# **Configure CCE Virtual Agent Voice Cloud-based Connector**

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# Introduction

This document describes how to configure Contact Center Enterprise (CCE) Virtual Agent Voice (VAV) Cloud-based Connector.

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# Prerequisites

# Requirements

Cisco recommends that you have knowledge of these topics:

• Cisco Unified Contact Center Enterprise (UCCE) Release 12.6.2

- Cisco Package Contact Center Enterprise (PCCE) Release 12.6.2
- Customer Voice Portal (CVP)
- Virtual Voice Browser (VVB)
- Google Dialogflow CX
- Control Hub

# **Components Used**

The information in this document is based on these software versions:

- PCCE Release 12.6.2
- CVP 12.6.2
- Cloud Connect 12.6.2
- Google Dialogflow CX
- Webex Control Hub

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, ensure that you understand the potential impact of any command.

# Background

Virtual Agent–Voice (VAV) feature, which was referred to as Customer Virtual Assistant (CVA) in CCE 12.5(1) release, enables the interactive voice response (IVR) platform to integrate with cloud-based speech services.

This feature supports human-like interactions that enable you to resolve issues quickly and more efficiently within the IVR, thereby reducing the calls directed toward agents. This helps you interact with Virtual Agent first which offers you a self-service solution, without involving a physical Agent.

VVB uses one of these connectors to leverage AI services:

- Premise-based connector: VVB uses a native connector to connect to the Google Dialogflow service. This service is enabled through the Dialogflow ES or DialogflowCX elements of Cisco Unified Call Studio. VAV currently supports Google Dialogflow ES and CX services via premise-based connector.
- Cloud-based connector: VVB uses a cloud-based connector to connect to the Cisco CCAI service. This service is enabled through the Virtual Agent Voice element of Cisco Unified Call Studio. VAV currently supports Google Dialogflow CX service via cloud-based connector.

This document only covers the Cloud-based connector configuration.

# **Important Considerations**

Consider this information before configuring VAV via cloud-based connector:

- Supported codec is u-law.
- Voice activity detection is done by Google.
- Port 443 and HTTP/2 must be enabled in the proxy and firewall.
- Allowed list in your network must include these URLs:

- U2C (port 443): <u>https://u2c-a.wbx2.com/u2c/api/v1/user/catalog</u> US
- U2C (port 443): https://u2c-r.wbx2.com/u2c/api/v1/user/catalog Asia
- U2C (port 443): <u>https://u2c-k.wbx2.com/u2c/api/v1/user/catalog</u> Europe
- Orchestrator (port 443): <u>https://insight-orchestrator.wxcc-us1.cisco.com</u>
- ID broker (port 443): <u>https://idbroker.webex.com</u>
- WS Connector (port 443): <u>https://wsconnector.wxcc-us1.cisco.com</u>
- Allowed list in your network must also include these group of URLs:
  - \*.google.com
  - \*.googleapis.com
  - \*.<u>gcr.io</u>
  - \*.<u>cisco.com</u>
  - \*.<u>wbx2.com</u>
  - \*.<u>ciscoccservice.com</u>

# Configure

These are the steps required to configure VAV via Cloud-base connector.



Step 1. Exchange Self-signed Certificates or implement CA-signed Certificates.

- Step 2. Configure Proxy Server.
- Step 3. Create a Google Project.
- Step 4. Provision Google Project and Cloud Organization with Cisco.
- Step 5. Create and Design a Dialogflow CX Agent.
- Step 6. Create an Agent Conversation Profile.
- Step 7. Configure CCAI in Webex Control Hub.

- Cloud Connect
- Connector
- Feature

Step 8. Configure CCAI in UCCE and PCCE (SPOG).

Step 9. Create and Design CVP Call Studio Application.

# **Exchange Self-signed Certificates or Implement CA-signed Certificates.**

You need to implement CA-signed certificates or exchange self-signed certificates the CCE components related to the VAV for VAV feature to work. For PCCE certificate exchange or CA-signed are required on: AW, VVB and Cloud Connect. For UCCE certificates are required on: AW, VVB, NOAMP, and Cloud Connect. Review this document for UCCE Exchange certificates: <u>Exchange Self-Signed Certificates in UCCE 12.6</u>, for CA-signed implementation: <u>Implement CA-Signed Certificates in 12.6</u>, and for PCCE exchange certificates in <u>PCCE 12.6</u>.

