



PureConnect®

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# PureConnect Integration with Genesys Intelligent Automation

## Technical Reference

### Abstract

This document describes how to integrate Pureconnect with Genesys Intelligent Automation

For the latest version of this document, see the PureConnect Documentation Library at: <http://help.genesys.com/pureconnect>.

For copyright and trademark information, see [https://help.genesys.com/pureconnect/desktop/copyright\\_and\\_trademark\\_information.htm](https://help.genesys.com/pureconnect/desktop/copyright_and_trademark_information.htm).

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# Introduction to PureConnect Integration with Genesys Intelligent Automation

The PureConnect integration with Genesys Intelligent Automation is a fully tested, secure offering that allows easy integration of chatbots and voice bots with on-premises and cloud implementations of PureConnect.

## Capabilities

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### Voice

- Directed dialog-based IVR with Nuance
  - Visualization of directed dialog-based IVR
  - Voice bots powered by speech-to-text and natural language processing
- 

### Chat and messaging channels

- Chatbots based on directed dialog
- Chatbots with natural language processing overlay

# About Genesys Intelligent Automation

Genesys Intelligent Automation installs on-premises or in the cloud to allow businesses to develop personalized bots, microapps, intelligent assistants, IVR applications, and more. It integrates with Genesys Dialog Engine, third-party [Natural Language Processing \(NLP\)](#), Artificial Intelligence (AI), and directed dialog capabilities to drive a better customer experience and reduce costs.

Through a directed dialog or natural language detection, Genesys Intelligent Automation can understand when in the conversation your customer needs to talk to a human. It can then route the conversation to the appropriate agent and carry over the context and history of the conversation so that the agent knows what happened during the bot interaction. Similarly, you can program bots to hand off interactions to human agents at any time. For a demo, see <https://www.genesys.com/customer-experience/innovations/google-cloud-contact-center-ai>.

Currently, PureConnect supports all features of Genesys Intelligent Automation except the following:

- Conversation Manager
- Multi-modal
- Smart Transfer
- Whisper Transfer

For more information about:

- Genesys Intelligent Automation, see [Genesys Intelligent Automation](#).
- Installing and configuring Genesys Intelligent Automation, see the [Genesys Intelligent Automation Deployment Guide](#).
- Using Genesys Intelligent Automation, see the [Genesys Intelligent Automation Help](#).
- Genesys Intelligent Automation features, see the [Genesys Intelligent Automation Reference Guide](#).
- Dialog Engine, see [Integrating Dialog Engine](#) in the Genesys Intelligent Automation Deployment Guide.

# Genesys Intelligent Automation Benefits

Genesys Intelligent Automation includes the following benefits:

- Intuitive Control Center for non-technical users to configure self-service dialogs for chatbots.
- Ability to integrate pre-built or custom microapps to reduce deployment effort up to 70% against traditional methods. For more information, see [Microapps](#).
- Leveraging of Genesys Dialog Engine, NLP/AI engine, or third-party NLP tools for complete flexibility.
- Built-in customer journey reporting and single integration layer across the chatbot channel.
- Integration to Genesys Widgets and PureConnect.
- Hybrid deployment to keep your sensitive data on premises while leveraging AI from the cloud.

# Interaction Security

Interactions pass securely from your website through a cloud service to Genesys Intelligent Automation on-premises and cloud implementations.

The cloud service uses the following security measures:

- Follows microservices industry standards.
- Uses HTTPS with TLS 1.2 to encrypt and protect all data in transit and at rest.
- Encrypts all data on AWS, whether going through a cache or messaging bus.
- Caches data during current session only; no data retained in the cloud service and nothing stored.
- Uses stateless service.

# Components

## Required Components

Following are the required components to integrate chatbots and voice bots to PureConnect on-premises or PureConnect Cloud. The minimum required PureConnect version is 2018 R4 (only the chat widget is available). Our recommended PureConnect version is 2019 R1 or later.

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### PureConnect on-premises

#### Chatbots

- Customer Interaction Center (integrated contact center software solution)
- Genesys Intelligent Automation (local install)
- Dialog Engine or third-party natural language understanding platform, such as Google Dialogflow
- Genesys Widgets
- (Optional) Knowledge Center

#### Voice bots

- VoiceXML Interpreter Server
  - Customer Interaction Center (integrated contact center software solution)
  - Media Server (delivers audio streaming services and interfaces to third-party text-to-speech and automated speech recognition engines)
  - UniMRCP (local install)
  - Genesys Intelligent Automation (local install)
  - Dialog Engine or third-party natural language understanding platform, such as Google Dialogflow
  - Google Speech-to-Text
  - Nuance and Google Text-to-Speech
  - (Optional) Knowledge Center
- 

### PureConnect Cloud

#### Chatbots

- Customer Interaction Center (integrated contact center software solution)
- Genesys Intelligent Automation (delivered from PureConnect Cloud)
- Dialog Engine or third-party natural language understanding platform, such as Google Dialogflow
- Genesys Widgets
- (Optional) Knowledge Center

#### Voice bots

- VoiceXML Interpreter Server (delivered from PureConnect Cloud)
- Genesys Intelligent Automation (delivered from PureConnect Cloud)
- UniMRCP (local install)
- Dialog Engine, Google Dialogflow, or Amazon Lex
- Google Speech-to-Text
- Nuance and Google Text-to-Speech
- (Optional) Knowledge Center

## Licensed Components

The following table lists the licensed components for Genesys Intelligent Automation. For more information about PureConnect licenses, see the [PureConnect Licensing Technical Reference](#).

**Note:** For voicebots, you select the pricing model and either part 1 or part 2. For chatbots, there is only one pricing model.

Component	Part/Description	Sold by	Pre-required Part
<b>Genesys Intelligent Automation Omnichannel Self Service</b>	Provides a web-based design tool for dialog flows, including reusable microapps for common dialog tasks. It also provides a dynamic runtime environment that generates VoiceXML for interactions over the voice channel.  <b>Note:</b> This part is included with voicebots and chatbots so the bot pricing covers this part. If you need a Development license, you can purchase this part.	N/A	N/A
<b>Cloud Voicebot / Chatbot</b>	VoicebotMin-PCC, Voicebot Minutes	Voicebots sold by the minute	VXML Server
	VoicebotIntxn-PCC, Voicebot Interactions	Voicebots sold by the interaction (complete bot – customer conversation)	VXML Server
	CS-ChatbotOrch, Chatbot Interactions	Chatbots sold by the interaction (complete bot – customer conversation)	N/A
<b>Premise Voicebot / Chatbot</b>	VoicebotMin-PCP-Sub, Premise (Subscription)	Voicebots sold by the minute	N/A
	VoicebotIntxn-PCP-Sub, Premise (Subscription), Voicebot Interactions	Voicebots sold by the interaction (complete bot – customer conversation)	VXML Server
	CS-ChatbotOrch-SUB, Premise (Subscription), Chatbot Interactions	Chatbots sold by the interaction (complete bot – customer conversation)	N/A

**Note:** The cloud service is a subscription model based on the number of bot interactions. A bot interaction, or session, lasts until the customer or agent closes the interaction, or the session times out.

*Copyright and trademark*



# Integrate PureConnect with Genesys Intelligent Automation

## Genesys Intelligent Automation configuration

Chatbot implementation and voice integration require installation and configuration of Genesys Intelligent Automation.

To configure Genesys Intelligent Automation

1. [Create a Company in Genesys Intelligent Automation](#)
2. [Identify the Company Authentication Key](#)
3. [Create an Application or Module](#)

**Note:** For information about installing Genesys Intelligent Automation, see the [Genesys Intelligent Automation Deployment Guide](#).

## Chatbot implementation

To implement Genesys Intelligent Automation for chatbots, configure a chatbot widget in Interaction Connect and add a code snippet to a page in your website. Doing so allows bot conversation back and forth to Genesys Intelligent Automation. When the bot conversation finishes, the conversation routes based on the call flow that you configured in Genesys Intelligent Automation. For example, it can route to an agent in Interaction Connect.

**Note:** The chatbot feature is available beginning with PureConnect 2018 R4.

To implement a chatbot

1. [Configure a Chatbot Widget in Interaction Connect](#)
2. [Configure Reverse Proxy Rewrite Rules](#)
3. [Set up Chatbot Call Flow](#)

---

## Basic chat flow example

Following is an example of a basic chat flow:

1. Website visitor starts a chat.
  2. Chat request passes through the cloud to Genesys Intelligent Automation.
  3. Genesys Intelligent Automation receives the request and proceeds accordingly.
  4. Interaction continues between the website visitor and Intelligent Automation until one of the following occurs:
    - Interaction ends.
    - Website visitor asks to speak to an agent.
- If the website visitor asks to speak to an agent, the interaction passes to an agent in Interaction Connect.

## Voice integration

To integrate voice with Genesys Intelligent Automation

1. [Create a Custom Handler for Voice Integration](#)
2. [Return Call Interaction to CIC](#)

## Genesys Intelligent Automation Configuration

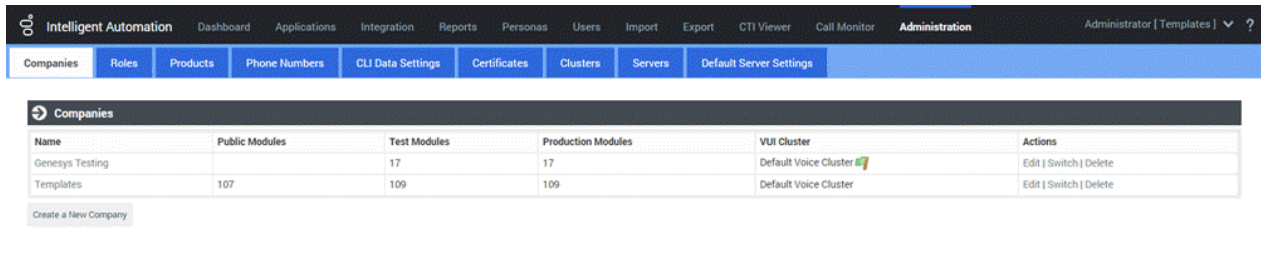
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### Create a Company in Genesys Intelligent Automation

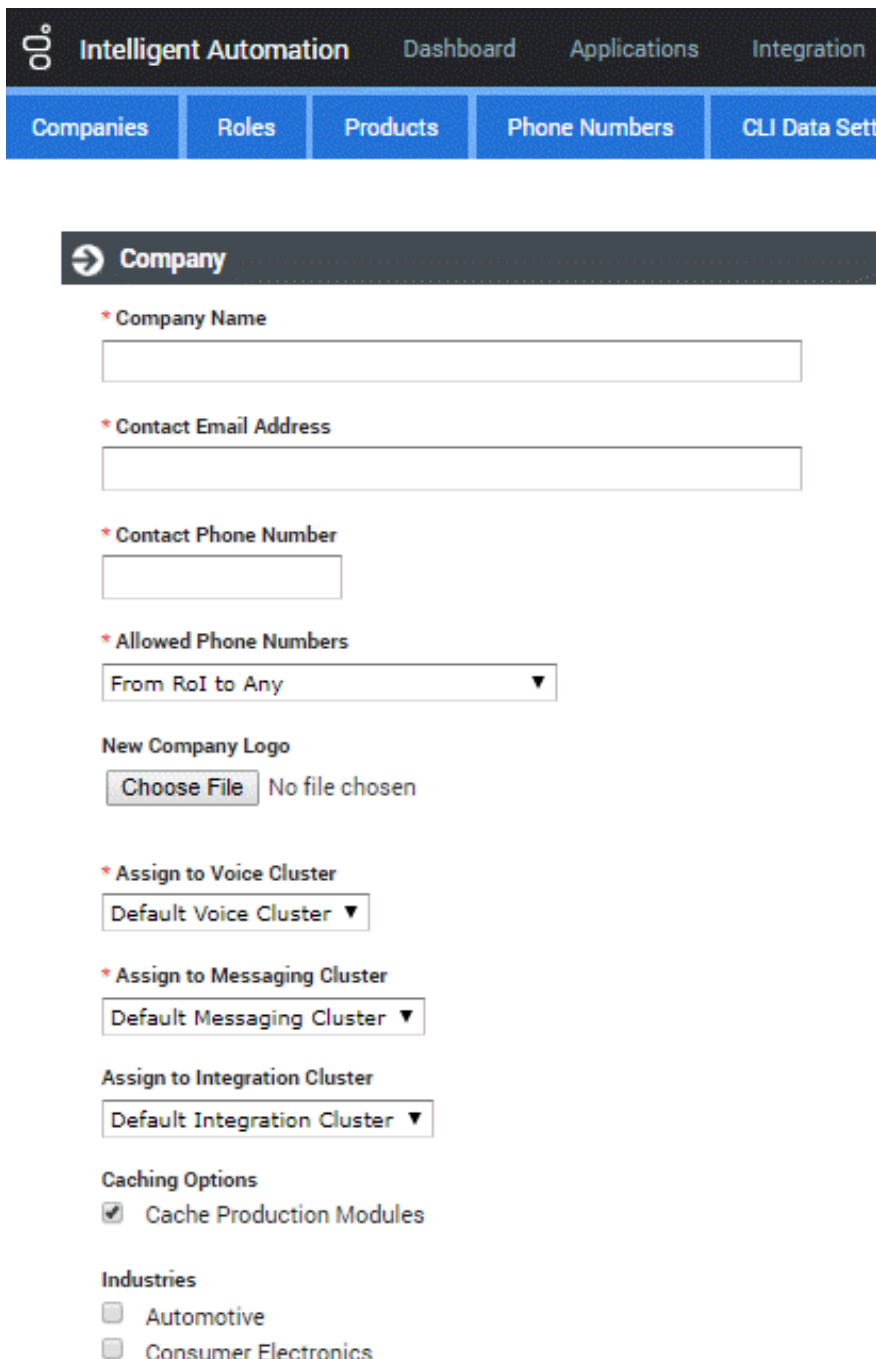
Companies are separate entities within your Genesys Intelligent Automation environment that have their own call flows, users, and reporting data. Create a company for the PureConnect with Genesys Intelligent Automation integration.

### To create a company in Genesys Intelligent Automation

1. Open Genesys Intelligent Automation in your browser.
2. In the menu bar, click **Administration** and then click the **Companies** tab.



3. Click **Create a New Company**. The **Company** panel appears.



- Distribution
- Education
- Entertainment
- Financial Services
- Government
- Healthcare
- Hospitality
- Manufacturing
- NonProfit
- Retail
- Technology
- Telecommunications
- Travel
- Utilities

Save

Cancel

**Company Name:** Unique name to assign to the company.

**Contact Email Address:** General email address for this company. Genesys Intelligent Automation doesn't use this address; however, it can be useful to PureConnect Customer Care.

**Contact Phone Number:** General phone number for this company. Genesys Intelligent Automation doesn't use this address; however, it can be useful to PureConnect Customer Care.

**Allowed Phone Numbers:** Phone numbers that this company's call flows can dial. Typically, you select **From RoI to Any** or **From UK to Any**. However, you can create your own calling rules on the **Phone Numbers** tab and select that rule here.

**New Company Logo:** Company logo to display in the Genesys Intelligent Automation user interface.

**Assign to Voice Cluster:** Voice cluster for this company to use. Typically, you select **Default Voice Cluster**.

**Assign to Messaging Cluster:** Messaging cluster for this company to use. Typically, you select **Default Messaging Cluster**.

**Assign to Integration Cluster:** Integration cluster for this company to use. Typically, you select **Default Integration Cluster**.

