

Dynamics 365 CC Deep Dive #3

The holiday season is right around the corner, and I thought it was the perfect time to deliver a Newsletter gift where I continue down this rabbit hole that I found myself in the last couple of months. At first I released a post using mermaid to highlight some of the major table relationships in the D365 CC: [Dynamics 365 Call Center Data Model](#) then I uploaded these to GitHub for you to be able to download: [Dynamics 365 Call Center Tables](#)

In the implementation of the D365 CC I came across things that needed closer investigation and this newsletter version is a result of me digging in further.

Question 1: Does the D365 CC create phone calls?

Question 2: How To automatically create a new contact when a person calls in and we do not have them in our systems?

These 2 simple questions have let me to what I consider as the equivalent of taking the motor of my car. Let's start with:

Questions 1 - Does the D365 CC create phone calls?

The answer is NO. D365 CC uses a new activity table called Conversation as the foundation of tracking D365 CC Calls.

On my testing contact card activity timeline looks like this:

Timeline

+ ⌂ ⌁ ⌂ ⌃ ⌄ ⌅

Search Timeline

Enter a note...



Recent



Conversation Active

⊕ ✓ ⌂ ⌄ ⌁

By: ⌂ Patrick Kitchell

Patrick Kitchell

Created on: 12:46

[View more](#)



Conversation Closed

⊕ ⌂ ⌄ ⌁

By: ⌂ Patrick Kitchell

Patrick Kitchell

Created on: 19-12-2025 14:32

[View more](#)



[Transcript](#)



Conversation Closed

⊕ ⌂ ⌄ ⌁

By: ⌂ Patrick Kitchell

Patrick Kitchell

Created on: 17-12-2025 13:17

Conversations on my Timeline

When I open one of these conversations then there are other important data that are important like Workstreams, Queue, Channel, Etc.

Patrick Kitchell: Front-desk workstream - Saved

Conversation

Details Related ▾

Workstream Front-desk workstream
Queue Legal Call center Queue

Status: Open | Channel: Voice call | Regarding: Patrick Kitchell | Skills: ... | Sentiment: ...

Transcript | Summary

⚠ There's not enough information to summarize.

