Dialogflow

The `Dialogflow` element can be used to engage the Google Dialogflow services. The `Dialogflow` element is located under the **Virtual Assistant–Voice** 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 both with Cisco DTMF and Nuance ASR adaptors.
- The `Dialogflow` element supports both speech and DTMF inputs. # is the default DTMF *termchar* for terminating the input.

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.
`Input Mode`	string	Yes	`true`	`false`	`voice`	The type of entry allowed for input. Possible values are `voice` (only voice input) and `dtmf+voice` (DTMF and voice input).
`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.

Name (Label)	Type	Notes
		This property should be configured in the root document of the project.
		Region ID is picked from the conversation profile ID if Cloud Connect is configured and config ID is available; else Region ID is picked from the VXML properties.
`Dialogflow.queryParams` `.payload`	JSON	Sets the payload to be sent to Dialogflow.
`Dialogflow.queryParams` `.timeZone`	String	Sets the timezone to be sent to Dialogflow. 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:,entityOverrideMode:ENTITY_OVERRIDE_MODE_OVERRIDE,entities:[{value:economy,synonyms:[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
`Dialogflow.profileId`	String	Conversation profile is used to configure agents and connected services for the conversation on the Google Dialogflow Project. Create a profile for your CCAI-allowed project by following these steps. (Link will require listing on Google CCAI Documentation allowed list).
`CCAI.configId`	String	Config ID to fetch Dialogflow Json key from WebexCC Tenant Management. If Config ID is not provided, it tries to fetch the

Name (Label)	Type	Notes
		key from local file system, using the Service Account ID field mentioned in element settings.
		If Config ID and Service Account ID are not provided, default config will be fetched from the Webex CC Tenant Hub.
		Json key fetched from WebExCC is cached and flushed after 60 minutes. Any change in Webex CC Tenant Management takes one hour to reflect in CVP. To reflect immediately, restart the speech server.
		Default flush time can be changed using the following speech server property in the `<SPEECHSERVER_HOME>/conf/speechserver.properties` file: `com.cisco.cloudconnect.configFlushTimeoutInMinutes=60`

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. Response formats: • From Google CCAI: `"detectIntentResponse": {"queryResult": {}}` • From Google DialogFlow: `"queryResult": {}` Refer to Google Documentation for detailed response structure of AutomatedAgentReply and StreamingDetectIntentResponse.
`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.