**Cache Production Modules:** If selected, Genesys Intelligent Automation uses cached versions of production modules to serve callers. Genesys recommends that you select this option for consistent performance.

**Industries:** If selected, this company operates in the associated industry.

4. Complete the information and then click **Save**. The new company appears on the **Companies** tab.

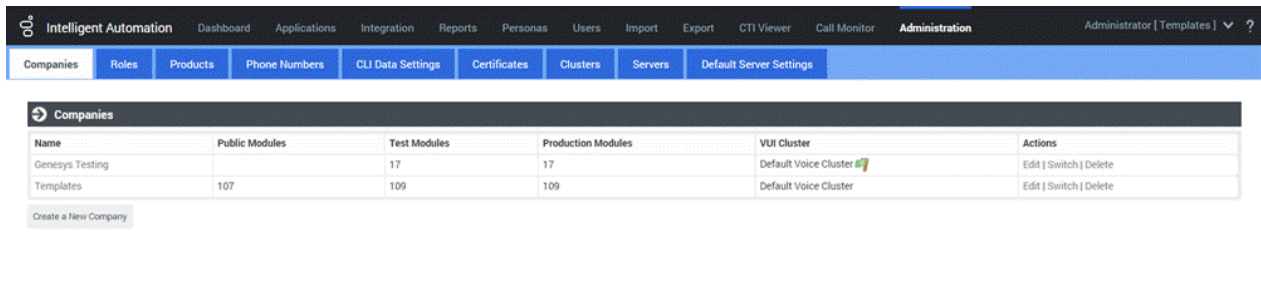
For more information about creating a company, see [Administration](#) in the *Genesys Intelligent Automation Help*.

## Identify the Company Authentication Key

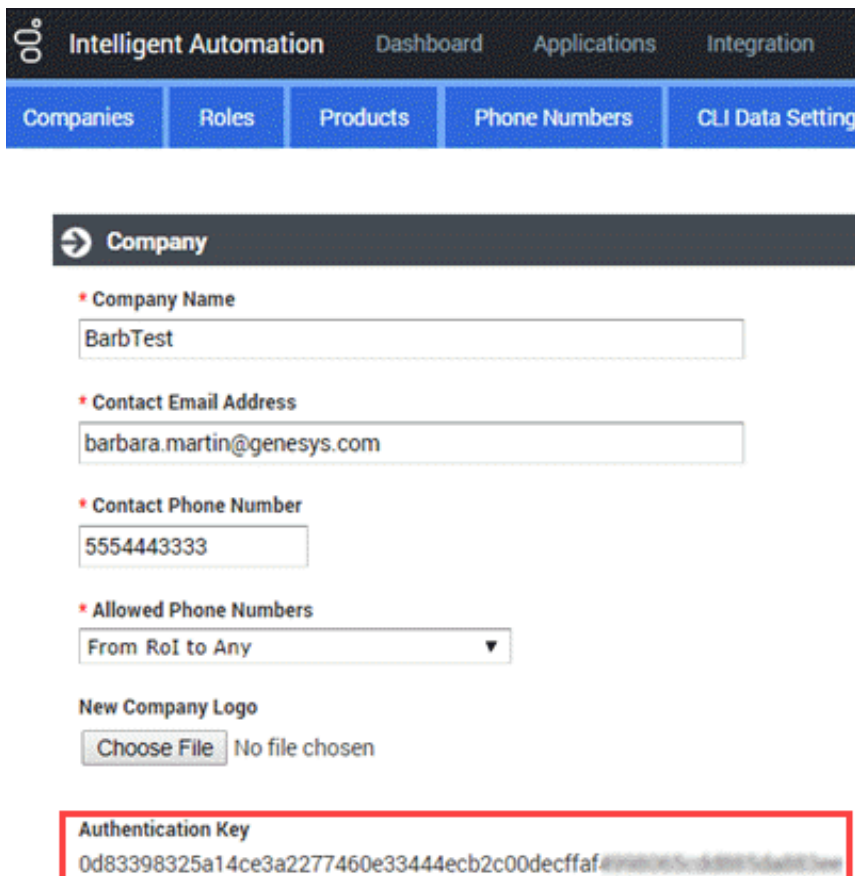
When you create a company, Genesys Intelligent Automation assigns it a unique authentication key. You specify this key later in the integration setup process when you configure a chatbot widget in Interaction Connect.

### To identify the company's authentication key

1. In the menu bar in Genesys Intelligent Automation, click **Administration** and then click the **Companies** tab.



2. In the Actions column, click **Edit** for the company that you created. The **Company** panel appears.



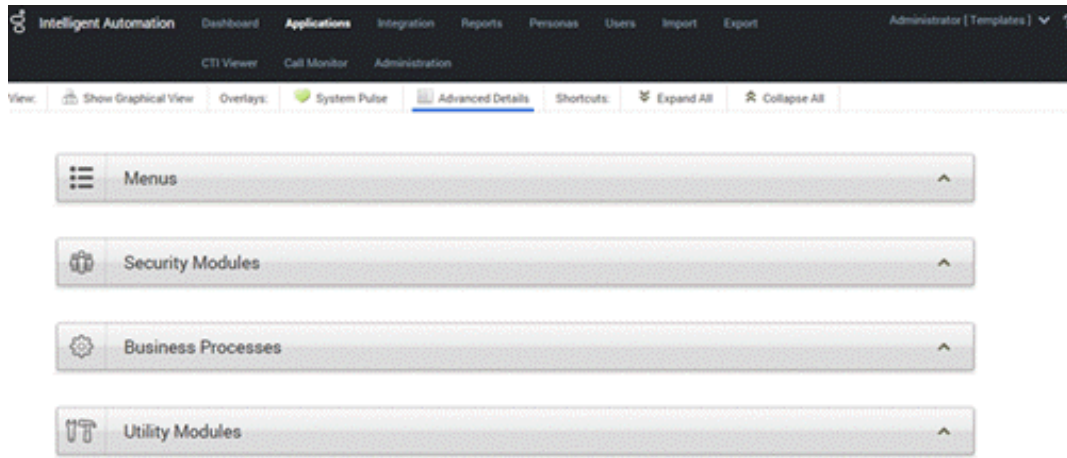
3. Copy and save the Authentication Key to a text file and then click **Close**.

## Create an Application or Module

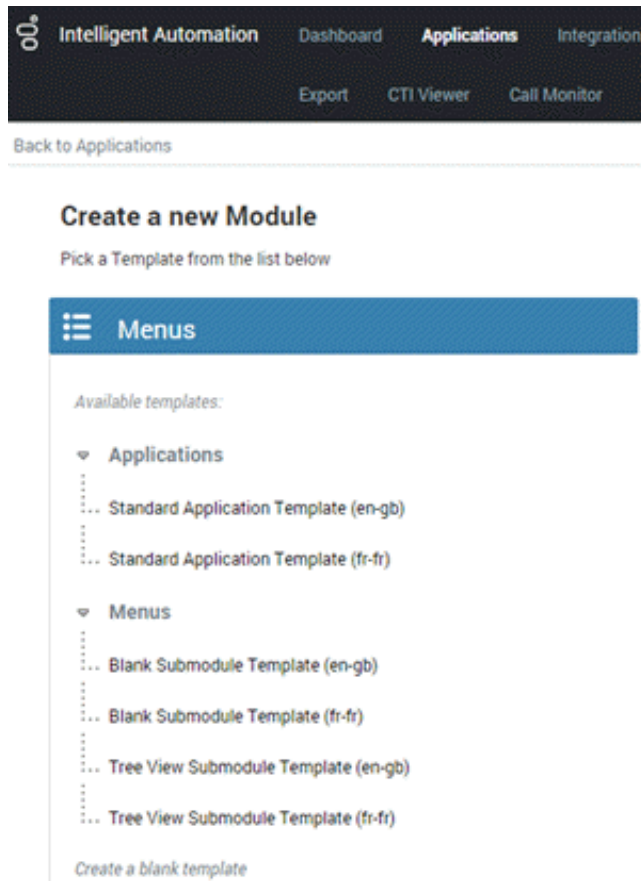
Create an application or module so that you can set up the chatbot flow. Applications and modules can have their own error-handling, global commands, call flow defaults, and reusable prompts.

### To create an application or module

1. In the menu bar in Genesys Intelligent Automation, click **Applications** and then click the **Advanced Details** tab.



2. Expand the **Menus** section and then click **Create a New Menu**. The **Create a new Module** panel appears.



3. Select a template on which to base the module. The template appears.

**Important!**

You cannot edit the call flow of the **Tree View Submodule Template**. This template is for large numbers of menu options and doesn't use the drag-and-drop method in the Callflow Editor.

You've Chosen:

## Standard Application Template (en-gb)

---

\* Your New Module Name

Standard Application

Description

The starting point for any new application, this provides a useful set of 'default' paths and menu options, plus a basic flow that calls onto a separate Main Menu module of your choice.

Callflow Editor

Graphical ▼

Permission Options

- Lock Callflow
- Make Public

Industries to Associate with this Module

- Automotive
- Consumer Electronics
- Distribution
- Education
- Entertainment
- Financial Services
- Government
- Healthcare
- Hospitality
- Manufacturing
- NonProfit
- Retail
- Technology
- Telecommunications
- Travel
- Utilities

---

The template you have chosen requires you to link to one other module. Please choose it below.

Link #1 - Call main menu

Please choose... ▼

Create

Cancel

**Your New Module Name:** Name to assign to this module.

**Description:** Description of the module. For internal use.

**Callflow Editor:** Type of call flow editor to use: graphical or tree.

## Permission Options

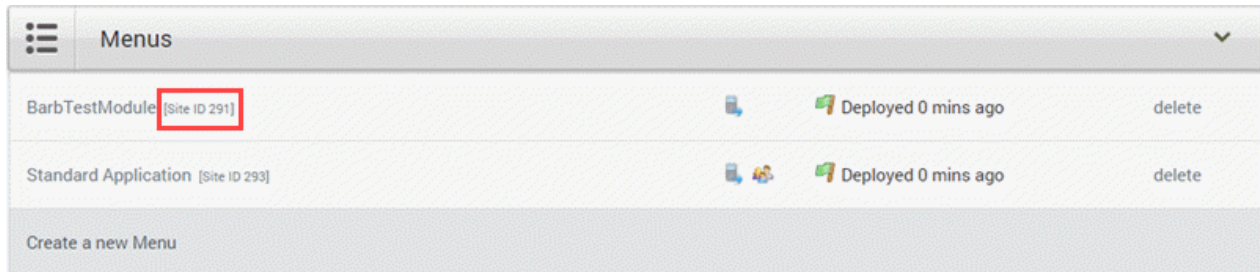
**Lock Callflow:** If selected, the system places a lock on the call flow while the user is editing it so that no other user can edit and publish changes while locked.

**Make Public:** If selected, the call flow is available on the public Internet. If cleared, the call flow is available within your customer network only.

**Industries to Associate with this Module:** If selected, the system associates the industry to this module.

**Link # 1 - Call main menu:** Module to which to link.

4. Complete the information and then click **Create**. The new module appears in the **Menus** section of the **Advanced Details** tab.



Menus			
BarbTestModule [Site ID 291]		Deployed 0 mins ago	delete
Standard Application [Site ID 293]		Deployed 0 mins ago	delete
Create a new Menu			

5. Copy the site ID. You specify this ID later in the integration setup process when you [configure the chatbot widget in Interaction Connect](#).

For more information about creating an application or module, see [Creating Applications and Modules](#) in the *Genesys Intelligent Automation Help*.

## Chatbot Implementation

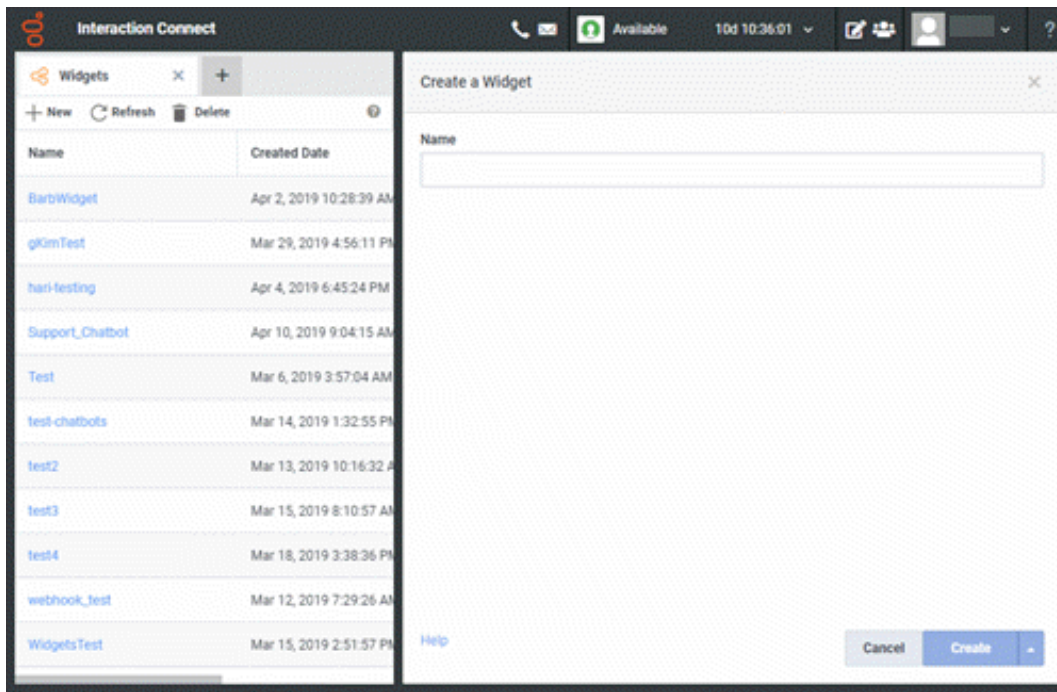
### Configure a Chatbot Widget in Interaction Connect

Integrating PureConnect with Genesys Intelligent Automation for chatbots requires a one-time configuration of a chatbot widget in Interaction Connect. Then, you generate a script that contains the Genesys Intelligent Automation connection information and add the script to the appropriate page in your company's website.

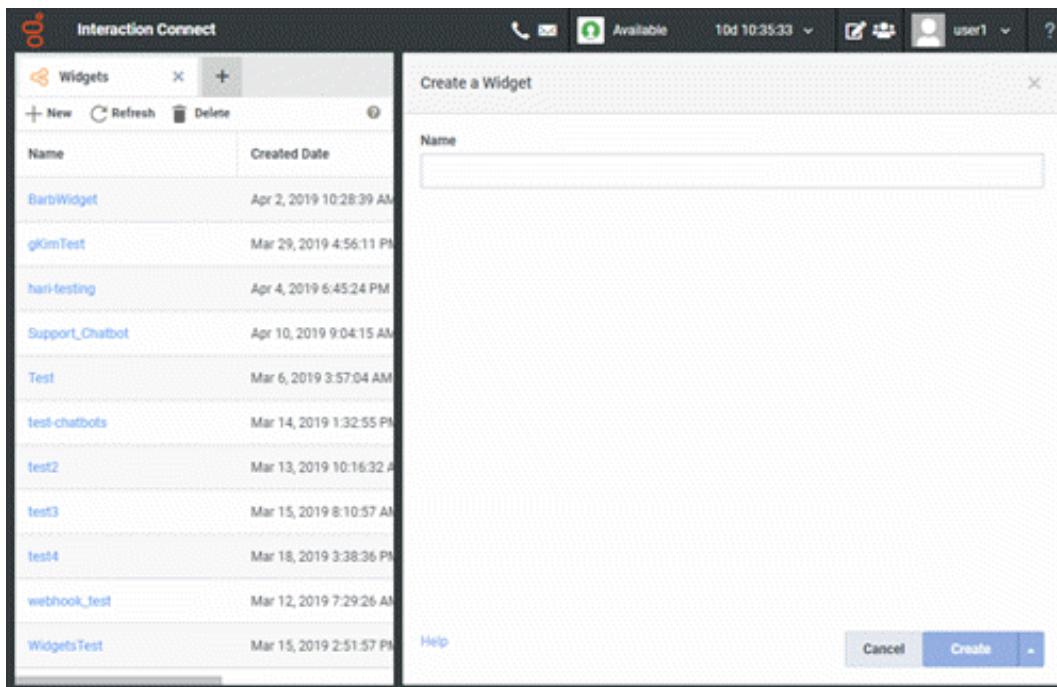
For more information about configuring and deploying widgets, see [Widgets](#) in the *Interaction Connect Help*.

