



Agent Answers

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Introduction

Unified CCE leverages Artificial Intelligence (AI) and Natural Language Understanding (NLU) to provide services that assist agents. These services are available for the agents in the Cisco Finesse desktop gadgets.

Agent Answers feature provides relevant suggestions and recommendations in real time for the agent to consider. The suggestions and recommendations are based on the ongoing conversation between the caller and the agent.

More often than not, agents lack the depth of knowledge about the products and services of the business they serve. Agent Answers enhances the customer experience because the timely suggestions improve the ability of the agent to respond. Businesses can cut down on training costs and time.

Prerequisites

The prerequisites for configuring Agent Answers are:

- Virtual CUBE (vCUBE) based on CSR8Kv platforms running the Cisco IOS XE 17.6 image.

The Cisco IOS XE 17.6.1a image can be downloaded at <https://software.cisco.com/download/home/286327102/type/282046477/release/Bengaluru-17.6.1a>

For more details, see the WebSocket-Based Media Forking for Cloud Speech Services chapter in the *Cisco Unified Border Element Configuration Guide - Cisco IOS XE 17.6 Onwards* at <https://www.cisco.com/c/en/us/td/docs/ios-xml/ios/voice/cube/ios-xe/config/ios-xe-book/websocket-forking-for-cube.html>.

- The following components must be on release 12.6(1): CCE components (Router, Logger, AW, and PG), Cisco Finesse, Cisco Unified CVP, and Cloud Connect.
- Ensure that your Unified ICM AW server has 443/8443 ports opened and is able to access the following websites:
 - *.wbx2.com
 - *.ciscoccservice.com
- Ensure that vCUBE has access to the following websites:
 - *.cisco.com
 - *.ciscospark.com
 - *.rtmsprod.net
 - *.wbx2.com
- Ensure that Unified CCE AW, Unified CCE OAMP, Cloud Connect, CUBE, and Agent Desktop components have access to Webex services to use the Agent Answers.

Important Considerations

Consider the following before configuring the Agent Answers services:

- Agent Answers services are supported on calls that originate from CVP routing clients. Calls originating from routing clients other than CVP or calls that are sent using the translation route to CVP do not support the Agent Answers services.
- The following failover scenarios don't support Agent Answers services:
 - CCE components running in maintenance modes switch to the peer side, passing the call context to the other side. If the call context (required to trigger the Agent Answers services) is lost, Agent Answers services may not work as expected.
 - Agent Answers services is supported during VRU PG failovers before and after the transfer. However, Agent Answers services aren't supported when the transfer is in progress.
 - Agent Answers services aren't supported during Agent PG failovers.
- Agent Answers services aren't supported in the following call scenarios:
 - Direct Extension calls
 - Outbound campaign calls and agent-initiated outbound calls.
 - Calls routed to agents on non-CUCM Peripheral Gateways such as the TDM PG and System PG
 - Transfer and conference calls
- Agent Answers services are supported only with G.711 μ law.
- A vCube instance can support either WebSocket-based forking or Network-based Recording (NBR) forking. However, you cannot enable both types of forking on the same instance of vCube.

Contact Center AI Services Task Flow

Follow this procedure to enable the Contact Center AI (CCAI) Services that equips your Contact Center for Agent Answers Services.

SUMMARY STEPS

1. Create a CCAI configuration in Cisco Webex Control Hub at <https://admin.webex.com>. A CCAI configuration leverages CCAI Connectors to invoke the CCAI services.
2. Ensure that the Cloud Connect publisher and subscriber are installed.
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* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-customer-voice-portal/products-installation-and-configuration-guides-list.html>.
4. Register Cloud Connect in the Unified CCE Administration console to establish a secure and trusted communication channel between the Cisco Contact Center on-premises deployment and cloud services.
5. Import the Cloud Connect certificate to the CVP Server.
6. In the Script Editor, associate the Contact Center AI Config ID and the call GUID with two new ECC variables.
7. Provision Cloud Connect on Cisco Finesse.
8. Do the following in the Cisco Finesse Administration console.
9. CUBE uses a WebSocket connection to fork the media streams of the agent and the caller towards the Webex CCAI Orchestrator service. For more details, see the Contact Center AI Services Considerations section in the *Solution Design Guide for Cisco Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-implementation-design-guides-list.html>.

