

Set Up Inbound Call Handling

SAP Cloud for Customer does not have a native Computer Telephony Integration (CTI) capability; instead is able to integrate to other CTI solutions to support service processes.

Note Scope phone as a communication channel via business configuration to use the phone call feature.

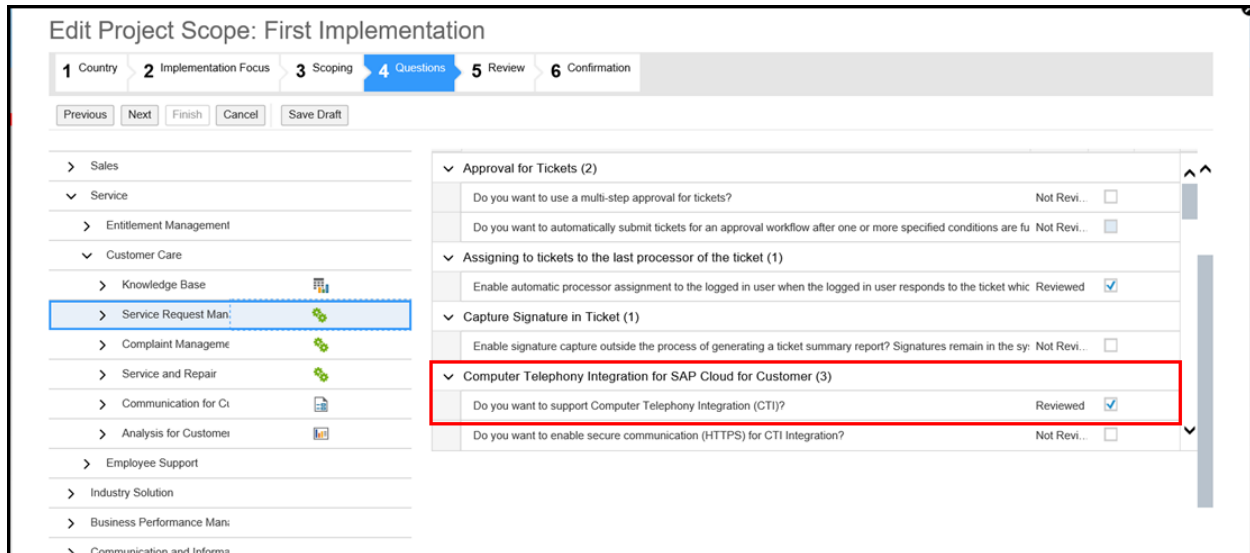
The CTI Client sends phone activity and attached data captured via IVR to our solution in the **Live Activity** screen via CTI Client adapter.

Live Activity feature looks up the customer or ticket using the data received and creates a new customer or ticket. In the incoming phone activity display window you are able to accept, reject, end, or transfer calls via CTI Client provided by the CTI vendor.

Enable Phone as a Communication Channel

The administrator must enable phone as a communication channel via business configuration to use the call feature in our solution.

Go to **Business Configuration First Implementation Edit Project Scope Service Customer Care Service Request Management Questions**, and select the question: **Do you want to support Computer Telephony Integration (CTI)?**



Enable Inbound Calls

URL parameters required to enable inbound phone calls.

Inbound call integration uses a parameterized URL call from the CTI desktop client to the SAP Cloud for Customer CTI Client Adapter to pass information like the ANI, DNIS, and CAD to the solution.

The URL

is: `http://localhost:36729/?CID=<cid>&ANI=<phonenumber>&DNIS=<phonenumber2>&<cad1=xxxx&cad2=yyyy>`.

Additional parameters can be added to the URL so that extra information can be passed to SAP Cloud for Customer.

The following table lists the parameter names and the information each parameter contains:

Parameter	Description	Can Be Enabled for Default Live Activity Center Search
Type	<p style="text-align: center;">CALL</p> <p style="text-align: center;">CHAT</p> <p style="text-align: center;">Defaults to CALL if no parameter specified.</p>	
CID	<p style="text-align: center;">The client ID.</p> <p style="text-align: center;">This is mandatory value.Note</p> <p style="text-align: center;">Supported values are currently limited to: BCM1234, AVAYA5678, CISCO9876, GEN8923 (Genesys), SIE5281 (Siemens). Use CID=BCM1234 for other providers.</p>	
ANI	The caller's number	✓
DNIS	The number dialed	
BP	The caller's account ID	✓
TicketID	The ID of a ticket associated with the call	✓
SerialNo	A registered product serial number	✓
E-Mail	Caller's e-mail address	✓
ExternalReferenceID	Unique call ID in the CTI system	
ExternalOriginalReferenceID	Original Reference ID of the call being transferred	

