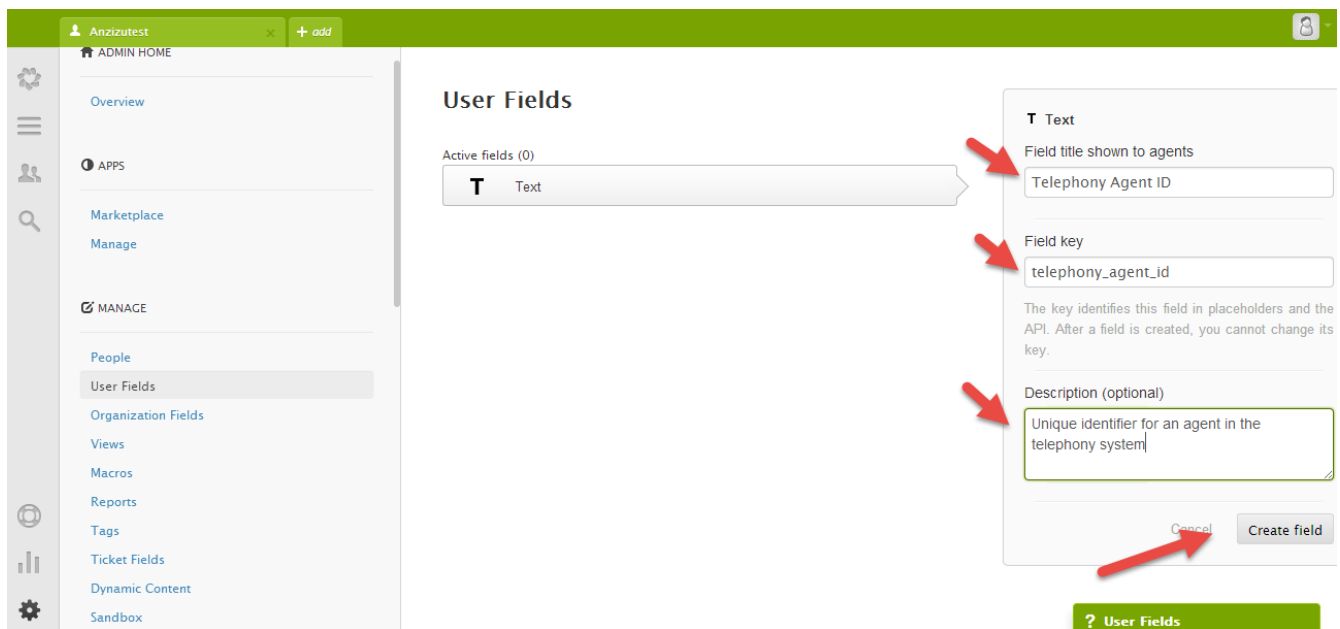
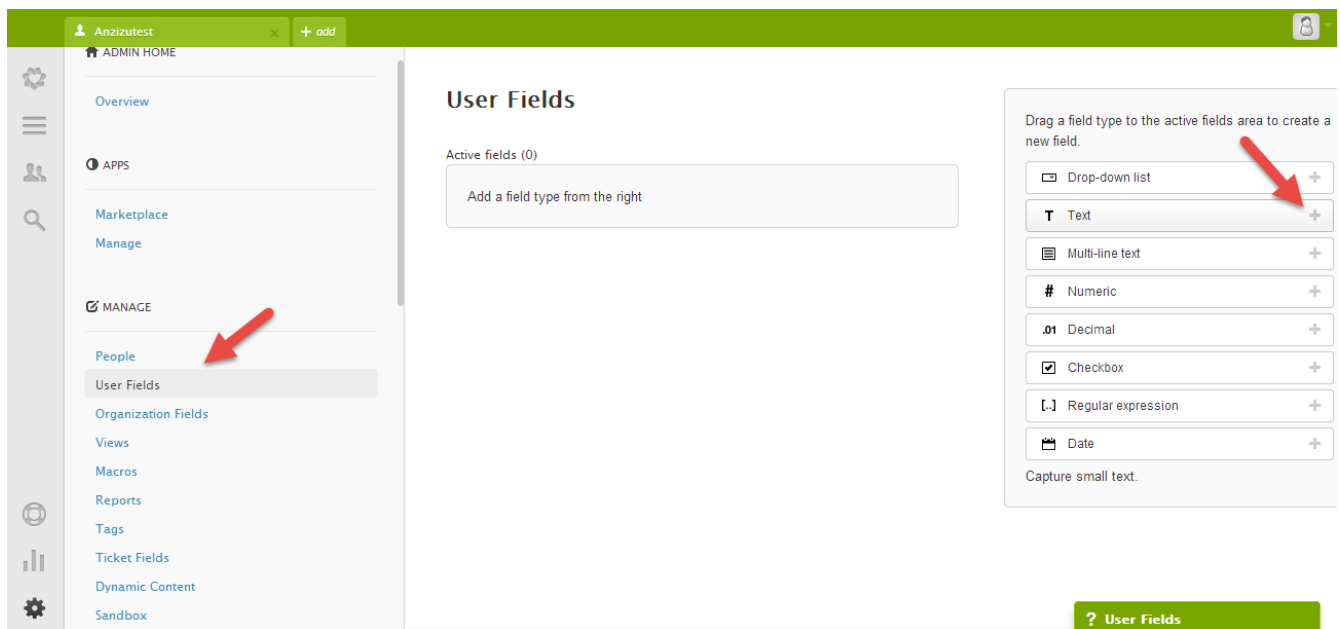
Note: API password access is required to log in to the Zendesk apps for mobile devices.