#### To configure a chatbot widget in Interaction Connect

1. Log on to Interaction Connect and then click the **Widgets** tab.

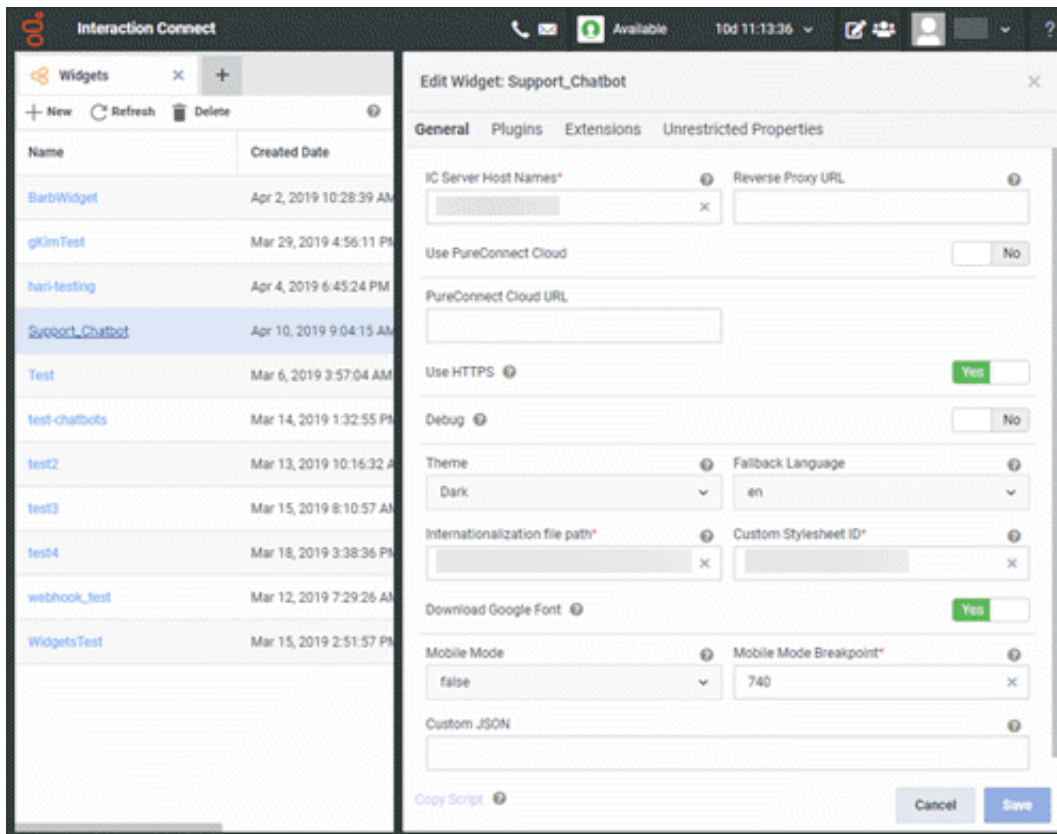


2. In the toolbar, click **New**. The **Create a Widget** panel appears.



3. In the **Name** box, type a unique name for the widget and then click **Create**. The **General** tab in the **Edit Widget: [widget name]** panel appears.





**IC Server Host Names:** Name or names of your IC server and any off-server Session Managers, separated by a comma.

**Tip:** If your reverse proxy cannot communicate with your IC server without a Fully Qualified Domain Name (FQDN), specify the FQDN in the **IC Server Host Names** box.

**Reverse Proxy URL:** Name or FQDN of the web server functioning as a reverse proxy to the IC server inside your firewall.

**Use PureConnect Cloud:** Indicates whether you are a PureConnect Cloud customer.

**PureConnect Cloud URL:** If you are a PureConnect Cloud customer, your PureConnect Cloud URL.

**Use HTTPS:** Indicates whether to use an HTTPS communication port for communication between the web server and IC server. If set to **Yes**, the system uses HTTPS port number 8019. If set to **No**, the system uses HTTP port number 8018.

**Debug:** Indicates whether to allow debug logging from the bus to appear in the browser console.

**Theme:** Sets the widget's appearance, such as colors and fonts.

**Fallback Language:** If the widget cannot use any of the browser's preferred languages, default language to use.

**Internationalization file path:** (Developer use only) Path to a remote i18n.json language pack file to override the default English language strings built into the widget.

**Common Stylesheet ID:** HTML ID of a <style> tag that contains CSS overrides, custom themes, or other custom CSS for the widget.

**Download Google Font:** Indicates whether to prevent the Roboto font file from downloading at startup. If you have security concerns regarding third-party fonts, you want to optimize page load time, or you already include Roboto on your website, move the slider to **Yes**.

**Mobile Mode:** Indicates whether to display the widget in mobile mode.

**True:** Displays the widget in mobile mode on all devices.

**False:** Displays the widget in desktop mode on all devices.

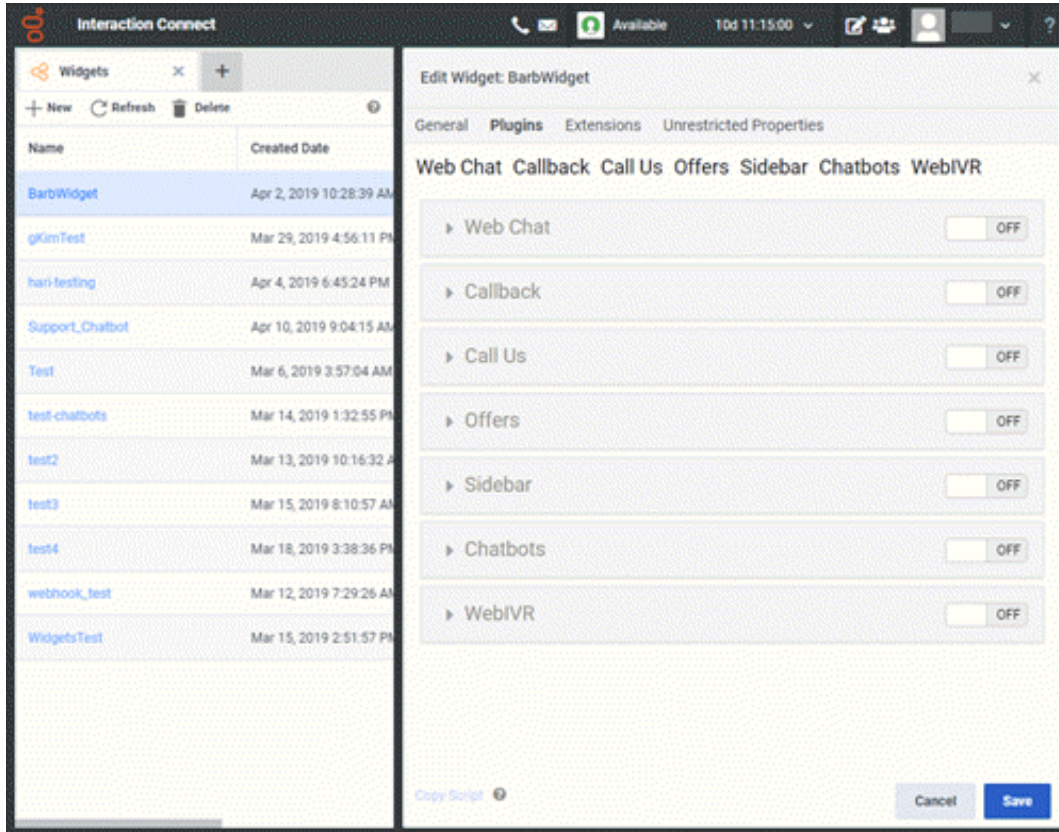
**Auto:** Determines whether the website visitor is using a desktop or mobile browser and displays the widget in the corresponding mode.

**Mobile Mode Breakpoint:** Breakpoint width in pixels when displaying the widget in mobile mode.

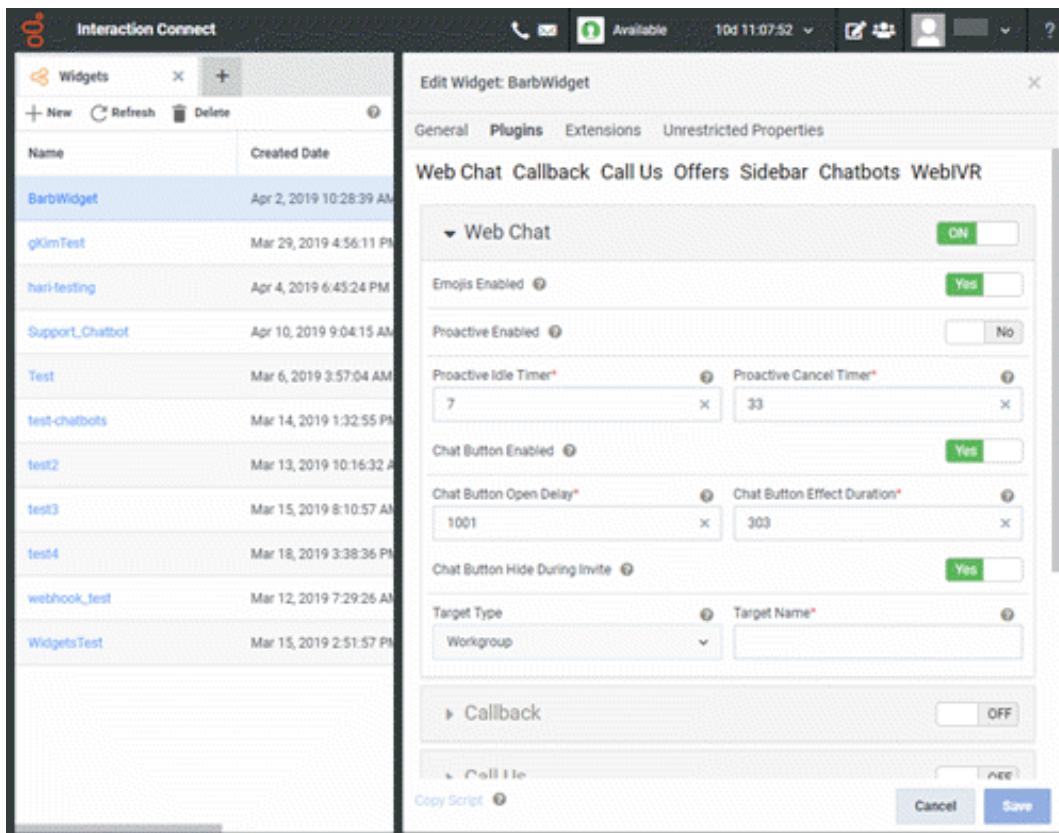
**Add/Remove Plugins:** Plug-ins for the widget to use instead of the default startup plug-ins. Click in the list box to display the plug-ins that are available for selection. To remove a plug-in, click the corresponding **X**.

Custom JSON: Custom JSON object to apply to the widget.

- Complete at least the required information and then click the **Plugins** tab.



- Move the **Web Chat** slider to **ON**. The **Web Chat** section expands.



**Emoji Enabled:** Indicates whether to display the emoji menu inside the chat message input.

**Proactive Enabled:** Indicates whether to invite a website visitor to chat after a specified number of seconds.

**Proactive Idle Timer:** Number of seconds to wait after a visitor reaches your webpage before displaying a chat invitation.

**Proactive Cancel Timer:** Number of seconds for the chat invitation to remain visible.

**Chat Button Enabled:** Indicates whether to show or hide a chat button on your web page.

**Chat Button Open Delay:** Number of milliseconds to wait before displaying the chat button.

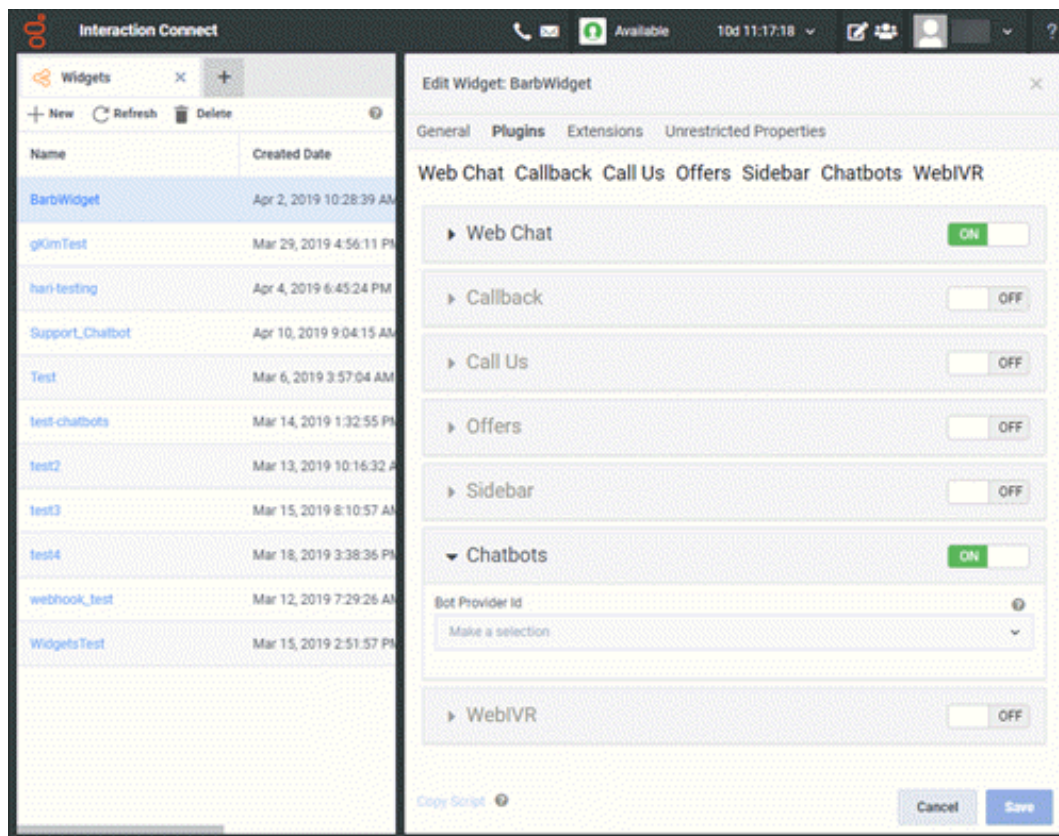
**Chat Button Effect Duration:** Number of milliseconds to wait before displaying the chat button fade-in animation.