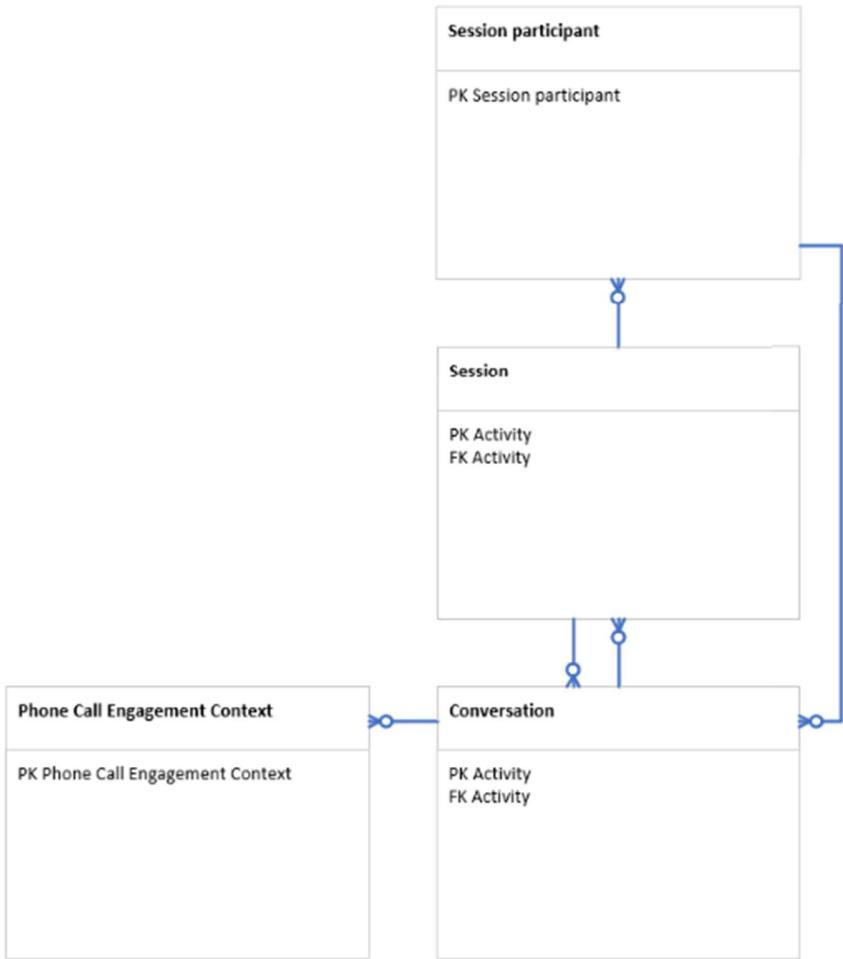
Conversation Journey

ConversationId: 0a3b0dac-11f9-4cc9-a04d-e0b77a4efb5f

- Session 1 12:46 to 12:46 - Total 20s
 - 12:46 Primary Agent Assigned (Agent Accepted)
 - 12:46 Bot Transfer To Agent
- Session 2 12:46 to --:-- - Total undefined
 - 12:47 Primary Agent Assigned (PK Accepted)
 - :--

This is an important distinction - for using D365 CC related data in Marketing or Reporting. All the important data is related to a Contact through this conversation activity table. Triggering marketing would happen through conversations not phone calls.

The simplified data model looks as follows and this will be discussed in more detail below.