# **Configure Proxy Server**

Proxy server is required if you do not have direct communication between VVB Speech Server (SS) and the Webex CCAI services.

To configure the proxy server use these commands:

set speechserver httpsProxy Host

set speechserver httpsProxy port

set speechserver httpsProxy nonProxyHosts

set speechserver httpsProxy Host

This command sets the proxy host for the Speech Server. It also asks for credentials, if required.

### **Command Syntax:**

### set speechserver httpsProxy host <hostname/ip>

Does proxy require Crendentials? [Y/N] y Enter UserName: username Enter Password: \*\*\*\*

### **Example:**

### admin:set speechserver httpsProxy host abc.com Does proxy require Crendentials? [Y/N] y Enter UserName: username Enter Password: \*\*\*\* Command successful.

### set speechserver httpsProxy port

This command sets the proxy port for the Speech Server.

### Command Syntax: set speechserver httpsProxy port <portNumber>

### Example: admin:set speechserver httpsProxy port 80

Command successful.

This command sets the nonProxyHosts for the Speech Server. The traffic does not go via proxy to these hosts.

### set speechserver httpsProxy nonProxyHosts

Command Syntax: set speechserver httpsProxy nonProxyHosts <parameter>

Example: admin:set speechserver httpsProxy nonProxyHosts <list of nonProxyHosts separated by commas>

Command successful.

The parameter can be a single host or mutiple hosts separated by commas

More information in this document: **VVB Operations Guide** 

Note: You must stop and start Speech Server for the values to be reflected. Syntax for stopping Speech Server: utils service stop Cisco Speech Server Syntax for starting Speech Server: utils service start Cisco Speech Server

# Create a Google Project - Provision the Project and the Organization

The integration of Google AI and CCE requires the creation of Google project and this project need to be provision by Cisco. In addition, and organization in the Cisco webex cloud needs to be created for you or Cisco partner. This document explains the steps required to create and provision the project and the organization.

Provision Google CCAI Hybrid Services with CCE

# Create a Dialogflow CX Agent

VAV currently supports Google Dialogflow CX service via cloud-based connector.

A <u>Dialogflow CX agent</u> is a virtual agent that handles concurrent conversations with your end-users. Dialogflow translates end-user text or audio during a conversation to structured data that your apps and services can understand. You design and build a Dialogflow agent to handle the types of conversations required for your system. For more information about Dialogflow CX you can visit: <u>Dialogflow CX basics</u>.

Here are the steps to create a Dialogflow CX agent.

Step 1. Navigate to <u>https://dialogflow.cloud.google.com/cx/projects</u> and log in with the Google account you used when you created the project, and select the project.

Step 2. Select the location and click Create agent.

≡ 📦 Dialogflow CX TestPi	roj 🕶		0 2	# C	
Agents					
us-central1 (Iowa, USA)	Location settings	Use pre-built agents	ate agent		
Q Search Search agents b	y ID or display name				
Display name	Default language	Region			
CiscoAgentUS	en	us-central1 (Iowa, USA)	:		

Step 3. Add the name, select time zone and the language. Click Create.

# Create agent

# Display name \* CiscoAgentUSCentral Once an agent is created, its location cannot change. Location \* us-central1 (lowa, USA) View Time zone \* (GMT-8:00) America/Los\_Angeles Date and time requests are resolved using this time zone Default language \* en - English The language the agent uses



Step 4. The agent is created, and you see the Default Start Flow on the first page.

I	Build	Manage	Default Start Flow	ଇ୍ତ	ર્િ	\$	C Minimap	R	۲	Agent settings	🖳 Test Agent
∧ FL	ows	+ 🖾									-
*	Default Start Flow	1									
					Start Pag	je					

When you create an agent, the default flow is automatically created in the start page. To change the default settings after the agent is created, select the Agent settings.

Default Start Flow	Q	Q 3	0) (	5	2	Aini	məç	>					F	2		6	3	Ag	ent	50	tth	195
																						_
		Start	Page.																			
			a section.																			
										÷.,	$\mathcal{D}_{i}$											

In the Speech and IVR section, enable speech adaptation, advance speech settings and barge-in.