DETAILED STEPS

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- Step 1** Create a CCAI configuration in Cisco Webex Control Hub at <https://admin.webex.com>. A CCAI configuration leverages CCAI Connectors to invoke the CCAI services.
For details, see the [Configure Contact Center AI](#) article.
- Step 2** Ensure that the Cloud Connect publisher and subscriber are installed.
For more information, see the *Install Cloud Connect* section in *Cisco Unified Contact Center Enterprise Installation and Upgrade Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-installation-guides-list.html>.
- 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* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-customer-voice-portal/products-installation-and-configuration-guides-list.html>.
- Step 4** Register Cloud Connect in the Unified CCE Administration console to establish a secure and trusted communication channel between the Cisco Contact Center on-premises deployment and cloud services.
For details, see the *Cloud Connect Integration* section in the *Administration Guide for Cisco Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-maintenance-guides-list.html>.

Step 5 Import the Cloud Connect certificate to the CVP Server.

For details, see the section *Import Cloud Connect Certificate to Unified CVP Keystore* in the *Configuration Guide for Cisco Unified Customer Voice Portal* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-customer-voice-portal/products-installation-and-configuration-guides-list.html>.

Step 6 In the Script Editor, associate the Contact Center AI Config ID and the call GUID with two new ECC variables. For more details, see *Modifying CCE Script to Configure Agent Answers*.

Step 7 Provision Cloud Connect on Cisco Finesse.

For more information, see the *Cloud Connect Server Settings* topic in the *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Step 8 Do the following in the Cisco Finesse Administration console.

- To enable CCAI services in Cisco Finesse, see the *AI Services Configuration* section in the *Cisco Finesse Administration Guide, Release 12.6(1)* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.
- To add the Agent Answers gadget to the Cisco Finesse desktop layout, see the *Contact Center AI Gadgets* section in the *Cisco Finesse Administration Guide, Release 12.6(1)* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Once enabled, the Agent Answers gadget appears on the Home tab and displays relevant articles and suggestions during an incoming call. For details on how to use the gadget, see the *Contact Center AI Gadgets Guide*.

Note Gadget auto-hide/un-hide and notifications capability is available only if the gadget is configured as a multi-tab gadget in Cisco Finesse. For more details, see *Configure Multi-Tab Gadget Layout* section in the *Cisco Finesse Administration Guide* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.

Step 9 CUBE uses a WebSocket connection to fork the media streams of the agent and the caller towards the Webex CCAI Orchestrator service. For more details, see the Contact Center AI Services Considerations section in the *Solution Design Guide for Cisco Unified Contact Center Enterprise* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-implementation-design-guides-list.html>.

Perform the following steps to configure WebSocket-based forking in CUBE.

- Create a SIP profile and associate it at the dial-peer level in CUBE. For details, see [Create a SIP Profile at the Dial-Peer Level in CUBE, on page 8](#)
- Import the WebSocket Connector certificate to CUBE. For details, see [Import or Verify WebSocket Connector Certificate to CUBE, on page 9](#)
- Configure WebSocket-based forking in CUBE. For CUBE documentation that describes how to do this, contact Cisco TAC.

Contact Center AI Configuration

In the Unified CCE Administration console, the Contact Center AI (CCAI) feature tab allows administrators to associate the CCAI configuration (created in the Control Hub at <https://admin.webex.com/>) with all the

call types (global configuration) or with a specific call type. Upon associating a CCAI configuration with the call type, the global configuration (if any) gets overridden for the specific call type.



Note To access this feature, add Cloud Connect to the inventory and register it in the Unified CCE Administration console.

Associate Contact Center AI Configuration with All Call Types

You can view, update, or reset the Contact Center AI configuration, which is associated with all call types.