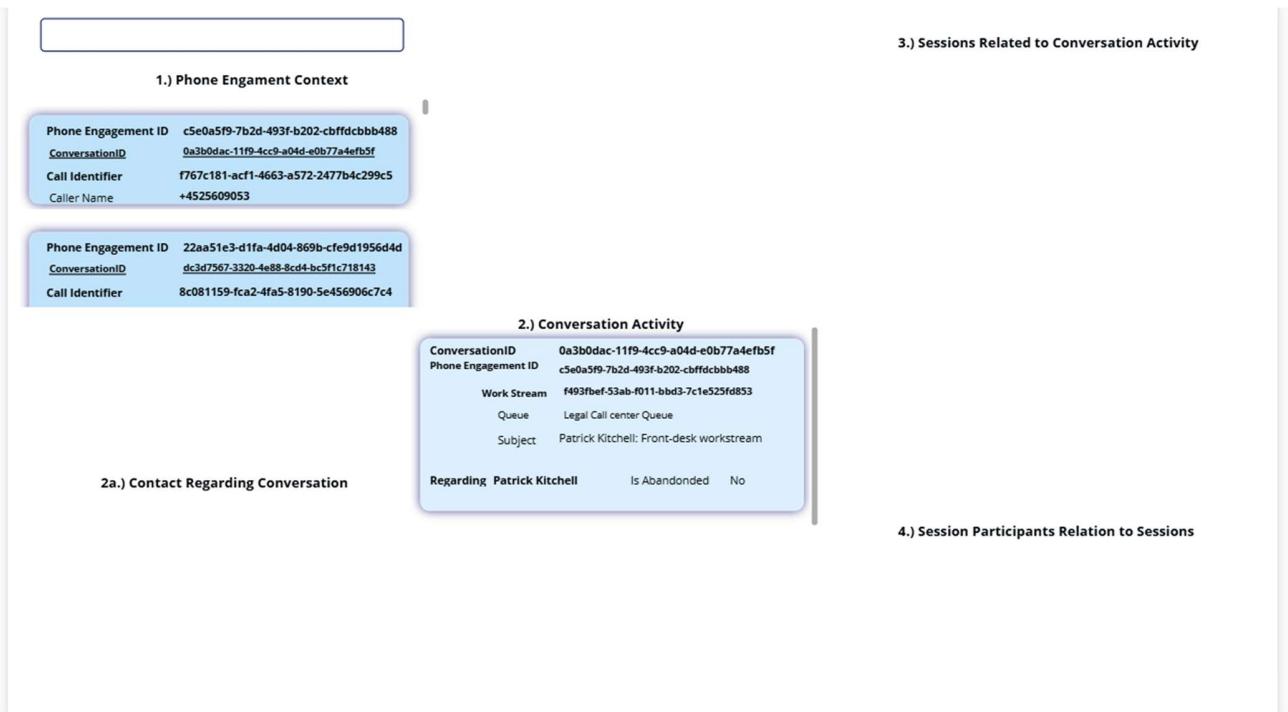


Questions 2: How To automatically create a new contact when a person calls in and we do not have them in our systems?

Grabbing phone numbers from unknown contacts is not that straightforward has it seems. On the conversation activity the **caller name**(phone number when unknown) + workstream name is populated in the conversation subject and title field. Is it possible to grab the number here yes and it requires some logic to get it down.

Is there a better way?

Lets look at the data model to understand how things are tied together. The picture below shows the flow from Phone Call Engagement Context through to Sessions.



The data flow is as follows: when a call comes through to D365 CC it creates a record called:

1.) Phone Call Engagement Context:

A record that is tied to conversation activity and stores information about the call. If the contact is known then it adds this information to the Caller Name otherwise it uses the incoming callers number.

1.) Phone Engagement Context

Phone Engagement ID	c5e0a5f9-7b2d-493f-b202-cbffdcbba488
ConversationID	<u>0a3b0dac-11f9-4cc9-a04d-e0b77a4efb5f</u>
Call Identifier	f767c181-acf1-4663-a572-2477b4c299c5
Caller Name	+4525609053

Phone Engagement ID	22aa51e3-d1fa-4d04-869b-cfe9d1956d4d
ConversationID	<u>dc3d7567-3320-4e88-8cd4-bc5f1c718143</u>
Call Identifier	8c081159-fca2-4fa5-8190-5e456906c7c4

2.) Conversations Activity:

Conversation activity is what I spoke about above and has a good set of information. What is important is that every Phone Call Engagement Context is tied to a Conversation Activity. The contact record is regardin the conversation record:

2.) Conversation Activity

ConversationID	0a3b0dac-11f9-4cc9-a04d-e0b77a4efb5f
Phone Engagement ID	c5e0a5f9-7b2d-493f-b202-cbffdcbba488
Work Stream	f493fbef-53ab-f011-bbd3-7c1e525fd853
Queue	Legal Call center Queue
Subject	Patrick Kitchell: Front-desk workstream

2a.) Contact Regarding Conversation

Regarding Patrick Kitchell Is Abandoned No

Patrick Kitchell



patrick.kitchell@gmail.com
W
M +4525609053
CEO

The conversation activity is tied to sessions and usually a Conversation Activity as more than 1 session.

3.) Sessions Related to Conversation Activity

2.) Conversation Activity

ConversationID	0a3b0dac-11f9-4cc9-a04d-e0b77a4efb5f
Phone Engagement ID	c5e0a5f9-7b2d-493f-b202-cbffdcbbb488
Work Stream	f493fbef-53ab-f011-bbd3-7c1e525fd853
Queue	Legal Call center Queue
Subject	Patrick Kitchell: Front-desk workstream

Regarding Patrick Kitchell Is Abandoned No

Channel	Voice call	Closure Reason:
Session Start	12/21/2025 12:40 DM	Agent Assigned On 12/21/2025 12:40 PM
Session End		
Subject	Patrick Kitchell: Front-desk workstream	
Queue	Legal Call center Queue	
SessionID	b6346b35-7e8a-4ef2-9781-2b244cf773a4	
ConversationID	0a3b0dac-11f9-4cc9-a04d-e0b77a4efb5f	