Parameter	Description	Can Be Enabled for Default Live Activity Center Search
EventType	<p>Supported Values:</p> <p>Inbound</p> <p>Outbound</p> <p>UpdateActivity</p> <p>Transfer</p>	
Custom_1-4	Four fields you can use to pass any other call data	
ActivityUUID	Phone call activity UUID (if available). Available after UpdateActivity event is triggered by click-to-call action.	
Event	<p>Supported values:</p> <p>CALL_ALLOCATED</p> <p>CALL_CONNECTED</p> <p>CALL_DISCONNECTED</p> <p>CHAT_ALLOCATED</p> <p>CHAT_CONNECTED</p> <p>CHAT_DISCONNECTED</p>	
Transcript	Chat transcript passed back to system once chat is ended	

Note

All of these parameters are included in the following extension spot, available in the

SDK: ES_COD_CTI_CALL_HANDLING

Your customer requires that the following data is passed from your CTI solution to their SAP solution:

ANI (Dialing From):	408-361-3611	External ID:	56432156787890
Number Dialed:	1-800-455-5555	Custom_1:	value1
AccountID	1000655	Custom_2:	value2
Serial Number	XY234567T	Custom_3:	value3
TicketID	8003456	Custom_4:	value4

You would enter the following URL:

```
http://localhost:36729/?CID=BCM1234&ANI=408-361-3611&DNIS=1-800-455-5555&BP=1000655&SerialNo=XY234567T&TicketID=8003456&ExternalReferenceID=56432156787890&Custom_1=value1&Custom_2=value2&Custom_3=value3&Custom_4=value4.
```

Example

Example of C# code to send a parameterized call to SAP Cloud for Customer:

```
urlparam1 = "ANI=408-361-3611&DNIS=1-800-455-5555&BP=1000655&SerialNo=XY234567T&TicketID=8003456&";  
  
urlparam2 = urlparam1 + "ExternalReferenceID=56432156787890&Custom_1=value1&Custom_2=value2&Custom_3=value3&Custom_4=value4";  
  
"url = http://localhost:36729/?CID=BCM1234&" + urlparam2;  
  
HttpWebRequest webReq = (HttpWebRequest)WebRequest.Create(url);  
  
HttpWebResponse WebResp = (HttpWebResponse)webReq.GetResponse();
```

In this example, Urlparam is split into multiple strings only for better readability.

Context Parameters for Incoming Calls

With an incoming phone call, call information is passed to our solution based on certain parameters.

When you click on the incoming call display window, our solution displays the Live Activity Center window with associated information for that incoming phone number.

In our solution, an incoming call information is passed based on ANI (incoming phone number), Search for Business Partners such as: Contact, Account, and Individual Customers.

Solution search could identify a unique customer, multiple customers, or may not identify any customer at all.

The following list displays the various parameters passed from the CTI Adapter or Widget for an incoming call. The system would either call all the properties (mentioned below), or a subset depending on parameters maintained in the adapter or widget.

Parameter	Description	Can Be Enabled or Default Live Activity Center Search
Type	CALL CHAT Defaults to CALL if no parameter specified.	
ClientID	The client ID. This is mandatory value. Note Supported values are currently limited to: BCM1234, AVAYA5678, CISCO9876, GEN8923 (Genesys),	

Parameter	Description	Can Be Enabled or Default Live Activity Center Search
	SIE5281 (Siemens). Use CID=BCM1234 for other providers.	
ANI	The caller's number	/
DNIS	The number dialed	
BP	The caller's account ID	/
TicketID	The ID of a ticket associated with the call	/
SerialNo	A registered product serial number	/
E-Mail	Caller's e-mail address	/
ExternalReferenceID	Unique call ID in the CTI system	
ExternalOriginalReferenceID	Original Reference ID of the call being transferred	
EventType	Supported Values: Inbound Outbound UpdateActivity Transfer	
Custom_1-4	Four fields you can use to pass any other call data	

Parameter	Description	Can Be Enabled or Default Live Activity Center Search
ActivityUUID	Phone call activity UUID (if available). Available after UpdateActivity event is triggered by click-to-call action.	
Event	Supported values: CALL_ALLOCATED CALL_CONNECTED CALL_DISCONNECTED CHAT_ALLOCATED CHAT_CONNECTED CHAT_DISCONNECTED	
Transcript	Chat transcript passed back to system once chat is ended	

ExampleThe following is a sample of the incoming call payload:

```
<?xml version='1.0' encoding='utf-8' ?>

<payload>

<ANI>PHONENUMBER</ANI>

<TicketID>TICKETID</TicketID>

<ExternalReferenceID>EXTERNALREFID</ExternalReferenceID>

<Serial>SERIALID</Serial>
```


