



This PDF is generated from authoritative online content, and is provided for convenience only. This PDF cannot be used for legal purposes. For authoritative understanding of what is and is not supported, always use the online content. To copy code samples, always use the online content.

Voice Microservices Events and Models Reference

Working with queues

7/27/2025

Contents

- 1 Multiple-queue call treated at an IVR port with treatment at IVR queue
 - 1.1 Abnormal call flow
- 2 Multiple-queue, call treated at an IVR port with direct treatment at IVR port
 - 2.1 Abnormal call flow
- 3 Multiple-queue call with call removed from queue

Learn about call models for queues.

Related documentation:

-
-
-

RSS:

- [For private edition](#)

For simplicity, the examples on this page use abbreviated attribute values. For example, ConnID **1**, which – in actual events – displays as ConnID>@metainformation>.

The following comments and abbreviations are used in the call models:

- OPT-Optional.
- DIAL-Might be a dialed number or is not present if Voice Microservices have no information about the other party.

Multiple-queue call treated at an IVR port with treatment at IVR queue

The following table describes a multiple-queue call treated at an IVR port with treatment at the IVR queue.

A	Q1	Q2	Q3	IVR	Agent
Inbound/ internal call to Q1	Call to Q1				
EventDialing ConnID 1 ThisDN A ThisDNRole Origination OtherDN* Q1 OtherDNRole Destination					
	EventQueued ConnID 1 ThisDN Q1				

	ThisQueue Q1 OtherDN A				
		Call placed in second queue			
		EventQueued ConnID 1 ThisDN Q2 ThisQueue Q2 OtherDN A			
			Call placed in IVR queue for treatment when no agents ready		
			EventQueued ConnID 1 ThisDN Q2 ThisQueue Q2 OtherDN A		
			EventDiverted ConnID 1 ThisDN Q3 ThisQueue Q3 OtherDN A ThirdPartyDN IVR DN CallState ConverseOn	EventRinging ConnID 1 ThisDN IVR ThisQueue Q3 OtherDN A CallState ConverseOn	
				Answer	
				EventEstablished ConnID 1 ThisDN IVR ThisQueue Q3 OtherDN A	
					Agent Ready
	EventDiverted ConnID 1 ThisDN RQ2 ThisQueue RQ2 OtherDN A ThirdPartyDN AgentDN	EventDiverted ConnID 1 ThisDN Q2 ThisQueue Q2 OtherDN A ThirdPartyDN AgentDN		EventReleased a ConnID 1 ThisDN IVR ThisQueue Q3 OtherDN A	EventRinging ConnID 1 ThisDN AgentDN ThisQueue Q1 OtherDN A
					Answer
EventEstablished b ConnID 1					EventEstablished ConnID 1 ThisDN AgentDN

ThisDN A OtherDN AgentDN CallState OK					ThisQueue Q1 OtherDN A CallState OK
--	--	--	--	--	--

- EventReleased can occur before an agent becomes available because the IVR finishes call treatment.
- In some deployments, EventEstablished for party A can occur at the same time as the IVR EventEstablished, especially if a call comes through the PSTN.

Abnormal call flow

Interruption Point	A	Q1	Q2	Q3	IVR	Agent
*	EventReleased OtherDN Q1	EventAbandoned ConnID 1 ThisDN Q1 OtherDN A	EventAbandoned ConnID 1 ThisDN Q2 OtherDN A	EventAbandoned ConnID 1 ThisDN Q3 OtherDN A	EventReleased ConnID 1 ThisDN IVR OtherDN A	

Multiple-queue, call treated at an IVR port with direct treatment at IVR port

The following table describes a multiple-queue call treated at an IVR port with direct treatment at the IVR queue.

External party	Q1	Q2	IVR	Agent
Inbound/internal call to Q1	Call to Q1			
EventDialing ConnID 1 ThisDN A ThisDNRole Origination OtherDN* Q1 OtherDNRole Destination				
	EventQueued ConnID 1 ThisDN Q1 ThisQueue Q1 OtherDN A			
		Call placed in second queue		
		EventQueued		

		ConnID 1 ThisDN Q2 ThisQueue Q2 OtherDN A		
			Call placed directly to IVR port	
			EventRinging ConnID 1 ThisDN IVR OtherDN A CallState ConverseOn	
			Answer	
			EventEstablished ConnID 1 ThisDN IVR OtherDN A	
				Agent ready
	EventDiverted ConnID 1 ThisDN RQ2 ThisQueue RQ2 OtherDN A ThirdPartyDN AgentDN	EventDiverted ConnID 1 ThisDN Q2 ThisQueue Q2 OtherDN A ThirdPartyDN AgentDN	EventReleased ^a ConnID 1 ThisDN IVR OtherDN A	EventRinging ConnID 1 ThisDN AgentDN ThisQueue Q1 OtherDN A
				Answer
EventEstablished ^b ConnID 1 ThisDN A OtherDN AgentDN CallState OK				EventEstablished ConnID 1 ThisDN AgentDN ThisQueue Q1 OtherDN A CallState OK

a. EventReleased can occur before an agent becomes available because the IVR finishes call treatment.

b. In some deployments, EventEstablished for party A can occur at the same time as the IVR EventEstablished, especially if a call comes through the PSTN.

Abnormal call flow

Interruption Point	External party	Q1	Q2	IVR	Agent
*	EventReleased OtherDN Q1	EventAbandoned ConnID 1 ThisDN Q1 OtherDN A	EventAbandoned ConnID 1 ThisDN Q2 OtherDN A	EventReleased ConnID 1 ThisDN IVR OtherDN A	

Multiple-queue call with call removed from queue

The following table describes a multiple-queue call with the call removed from the queue.

A	Q1	Q2	IVR	Agent
Inbound call to Q1	Call to Q1			
	EventQueued ConnID 1 ThisDN Q1 ThisQueue Q1 OtherDN A			
		Call placed in second queue		
		EventQueued ConnID 1 ThisDN Q2 ThisQueue Q2 OtherDN A		
			Call placed in third queue for treatment when no agents ready	
			EventQueued ConnID 1 ThisDN Q3 ThisQueue Q3 OtherDN A	
			Call cleared from third queue	
			EventDiverted ConnID 1 ThisDN Q3 ThisQueue Q3 OtherDN A CallState Cleared	
				Agent ready
	EventDiverted ConnID 1 ThisDN Q1 ThisQueue Q1 OtherDN A ThirdPartyDN AgentDN	EventDiverted ConnID 1 ThisDN Q2 ThisQueue Q2 OtherDN A ThirdPartyDN AgentDN		EventRinging ConnID 1 ThisDN AgentDN ThisQueue Q1 OtherDN A CallState OK
				Answer
				EventEstablished

				ConnID 1 ThisDN AgentDN ThisQueue Q1 OtherDN A CallState OK
--	--	--	--	--