View Contact Center AI Configuration

In the **Unified CCE Administration**, navigate to **Overview > Features > Contact Center AI**. The **Contact Center AI Configuration** search box displays the name of the CCAI configuration that was previously associated with all call types.

Reset Contact Center AI Global Configuration

This procedure explains how to reset the Contact Center AI configuration. Upon reset, the previously associated configuration is cleared from the search box.

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- Step 1** In the **Unified CCE Administration**, navigate to **Overview > Features > Contact Center AI**.
- Step 2** In the **Contact Center AI Configuration** search box, next to the configuration name, click the **x** icon.
- Step 3** Click **Save**.
-

Associate Contact Center AI Configuration with a Call Type

You can view, update, or delete the Contact Center AI configuration associated with a specific call type.

View Contact Center AI Configuration

In the **Unified CCE Administration**, navigate to **Overview > Call Settings > Route Settings > Call Type**. The **Contact Center AI Configuration** search box displays the name of the CCAI configuration that was previously associated with the call type.

Update Associate Contact Center AI Configuration

You can create a Call Type using the **Configuration Manager** tool. However, you can use the **Unified CCE Administration** to associate a Contact Center AI configuration with a call type. This procedure explains how to update the Contact Center AI configuration associated with a call type.



Note Only one configuration can be associated with a call type.

-
- Step 1** In the **Unified CCE Administration**, navigate to **Overview > Call Settings > Route Settings**.
- Step 2** Click the **Call Type** tab and select the call type for which Contact Center AI configuration has to be associated.
- Step 3** Click the **Contact Center AI** tab.
- Step 4** In the **Contact Center AI Configuration** search box, click the search icon. A pop-up window displays a list of CCAI configurations.
- Step 5** Select the required configuration and click **Save**.
-

Reset Contact Center AI Configuration

This procedure explains how to reset the Contact Center AI configuration. Upon reset, the previously associated configuration with the call type is cleared from the search box.

-
- Step 1** In the **Unified CCE Administration**, navigate to **Overview > Call Settings > Route Settings**.
- Step 2** Click the **Call Type** tab.
- Step 3** In the **Contact Center AI Configuration** search box, next to the configuration name, click the **x** icon.
- Step 4** Click **Save**.
-

Enable or Disable Contact Center AI Services for Agents

Contact Center AI Services can be configured for each agent. Administrators and supervisors can enable or disable the services for an agent or multiple agents together.

Enable or Disable Contact Center AI Services for an Agent

This procedure explains how to enable or disable Contact Center AI Services for an agent.

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- Step 1** In **Unified CCE Administration**, choose **Users > Agents**.
- Step 2** Click on the agent row whose services are to be modified.
- Step 3** Click the **Contact Center AI** tab.
Displays a list of services enabled or disabled for the agent.
- Step 4** To enable or disable the required Contact Center AI Services, check or uncheck the check boxes corresponding to the services.
- Step 5** Click **Save**.
-

Enable or Disable Contact Center AI Services for Multiple Agents

Administrators and supervisors can enable or disable Contact Center AI Services for multiple agents.

All agents must belong to the same site and the same department, or all agents must be global agents. The **Edit** button is disabled if:

- Agents from different sites, departments, or peripheral sets are selected.

- A mix of global and departmental agents are selected.

-
- Step 1** In **Unified CCE Administration**, choose **Users > Agents**.
- Step 2** Check the check box corresponding to each agent whose services you want to edit.
- Step 3** Click **Edit > Contact Center AI**.
The Edit Services dialog displays a list of services that are the service that is enabled or disabled.
- If the service is enabled for all the agents selected for editing, the check box is checked.
 - If the service is disabled for all the agents selected for editing, the check box is unchecked.
 - If the service is enabled for some agents and disabled for the others, the check box has a dash (—).
- Step 4** To enable or disable the Contact Center AI Services, check or uncheck the check boxes corresponding to the services.
- Step 5** Click **Save**, and then click **Yes** to confirm the changes.
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Enable or Disable AnswersContact Center AI Services for Agents using Bulk Job