Channel	Voice call	Closure Reason:
Session Start	12/21/2025 12:40 DM	Agent Assigned On 12/21/2025 12:40 PM
Session End	12/21/2025 12:46 PM	
Subject	Patrick Kitchell: Front-desk workstream	
Queue	Front-desk Call center Queue	
SessionID	396c1a45-dc4e-4a4b-8542-b3a031f4f288	
ConversationID	0a3b0dac-11f9-4cc9-a04d-e0b77a4efb5f	

3.) Sessions Related to the Conversation:

These sessions are the "steps" that conversation is going through to get into the hands of an agent. Look in my example below and the first session(at the bottom) is in the default queue and the session above it has been routed to a new queue based off of context variables that are passed through from the IVR Bot.

3.) Sessions Related to Conversation Activity

<u>Channel</u>	Voice call	Closure Reason:	AutoClose
Session Start	19/12/2025 14:33	Agent Assigned On	
Session End	20/12/2025 14:34	19/12/2025 14:33	
Subject	Patrick Kitchell: Front-desk workstream		
<u>Queue</u>	Legal Call center Queue		
SessionID	b6346b35-7e8a-4ef2-9781-2b244cf773a4		
ConversationID	<u>dc3d7567-3320-4e88-8cd4-bc5f1c718143</u>		

<u>Channel</u>	Voice call	Closure Reason:	BotTransferToAgent
Session Start	19/12/2025 14:32	Agent Assigned On	
Session End	19/12/2025 14:32	19/12/2025 14:32	
Subject	Patrick Kitchell: Front-desk workstream		
<u>Queue</u>	Front-desk Call center Queue		
SessionID	b6346b35-7e8a-4ef2-9781-2b244cf773a4		
ConversationID	<u>dc3d7567-3320-4e88-8cd4-bc5f1c718143</u>		

4.) Session Participants Related to the Sessions

Finally for each Session there are session participants and it is on this record I used to populated Take Time - an out of the box field.

<u>Channel</u>	Voice call	Closure Reason:	
Session Start	19/12/2025 14:40 PM	Agent Assigned On	
Session End	19/12/2025 14:40 PM	19/12/2025 14:40 PM	
Subject	Patrick Kitchell: Front-desk workstream		
<u>Queue</u>	Legal Call center Queue		
SessionID	b6346b35-7e8a-4ef2-9781-2b244cf773a4		
ConversationID	<u>dc3d7567-3320-4e88-8cd4-bc5f1c718143</u>		

<u>Channel</u>	Voice call	Closure Reason:	BotTransferToAgent
Session Start	19/12/2025 14:40 PM	Agent Assigned On	
Session End	19/12/2025 14:46 PM	19/12/2025 14:40 PM	
Subject	Patrick Kitchell: Front-desk workstream		
<u>Queue</u>	Front-desk Call center Queue		
SessionID	b6346b35-7e8a-4ef2-9781-2b244cf773a4		
ConversationID	<u>dc3d7567-3320-4e88-8cd4-bc5f1c718143</u>		

4.) Session Participants Relation to Sessions

Joined On	12/21/2025 12:47 PM	Assign Reason	BotTransferSession
Left On		Left On Reason	
		Agent Info	Patrick Eugene Kitchell
Talk Time	59	ParticipantID	54e26f97-3b59-4309-a1b3-9eeb26331e3e
		SessionID	b6346b35-7e8a-4ef2-9781-2b244cf773a4

5.) A Static Picture of This in my Ugly Canvas App

1.) Phone Engagement Context

Phone Engagement ID	c5e0a5f9-7b2d-493f-b202-cbffdccbb488
ConversationID	0a3bdac-11f9-4cc9-a04d-e0b77a4efb5f
Call Identifier	f767c181-acf1-4663-a572-2477b4c299c5
Caller Name	+4525609053

