VirtualAgentVoice

The `VirtualAgentVoice` element is used to engage the Cisco Contact Center Artificial Intelligence (CCAI) services through the Cisco CCAI connector. The `VirtualAgentVoice` element is located under the **Virtual Agent** group in the **Call Studio Elements**. This element is an extension of the `Form` element and engages the special resource, Speech Server on Cisco VVB to communicate with the CCAI services.

Note

- `VirtualAgentVoice` element works only in VoiceXML 2.1 with Cisco DTMF and Nuance adapters.
- `VirtualAgentVoice` element supports both Speech and DTMF inputs.
- After an exit from the element, you must loop through the same element to continue the flow at the virtual agent provider service.
- If the welcome or re-entry prompt takes longer than the initial wait time (defined by the VXML property *com.cisco.voicebrowser.welcomeLatencyInitialWait*), you can configure a prompt (*com.cisco.voicebrowser.welcomeLatencyPromptURL*) and play it in a loop until the welcome or re-entry prompt is received.
- If an Audio prompt occurs before the VAV element in the call flow, you must always mark it as non-barginable.

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Settings

Name (Label)	Type	Required	Single Setting Value	Substitution Allowed	Default	Notes
`Config ID`	String	No	`true`	`true`	None	If no Config ID is provided in the Call Studio application, the default config is fetched from the Control Hub, which is

						generated as part of the Virtual Agent–Voice onboarding. **Important** The default config in the Control Hub must point to a project.
`Secure Logging`	Boolean	Yes	`true`	`true`	`false`	Indicates whether the logging of potentially sensitive data of the element is enabled. If set to `true`, the element's output data (`query text` and `fulfilment text`) received from Google is masked.
`Event Name`	String	No	`true`	`true`	`null`	`Event Name` to be configured as start event or re-entry event.
`Event Data`	String	No	`true`	`true`	`null`	Contains the `Name_Value_Table` parameters for the session context.
`Sip Headers Restricted`	String	No	`true`	`true`	`null`	Contains the comma-separated list of SIP headers that must be excluded from propagating to the orchestration layer. The SIP header names must be as per the RFC or Cisco-specified custom headers naming convention. If the value of `Sip Headers Restricted` is null, or if it is unspecified, all the headers flow through the Orchestrator.

Element Data

Element Data	Type	Notes
`query_text`	String	Transcription of the user utterance received as response from the ASR service. This field is auto-populated.
`fulfillment_text`	String	Fulfillment text returned by the Orchestrator. Multiple response text messages are concatenated as a single string value.
`isCustomExit`	Boolean	The value *true* indicates hybrid/custom exit from the cloud service, based on the presence of *Execute_Request* in the payload.
`agent_handoff`	String	If this element data exists, it means that the agent handoff has happened and it may contain metadata.
`end_session`	String	If this element data exists, it means that the end of session has happened and it may contain metadata.
`eventName`	String	Contains the event name from the cloud service as a part of the hybrid handoff.

`eventData`	String	Contains the custom payload from the cloud service as a part of the hybrid handoff.
`error_code`	Int	The value contains the error code returned to handle the call gracefully.

Exit States

Name	Notes
`done`	Indicates that the processing from the cloud service has been completed. After a response is received from the orchestration layer, this state is returned.
`error`	This state is returned after the error response is received from the orchestration layer. This indicates that the error has been encountered on the gRPC side.
`VXML Event - noresource`	This exit state is used to handle scenarios where resources are not available to process the call.
`VXML Event - badfetch`	This exit state ensures a controlled call flow, even in cases where agent responses are missing. To define an exit state: • Add an event with Event Type set to `VXML Event`. • Select `error.badfetch` from the event list.

To avoid the VXML Event - badfetch, ensure seamless integration of the VirtualAgentVoice element with the Google DialogflowCX Agent by including at least one of the following components in each dialogue response

- Output audio text (with or without SSML)
- Pre-recorded audio playback

Agent responses can incorporate multiple instances of Output audio text and Pre-recorded audio in any order. However, Output audio text should not be empty or consist only of spaces.

If the DialogflowCX Agent lacks a dialogue with a defined agent response, the call flow associated with the VirtualAgentVoice element will terminate with an error.badfetch. This avoids unwanted silence and ensures that agent responses are properly defined in the Google DialogflowCX Agent. Therefore, it is recommended to provide agent responses for every dialogue to avoid call flow termination due to error.badfetch.

If managing error.badfetch gracefully is preferred over defining responses for every dialogue, the VirtualAgentVoice element can handle this error similar to error.noresource.

Custom VoiceXML Properties

Name (Label)	Type	Notes
`Recognize.model`	String	Contains the model name. The default value is *null*.
`Recognize.modelVariant`	String	Contains the model variant name. For example, the following 4 values are supported as model variant name for Dialogflow CX: • *USE_STANDARD* • *SPEECH_MODEL_VARIANT_UNSPECIFIED* • *USE_ENHANCED* • *USE_BEST_AVAILABLE* (default)
`com.cisco.voicebrowser.welcome LatencyPromptURL`	String	URL of the prompt to be played during welcome/re-entry prompt fetch to avoid dead air. Supports both `http` (remote) and `crtp` (local) prompts. However, local prompts are recommended.
`com.cisco.voicebrowser.welcome LatencyInitialWait`	Integer > 0	Initial wait time (in ms) to play the prompt configured in `com.cisco.voicebrowser.welcomeLatencyPromptURL`. The default value is 5000 ms.
`com.cisco.voicebrowser.welcome maxwaittime`	Integer > 0	Maximum wait time (in ms) for receiving a welcome response. If the response for welcome event is not received within this time, an error is thrown and the call is disconnected. The default value is 15000 ms, if nothing is specified in the Call Studio application.
`com.cisco.responseThreshold`	Integer > 0	Threshold wait time to receive the welcome response from the server. If the welcome response is not received within this time, a syslog alarm is raised. The default value is 5000 ms.
`com.cisco.language`	String	Contains the language format which will be used for playing the prompts, such as "en-US".