← Agen	t settings I	🕑 Save 🛞 Cancel				
General	ML	Speech and IVR	Share	Languages	Security	Advanced
Speech						
Improve spe	ech recognit	ion quality				
Use agen	e speech adaj it information (e.g	ptation ). Intents, entities) to automatical	ly improve speech	recognition quality.		
Advanced sp	eech setting	35				
Configur	e advanced sp e agent-level adva	peech settings need settings for speech feature	Learn more			
End of speech	h sensitivity	0				
		90				
No speech tir Seconds	neout 🕥					
Barge-in ⊘						
Enable	e barge-in					
Audio export	bucket					
Google Clou	ud Storage UR	1				

If you want to learn on how to setup a Dialogflow CX agent review these Google videos:

What is Dialogflow CX?

Introduction to pages and transitions in Dialogflow CX

Create a single-flow conversational agent

# Import a Dialogflow CX Agent

You can import a Dialogfow CX agent, instead of building the agent from scratch. After you have created the agent, you can import a previously created and built Dialogflow CX agent. In this example, a Dialogflow CX agent created by Cisco Engineering team is used.

Step 1. On the Agent section, select View all agents.



Step 2. Select the the agent that you created, and click **Restore**.

isplay Name	Default language	Region +		
			0	Copy nam
isosAgentUSCentral	en	us-central1 (lowa, USA)	~	Agent link
			± _	Export
			1	Restore

Step 3. On the Restore window, click Upload, then select the download file and click Restore.

Restore Agent	$\leftarrow \rightarrow ~~ \wedge$	a culv > Dialogfio	~ C	Search Dialogflow O	<b>9</b>
	Organize * New	folder			• 🖬 🔮
O Cloud Storage	A Home	Name	A	Status	Date mo
Google Cloud Storage URI where the file a	🗧 📥 Ramiro - Cisco	C exported, agent, test	agentbiob	0	9/19/200
		exported,agent, Irav	el, flight information	ublob 📀	9/13/200
() Upload					
Local file (10 M8 file size limit)	FI	le name: (d,agent,lkavel, flight in	Vormation.blob ~ ]	All Files (*/)	Consult.
				Open	Cance
Г				:	
	select file			:	
exported_agent_global-cisco-poc-cx (1	).blob		8		
				:	
		Cancel	Restore I	a) :	

### Now, you see the agent imported.

= 🏟 Dia	ilogflow CX	TestProjectCiscolab	-	CiscoA	gent./scientes	e - +	en +	a	. o ₽	- 0
Build	Manage	Default Start Flow @	0	0 X	<b></b>	ole minimap		© 0	Agent settings	Q1 Test Agent
FL0#5	+ 8									
A Default Start	Flow									
A targets							(7art			
"K. Canadian Zip	Codes						changeLanguage	ofw 1		
A 1000					_			V	<u></u>	
A Partial Respo	2658				0		Reset and Reset	come		
Paddi	+ 8						Main Merc	. P		
O Start		Barge-in		OTM		A Canadian Z	lip Codm	End Sension	to	calute to an agent

You can download a Cisco Dialogflow CX agent sample (exported\_agent\_Travel\_ flight information\_VAV.blob) from: <u>VAV Call Studio Application and Dialogflow CX Agent Sample</u>

# Create a Dialogflow CX Agent - Pre-built Agent

You can use Google pre-built agent templates in order to decrease the design time when building a Dialogflow CX agent.

Here are the steps to use a Pre-built agent.

Step 1. On the Dialogflow CX page, select the project and then select Use pre-built agents.

= 🏮 Dialogflow CX 🔤	dogfo	0	8
Agents			
	No agent is created yet		
	An agent is a virtual agent that handles conversations with your end-users. It is a natural language understanding module that understands the nuances of human language. Learn more		

Step 2. Select the Pre-built agent you want to use. In this example, the **Travel: car rental** agent is used.

Prebuilt agents are currently only availab	le in English.	
Q. Search		
Secol talk	Ten oh kananan sisim	Ten al ou castal
Beginner	Beginner	Beginner
=		
Customize and personalize your agent with simple questions and responses.	Create or check the status of a claim related to lost, delayed, or damage baggage.	Start a new car rental reservation.
Features	Features 👌	Features
Panes	<ul> <li>Repexp entities</li> </ul>	<ul> <li>System entities</li> </ul>

Step 3. Click Import.

# Travel: car rental

Start a new car rental reservation.

# Sample head intent utterances

- I need to reserve a van.
- · Hi, I'm traveling to LA for the weekend and I need to rent a car while I'm down there.
- · I need help booking an SUV.

Link	
Documentation link	
Cance	al Import

Step 4. Select the location. You see the new agent created.