[Learn more.](#)

5. When using Token Access the configuration connector's configuration file will contain the following settings:

```
<!-- The Zendesk API URL to use to for integration-->  
<add key="ZenAPIUrl" value="https://awesomeearth.zendesk.com"/>  
  
<!-- The Zendesk API user to use to for integration-->  
<add key="ZenAPIUser" value="administrator@awesomeearth.org"/>  
  
<!-- Whether to use PW or Token. Defaults to true if not set. -->  
<add key="ZenAPIUseToken" value="true"/>  
  
<!-- The Zendesk API password OR TOKEN for zendesk user to use for integration. Default is to use token. -->  
<add key="ZenAPIPW" value="MY SECRET TOKEN"/>
```

6. Define a User Field to identify the telephony agent id with Zendesk agent



The Field Key value “telephony_agent_id” will be used in this example DTK Zendesk connector configuration to match events from the telephony system with your agents in your Zendesk account.

7. Updating your agents user field “Telephony Agent ID”:
 - a. Click on People, then agents to filter by agent role.
 - b. For each required agent click edit to update. For larger deployments an API update tool can be utilized to set this value for each agent based on data exported from the telephony system or provided by the customer.

Manage

MANAGE

People

User Fields

Organization Fields

Views

Macros

Reports

Tags

Ticket Fields

Dynamic Content

Sandbox

CHANNELS

Email

Twitter

People

add user | group | organization

People are the users of your Zendesk, including your customers and agents. They are the requesters of tickets and the agents assigned to solve them. You can create organizations and groups and use tags to manage your users and your ticket workflow. [Learn more](#)

Enter the first few letters of the search term

Search

... or browse [end-users](#) | [agents](#) | [admins](#) | [groups](#) | [organizations](#) | [roles](#) | [tags](#)

Agents (3)

Administrator at awesomeearth
administrator@awesomeearth.org
Owner [edit](#)

John
john@awesomeearth.org
Agent [edit](#)

Laura
laura@awesomeearth.org
Agent [edit](#)

? People

c. Update the Telephony Agent ID field.

Language English

Time zone (GMT-07:00) Pacific Time (...)

Details Full Time

Notes Cisco Agent

Telephony Agent ID

5002

Created Nov 13, 2013 23:07

Updated Feb 23 10:58

Last login Feb 23 13:13

User options ^

8. The zenTelephonyAgentIdRule in the Zendesk connector configuration relates Zendesk agents with Telephony Agents. Below is the rule as defined for our example. "In short the rule states: "Match the Zendesk user field with name of telephony_agent_id to the telephony event field named AgentID".

```
<componentConfiguration>

  <!--
    We use to match our telephony agent to the zendesk agent
    by searching zendesk for field of type "FieldType" with
    name of "FieldName" and for value from telephony data field
    with name of "FieldValue"
  -->
  <zenTelephonyAgentIdRule>
    <FieldMatches>
      <FieldMatch>
        <FieldType>type:user</FieldType>
        <FieldName>telephony_agent_id</FieldName>
        <FieldRequired>true</FieldRequired>
        <FieldCondition></FieldCondition>
        <FieldValues>
          <FieldValue>
            <FieldValueType>DTK_Telephony</FieldValueType>
            <FieldValue>AgentID</FieldValue>
            <FieldValueCondition></FieldValueCondition>
          </FieldValue>
        </FieldValues>
      </FieldMatch>
    </FieldMatches>
  </zenTelephonyAgentIdRule>
```

