PureConnect®

2018 R4

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GENESYS™

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/cic.

Table of Contents

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 with on-premises and cloud implementations of PureConnect.

Following is 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.

Note: The chatbot feature is available beginning with PureConnect 2018 R4 and is only available through Genesys Intelligent Automation currently.

About Genesys Intelligent Automation

Genesys Intelligent Automation installs on-premises or in the cloud and allows 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* at https://docs.genesys.com/Documentation/GAAP.
- Installing and configuring Genesys Intelligent Automation, see the *Genesys Intelligent Automation Deployment Guide* at https://docs.genesys.com/Documentation/GAAP/Current/iaDep/Welcome.
- Using Genesys Intelligent Automation, see *Genesys Intelligent Automation Help* at https://docs.genesys.com/Documentation/GAAP/Current/iaHelp/Welcome.
- Genesys Intelligent Automation features, see the *Genesys Intelligent Automation Reference Guide* at https://docs.genesys.com/Documentation/GAAP/Current/iaRef/Welcome.
- Dialog Engine, see "Integrating Dialog Engine" in the *Genesys Intelligent Automation Deployment Guide* at https://docs.genesys.com/Documentation/GAAP/Current/iaDep/DialogEngine.

Genesys Intelligent Automation Benefits

Genesys Intelligent Automation includes the following benefits:

- Intuitive Control Center for non-technical users to configure self-service dialogs for chat.
- 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 chat 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.

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 at https://help.genesys.com/cic/mergedProjects/wh_tr/desktop/pdfs/licensing_tr.pdf.

Component	Description
Intelligent Automation Omnichannel Self Service	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.
Chatbot Channel	**Subscription on-premises** • 3GP-GIA-CHATBASE-PCP-SUB: 200k initial yearly chatbot transactions • 3GP-GIA-CHATADD-PCP-SUB: 100k add-on chatbot transaction increments **Cloud** • CS-GIA-CHATBASE-PCC: 200k initial yearly chatbot transactions • CS-GIA-CHATADD-PCC: 100k add-on chatbot transaction increments

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.

Integrate PureConnect with Genesys Intelligent Automation

Integrating PureConnect with Genesys Intelligent Automation requires several configuration steps in Genesys Intelligent Automation and initial configuration of a widget in Interaction Connect. To implement Genesys Intelligent Automation, you add a code snippet to a page in your website to allow 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:** This integration procedure doesn't include the steps for installing Genesys Intelligent Automation. For more information about installing Genesys Intelligent Automation, see the *Genesys Intelligent Automation Deployment Guide* at https://docs.genesys.com/Documentation/GAAP/Current/iaDep/Welcome.

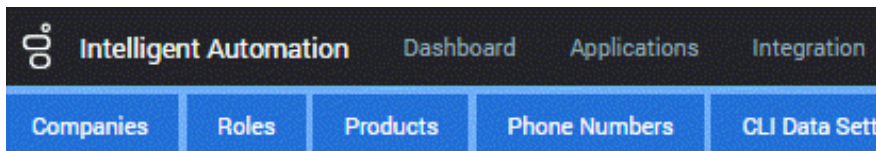## Create a Company in Genesys Intelligent Automation

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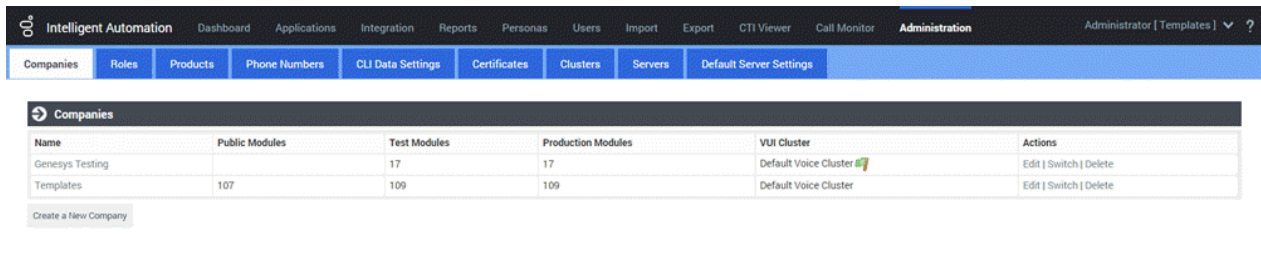
3. Click **Create a New Company**. The **Company** panel appears.

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 Rol 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* at https://docs.genesys.com/Documentation/GAAP/3.6.0/Help/Administration.