# Import pre-built agent

Agent name		
Travel: car rental		
Once an agent is created, its	location cannot change.	
us-central1 (Iowa, USA)		Edit
You have selected a location If your system requires data encryption keys (uncommon creating this agent.	that has not been configured yet. residency guarantees (uncommon) or custome ), read about <u>regionalization and location settin</u>	r-managed gs before
You have selected a location If your system requires data encryption keys (uncommon creating this agent.	that has not been configured yet. residency guarantees (uncommon) or custome ), read about <u>regionalization and location settin</u>	r-managed gs before
You have selected a location If your system requires data encryption keys (uncommon creating this agent.	that has not been configured yet. residency guarantees (uncommon) or custome ), read about <u>regionalization and location settin</u> es	r-managed gs before
You have selected a location If your system requires data encryption keys (uncommon creating this agent. Time zone (GMT-8:00) America/Los_Angel Date and time requests are resolved using Default language	that has not been configured yet. residency guarantees (uncommon) or custome ), read about <u>regionalization and location settin</u> es this time zone	r-managed gs before

Build Manage	a, a, 35 d)		Agent Settings	Q testport
nom + 8				
3 Default Start Flow		Start		
		C		
			Pickup Location	
		Confirm Location		
			-	
	1	Drop Off Location	Jental Duration	

More information on this Google video: <u>Use Pre-built agent template to create a Dialogflow CX agent</u>

# **Create an Agent Conversation Profile**

An agent conversation profile is a set of configuration parameters that define the behavior of the

Dialogflow agent in a conversation with a caller.

Here are the steps to create an agent conversation profile.

Step 1. Log in to <u>Google Agent Assist</u>. Select Conversation profile and choose the project you previously have created with the Dialogflow CX agent.

← → C ( i agentas	sist.cloud.google.com	
= 📦 Agent Assist	*	
Overview		
PEATWRES .	Agent Assist	
Summarization	Empower agents wi	Select Project
Article suggestion	continuous support	Q Search projects
CD Smart reply	Agent Assist uses machine learnin	
100L8	provide suggestions to your human are in a conversation with a custon	AI
D Simulator	based on your own uploaded data, and tailor to your specific needs.	
8474		
Conversation profiles	Key features	TestProjectCscolab testprojectciscolab
Models	Select a feature to start, and test it	
Q <sup>4</sup> Knowledge bases		
E Datasets	0	New Project Cancel

### Step 2. Click Create.

= 😡 Agent Assist	TestProjectCiscolab w
Overview	Conversation profile: + Create
PEATURES	Conversation profiles surface real-time, relevant information to agents while they talk to customers. Learn more

Step 3. Ensure the Agent Assist URL uses the same location as the agent you want to create the conversation profile. In this example, you see that the URL is in location global.

agentassist.cloud.google.com/projects/testprojectciscolab/locations/global/conversation-profiles/create

The agent you previously created is on us-central1, so you have to replace the location to continue.

c 💼	agent	tassist.	cloud.goog	le.con	vproje	cts/testpri	ojectciso	olab/locatio	ns/us	s-central1/	conversation-profiles/create	
Agent Assi	ist	Print TestPro	ectOscolab		•							N
lew		÷	New convers	ation p	ofile							90



~	New conversation profile
Displa This wi	ay name If help you find this profile in the conversation profiles list
CPC	ialogflowCXagent
Langu	Jage
Lang	a language for your conversation profile
Eng	lish (United States)
Suggi Select :	estion types all of the kinds of assistance you would like this profile to surface to agents
	Surface pre-written responses
	Article suggestion Surface articles contextual to the conversation
	FAQs Auto-surface answers to customer questions
	Conversation summarization  Generate a summary of a conversation

Step 5. Scroll-down and select Enable Virtual agent and then select the Dialogflow CX agent.

nspect m	Int analysis issages from the agent and end customer and identify the prevailing emotional opinion within the text nable sentiment analysis
Choose 'ou can le	to use Dialogflow verage models created in Agent Assist to create a Dialogflow virtual agent nable virtual agent
Î	Enter a valid Dialogflow agent or environment
	DIALOGFLOW CX AGENTS
	CiscoAgentUS ID: projects/testprojectciscolab/locations/us-central1/agents/20ac69e0-44da-4541-b447-3d9b1a47f467
Securi	CiscoAgentUSCentral ID: projects/testprojectciscolab/locations/us-omtral1/agents/9827a63c-cfb1-4ed4-bc0a-a775d3ae7c8f
Cocum	CiscoAgentUSCentralRA ID: projects/testprojectciscolab/locations/us-central1/agents/a1b0d2da-28c0-4244-9ab5-e88e20c2a5a9
Secun	ty settings 🗸 Manage security settings

Now the conversation profile is created for the agent.