**Chat Button Hide During Invite:** Indicates whether to hide the chat button when inviting a website visitor to chat. If set to **Yes** and the visitor dismisses the chat invitation, the widget displays the chat button.

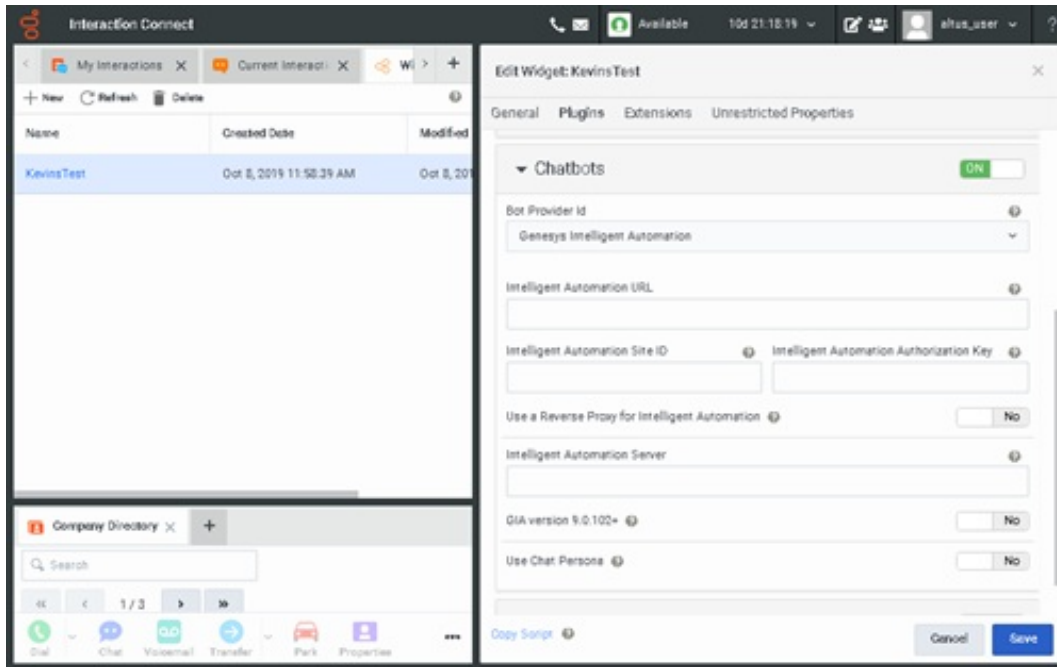
**Target Type:** Queue type to use for ACD routing.

**Target Name:** Name of the queue to use for ACD routing.

6. Complete at least the required information in the **Web Chat** section.
7. Move the **Chatbots** slider to **ON**. The **Chatbots** section expands.



8. In the **Bot Provider Id** box, click **Genesys Intelligent Automation**. More configuration items appear.



**Intelligent Automation URL:** Genesys Intelligent Automation URL for your Genesys Intelligent Automation server. (The URL is in Genesys Intelligent Automation under **Administration > Servers**.)

**Intelligent Automation Site ID:** Site ID that Genesys Intelligent Automation generated when you created an application or module in Genesys Intelligent Automation. For more information, see [Create an Application or Module](#).

**Intelligent Automation Authorization Key:** Authorization key that Genesys Intelligent Automation generated when you created a company in Genesys Intelligent Automation. For more information, see [Identify the Company Authentication Key](#).

**Use a Reverse Proxy for Intelligent Automation:** Indicates whether to use a reverse proxy for Genesys Intelligent Automation. If **Yes**, specify the **Intelligent Automation Server**.

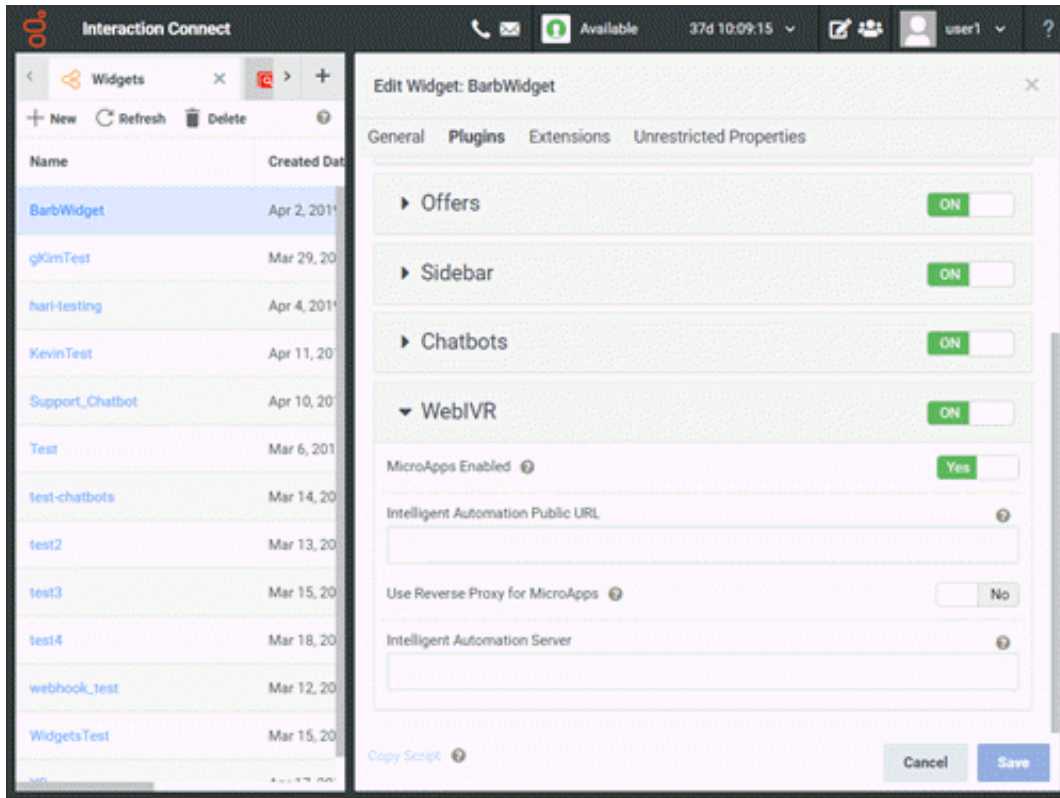
**Intelligent Automation Server:** If you indicated to use a reverse proxy for Genesys Intelligent Automation, specify the FQDN of the web Genesys Intelligent Automation server. The system uses the **Reverse Proxy URL** specified on the **General** tab in the **Edit Widget: [widget name]** panel to create the end-result URL to access Genesys Intelligent Automation.

**Note:** If you indicated to use a reverse proxy for Genesys Intelligent Automation, configure the reverse proxy rewrite rules after completing and saving the chatbot widget. For more information, see [Configure Reverse Proxy Rewrite Rules](#).

**GIA version 9.0.102+:** Indicates whether to use Genesys Intelligent Automation version 9.0.102 or later, or an earlier version.

**Use Chat Persona:** Indicate whether you want to use the Chat Persona in GIA version 9.0.102+. Selecting **Yes** allows the Genesys Intelligent Automation (GIA) chatbot to use buttons, images, and videos rich media types. For more information about configuring a chat persona in Genesys Intelligent Automation, see [Personas](#) in the *Genesys Intelligent Automation Help*.

9. Complete at least the required information in the **Chatbots** section.
10. To use microapps with this widget, do the following:
  - a. Move the **WebIVR** slider to **ON**. The **WebIVR** section expands.



**Intelligent Automation Public URL:** URL for accessing microapp services for Genesys Intelligent Automation.

**Use a Reverse Proxy for MicroApps:** Indicates whether to use a reverse proxy for microapp services. If **Yes**, specify the **Intelligent Automation Server**.

**Intelligent Automation Server:** If you indicated to use a reverse proxy for microapp services, specify the FQDN of the web Genesys Intelligent Automation server. The system uses the **Reverse Proxy URL** specified on the **General** tab in the **Edit Widget: [widget name]** panel to create the end-result URL to access Genesys Intelligent Automation.

- b. Complete the information in the **WebIVR** section.
11. Click **Save** and then do the following:
    - a. Click **Copy Script**. Interaction Connect copies the script to your Clipboard.
    - b. Close the confirmation dialog box and then paste the script to the appropriate page in your company's website.

## Configure Reverse Proxy Rewrite Rules

If you indicated to use a reverse proxy for Genesys Intelligent Automation in the **Chatbots** section of the **Widgets** tab, configure the reverse proxy rewrite rules. If you use the **same** reverse proxy for CIC Web Applications, place the Genesys Intelligent Automation rewrite rule before the CIC Web Applications rule.

Use the following rewrite rule examples.

### Apache

```
# Make sure the rewrite engine is turned on. Omit this if it's already set elsewhere.
RewriteEngine On

# TODO: Set the port to the appropriate value after $2 if necessary.
# If using https, update the URL accordingly.
RewriteRule "^(.*)/api/([*]+)/fish-messaging/(.*)" "http://$2/fish-messaging/$3" [P]
```

### Nginx

```
## Intelligent Automation Proxying
location ~* (?:(.*)/api|^/api)/([*]+)/fish-messaging/(.+) {
```

```

set $iaServer $2;
set $iaPath $3;
# TODO: Set the port to the appropriate value after $iaServer if necessary.
# If using https, update the URL accordingly.
proxy_pass http://$iaServer/fish-messaging/$iaPath;
}

```

## IIS

### Match URL

Requested URL => "Matches the Pattern"

Using => "Regular Expression"

Pattern => `(?:^(.+)|api|^api)/([^\s]+)/fish-messaging/(.+)$`

Ignore Case => On

### Action

Action type => "Rewrite"

Action Properties

Rewrite URL => `http://{R:2}/fish-messaging/{R:3}`

TODO: Set the port to the appropriate value after {R:2} if necessary.

If using https, update the URL accordingly.

## IIS inbound rule

For more information about reverse proxy configuration for CIC Web Applications, see the [CIC Web Applications Installation and Configuration Guide](#).

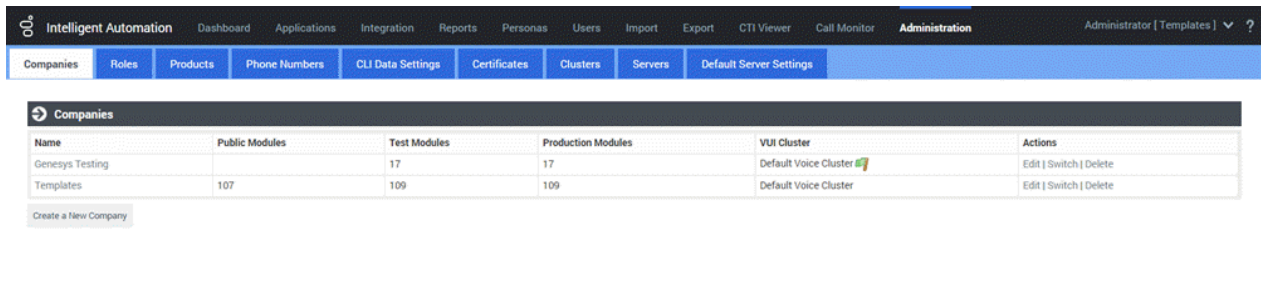
## Set up Chatbot Call Flow

Set up a call flow for your chatbot that suits your business purposes. Call flows consist of blocks and paths that outline the steps

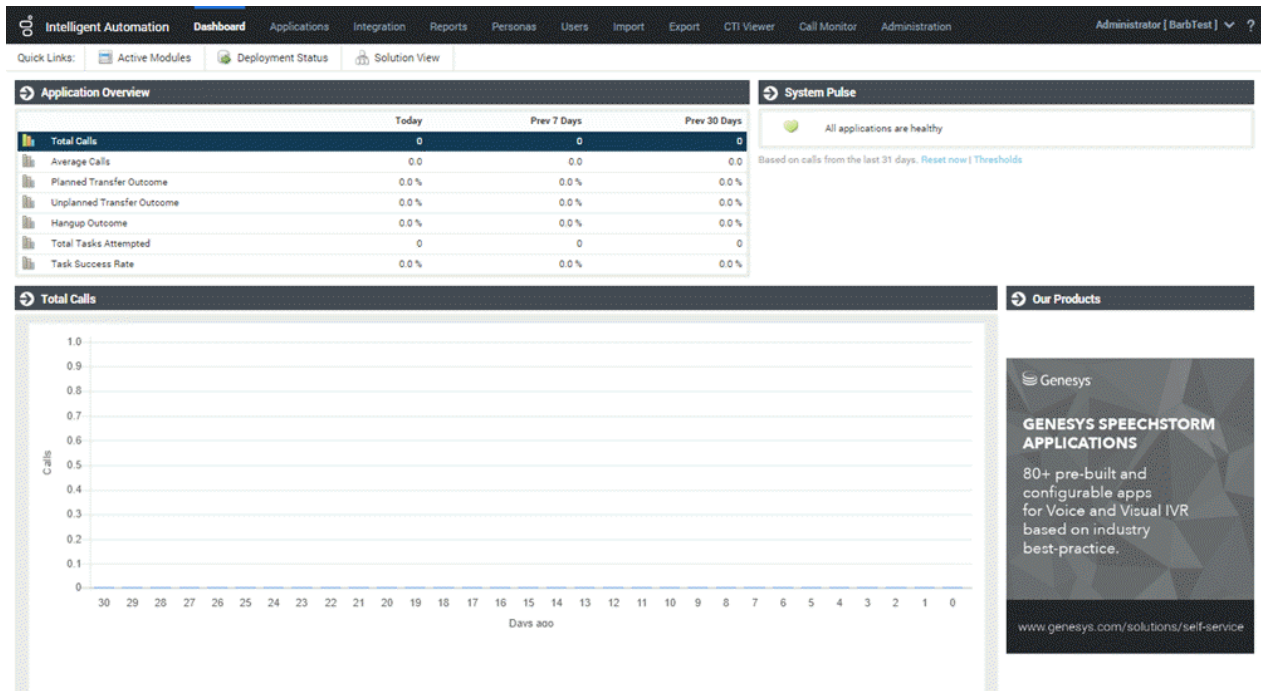
for your application or module to follow during a chat session.

## To set up a chatbot call flow

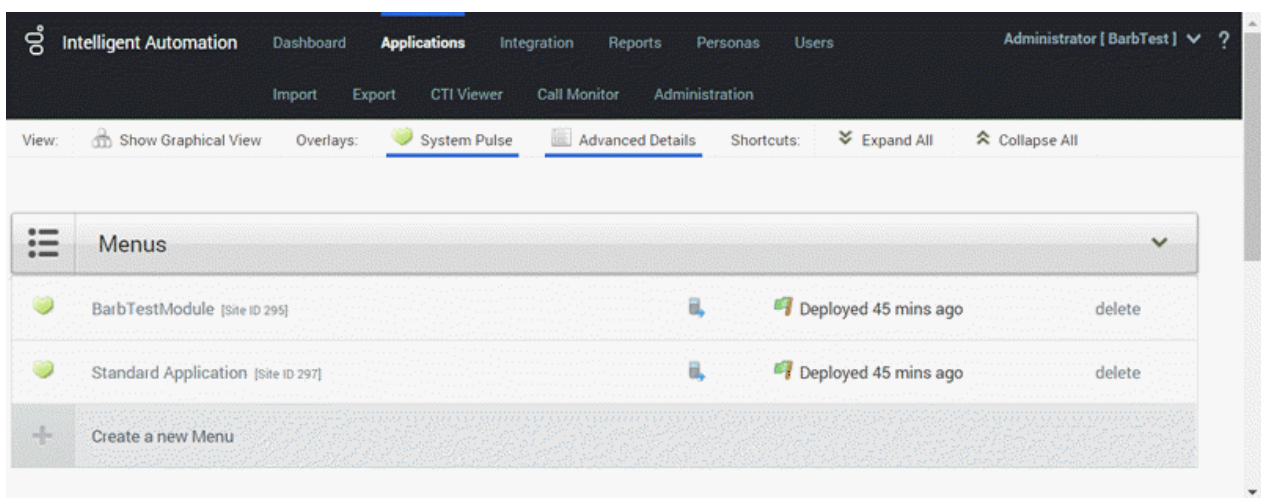
1. In the menu bar in Genesys Intelligent Automation, click **Administration** and then click the **Companies** tab.