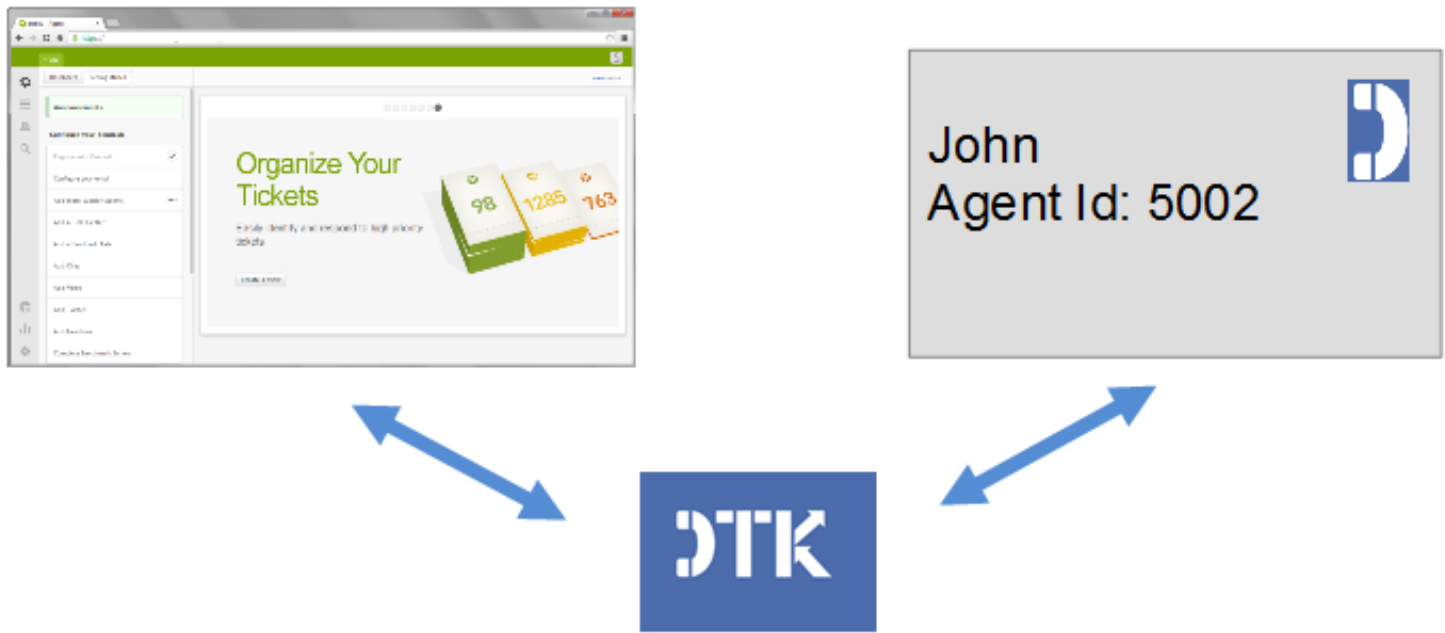


Figure 1 Shows user in Zendesk configured with user field named `telephony_agent_id` with a value of 5002 gets related to telephony agent which has an AgentID of 5002 by the DTK.

Sidney Lanier ✕ + add

Awesomeearth (create) Sidney Lanier

Role End-user

Access Tickets requested by user

Email sidney@awesomeearth.org ▼

Phone 3053163441 ▼
[add contact](#)