# **Configure CCAI in Webex Control Hub**

Step 1. Ensure that the Cloud Connect publisher and subscriber are installed. For more information, see the *Install Cloud Connect* section in <u>Cisco Unified Contact Center Enterprise Installation and Upgrade Guide</u> <u>12.6.2</u>.

Step 2. Log in to Webex Control Hub (<u>admin.webex.com</u>). Navigate to Contact Center and click **Cloud Connect**.

# SERVICES

C	Updates	&	Migrations
---	---------	---	------------

- Messaging
- 📋 Meeting
- 🗞 Calling
- Vidcast

Contact Center



# Hybrid



webex Control Hu	ıb	Q Search	
< Main Menu	General		
TENANT SETTINGS	Service Details	Country of Operation	United States of America
General		Tenant Timezone	America/New_York
Digital			
Integrations			
Cloud Connect			

Step 3. On Cloud Connect window enter the name and the Fully Qualified Domain Name (FQDN) of Primary Cloud Connect and clock Register.

Add C	loud Connect Cluster	×
Display Name Display Name of the on-premises Cloud Connect cluster which is being Registered to the cloud	Enter Name	
FQDN Enter the FQDN of primary Cloud Connect node from the deployment being Registered	Fully Qualified Domain Name	
		Cancel Register

**Note**: When adding the Cloud Connect in Webex Control Hub, ensure that the Cloud Connect FQDN is accessible from the PC where the Control Hub is opened.

Step 4. Select Allow access to the Cloud Connect node and click **Continue**.



You see Cloud Connect registration completed.

← → C ☆ ▲ Not secure   cloudconnect1.dcloud.cisco.com	mB445/cloudconnectmgmt/flusion/ui/registration-success.html	± ± + ⊖ :
	Cisco Cloud Connect	
	Registration Complete	
	The Cloud Connect is successfully registered to Cisco Webex. You may now close this window.	
		4

Step 5. Add a Connector. On the Contact Center window select Integrations and then Connectors tab.

webex Control H	ub	Q Search
< Main Menu TENANT SETTINGS	Integrations Connectors Features	
General Digital Integrations Cloud Connect	Google Contact Center Al Active Connectors DialogflowCX-VAV	$\odot$
	Add More	

Step 6. If a connector is already added and you need to add one more, click on Add More. Sign in with Google and continue with the instructions.

**Note:** The user accout that you sign in with Google must have the owner role of the google project.

Cisco Webex Control Hub New Google Contact Centre Al Connector To create a Google Contact Centre Al connector, you must authenticate with Google to access the Google Cloud Platform Sign In with Google Cancel

Step 7. Provide the Google Project, the Cisco Project and the Google Service Account provided by Cisco when provisioning the Google Project. Click **Save**.

# New Google Contact Centre Al Connector

Name	
1	
CCAI Project Name	
Select	$\checkmark$
Cisco-Provided Project Name	
Select	$\checkmark$
Google Cloud Service Account	
Select	~ )
	Cancel Save

Step 8. Now add the features. On the Contact Center page, click **Integrations** and **Features** and then click **New.** 

webex Control H	du	Q Search	
C Main Menu	Integrations Connectors Features		
General Digital Integrations Cloud Connect	Google Contact Center Al Active Connectors DialogflowCX-VAV		
	Add More		

Step 9. You are now in the Create a New Contact Center Feature page. Click New. Contact Center AI Config.

webex Control Hu	Q Sea	arch	4º 🔿 🛛 RA
< Main Menu	Integrations		
TENANT SETTINGS General	Connectors Features Q Search by name = Filter		New
Digital Integrations Cloud Connect	Webex CCAI Config Contact Center AI Use this Config to enable Cisco CCAI services	VAV-RTP2020-EFTAgent Contact Center Al	× L3
	Default: Agent Answers	Default: Virtual Agent	

Step 10. You are now in the Contact Center Feature page. Click Contact Center AI Config.