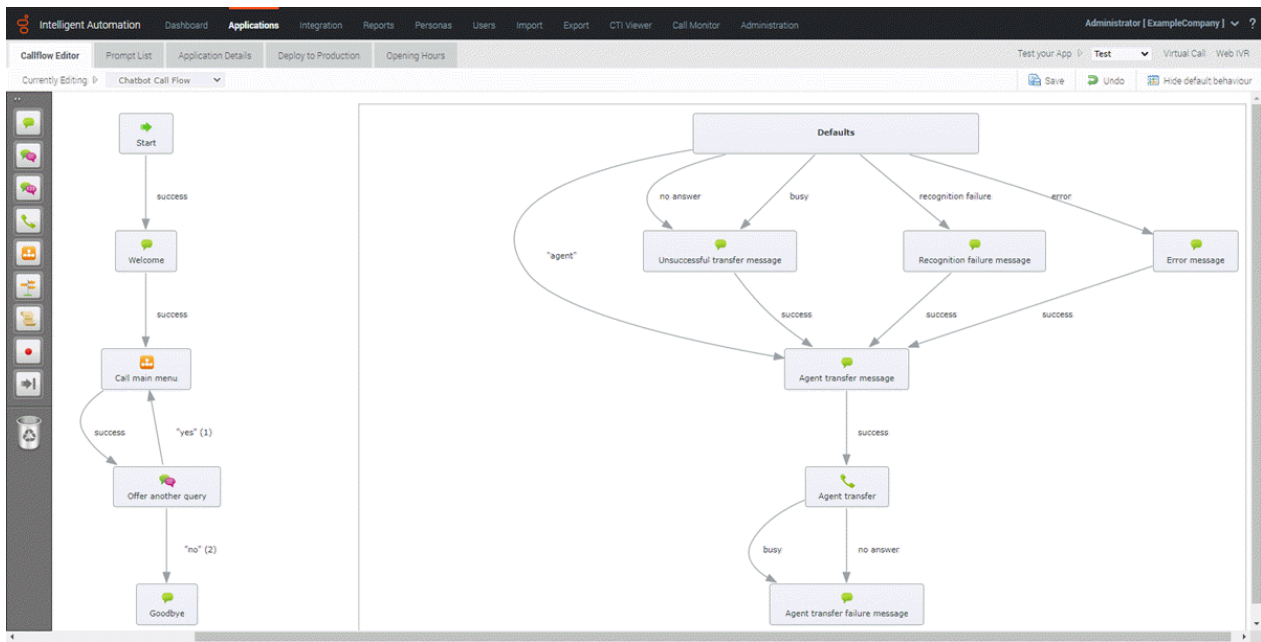
2. Click the company that you created. The **Dashboard** tab appears.



3. In the menu bar, click **Active Modules**.



4. In the **Menus** section, click the application or module that you created. The **Callflow Editor** tab appears and shows the template flow.



5. Create a call flow for your chatbot and save it.
6. Test the call flow and when satisfied, deploy it to production.

For more information about using the Callflow Editor, see [Using the Callflow Editor](#) in the *Genesys Intelligent Automation Help*.

## Voice Bot Integration

### Requirements

Following are the requirements for voice bot integration:

- PureConnect 2019 R3 or later requires Genesys Intelligent Automation version 9.0.106 or higher
- VoiceXML Interpreter Server
- PureConnect ASR Server linked to UniMRCP through SIP
- MRCP TTS linked to UniMRCP and set up for Google voices
- UniMRCP version 1.5.0 or later installed on CentOS 7 machine
- Use Google Speech Recognition and Google Speech Synthesis plugins for UniMRCP to talk to Google gRPC

### Integration process

1. [Configure UniMRCP](#)
2. [Configure VoiceXML](#)
3. [Create a Custom Handler for Voice Integration](#)
4. [Return Call Interaction to CIC](#)

**PureConnect Integration with Genesys Intelligent Automation Technical Reference**

### Configure UniMRCP

Using voice bots with PureConnect requires UniMRCP, which allows PureConnect to use the following providers:

- Google Cloud Platform
- Microsoft Azure
- Amazon Web Services
- IBM Watson
- Yandex



For information about installing UniMRCP, see the *RPM Installation Manual* at <http://www.unimrcp.org/manuals/pdf/RPMInstallationManual.pdf>.

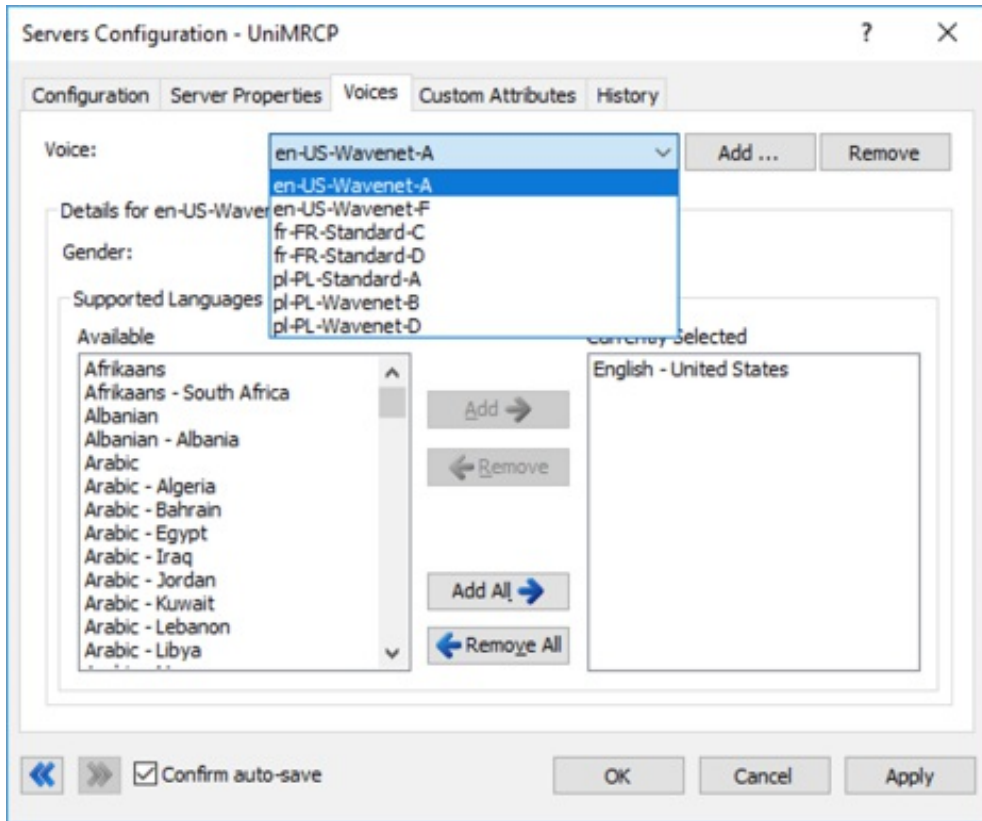
## Configure MRCP text-to-speech

1. In Interaction Administrator, do the following:
  - a. Expand **System Configuration** and **MRCP Servers**, and then click **Servers**.
  - b. Right-click in the list view window and then click **New**.
  - c. In the **Name** box, type a name for the server (for example, UniMRCP), click **Third Party**, and then click **OK**.

The screenshot shows the 'Servers Configuration - UniMRCP' dialog box. It has a title bar with a question mark and a close button. Below the title bar are five tabs: 'Configuration', 'Server Properties', 'Voices', 'Custom Attributes', and 'History'. The 'Configuration' tab is selected. Inside the dialog, there are several sections:

- Active:** A checked checkbox.
- SIP Address:** An empty text input field.
- Location:** A dropdown menu showing '<Default Location>'. Below it is a 'Vendor' text input field.
- Priority:** A dropdown menu showing '1'.
- Capabilities:** A group box containing three unchecked checkboxes: 'Text to speech', 'External audio sources', and 'Voicemail'.
- SIP Create Session Supported:** An unchecked checkbox.
- Enable Session TTL:** A checked checkbox. Below it is a text input field for 'Defined TTL session time (seconds)' with the value '3'.
- MRCP Version:** A label showing '2.0'.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom right.

2. In the **Servers Configuration** dialog box, do the following:
  - a. In the **SIP Address** box, type the address to the UniMRCP server.
  - b. Under **Capabilities**, select **Text to speech** and then click the **Voice** tab.

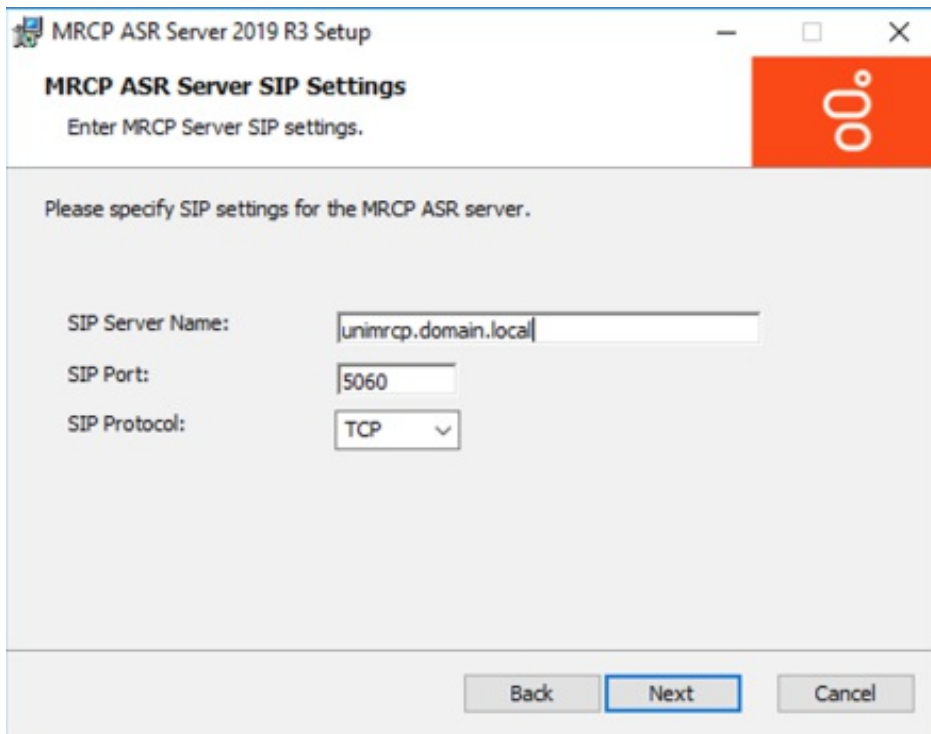


- c. Configure TTS voices with Google names for the required languages (to be used in handlers).
- d. Click OK.

## Install MRCP ASR server

Follow the instructions in the *Automated Speech Recognition Technical Reference* to [install the MRCP ASR Server controller](#) and use the following settings:

- On the **MRCP ASR Server SIP Settings** page, use SIP port **5060** and SIP protocol **TCP**:



- On the Web Configuration Server page, use HTTP port 8120:

**MRCP ASR Server 2019 R3 Setup**

**Web Configuration Server**  
Enter the Web Configuration Server information.

The MRCP ASR Server has a web configuration GUI which is accessible through a web browser under the address:

http://machinename:port

Access to the configuration GUI is protected through HTTP digest authentication. Specifying 0(zero) for the port disables the configuration server and a blank username disables authentication.

Web Configuration Server HTTP Port:

Administration Login Name:

Administration Login Password:

Back Next Cancel

## Configure MRCP ASR server

Configure the MRCP ASR server in the Web Configuration interface.

1. [Open the Web Configuration interface](#) for your MRCP ASR server on port 8120.
2. [Add a Command Server for MRCP](#).

**xIC ASR Server - MRCP**

Status Config Logout

**Configuration**

**Command Servers:**

ID	Notifier Host	Accept Sessions	Configure		Remove
1	cic1	Yes	Server	Properties	Remove

Add Server

3. Check the status of the server connection on the **Server Status** page.

**xIC ASR Server - MRCP** Status [Config](#) [Logout](#)

**Status**

[About](#)

**Command Servers:**

ID	Notifier Host	Connection Status	Accepts Sessions	Active Sessions	
1	cic1	Active	Yes	0	<a href="#">Details</a>

[Refresh](#)  Auto-refresh every 10s

4. Place a test call to verify whether the ASR server is processing a recognition session.

**xIC ASR Server - MRCP** Status [Config](#) [Logout](#)

**Status**

[About](#)

**Command Servers/Details Server 1/Sessions**

Interaction	State	Total	Successful	Cancelled	Last Reco	Idle Time	Session Age
3001561525	Detecting	1	0	1	9.000s	-	13.000s