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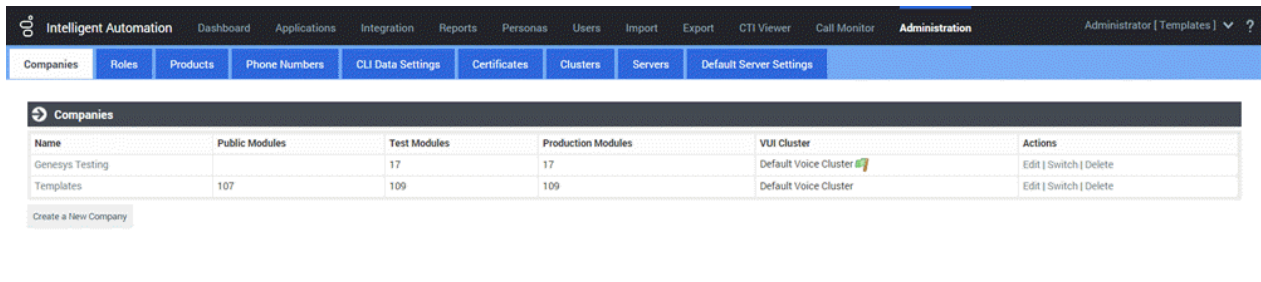
2. In the Actions column, click **Edit** for the company that you created. The **Company** panel appears.
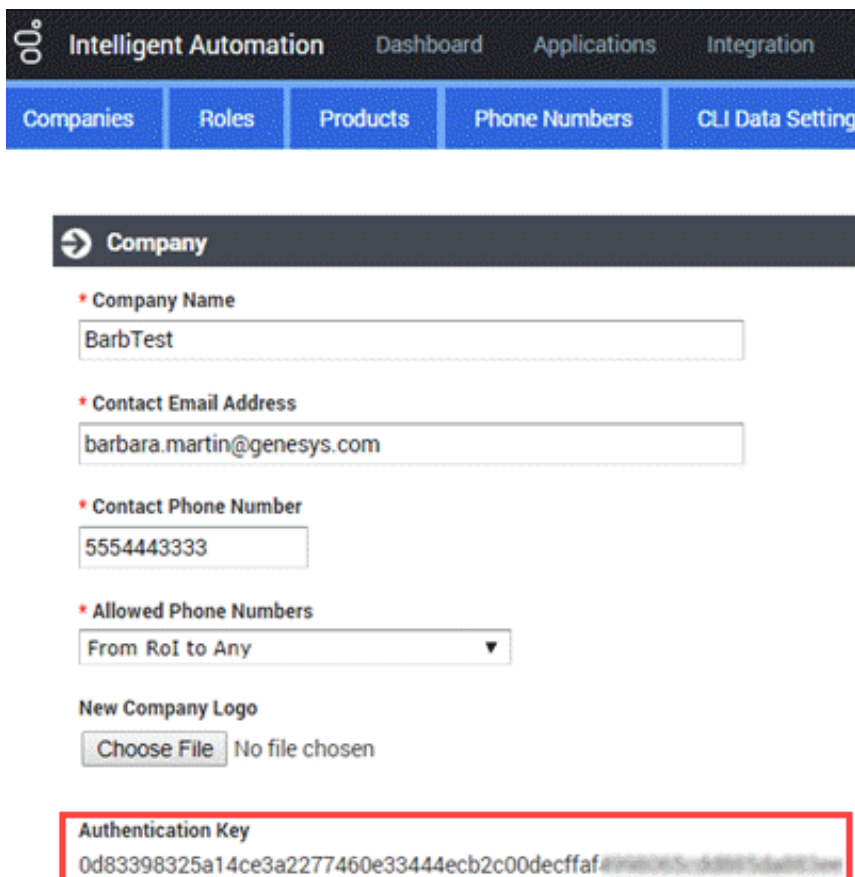