Step 11. Provide the feature information, select the connector already added and the Google agent conversation profile created.

webex Control H	ub	Q Search
< Main Menu	< Features	
TENANT SETTINGS	New Contact Center Al Config	Config Name *
Digital Integrations	6	Description
Cloud Connect		
		Google Contact Center Al Connectors Select a Connector
		Google Conversation profile * A Profile is the Google configuration for the conversation. To know more visit here
		<ul> <li>Apply as default for Agent Answers ()</li> <li>Apply as default for Virtual Agent ()</li> </ul>

# Configure CCAI in UCCE and PCCE (SPOG)

# **PCCE** Configuration

Step 1. On CCE AW, open Unified CCE Administration tool and navigate to Inventory.

 $\sum$ 

-diada- cisco	Unified Contact Center Enterprise M	Management		🖉 Alerta
	Overview			
Overview	Infrastructure Settings			
	La constante da const			
Infrastructure	Desice Configuration Application Estimation Enclosed Company	Call Settings MRD, Call Types, Dial Settings	Digital Channels Configure, Email and Chat	
<b>(</b>	Log Collector Deployment Settings			
1	Command Electricon Parle			

Step 2. Scroll-down and click on external machines.



Step 3. Select Cloud Connect Publisher and provide the Fully Qualify Domain Name (FQDN), the username and password.

Туре	Cloud Connect Publisher v	
Hostname/IP Address*	Note: The Cloud Connect Subscriber will be added a cloudconnect1.dcloud.cisco.com	utomatically
Cloud Connect Administrati	on	
Usemame*	administrator@dcloud.clsco.com	
Password*	•••••	

Cloud Connect is added and in sync.

Cloud Connect 1	×
cloudconnect1.dcloud.cisco.com	
Address: 198.18.133.103	
Sync Status: 🚅 In Sync	
C	_

Note: Ensure that you have previously exchange certificates between CCE components or implement

CA-signed certificates. Refer to these documents for PCCE certificate exchange and implementation: <u>Exchange Self-Signed Certificates in PCCE 12.6.</u> and <u>Implement CA-Signed Certificates in 12.6</u>.

Step 4. Validate default configuration. View the default CCAI configuration (created as part of CCAI configuration in Webex Control Hub). If required, synchronize the configuration (using *Sync* option), in the CCE Admin.

Step 4a. On the CCE Admin, navigate to the features card, and select Contact Center AI.

Overview



Step 4b. Select Cisco-billed AI Services



Step 4c. You see the default configuration for the virtual agent.

altalta cisco	Unified Contact Center Enterprise Management		<b>P</b>	Alerts	boston Administrator
	Contact Center Al				
Overview	Default Config				0
	This page gives an overview of Al services that use the default Contact Center Al Config. Contact Center Al Config depicts a set of services from an API provider. You can create or configure it	in Clisco Webex Control Hub.		S Last N	oync Status:
Organization	Al Service	Default Config			
Organization	Agent Answers	Demo Config01			
1	Virtual Agent	\$\$\$71			
Users Desktop F Capacity		•			

# **UCCE** Configuration

Step 1. On CCE AW, open Unified CCE Administration tool and navigate to Inventory. Click New.

altalta cisco	Unified Contact Center Enterprise Ma	anagement	Alerta	
	Inventory			
<b>()</b>	Q,		[1	New Delote 💿
Overview			-	
	Host Name		Hostname/IP Address	Туре
	claudconnect.cicm.com		10.64.82.183	Cloud Connect Publisher
Infrastructure	ucce1251.cicm.com		10.64.82.111	Unified CCE AW (Principal AW)
4				
Organization				
Users				

Step 2. Add Cloud Connect and provide the FQDN and credentials.

← → ♂ ∉	🔓 💿 🔒 🗢 htt	tps://ucce1251.ciam.com/cceadmin	/#/systemDeploy:: ••• 🗟 🟠 🔍 Search		¥ ⊪\ © \$\$ ¥
O Most Visited	🕽 Getting Started 🛛 🏥 Circo	Finesse			🛅 Other Bookmarks
dialia U cisco	hified Contact Ce	enter Enterprise Manage	ement	Averta	Administrator
	Inventory	Edit Cloud Connect Pub	lisher		×
	Q	General Alerta			
Overview	Host Name	Hostname/IP Address*	claudconnect.cicm.com		
	cloudesmeet.e	Address*	19.64.82.183		orviect Publisher
Infrastructure	L uccet251.cicm	Cloud Connect Administratic	xn		SCE AW (Principal AW)
٩		Usemanve*	Administrator		
Organization		Password*	••••••		
			Launch Clace Webex Control Hub		
Users					
F					
Capacity				Activate Go to Setti	-Windows ngs to activate Windows.
				Cancel 🔎 S	iava 👘

Note: Ensure that you have previously exchange certificates between CCE components or implement CA-signed certificates. Refer to these documents for UCCE certificate exchange and implementation: Exchange Self-Signed Certificates in UCCE 12.6, and implementation: Implement CA-Signed Certificates in 12.6.