Sidney Lanier
tickets ccs

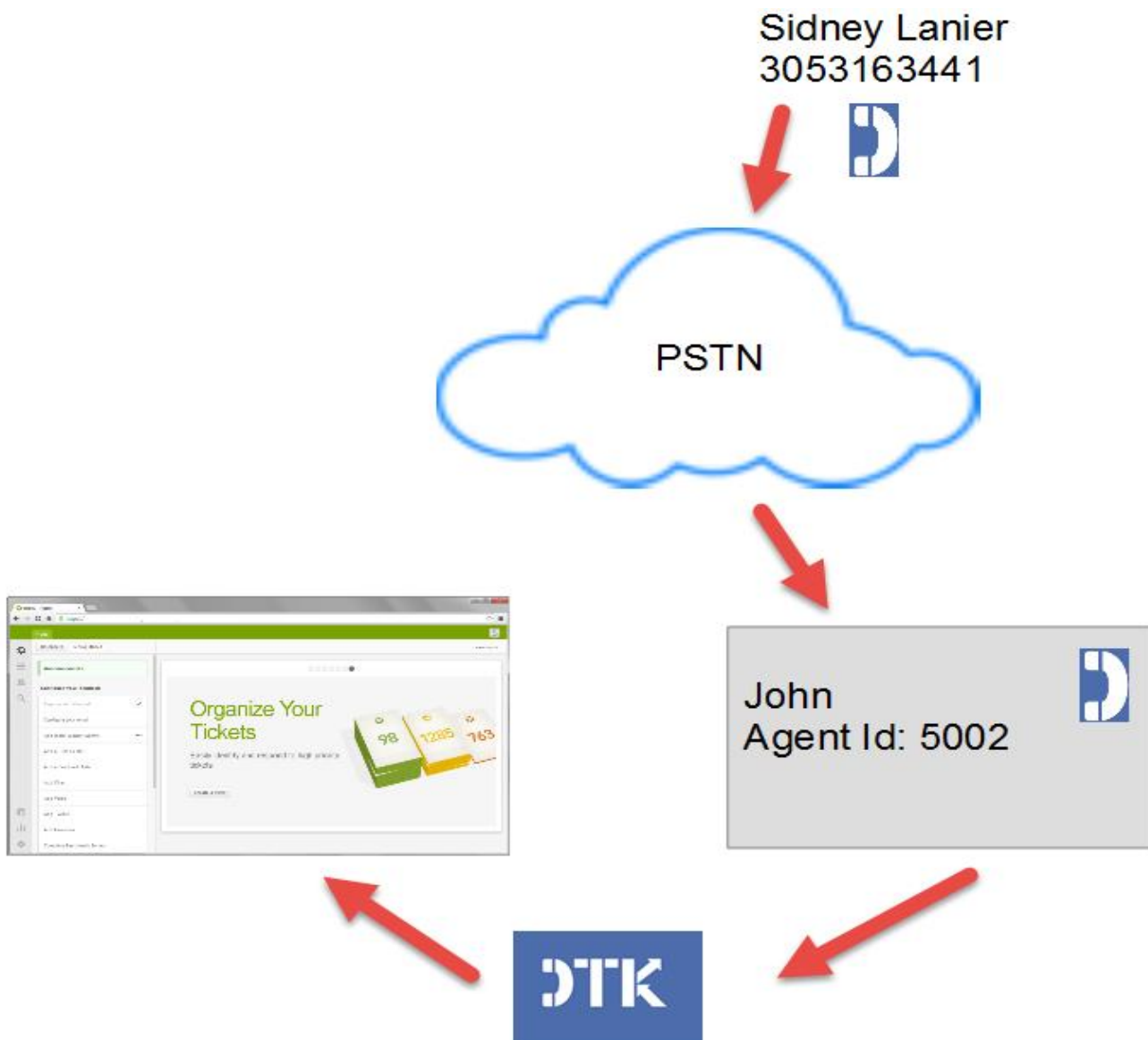
Tickets (0)

<input type="checkbox"/>	ID	SUBJECT	REC
No tickets in this view			

Automatic number identification (ANI) Example

These example images and configurations will show how ANI (phone number of the caller) can be used to locate a Zendesk user and display that user to the Agent receiving the call.

Each DTK_Telephony call event received by DTK Zendesk Connector contains the ANI or telephone number of the caller. When the example end-user shown above calls your organization, the event received by DTK Zendesk will contain a data element named ANI that contains the caller's phone number of 3053163441. This in turn is used to locate the Zendesk user associated with this phone number and display that user to the agent.



The below search rule illustrates how the ANI example is configured. In short it states: "Search the Zendesk user field named phone for the value in the telephony's events ANI field".

```
<!--  
    We use to populate search fields for finding a user.  
-->  
  
<zenTertiarySearchRule>  
  <FieldMatches>  
    <FieldMatch>  
      <FieldType>type:user</FieldType>  
      <FieldName>phone</FieldName>  
      <FieldRequired>true</FieldRequired>  
      <FieldCondition></FieldCondition>  
      <FieldValues>  
        <FieldValue>  
          <FieldValueType>DTK_Telephony</FieldValueType>  
          <FieldValue>ANI</FieldValue>  
          <FieldValueCondition></FieldValueCondition>  
        </FieldValue>  
      </FieldValues>  
    </FieldMatch>  
  </FieldMatches>  
</zenTertiarySearchRule>
```

Telephony Call Data Update Example

This example includes an ANI lookup similar to the prior example. In addition, the Zendesk user id of the caller and the Zendesk ticket id of the ticket generated, is sent back to telephony system and associated with the in progress call. The following images and configurations will show how ANI (phone number of the caller) can again be used to locate a Zendesk user, display that user to the Agent receiving the call, and update the telephony system with data received from Zendesk.