Phone Engagement ID	22aa51e3-d1fa-4d04-869b-cfe9d1956d4d
ConversationID	dc3d7567-3320-4e88-8cd4-bc5f1c718143
Call Identifier	8c081159-fca2-4fa5-8190-5e456906c7c4

2.) Conversation Activity

ConversationID	0a3bdac-11f9-4cc9-a04d-e0b77a4efb5f
Phone Engagement ID	c5e0a5f9-7b2d-493f-b202-cbffdccbb488
Work Stream	f493fbef-53ab-f011-bbd3-7c1e525fd853
Queue	Legal Call center Queue
Subject	Patrick Kitchell: Front-desk workstream

Regarding	Patrick Kitchell
Is Abandoned	No

3.) Sessions Related to Conversation Activity

Channel	Voice call	Closure Reason:
Session Start	21/12/2025 12:46	Agent Assigned On
Session End	21/12/2025 12:47	21/12/2025 12:47
Subject	Patrick Kitchell: Front-desk workstream	
Queue	Legal Call center Queue	
SessionID	b6346b35-7e8a-4ef2-9781-2b244cf773a4	
ConversationID	0a3bdac-11f9-4cc9-a04d-e0b77a4efb5f	

Channel	Voice call	Closure Reason:
Session Start	21/12/2025 12:46	Agent Assigned On
Session End	21/12/2025 12:46	21/12/2025 12:46
Subject	Patrick Kitchell: Front-desk workstream	
Queue	Front-desk Call center Queue	
SessionID	396c1a45-dc4e-4a4b-8542-b3a031f4f288	
ConversationID	0a3bdac-11f9-4cc9-a04d-e0b77a4efb5f	

2a.) Contact Regarding Conversation

Patrick Kitchell	patrick.kitchell@gmail.com
W	+4525609053
M	+4525609053
CEO	

4.) Session Participants Relation to Sessions

Joined On	21/12/2025 12:47	Assign Reason	BotTransferSession
Left On		Left On Reason	
		Agent Info	Patrick Eugene Kitchell
Talk Time	59	ParticipantID	54e26f97-3b59-4309-a1b3-9eb26331e3e
		SessionID	b6346b35-7e8a-4ef2-9781-2b244cf773a4

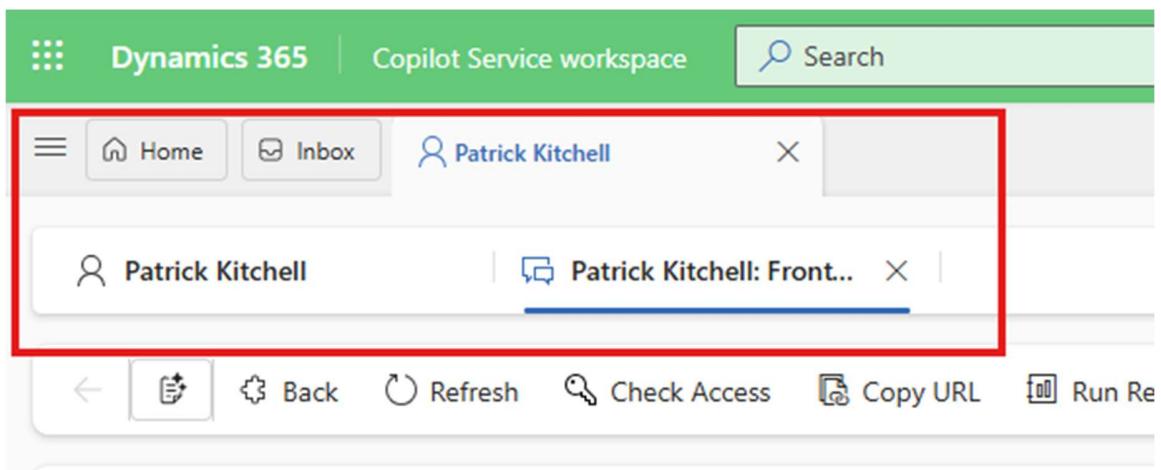
The phone can be grabbed in the **Phone Call Engagement Context Table** and used as you wish. Some side notes:

- A new contact created via powerautomate needs to be related to the current conversation
- The system doesn't go backwards and find other conversations/ phone call engagement context records and bind the new contact to the old conversations

WHAT IS UP WITH SESSIONS

This led me down another path to better understand the idea of Sessions and a Session Browser.