Step 3. Configure Cloud Connect in the CVP Operations Console (OAMP). For details see the section *Configure CVP Devices for Cloud Connect* in the *Administration Guide for Cisco Unified Customer Voice Portal.* 

٠	Cisco Virtua	alized Voice Browse ×	🗰 Cisco	Unified Customer $V \in X$	赫 Cisco Unifie	ed Customer Vo X	to OemAutomation	nUi ×	👏 New Tab		× +	- ~	-	٥	×
$\leftarrow$	$\rightarrow$ C	(	) 🔒 http:	s:// <b>10.64.82.186</b> :9443/	noamp/#/cloud	lconnectconfig				90%	☆			<u>එ</u>	=•
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Ove	rview	Device Type	VVB	~											0
2	312	Device Name	ApolloVVB5	4 ~	Copy Settir	ngs									
Contac	t Center Al	▲ Values are sy	nched period	lically every 5 min. But	for an immedia	te effect, restart o	of Speech Server is r	equired.							
	Ω	Publisher IP Add	ress /	10.10.10.1											
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Step 4. Validate the Google CCAI default configuration. View the default CCAI configuration (created as part of the configuration of CCAI in Webex Control Hub). If required, synchronize the configuration (using *Sync* option), in the CVP Operations Console (NOAMP for Cisco Unified CCE).

Step 4a. On the CCE Admin, navigate to the features card, and select Contact Center AI.

# Overview



Step 4b. Select Cisco-billed AI Services.



Step 4c. You see the default configuration for the virtual agent.

altalta cisco	Unified Contact Center Enterprise Management		<b>P</b>	Alerts	boston Administrator
	Contact Center Al				
Overview	Default Config				0
	This page gives an overview of Al services that use the default Contact Center Al Config. Contact Center Al Config depicts a set of services from an API provider. You can create or configure it	in Clisco Webex Control Hub.		S Last N	oync Status:
Organization	Al Service	Default Config			
Organization	Agent Answers	Demo Config01			
1	Virtual Agent	\$\$\$71			
Users Desktop F Capacity		•			

# **CVP** Configuration

Step 1. On CVP Call Studio, open the call studio application. You can use a Cisco sample call studio application to test in a lab environment. You can download it from here: <u>Call Studio VAV Sample Application</u>.



Step 2. Click the Virtual Agent Voice element and select the settings tab in order to open the element settings.

Voice Element - VirtualAgentVoice					
General Settings Audio	Data Events				
Name	Value				
Config ID	a6d72754-d0af-479				
* Secure Logging	false				
Event Name	{LocalVar.event_na				
Event Data	'name':'marco','pin				
SIP Headers Restri	to,VIA				

Step 3. On the Config ID copy the id from the Webex Control Hub CCAI feature that you creates. Leave it blank if you have selected a default virtual agent in the Webex Control Hub feature configuration.



Step 4. In previous integration of Dialogflow CX with Cisco Contact Center, you were required to create a welcome event. This is still required in CCE 12.6.2 version if you are using an on-prem based connector. However, for Cloud-based connector you have the option to specify your own event and parameters passed to Google Dialogflow. Click on the Event Name, and specify the name of the event you are passing to Google Dialogflow. Ensure that you create this event in your Dialogflow CX agent.

In this example, the event name is passed as a local variable that was defined in a previous element.

Substitution Create a subst	Tag Builder itution tag.		uilder
		ation 🕴 📑 Outline	
Element Data	Session Data Call Data Caller Activity Demographics Account Info Phone Number Date/Time Local Variable	alAgentVoice	
Element:	Audio_01 V	udio Data Events	
Element Data:		Value	<u>^ (}</u>
		false {LocalVar.event_na	=
		'name':'Marco','pla	~
		y Value	<u>^</u>
		experimental rnnt	
Value: {Local	/ar.event_name} Add Tag	Var SPEECH MODEL V	
		ge en-US	~
2	OK Cancel		
U	on concert	<u>^</u>	₩ - {}} - □

The variable was defined in the set variable event.

	•	General Settings Data Events			
next	11	Name Value	1		
Set Value_01 done CVP Subdialog Start_01		*⊞event_name "welcome_event"			

Event in the Dialogflow CX Agent.