- Step 1** Navigate to **Unified CCE Administration > Overview > Bulk Import**.
- Step 2** Click **Templates**.
The **Download Templates** popup window opens.
- Step 3** Click the **Download** icon for the Contact Center AI template you want to use.
- Step 4** Click **OK** to close the **Download Templates** popup window.
- Step 5** Open the `.csv` template in Microsoft Excel.
- Step 6** Populate the file as described in the [Bulk Contact Center AI Services Content File, on page 7](#).
- Step 7** Save the populated file to the local machine.
- Step 8** Navigate to **Unified CCE Administration > Overview > Bulk Import**.
- Step 9** Click **New**.
- Step 10** In the optional **Description** field, enter up to 255 characters to describe the bulk job.
- Step 11** In the **Content file** field, choose the file to upload, and then click **Save**.
-

Bulk Contact Center AI Services Content File

The content file for Contact Center AI bulk job contains the fields given in the following table. Enter the values appropriately in the given fields to enable or disable Contact Center AI Services for the agents.



Note Bulk job is available for administrators only when Cloud Connect is added in the inventory and registered on the Control Hub.

Field	Required?	Description
agentId	Agent ID or Username	Existing agentId for which you want to enable or disable the Contact Center AI Services. You must provide either an agentId or the userName. If both are provided, agentId takes precedence over the userName. If the agentId value is left blank, the userName will reference an existing agent.
userName	Username or Agent ID	Username of the agent for which you want to enable or disable the Contact Center AI Services. If no agent is found with the given username, the Contact Center AI Services association fails.
agentServices	Yes (to enable Contact Center AI Services)	The type of Contact Center AI Services to be associated with the agent. Supported values are AgentAnswers and Transcript. To associate more than one services, separate the values using semicolon (;). If the value is updated, any existing enabled service gets overwritten. If the value is left empty, no service gets associated with the agent.

Create a SIP Profile at the Dial-Peer Level in CUBE

Run the following CLI commands on the CUBE terminal to create a SIP profile and associate that profile at the dial-peer level. These commands add a SIP header to the SIP profile configuration, allowing CVP to identify which CUBE device can receive the forking request.

```
voice class sip-profiles <SIP-profile-identifier-a>
request INVITE sip-header Call-Info add "X-Cisco-Forking: supported"
dial-peer voice <SIP-profile-identifier-b> voip
voice-class sip profiles <SIP-profile-identifier-a>
```

Example:

```
voice class sip-profiles 104
request INVITE sip-header Call-Info add "X-Cisco-Forking: supported"
dial-peer voice 4445 voip
voice-class sip profiles 104
```


Import or Verify WebSocket Connector Certificate to CUBE

By default, the trust pool bundle includes the **IdenTrust Commercial** certificate. This certificate is required for validating the **WSCconnector** certificate during the TLS connection establishment of the **WebSocket Connector**.

SUMMARY STEPS

1. Run the command to verify if the certificate is included.
2. If **IdenTrust** certificates are not present, add the certificates to CUBE.

DETAILED STEPS

Step 1 Run the command to verify if the certificate is included.

```
show crypto pki trustpool | include IdenTrust
cn=IdenTrust Commercial Root CA 1
o=IdenTrust Inc
cn=IdenTrust Commercial Root CA 1
o=IdenTrust Inc
```

Step 2 If **IdenTrust** certificates are not present, add the certificates to CUBE.

- a) Open the following URL <https://www.cisco.com/security/pki/>.
- b) Locate the **Cisco Trusted Core Root Bundle** under the **Trusted Root Stores**.
- c) Select the **Cisco Trusted Core Root Bundle**, right click, and then select **Copy link**. The URL for the bundle is copied to your clipboard.
- d) Run the following command in CUBE terminal:

```
vCUBE# configure terminal
vCUBE(config)# crypto pki trustpool import clean URL <URL copied in step 2(c)>
```

Example:

```
vCUBE(config)# crypto pki trustpool import clean URL
http://www.cisco.com/security/pki/trs/ios_core.p7b
```

Output

```
Reading file from http://www.cisco.com/security/pki/trs/ios_core.p7b
Loading http://www.cisco.com/security/pki/trs/ios_core.p7b
% PEM files import succeeded.
```

The **IdenTrust** certificates are added to CUBE. To verify the addition, run the following command **show crypto pki trustpool | include IdenTrust**. The output will display the **IdenTrust** certificates as shown in Step 1.