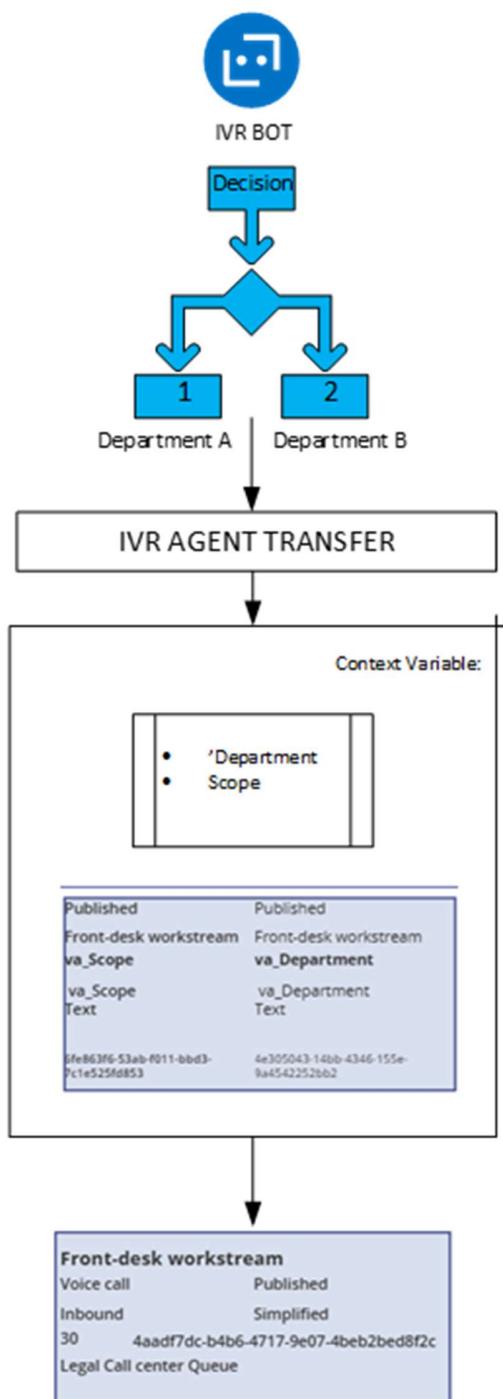
The Customer Service Workspace is multi session browser - meaning a user can have more than 1 session open at time.



The question is how does the session get populated and what is the data flow of information