Step 5. On the Event Data, add the parameters that you want to pass with the Event Name to Google Dialogflow CX. Click ... to open the Event Data field. in this example, three variables are passed, Name, Place and json type field values.

		Start Of Call		^ ≡	V	oice Element - VirtualAg General Settings Audio	entVoice Data Events		
		next				Name	Value	1	
		C. L. F. L. C. J. 01				* Secure Logging	false		
- dor	ne	Subdialog Start_01				Event Name	{LocalVar.event_na	-	-
	` <u> </u>		f			Event Data	'name':'Marco','pla	`	-
done	e 《및 Virtu Setting - Event Data	ualAgentVoice_01	×	~ >		VoiceXML Property Recognize.model Recognize.modelVar com.cisco.language	Value experimental_rnnt SPEECH_MODEL_V en-US		
1	Name	Value	<u>^</u>					备址▼	03 - 0
1	name	Marco							100
1	place	India							
1	json	{"val5":"5","val6":"6	=			A			

Step 6. SIP Header restrictions allows you to filter what information from the SIP messages is sent to Google Dialogflow CX agent. This is to prevent that personal or critical information is passed via the cloud.



Step 7. To improve the Automatic Speech Recognition (ASR), Text-to-Speech (TTS) and Natural Language Understanding (NLU) interaction with Google Dialogflow a set of VXML parameters have been added.

	VoiceXML Property	Value
	Recognize.model	experimental_rnnt_short
	Recognize.modelVariant	SPEECH_MODEL_VARIANT_UNSPEC
	com.cisco.language	en-US
	Synthesize.voiceGender	female
	Synthesize.voiceName	en-US-Standard-C

### **Recognize Models**

This is used to specify the machine learning model to be used by the cloud speech-to-text transcription to improve the recognition results.

You can find more information in this documents:

### Enhanced Models

Select Enhanced Models

### **Recognize Models Variant**

Contains the model variant name.StringRecognize.modelVariant. For example, these four values are supported as model.

- USE\_STANDARD
- SPEECH\_MODEL\_VARIANT\_UNSPECIFIED
- USE\_ENHANCED
- USE\_BEST\_AVAILABLE (default)

### Synthesize Voice Gender

Set the gender type for Synthesize operation.

### Synthesize Voice Name

Set the voice name for Synthesize operation. Helps to select the voice and the accent in which the prompts have to be played.

Here are the supported voices and languages by Google: Google Voice and Language Support.

### **Configure Partial Response in Dialogflow CX**

The partial response feature plays an interim message and engages the caller while the webhook response is processing the request in the background. The webhook request in Dialogflow CX often takes longer to receive a response. If there is no interim response to the caller while the webhook response is processing the request, the caller is kept completely silent and could hang up the phone. To avoid this, use the partial response to notify the caller that their request is still being processed.

- If the webhook returns the actual response before or during the partial response, the system stops the partial response and plays the final response to the callers.
- The first prompt response that is received from Dialogflow CX agent does not support partial response.
- Barge-in cannot be enabled for the partial response prompt to allow the callers to interrupt an agent response.

Note: Partial response is configured on Google Dialogflow CX agent. This support is available only from ES1 of 12.6(2) VVB base release. For more information review this document: Google Partial Response

For more information about partial response, you can review this document: <u>https://help.webex.com/en-us/article/nzlot2u/Configure-Partial-Response-in-Dialogflow-CX</u>

# Verify

There is currently no verification procedure available for this configuration.

# Troubleshoot

There is currently no troubleshooting procedure available for this configuration.

# **Related Information**

- UCCE Features guide 12.6.2
- <u>Exchange Self-Signed Certificates in UCCE 12.6</u>
- Implement CA-Signed Certificates in 12.6
- Exchange Self-Signed Certificates in PCCE 12.6
- Provision Google CCAI Hybrid Services with CCE
- Google Dialogflow CX Introduction
- Google Use Pre-built agent template to create a Dialogflow CX agent
- Google Introduction to pages and transitions in Dialogflow CX
- Google Create a single-flow conversational agent
- <u>Cisco Unified Contact Center Enterprise Installation and Upgrade Guide 12.6.2</u>
- <u>Call Studio VAV Sample Application</u>
- VXML Element Specification Guide
- Enhanced Models
- <u>Select Enhanced Models</u>
- Google Voice and Language Support
- <u>Technical Support & Documentation Cisco Systems</u>