Dialogflow

The `Dialogflow` element can be used to engage the Google Dialogflow services. The `Dialogflow` element is located under the **Customer Virtual Assistant** group in the **Call Studio Elements**. This element is an extension of `Form` element and it engages the special resource on VVB called Speech Server to communicate with the Dialogflow Server. To indicate the Dialogflow server resource requirement, Call Studio creates a specific grammar - **builtin:speech/nlp@dialogflow** - and sends it to VVB in VXML Page.

Note The `Dialogflow` element works only in VoiceXML 2.1 with Cisco DTMF VoiceXML Gateway adaptor.

Settings

Name (Label)	Type	Required	Single Setting Value	Substitution Allowed	Default	Notes
Service Account ID	string	No	true	true	None	Dialogflow project ID that is configured for your intents and NLP modelling.
Audio Output	boolean	Yes	true	false	false	Whether to use the Dialogflow feature to get the audio output from Dialogflow. Can be used while performing Slot / Intent fulfilment at Dialogflow.
NoInput Timeout	int ≥ 0	Yes	true	true	5s	The maximum duration allowed for silence before a `NoInput` event is triggered. Possible values are standard time

						designations including both non-negative numbers and a time unit. For example, `3s` for seconds or `300 ms` for milliseconds.
`Max NoInput Count`	int ≥ 0	Yes	`true`	`true`	`3`	The maximum number of noinput events allowed during input capture. Possible values `int > 0` where 0 indicates infinite `NoInput` events allowed.
`Secure Logging`	boolean	Yes	`true`	`true`	`false`	Indicates whether logging of potentially sensitive data of the element is enabled. If set to `true`, the element's potentially sensitive data is not logged.
`Terminiation Character`	string	No	`true`	`true`	`#`	Terminate the voice stream or DTMF collection.
`Max Input Time`	int ≥ 0	Yes	`true`	`true`	`30s`	The maximum time (in seconds) the voice input is allowed to last. Possible values are positive integer values followed by s (seconds). For example, `50s`. Default value is `30s`.
`Final Silence`	int > 0	Yes	`true`	`true`	`1s`	The interval of silence (in seconds or milliseconds) that indicates the end of speech. Possible values are positive integer values followed by either s (seconds) or ms (milliseconds). For example, `3s` and `3000ms`. Default value is `1s`.
`Initiation Text`	string	No	`true`	`true`	`Hello`	Text sent to initiate the dialog with Dialogflow. The response for this is the welcome intent from Dialogflow. This is applicable only when Audio Output is set to `true`.

Custom VoiceXML Properties

Name (Label)	Type	Notes
`Dialogflow.regionId`	String	Sets the region to be sent to Dialogflow. This property should be configured in the root document of the project.
`Dialogflow.queryParams` `.payload`	JSON	Sets the payload to be sent to Dialogflow.
`Dialogflow.queryParams`	String	Sets the timezone to be sent to Dialogflow.

Name (Label)	Type	Notes
`.timeZone`		For example, America/New_York, Europe/Paris.
`Dialogflow.queryParams.geoLocation`	String	Sets the geographical location to be sent to Dialogflow. For example, "50.0,50.0".
`Dialogflow.queryParams.sessionEntityTypes`	JSON	Sets the additional entity types to be sent to Dialogflow. For example, [{name:class,entityOverrideMode:ENTITY_OVERRIDE_MODE_OVERRIDE,entities:[{value:economy,synonyms:[eco,economy]}]}].
`Dialogflow.queryParams.sentimentAnalysisRequestConfig`	Boolean	Configures the type of sentiment analysis to perform. If not provided, sentiment analysis is not performed. **Note** Sentiment Analysis is currently available only for Enterprise Edition agents.
`Recognize.singleUtterance`	Boolean	Indicates whether this request should automatically end after speech is no longer detected. If this parameter is enabled, cloud speech-to-text will detect pauses, silence, or non-speech audio to determine when to end recognition. If this parameter is disabled, the stream will continue to listen and process audio until either the stream is closed directly, or the stream's length limit is reached. The default setting for this parameter is `true`.
`Recognize.model`	String	This is used to specify the machine learning model to be used by the cloud speech-to-text transcription to improve the recognition results. For example, see https://cloud.google.com/speech-to-text/docs/basics

Element Data

Element Data	Notes
`intent`	Intent identified.
`query_text`	User input.
`fulfilment_text`	Fulfilment text returned by Dialogflow.
`value`	JSON value returned by Dialogflow.
`action`	Returns the action associated with the intent.
`is_complete`	Indicates whether all the required parameters are filled. This can be used to derive exit states with decision element. • If all parameters are not filled, it is `false`.

	• If an intent has no parameters, this is always `true`.
`json`	Contains JSON response from Dialogflow.
`confidence`	The Speech recognition confidence between 0.0 and 1.0. A higher number indicates a greater probability that the recognized words are correct. The default of 0.0 is a sentinel value indicating that confidence was not set.
`language_code`	The language code that was triggered during recognition.
`sentiment_score`	Sentiment score of the user input.

Exit States

Name	Notes
`done`	This state is returned after receiving response from Dialogflow. This indicates that the processing from Dialogflow has been completed.
`max_noinput`	Maximum number of noinput events that have occurred. If `noinput max count` is `0`, this exit state will not occur.

Audio Group

Form Data Capture

Name (Label)	Required	Max1	Notes
`initial_audio_group` (Initial)	Yes	Yes	Played when the voice element begins.
`noinput_audio_group` (NoInput)	No	No	Played when a `NoInput` event occurs.

End

Name (Label)	Required	Max1	Notes
`done_audio_group` (Done)	No	Yes	Played when the form data capture is completed and the voice element exits with the `Done` exit state.

Folder and Class Information

Studio Element Folder Name	Class Name
Form	com.audium.server.voiceElement.form.

Events

Name (Label)	Class Name
Event Type	You can select **Java Exception**, **VXML Event**, or **Hotlink** as event handler for this element.