Reconfigure Agent Answers after Upgrade to Unified CCE 12.6

Before you begin

In Unified CCE 12.6, the CCAI services include the following enhanced capabilities when compared to 12.5:

- **Reporting:** The Agent Answers Analytics report compares an agent's handle time when the Agent Answers service was enabled vs. when the service was disabled. The report helps you understand the impact of the Agent Answers services on an agent's performance.
- **Transfers and Conference Calls Support:** The Agent Answers and Call Transcript services continue during call transfers or call conferences.
- **Enable the CCAI Configuration for Specific Call Types:** The CCAI Configuration can be enabled for all or specific call types.
- **Enable the CCAI Services for Specific Agents:** The CCAI Services can be configured for each agent. Administrators and supervisors can enable or disable the services for an agent or multiple agents.

If you used the CCAI Services on Unified CCE 12.5, you've already completed most of the configurations that are required for the Agent Answers and Call Transcript services to work in Unified CCE 12.6. No changes are required to the existing Google CCAI, CUBE, or Cloud Connect configurations.

While configuring the CCAI services in Unified CCE 12.5, you enabled Cisco Finesse 12.6 to display the CCAI gadgets to all the agents by running the `enableCustomAgentServices` CLI command.

Once you complete the agent configurations (at Step 3 in the following procedure) and run the `enableCustomAgentServices` CLI command to disable the gadgets for all the agents (at Step 4), Cisco Finesse relies on agent-specific configuration in Unified CCE Administration to display the gadgets.

Follow these steps to complete the CCAI configuration in Unified CCE 12.6 and leverage the enhanced capabilities listed above:

SUMMARY STEPS

1. In Control Hub, set a CCAI configuration as the default configuration for all calls. For more details, see Step 7a at <https://help.webex.com/en-us/npbt02j/Configure-Contact-Center-AI>.
2. In the Unified CCE Administration console, do one of the following:
3. In the Unified CCE Administration console, enable or disable CCAI Services for an agent or multiple agents.
4. Undo these CCAI settings configured when Unified CCE was in 12.5:

DETAILED STEPS

-
- Step 1** In Control Hub, set a CCAI configuration as the default configuration for all calls. For more details, see Step 7a at <https://help.webex.com/en-us/npbt02j/Configure-Contact-Center-AI>.
- Step 2** In the Unified CCE Administration console, do one of the following:
- To view and sync the Contact Center AI configuration that is associated with all call types as a global configuration, see [Associate Contact Center AI Configuration with All Call Types, on page 5](#).
 - To view, update, or delete the Contact Center AI configuration that is associated with a specific call type, see [Associate Contact Center AI Configuration with a Call Type, on page 5](#).
- Step 3** In the Unified CCE Administration console, enable or disable CCAI Services for an agent or multiple agents. For more details, see [Enable or Disable Contact Center AI Services for Agents, on page 6](#).
- Step 4** Undo these CCAI settings configured when Unified CCE was in 12.5:

- Delete the "call.user.configid" ECC variable you created for the Answers feature and remove the association of this variable with the CCE script.

For more details, see the *Contact Center AI Services Task Flow* section in the *Cisco Unified Contact Center Enterprise Features Guide, Release 12.5* at <https://www.cisco.com/c/en/us/support/customer-collaboration/unified-contact-center-enterprise/products-feature-guides-list.html> .

- In Cisco Finesse, run the following CLI command to disable the CCAI services from all the Cisco Finesse clusters:

```
utils finesse set_property webservices enableCustomAgentServices false
```

For more details, see the *AI Services Configuration* topic in the *Cisco Finesse Administration Guide, Release 12.6(1)* at <https://www.cisco.com/c/en/us/support/customer-collaboration/finesse/products-maintenance-guides-list.html>.