[Back](#) [Refresh](#)  Auto-refresh every 10s

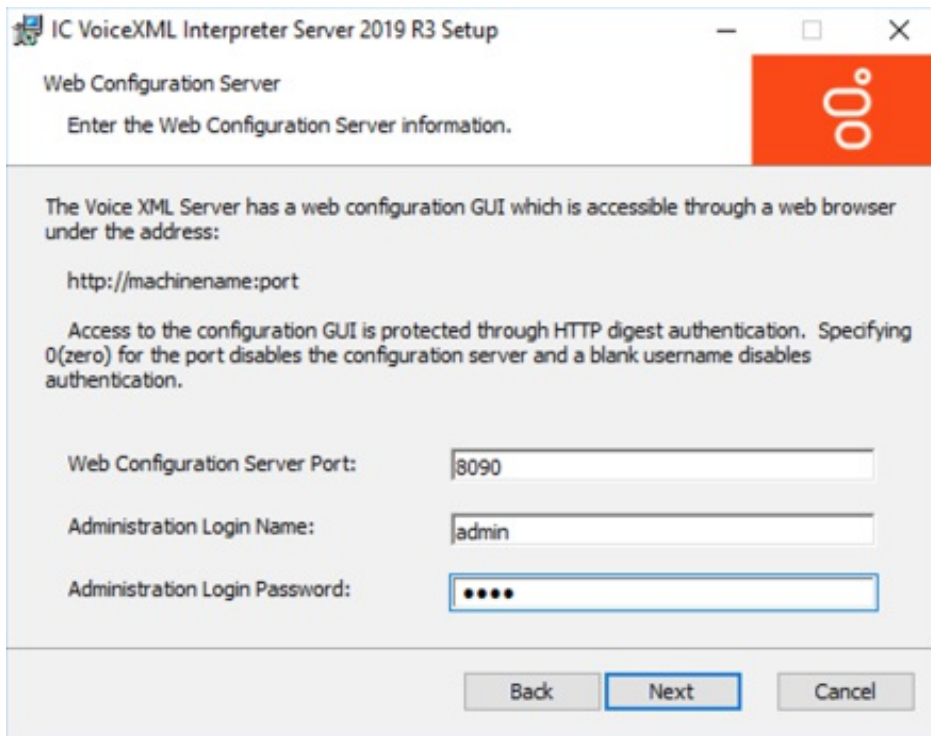
*Copyright and trademark*

## Configure VoiceXML

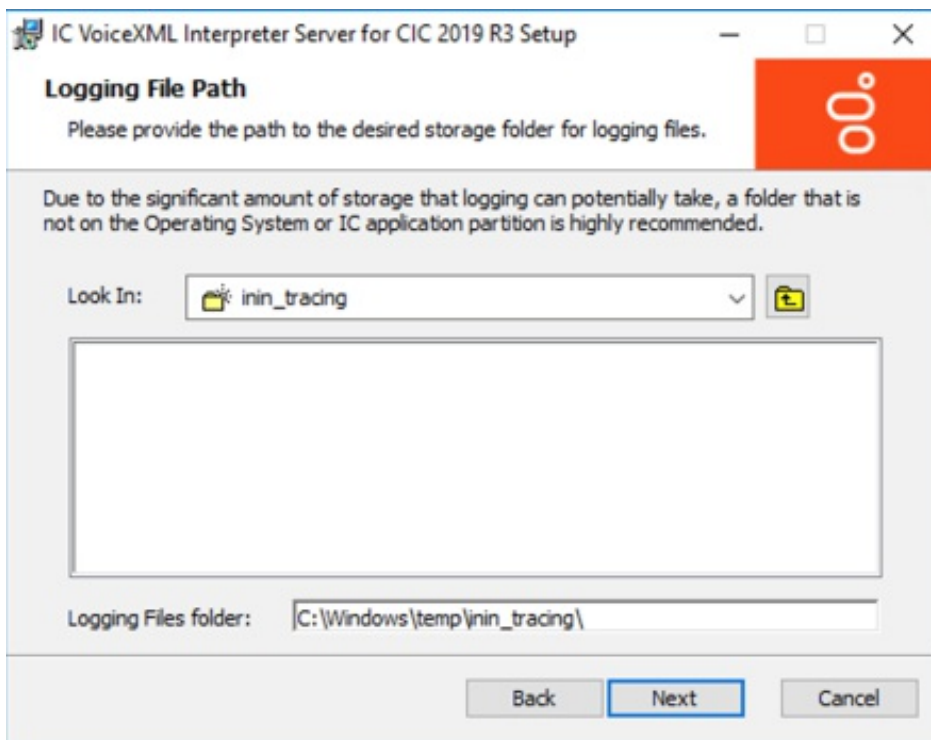
### Install VoiceXML Interpreter server

Follow the instructions in the *VoiceXML Installation and Configuration Guide* to [install the VoiceXML Interpreter server](#) and use the following settings:

- On the **Web Configuration Server** page, use port **8090**:



- On the **Logging File Path** page, configure the path to the log files:



## Configure VoiceXML Interpreter server

Configure the VoiceXML Interpreter server in the Web Configuration interface.

1. [Open the Web Configuration interface](#) for your VoiceXML Interpreter server on port 8090.
2. Set `ttsMRCP` and `ttsSSML` to `true`.

Name	Value
cacheCleanupInterval	30
cachepath	C:\Program Files (x86)\Interactive Intelligence\Reso
recMaxTimeSecs	600
recoValueSlotName	value
ttsMRCP	true
ttsSSML	true
vxiConfigFile	C:\Program Files (x86)\Interactive Intelligence\Reso

3. Place a test call to verify whether the VoiceXML server is processing a session.

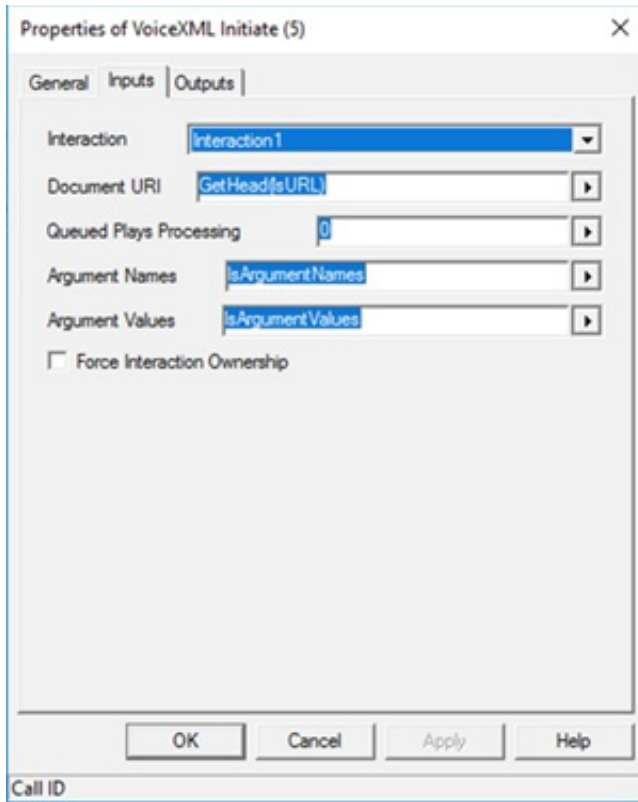
VoiceXML Sessions:			
Interaction ID	Document URL	Created	
1 3001561523	http://demosrv.i3emea.local:8082/fish-vui/start/Interactive_GoogleSR_GoogleSS_JSONEncoding.jsp?testsiteid=602&istestcall=false&mrpversion=2&authtoken=b564a60a6e8e675447af27ef3eaa8173c10e51c1d5a9fc9f4afa8c5592a66629	11/11/2019 12:03:36	<a href="#">Details</a>

## Create a Custom Handler for Voice Integration

To integrate voice with Genesys Intelligent Automation, create a custom handler that contains a VoiceXML Initiate toolstep.

To create a custom handler for voice integration

1. Create a handler. For more information, see [Create a new handler or subroutine](#) in the *Interaction Designer Help*.
2. On the Inputs tab in the VoiceXML Initiate tool, set the following required parameters:



**Document URL:** URL to your Genesys Intelligent Automation VUI or VUI load balancer, site (application) ID to run, and whether to run the test or production version of the callflow.

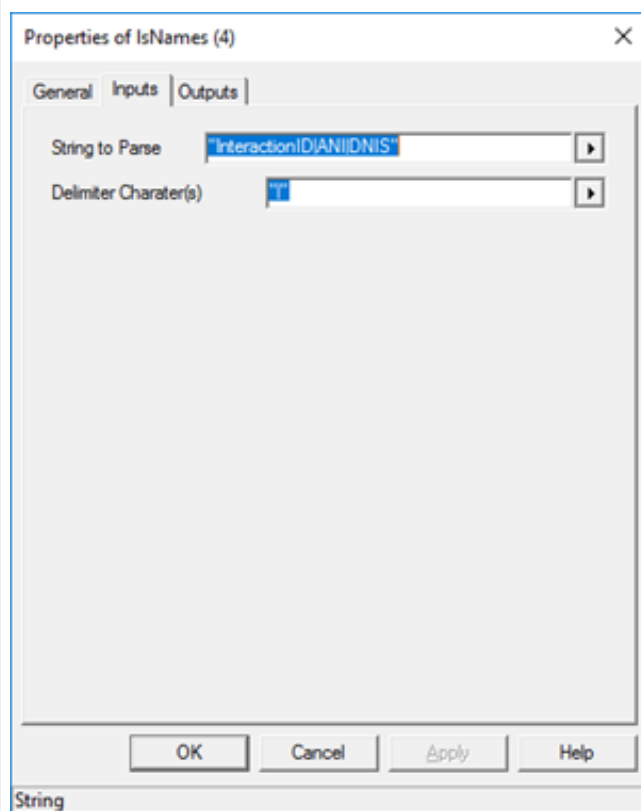
For example, [http://uk-ia-vui:8082/fish-vui/start/Interactive\\_NR9\\_Vocalizer5.jsp?testsiteid=620&istestcall=false](http://uk-ia-vui:8082/fish-vui/start/Interactive_NR9_Vocalizer5.jsp?testsiteid=620&istestcall=false).

Interactive_NR9_Vocalizer5.jsp	PureConnect for Automated Speech Recognition and Text To Speech.
testsiteid=620	Site (application ID to run within Genesys Intelligent Automation. The URL is in Genesys Intelligent Automation under <b>Administration &gt; Servers</b> ).
istestcall=false	If false, runs the callflow version deployed to production in Genesys Intelligent Automation. If true, runs the callflow version copied to the test number in Genesys Intelligent Automation.

**Argument Names:** List of argument names that contain the following strings, in this order:

- InteractionID
- ANI
- DNIS

**Tip:** The easiest way to create the argument is with a Parse String step. For more information, see [Parse String](#) in the *Interaction Designer Help*.



**Argument Values:** List of values that correspond to the arguments specified in the Argument Names parameter, in the following order:

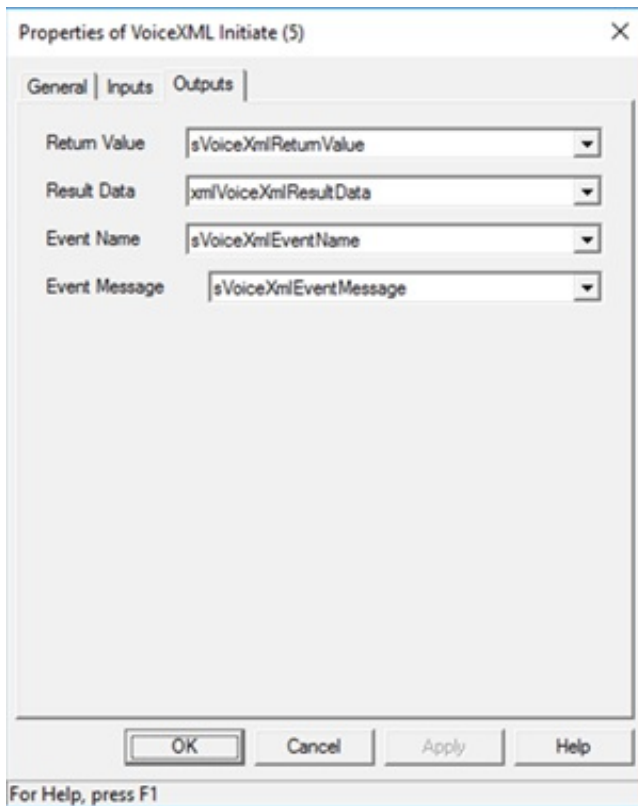
- Interaction ID of the call (For more information, see [Convert Call ID to String](#) in the *Interaction Designer Help*.)
- ANI of the call
- DNIS of the call

**Notes:**

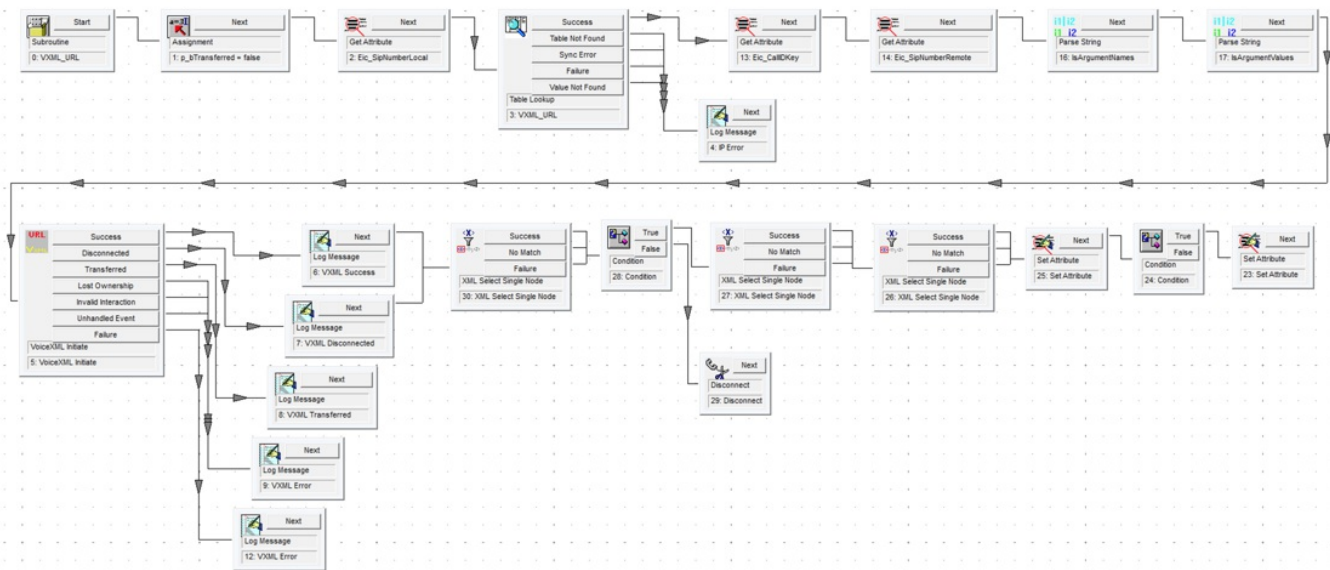
- You can retrieve the ANI and DNIS from Interaction attributes "Eic\_RemoteAddress" and "EIC\_LocalAddress" with the Get Attribute steps. For more information, see [Get Attribute](#) in the *Interaction Designer Help*.
- For more information about the VoiceXML Initiate tool, see "VoiceXML Initiate" in the following:
  - [VoiceXML Technical Reference](#)
  - [Interaction Designer Help](#)

3. On the **Outputs** tab in the VoiceXML Initiate tool, provide KVP pair tables to pass data from Genesys Intelligent Automation to PureConnect for routing purposes.