<DNIS>DIALLEDNUMBER</DNIS>

<BP>BPID</BP>

<Custom_1>CUSTOM1</Custom_1>

<Custom_2>CUSTOM2</Custom_2>

<Custom_3>CUSTOM3</Custom_3>

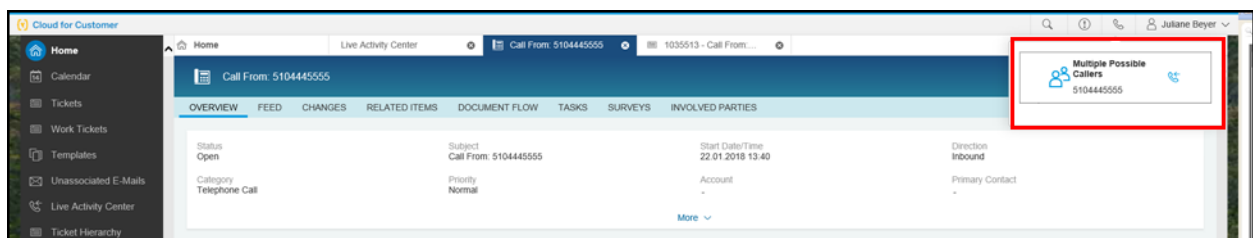
<Custom_4>CUSTOM4</Custom_4>

</payload>

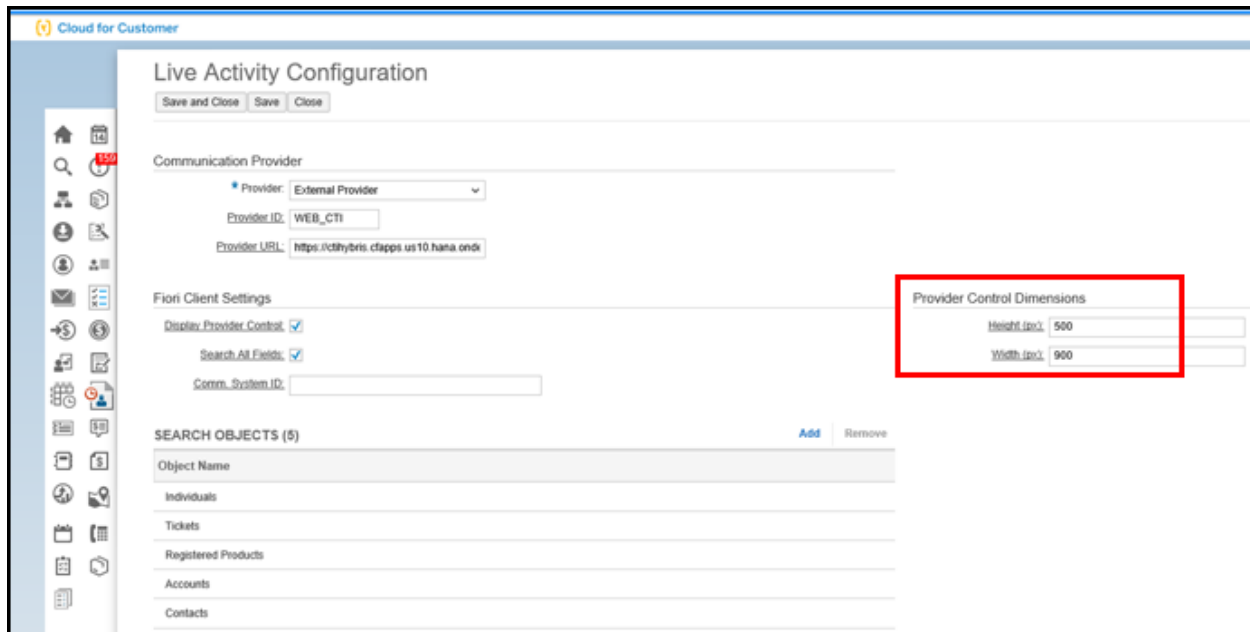
Configure Dimensions for Live Activity Display Window

You can configure the size of the phone activity display window in the **Live Activity** tab.

Configure the phone activity display window dimensions so you are able to see all displayed information without using scroll bars.



Required Configuration: Go to **Administration Service and Social Communication Channels Live Activity Configuration**, and set the appropriate height and width in the **Provider Control Dimensions** section.



Simulate CTI Call

Simulate an incoming call in Live Activity with the SAP Cloud for Customer CTI Client Adapter.

Prerequisites

- Download, install, and launch the SAP Cloud for Customer CTI Client Adapter.
- Log on to SAP Cloud for Customer and open Live Activity.