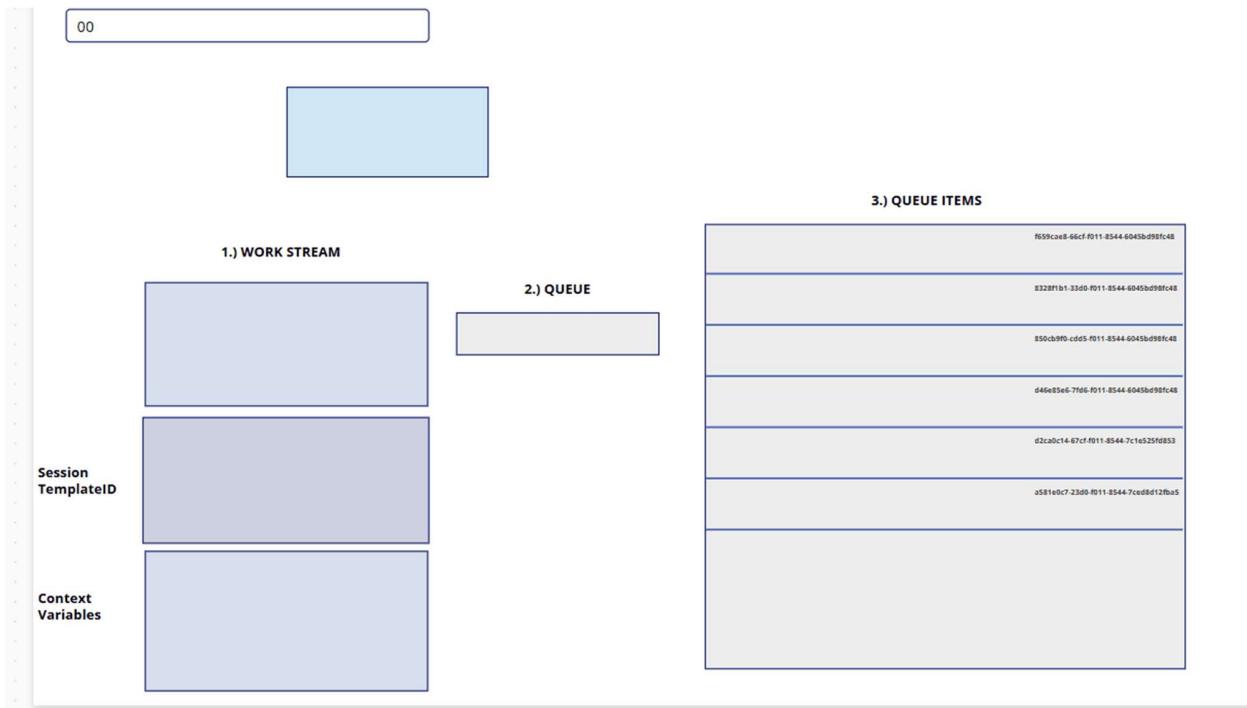
Lets take a simple scenario:

We have a phone number - when dialed an IVR bot asks where to route you and when pressing the button you end up where you need to be. In D365 CC we use context variables that are set in the IVR bot and pushed into the workstream to help route it the right queue.



The Backend in D365 CC

Here I am showing what happens in the back end after the IVR bot has done its job. On top there is the Contact, Phone Call Engagement Context and the Conversation tied to it.



1.) Workstream:

The workstream is a placeholder that is used to route the conversation to the right queue. It contains a relationship to a Session Template and holds the Context Variables that have transferred from the IVR BOT.

1.) WORK STREAM

Front-desk workstream	
Voice call	Published
Inbound	Simplified
30	4aadf7dc-b4b6-4717-9e07-4beb2bed8f2c
Legal Call center Queue	

Session Template:

The Session Template is what the agent will see in the UI. It is in this record where the configuration for the Agent UI is stored.

Session TemplateID

Session TemplateID	288e0dac-b581-4f53-b9d7-5b4cf76ba5
Unique Name	msdyn_voicecall_session
Type	Generic
Anchor Tab	Customer Summary
Com Panel Moe	Docked

Context Variable:

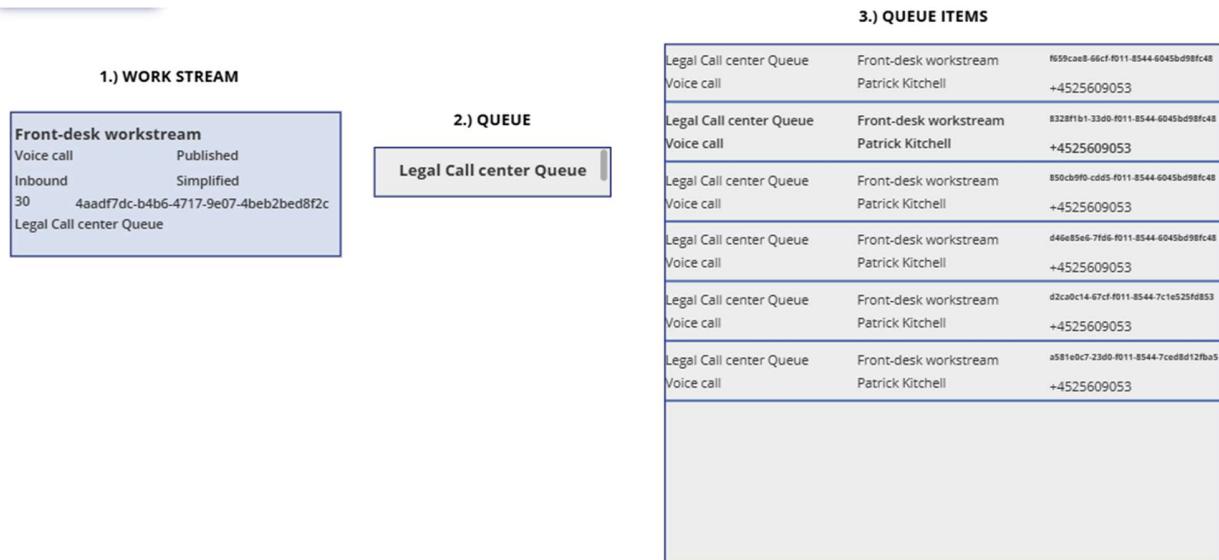
These are created and set in Microsoft Copilot Studio and used in the workstream to route

Context Variables

Published	Published
Front-desk workstream	Front-desk workstream
va_Scope	va_Department
va_Scope	va_Department
Text	Text
6fe863f6-53ab-f011-bbd3-7c1e525fd853	4e305043-14bb-4346-155e-9a4542252bb2

2.) Queues and Queue Items

This is standard queue and queue item tables in D365 CE/CC and a workstream has a default and a fallback queue. Conversations end up in the default queue and routed to the right queue.



Conclusion

Understanding how the data tables are related and how conversations gets routed and answered is important. I would say that this requires a fair amount of patience because things aren't stitched together nicely but they are there - somewhere.

It is possible to get the tables via the API like workstreams at `/api/data/v9.2/$metadata#msdyn_liveworkstreams`" which outputs

```
Pretty print 
{
  "@odata.context": ".com/api/data/v9.2/$metadata#msdyn_liveworkstreams",
  "value": [
    {
      "@odata.etag": "W/\"366719861\"",
      "createdon": "2025-11-05T13:53:43Z",
      "_modifiedonbehalfby_value": null,
      "msdyn_mode": 717210000,
      "msdyn_skillattachmentrulescount_date": "2025-12-21T16:07:09Z",
      "msdyn_requiredispositioncodeforworkstreamconversations": false,
      "_owningbusinessunit_value": "39c2c2a9-bf58-e911-a9e9-000d3a254a9a",
      "_msdyn_outboundqueueid_value": null,
      "msdyn_assignworkitemafterdecline": null,
      "msdyn_notificationtemplate_pre_dial": null,
      "msdyn_restrictdownloadtranscript": false,
      "msdyn_autocloseafterinactivity": 5,
      "msdyn_sessionscenarioplaceholder": null,
      "_msdyn_routingcontractid_value": null,
      "msdyn_recordidentificationvalidationrule": null,
      "msdyn_restrictdownloadrecording": false,
      "msdyn_customermodeconnectholddurationforopenconversation": null,
      "msdyn_fallbacklanguage": null,
      "msdyn_notificationtemplate_incoming_auth": "msdyn_chat_incoming_authenticated",
      "msdyn_capacityformat": 192350000,
      "msdyn_connectorsurl": null,
      "msdyn_enableselectingfrompushbasedworkstreams": false,
      "msdyn_notificationtemplate_transfer": "msdyn_chat_transfer",
      ...
    }
  ]
}
```

I built 2 ugly canvas apps to help visualize the front and back end and I hope to continue working on these as a training tool, trouble shooting, etc