## Sample handler flow

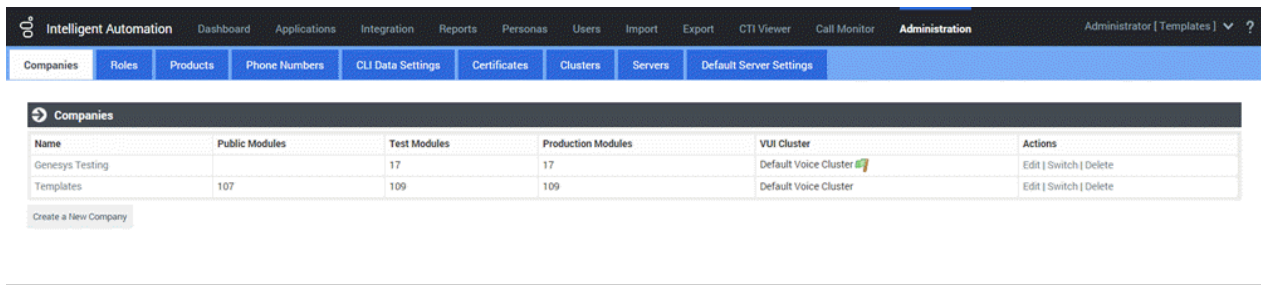


## Return Call Interaction to CIC

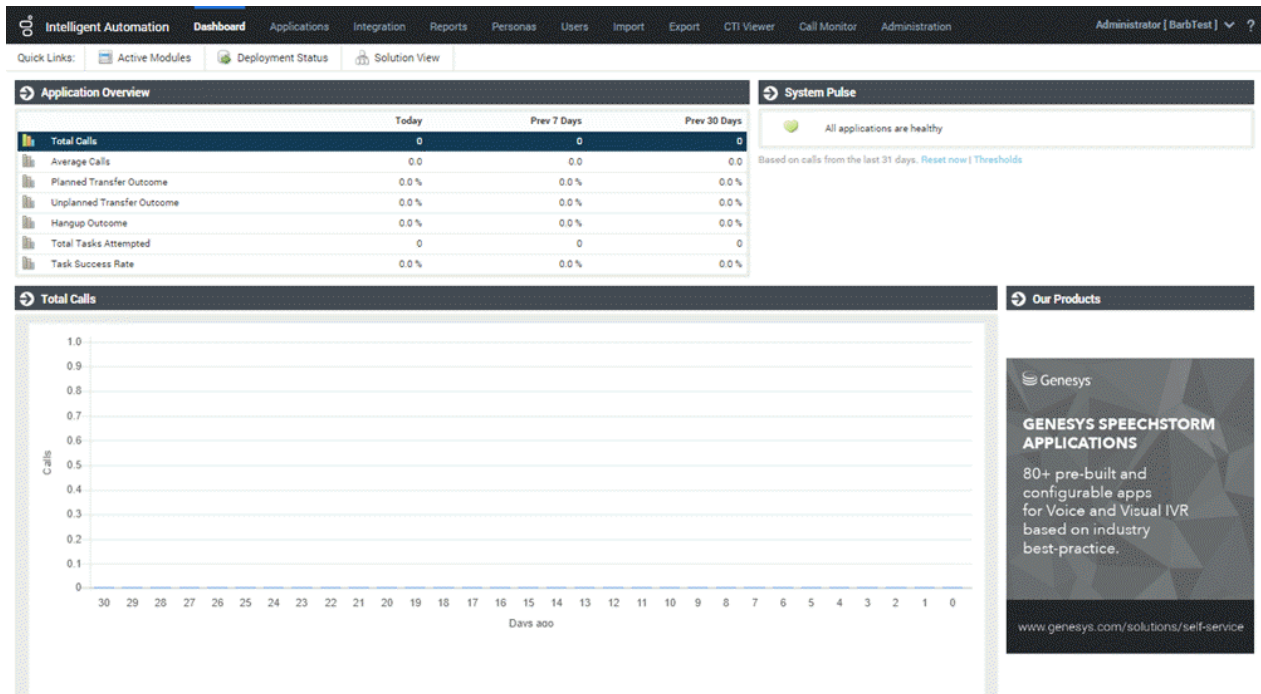
When your call flow sends a call interaction from CIC to Genesys Intelligent Automation, the call flow also needs to return the call interaction to CIC for further processing. Otherwise, the system disconnects the call.

### To return a call interaction to CIC

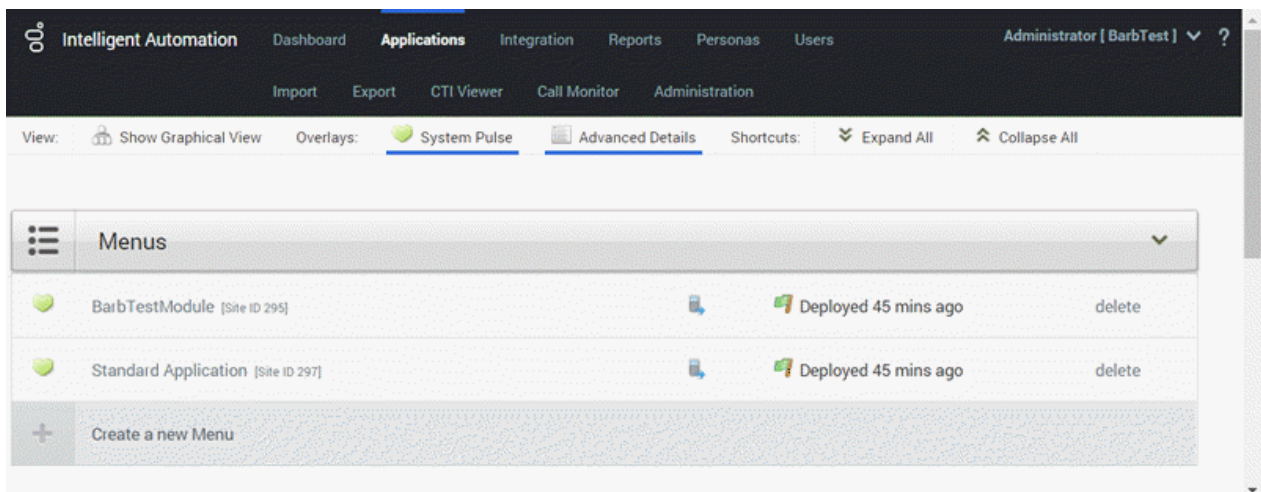
1. In the menu bar in Genesys Intelligent Automation, click **Administration** and then click the **Companies** tab.



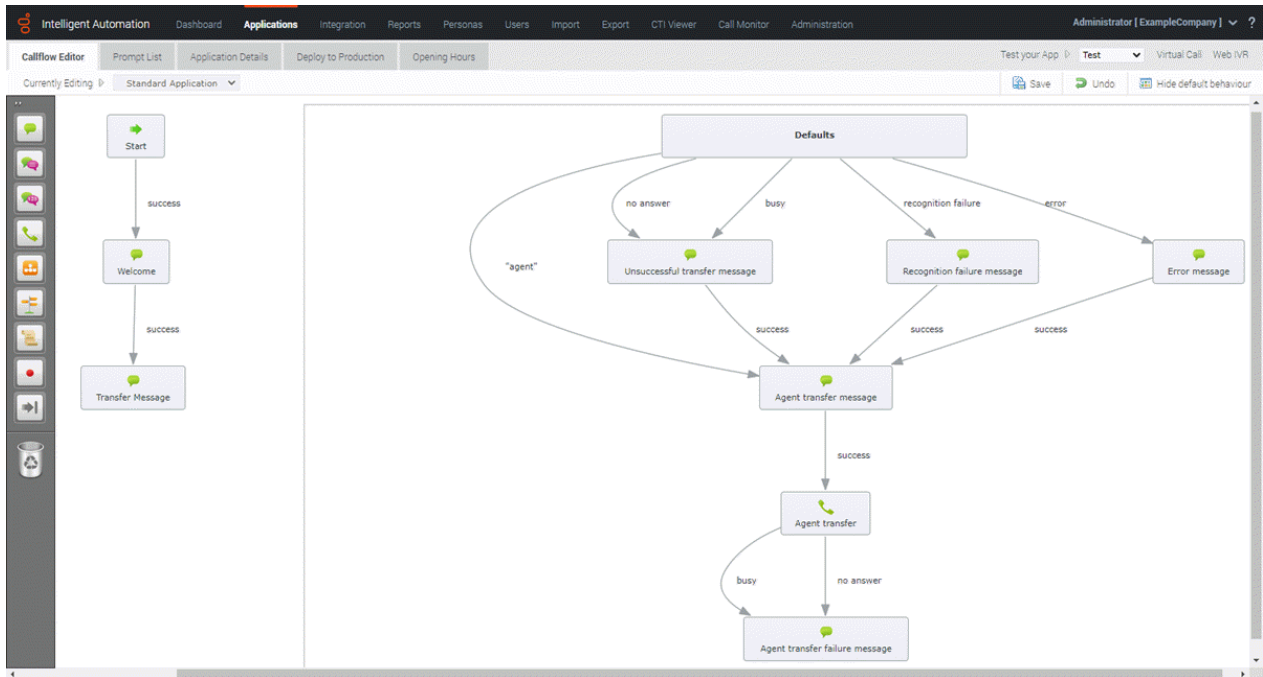
2. Click the company that you created. The Dashboard tab appears.



3. In the menu bar, click Active Modules.



4. In the Menus section, click the application or module that you created. The Callflow Editor tab appears.



5. Drag and drop an end block onto the last box in the flow. In the example, the last box is "Transfer Message."



6. Click **New end 1** to edit the end block's properties.

# New end 1 edit title

▸ Add Description

## Preferences

Any preferences not specified here will be inherited from the parent site.

Name	Value
------	-------

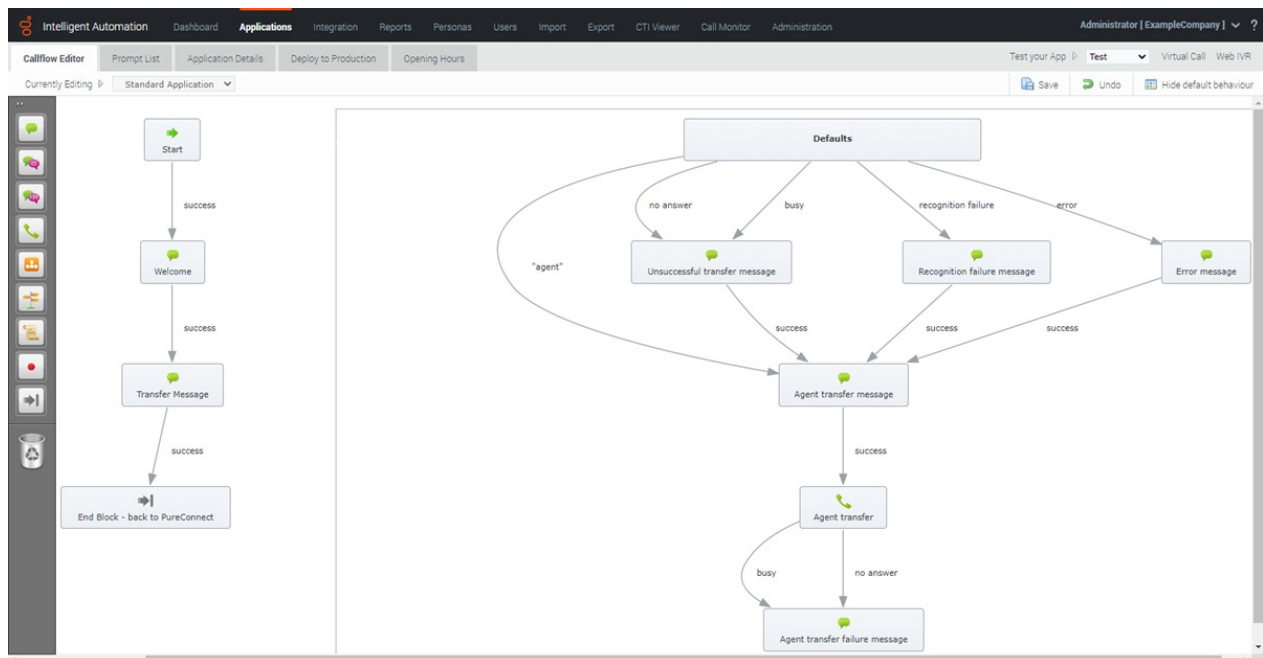
Add Entry

Update

Cancel

7. Do the following:
  - a. In the **Edit Title** box, replace **New end 1** with a descriptive title.
  - b. Click **Add Entry**.
  - c. In the **Name** box, click **Action to take when the callflow ends**.
  - d. In the **Value** box, click **Exit to a Routing Strategy** and then click **Update**.

**Note:** If you don't set this property, the system disconnects the call.



8. Save your changes and then test the call flow. When satisfied, deploy the call flow to production.

For more information about using the Callflow Editor, see [Using the Callflow Editor](#) in the *Genesys Intelligent Automation Help*.

## URL Format for VXML Call to Genesys Intelligent Automation

Following is the URL format to call a Genesys Intelligent Automation dialog:

http://<server>:<port>/fish-vui/Interactive\_GoogleSR\_GoogleSS\_JSONEncoding.jsp?testsiteid=<GIA\_siteid>&istestcall=true&authtoken=<auth\_token>&mrcpversion=2

Speech-to-Text Engine	Text-to-Speech Engine	Product	Version	Start Page
Google Cloud for Speech Recognition	Nuance	Genesys Voice Platform	8 and 9	GenesysGVP8_GoogleSR_Vocalizer6.jsp
		PureConnect	2018 R4 - 2019 R2	Interactive_GoogleSR_Vocalizer5.jsp
		PureConnect	2019 R3 and later	Interactive_GoogleSR_Vocalizer5_JSONEncoding.jsp
	Google	Genesys Voice Platform	8 and 9	GenesysGVP8_GoogleSR_GoogleSS.jsp
		PureConnect	2018 R4 - 2019 R2	Interactive_GoogleSR_GoogleSS.jsp
		PureConnect	2019 R3 and later	Interactive_GoogleSR_GoogleSS_JSONEncoding.jsp

# Microapps

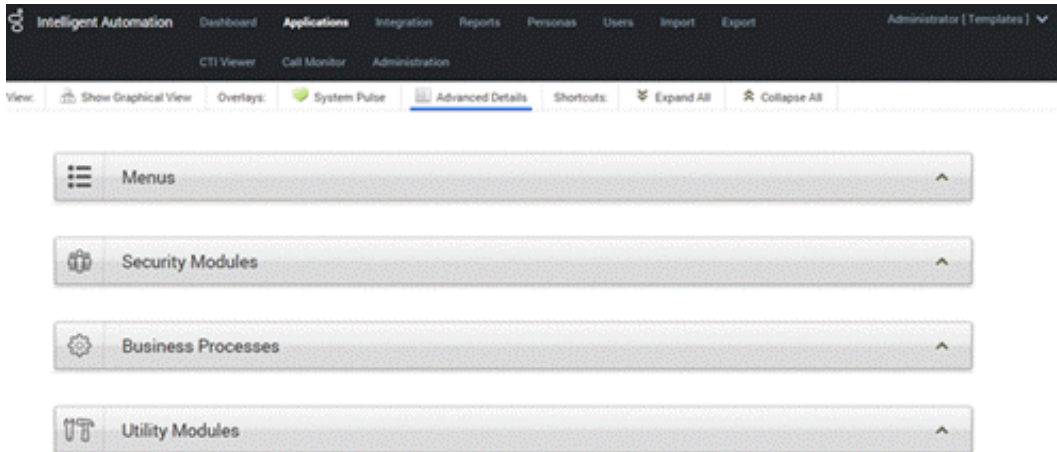
Genesys Intelligent Automation offers a range of pre-built, configurable microapps designed to meet self-service needs across a range of industries. Microapps accomplish specific tasks, such as looking up a customer's account balance, and deploy using Genesys Intelligent Automation. You can combine microapps to create fully personalized AI to drive dialogues in a chat session for a seamless customer and agent experience.

For a description of each microapp, download the [Genesys Intelligent Automation Microapps Catalogue](#).