Context

Use the CTI Client Adapter to simulate an inbound phone call to test the connection to Live Activity.

Procedure

1. Open the SAP Cloud for Customer CTI Client Adapter window on your computer.
2. Choose **Simulate**.
3. Enter the information you want to use for the inbound call or chat in the **SIMULATION** window.
4. Choose **Simulate** to simulate an inbound phone call.

Results

The information you entered in the simulation window appears in Live Activity as an incoming phone call.

Warm Transfer for Computer Telephony Integration (CTI)

A warm transfer consists of an incoming or outgoing call that gets transferred to other consecutive agents. The persistent unique Original External ID, and incremental External IDs for each transfer identifies a warm transfer. Read on to know more about a typical warm transfer scenario.

Warm Transfer Scenario

An agent receives a call from a customer. The system identifies the customer based on the phone number, and is also able to associate it to the related ticket. The agent is unable to help the customer and transfers the call to Agent 2 after adding notes to the call activity.

Agent 2, receives the call, and can see the notes added by the first agent, the confirmed customer, and linked ticket in the **Live Activity** center. Unable to help the customer, Agent 2 takes additional notes and transfers the call to a third agent.

Agent 3 receives the call and is able to see the call context from Agent 2 and Agent 1 in the **Live Activity** screen. Agent 3 handles the call and helps the customer.

A warm transfer can pass the following context information:

- confirmed caller
- notes
- linked ticket

Cloud for Customer

Home Live Activity Center Live Activity Center Live Activity Center

1 Your entries have been saved.

6238 : B2C New Email

Changed On: 06/11/2018 03:06 PM PST Status: In Process - Working On It Priority: Normal Assigned To: Kelly Lee

Customer: Kiran Karadi Source: E-Mail

6243 : Reply All - Functionality

Changed On: 12/07/2017 01:33 PM PST Status: Open Priority: Normal Assigned To: -

Customer: Kiran Karadi Source: E-Mail

6237 : Hello From Kiran

Changed On: 09/25/2017 10:39 AM PST Status: Open Priority: Normal Assigned To: -

Customer: Kiran Karadi Source: E-Mail

24234

Ext Field: smartphone Priority: Normal

Created On: 06/13/2018 6:21 PM *Activity Type: Phone Call

Ext Checkbox: Kiran Email Act Ext Field: Hello

Call Duration Ext: 1:00 AM Call Recording Link Ext: http://google.com

Notes

See related notes below from Agent 1.

I now confirm customer and ticket from left side. Clicking on "Confirm Customer button" and "Link to Ticket"

I then transfer to Agent 3

Category: Telephone Call

Related Activities (1)

ID	Note	Created On
3382	Transferring call to Agent 2 by clicking on Transfer button. Note ...	6 minutes ago

Cloud for Customer

Home Live Activity Center Live Activity Center Live Activity Center Live Activity Center Live Activity Center

Monarch Picture Movie

Registered Product ID: 201 External ID: - Status: Active Customer: Kiran Karadi

Contact Name: - Warranty End Date: -

6238 : B2C New Email

Changed On: 06/13/2018 06:27 PM PST Status: In Process - Working On It Priority: Normal Assigned To: Kelly Lee

Customer: Kiran Karadi Source: E-Mail

6243 : Reply All - Functionality

Changed On: 12/07/2017 01:33 PM PST Status: Open Priority: Normal Assigned To: -

Customer: Kiran Karadi Source: E-Mail

6237 : Hello From Kiran

Changed On: 09/25/2017 10:39 AM PST Status: Open Priority: Normal Assigned To: -

Customer: Kiran Karadi Source: E-Mail

34234

Ext Field: smartphone Priority: Normal

Created On: 06/13/2018 6:27 PM *Activity Type: Phone Call

Ext Checkbox: Kiran Email Act Ext Field: Hello Email

Call Duration Ext: 1:00 AM Call Recording Link Ext: http://google.com

Notes

Agent 3 sees notes from Agent 1 and Agent 2 (see Related activities below)

Agent see that customer and ticket are linked. See call information section above (Caller and Linked Ticket ID)

Agent handles call. Ends call in CTI widget (Provided by CTI vendor)

Category: Telephone Call

Related Activities (2)

ID	Note	Created On
3382	Transferring call to Agent 2 by clicking on Transfer button. Note ...	11 minutes ago
3383	See related notes below from Agent 1. I now confirm customer a...	6 minutes ago

A warm transfer has a unique Original **External ID**, which remains constant through all the transfers. However, the **External ID** for each consecutive transfer changes. The Original **External ID** associates the transfers to the original call.

Note Update CTI vendor integration with our solution to be able to pass additional information.

You can view the entire warm transfer flow in the **Document Flow** tab.