1. Sidney Lanier calls awesomeearth.org with ANI 3053163441 and John with agent id 5002 answers the call. End User tab for Sidney is displayed and new ticket is generated. The user id of the caller and the ticket id generated have also been updated in the telephony system and appear in Var9 and Var10 respectively on the agent's softphone.

The image shows two overlapping screenshots. The top screenshot is a Zendesk ticket page for 'Sidney Lanier' with ticket #53. A red arrow points to the 'NEW Ticket #53' button. The bottom screenshot is a CTI Toolkit Agent Desktop interface for agent John Awesomeearth. A red arrow points to the 'Dial/Answer/Release' button. Below the toolbar is a table with call data, and another red arrow points to the 'Var10' column.

CallID	CallStatus	CallType	DNIS	ANI	CED	DialedNumber	Wrapup	Var1	Var2	Var3	Var4	Var5	Var6	Var7	Var8	Var9	Var10
5	Talking	AGENT INSIDE	5002	3053163441		5002										374835790	53

2. Transfer to another agent: John needs to transfer to Laura with agent id 5003 who will receive the call regarding the new ticket John received.
3. The call data that was updated with the user id of the caller and the ticket id generated will stay with the call during the transfer as can be seen in Laura's softphone (Bottom phone).

CTI Toolkit Agent Desktop (Win32) (7.5.10510) - John Awesomeearth @ IPC

Login Agent State Dial/Answer/Release Hold/Retrieve Alt/Reconn Conf/Transfer Sup Assist Tools

CallID	CallStatus	CallType	DNIS	ANI	CED	DialedNumber	Wrapup	Var1	Var2	Var3	Var4	Var5	Var6	Var7	Var8	Var9	Var10
5	Held	AGENT_INSIDE	5002	3053163441		5002										374835790	53
6	Talking	AGENT_INSIDE	5003	3053163441		5002										374835790	53

Ext: 5002 Inst: 5002 Agent ID: 5002 Agent Status: Talking Connected To: win-7dh6chb6du6 Online

CTI Toolkit Agent Desktop (Win32) (7.5.10510) - 5003 5003 @

Login Agent State Dial/Answer/Release Hold/Retrieve Alt/Reconn Conf/Transfer Sup Assist Tools

CallID	CallStatus	CallType	DNIS	ANI	CED	DialedNumber	Wrapup	Var1	Var2	Var3	Var4	Var5	Var6	Var7	Var8	Var9	Var10
6	Talking	AGENT_INSIDE	5003	3053163441		5002										374835790	53

Ext: 5003 Inst: 5003 Agent ID: 5003 Agent Status: Talking Connected To: win-7dh6chb6du6 Online



4. This zenUpdateData configuration section illustrates the rule that populates the call data with Zendesk data. In short it states: "Take the value from the Zendesk field named ticket_id and put it in the DTK_Telephony element with name of CallVariable10 AND take the value from the Zendesk field named requester_id and put it in the DTK_Telephony element with name of CallVariable9".

```
<zenUpdateDataRule>
  <FieldMatches>
    <FieldMatch>
      <FieldType>DTK_Telephony</FieldType>
      <FieldName>CallVariable10</FieldName>
      <FieldRequired>true</FieldRequired>
      <FieldCondition></FieldCondition>
      <FieldValues>
        <FieldValue>
          <FieldValueType>ZENDESK</FieldValueType>
          <FieldValue>ticket_id</FieldValue>
          <FieldValueCondition></FieldValueCondition>
        </FieldValue>
      </FieldValues>
    </FieldMatch>
    <FieldMatch>
      <FieldType>DTK_Telephony</FieldType>
      <FieldName>CallVariable9</FieldName>
      <FieldRequired>false</FieldRequired>
      <FieldCondition></FieldCondition>
      <FieldValues>
        <FieldValue>
          <FieldValueType>ZENDESK</FieldValueType>
          <FieldValue>requester_id</FieldValue>
          <FieldValueCondition></FieldValueCondition>
        </FieldValue>
      </FieldValues>
    </FieldMatch>
  </FieldMatches>
</zenUpdateDataRule>
```