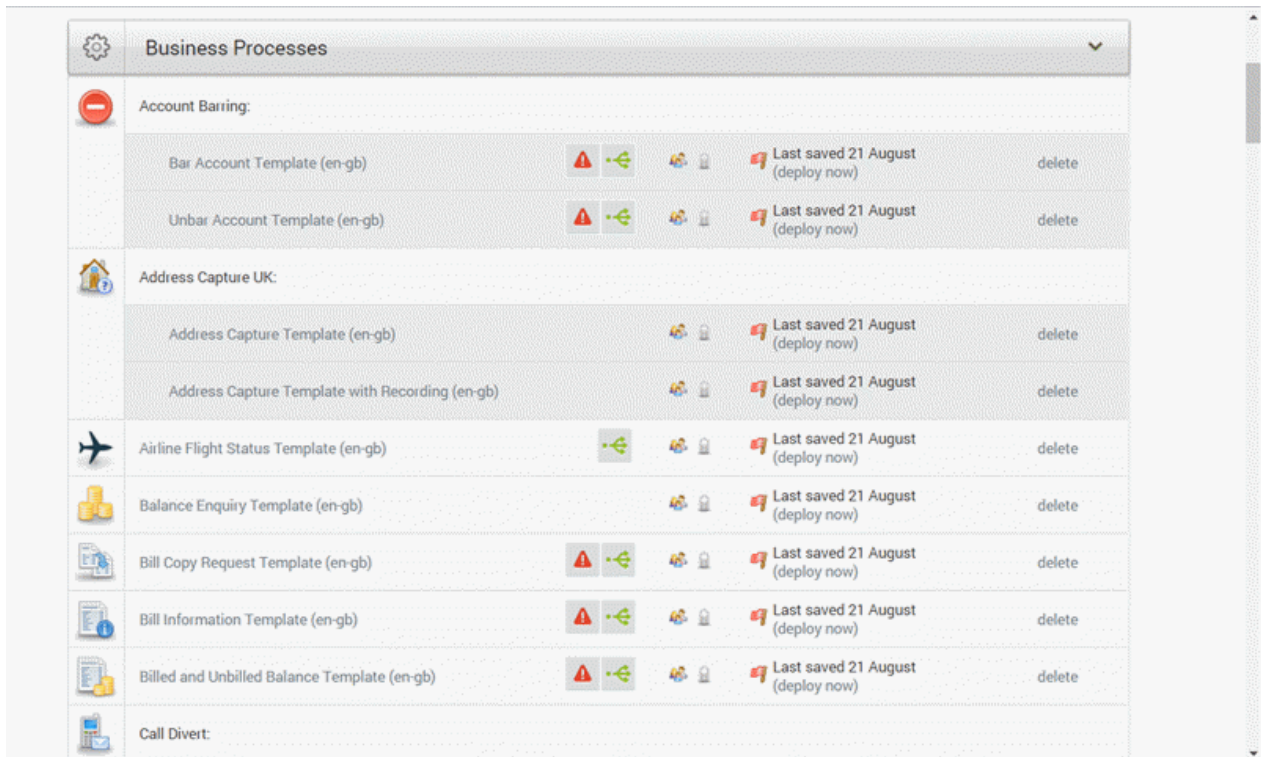
**Note:** The PureConnect integration with Genesys Intelligent Automation doesn't support all microapps listed in the catalog, only the ones that appear in the **Business Processes** section in Genesys Intelligent Automation.

## To view the list of available microapps

1. In the menu bar in Genesys Intelligent Automation, click **Applications** and then click the **Advanced Details** tab.



2. Expand the **Business Processes** section. This section displays the available microapps and their associated templates.



For more information about using microapps, see [Using WebIVR Microapps](#) in the *Genesys Intelligent Automation Reference Guide*.

# Microapp Templates

Genesys Intelligent Automation provides templates for faster and easier implementation of microapps. Each template has default behavior settings that you can configure and a pre-defined call flow that you can modify.

## Template settings example

This example shows the default settings for the Balance Enquiry template.

The screenshot shows a navigation bar with tabs: Callflow Editor, Prompt List, Module Details, Deploy to Production, Opening Hours, and Balance Enquiry Settings (selected). Below the navigation bar is a dark header with a back arrow and the text "Balance Enquiry Settings".

These settings control the main behaviour and integration of the Balance Enquiry product.

\* Return Path when Not Found

Web Service Details

\* Web Service URL for Test Calls

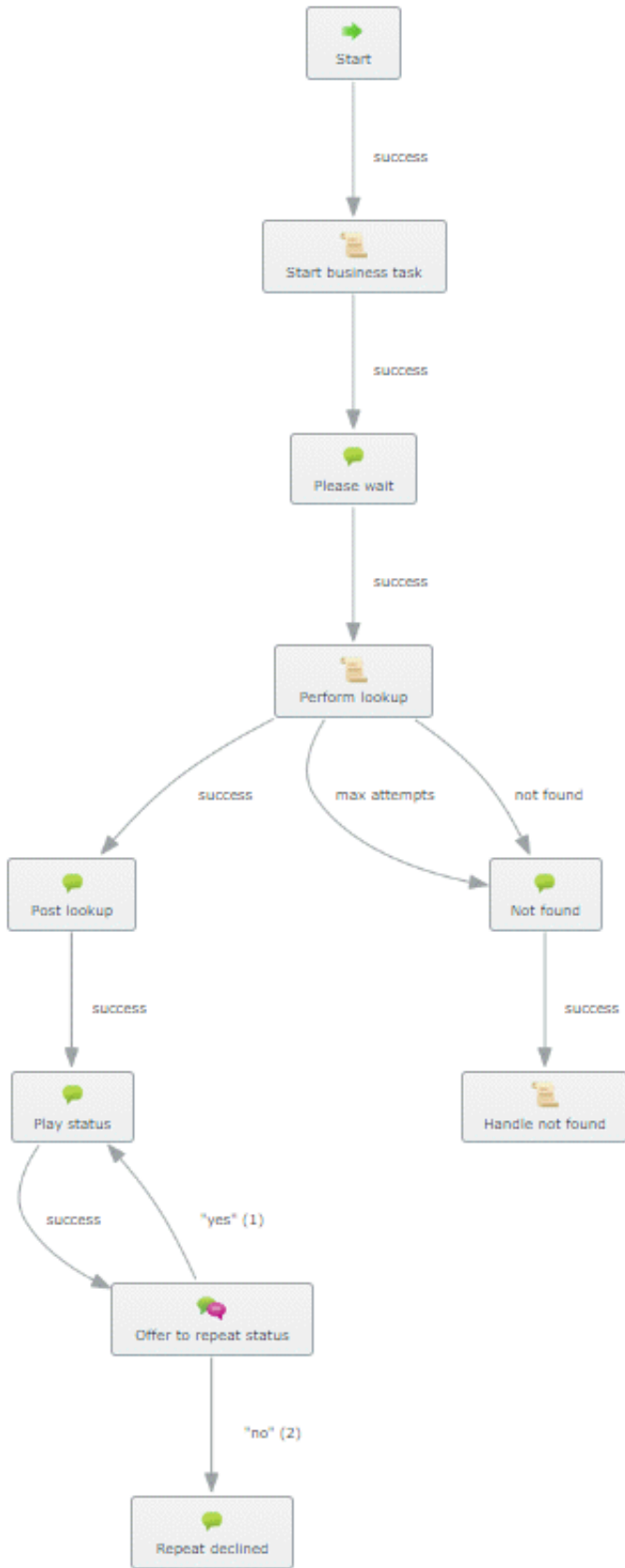
\* Web Service URL for Production Calls

\* Web Service Timeout  
 milliseconds

Save Cancel

## Template call flow example

This example shows the default call flow for the Balance Enquiry template.



## Create a Custom Widget Extension

To pass custom data to a microapp, create a custom widget extension. For more information, see [Genesys Widgets Extensions](#).



# Test Microapp with Chat Widget

## To test the microapp with a chat widget

1. When your chat widget loads, run the following command from the developer console in the browser that is hosting widgets:

```
window._genesys.widgets.bus.command('WebChatService.setSpeechStormCustomData', {  
  customerId: 3457896, productId: 5469871 });
```

2. Start a chat and ask to speak to an agent to avoid the bot interaction.
3. After the agent connects, in Interaction Connect, paste **microapp://app/nGuejrc-** into the chat and press **Enter**.
4. When the microapp appears, verify that your test customer ID and product ID appear.

Alternatively, you can skip the first step and have the agent send the following microapp parameters in the message to the customer:

- microapp://app/nGuejrc-
- customerId=3457896
- productId=5469871

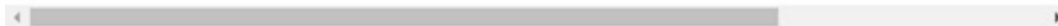
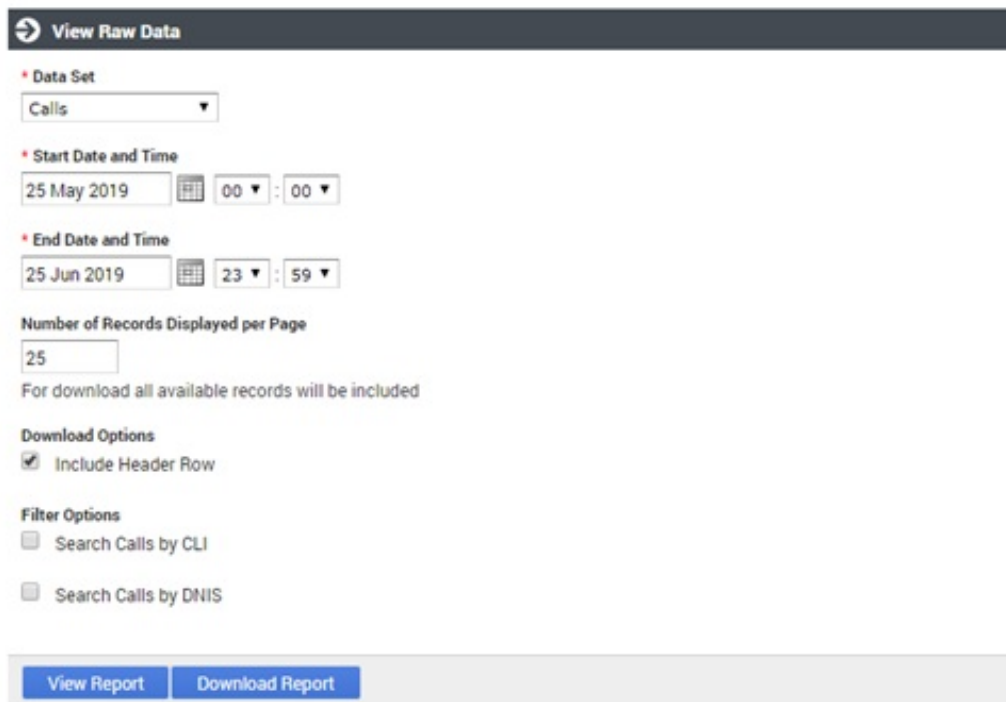
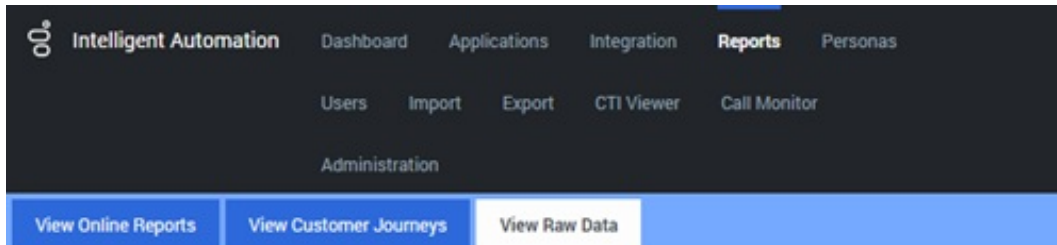
# Troubleshooting

## How to determine the Genesys Intelligent Automation call ID or PureConnect interaction ID

When viewing logs for troubleshooting purposes, you can use the Genesys Intelligent Automation call ID or PureConnect interaction ID to filter the logs.

To determine the call ID or interaction ID

1. Open Genesys Intelligent Automation in your browser.
2. In the menu bar, click **Reports** and then click the **View Raw Data** tab.



3. In the **Data Set** list box, do one of the following:
  - To view a list of calls, click **Calls**.
  - To view a list of calls plus each step in a callflow that ran, click **Calls and Call Steps**.
4. In the **Start Date and Time** and **End Date and Time** boxes, specify the data range for which to create the report.
5. In the **Number of Records Displayed per Page** box, type the maximum number of records to display on each page of the report.
6. Select the **Include Header Row** check box so that the data that displays in the results includes labels.
7. In the **Filter Options** section, do one of the following:
  - To limit the calls to a specific CLI that was dialed, select the **Search Calls by CLI** check box and then, in the CLI box, type the CLI.

- To limit the calls to a specific DNIS that was dialed, select the **Search Calls by DNIS** check box and then, in the **DNIS** box, type the DNIS.
8. Do one of the following:
- To view the report, click **View Report**. The report appears in a new browser tab.

**Calls**

Company: **Jupiter Mining Corporation** Report generated on: **25 Jun 2019 at 4:15:08** Current period: **25 Jun 2019 - 26 Jun 2019**

**Filter Options**

DNIS Filter:

CLI Filter:

**Displaying records 1-5 of 5**

Call ID	CLI	DNIS	Is Test Call	Call Start Time	Call Duration (secs)	Application Name	CTI Fields	Call End Site Name	Call End Block Type	Call End Block Name	Call End Result	Has Recent Failure	Last Menu Block Type	Last Menu Block Name	Voice Platform Session ID
10088	00441514428091	00441514428002	false	2019-06-25 16:12:31.487	3	JVC Main Application		JVC Main Menu	\$	New menu 1	hangup	false	\$	New menu 1	3001100234
10089	0013174837794	00441514428002	false	2019-06-25 16:14:03.11	2	JVC Main Application		JVC Main Menu	\$	New menu 1	hangup	false	\$	New menu 1	3001100236
10090	00442921428863	00441514428002	false	2019-06-25 16:14:22.479	2	JVC Main Application		JVC Main Menu	\$	New menu 1	hangup	false	\$	New menu 1	3001100238
10091	00441509473621	00441514428002	false	2019-06-25 16:14:43.653	4	JVC Main Application		JVC Main Menu	\$	New menu 1	hangup	false	\$	New menu 1	3001100240
10092	0019198095880	00441514428002	false	2019-06-25 16:18:03.047	2	JVC Main Application		JVC Main Menu	\$	New menu 1	hangup	false	\$	New menu 1	3001100242

- To download the report, click **Download Report**. The system saves the report data to a file in CSV format.
9. Note the following in the output:
- **Call ID**: Code that identifies the call within Genesys Intelligent Automation.
  - **Voice Platform Session ID**: Code that identifies the interaction ID of the call within PureConnect.

# Change Log

The following table lists the changes to the *PureConnect Integration with Genesys Intelligent Automation Technical Reference* since its initial release.

Date	Changes
04-October-2018	First publication
29-March-2019	Updated the voicebot and chatbot part numbers in <a href="#">Licensed Components</a> .
7-May-2019	Updated the configuration steps in <a href="#">Configure a Chatbot Widget in Interaction Connect</a> .
15-May-2019	Added steps for voice integration with Genesys Intelligent Automation.
26-June-2019	<ul style="list-style-type: none"><li>• Replaced content in "Create a Custom Widget Extension" in <a href="#">Microapps</a> with a link.</li><li>• Removed "Custom Extension Process Flow."</li><li>• Removed note indicating that chatbots in PureConnect are only available through Genesys Intelligent Automation. PureConnect now supports third-party providers.</li><li>• Added <a href="#">Troubleshooting</a>.</li></ul>
18-October-2019	Added description of Use Chat Persona option in <a href="#">Configure a Chatbot Widget in Interaction Connect</a> .
16-June-2020	Added instructions for returning a call interaction to CIC from Genesys Intelligent Automation. For more information, see <a href="#">Return Call Interaction to CIC</a> .
18-June-2020	Added the following: <ul style="list-style-type: none"><li>• <a href="#">Required Components</a></li><li>• <a href="#">Voice Bot Integration</a></li><li>• <a href="#">Configure UniMRCP</a></li><li>• <a href="#">Configure VoiceXML</a></li><li>• <a href="#">URL Format for VXML Call to Genesys Intelligent Automation</a></li></ul>