3. Copy and save the Authentication Key to a text file and then click **Close**.

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.
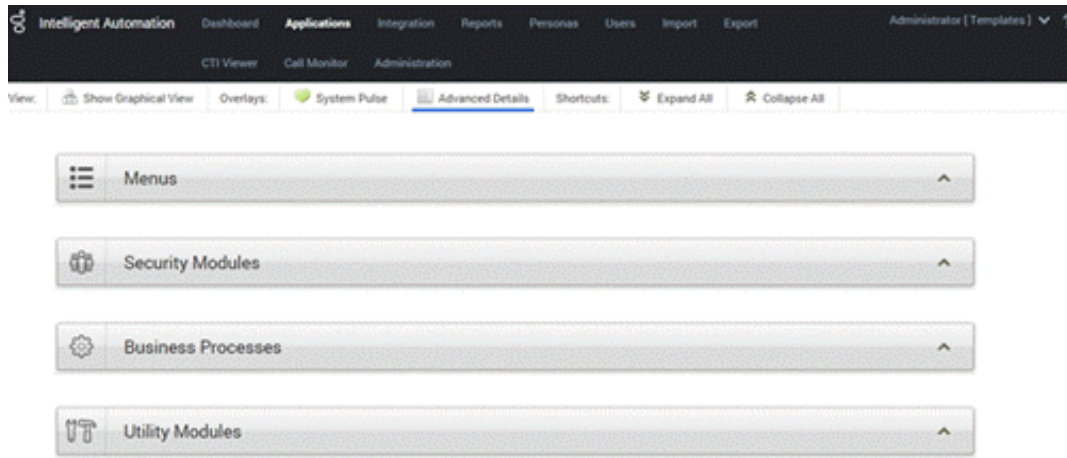
2. Expand the **Menus** section and then click **Create a New Menu**. The **Create a new Module** panel appears.
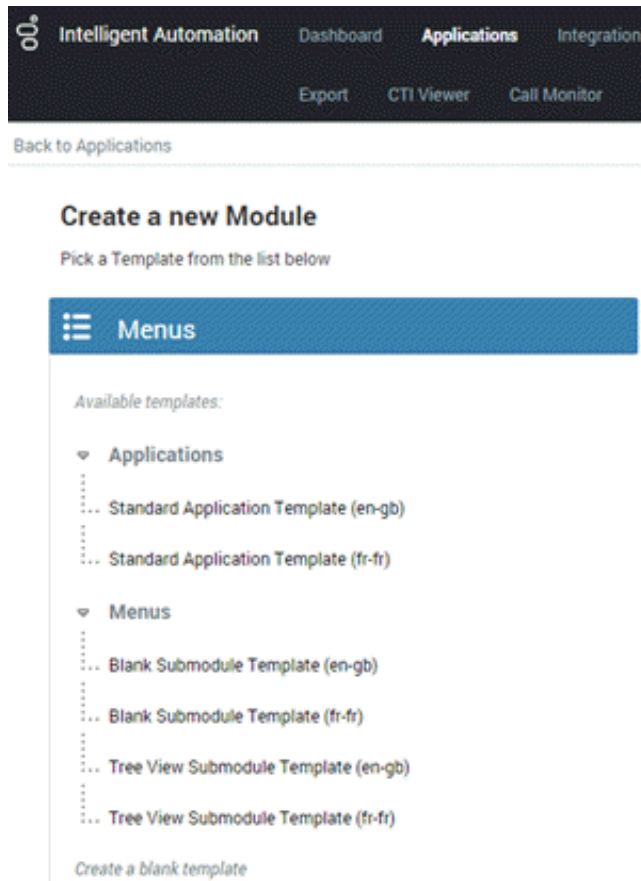
3. Select a template on which to base the module. The template appears.

> **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.
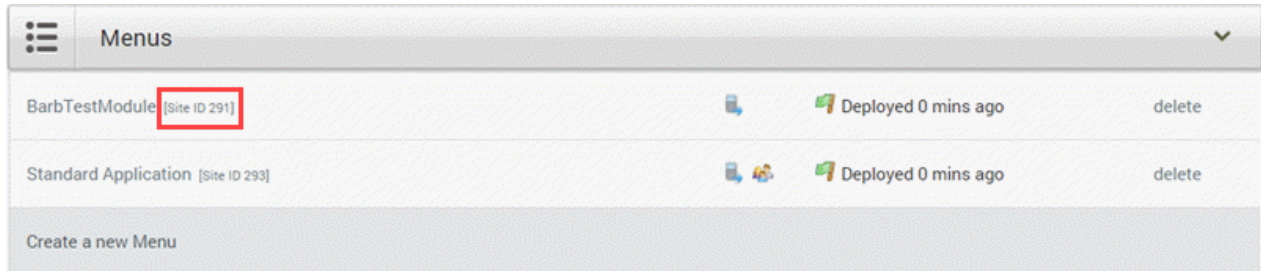
Permission Options

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.

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* at https://docs.genesys.com/Documentation/GAAP/latest/iaHelp/Creating.

Configure a Chatbot Widget in Interaction Connect

Integrating PureConnect with Genesys Intelligent Automation 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* at https://help.genesys.com/cic/mergedProjects/wh_basl_connect/desktop/widgets.htm.

To configure a chatbot widget in Interaction Connect

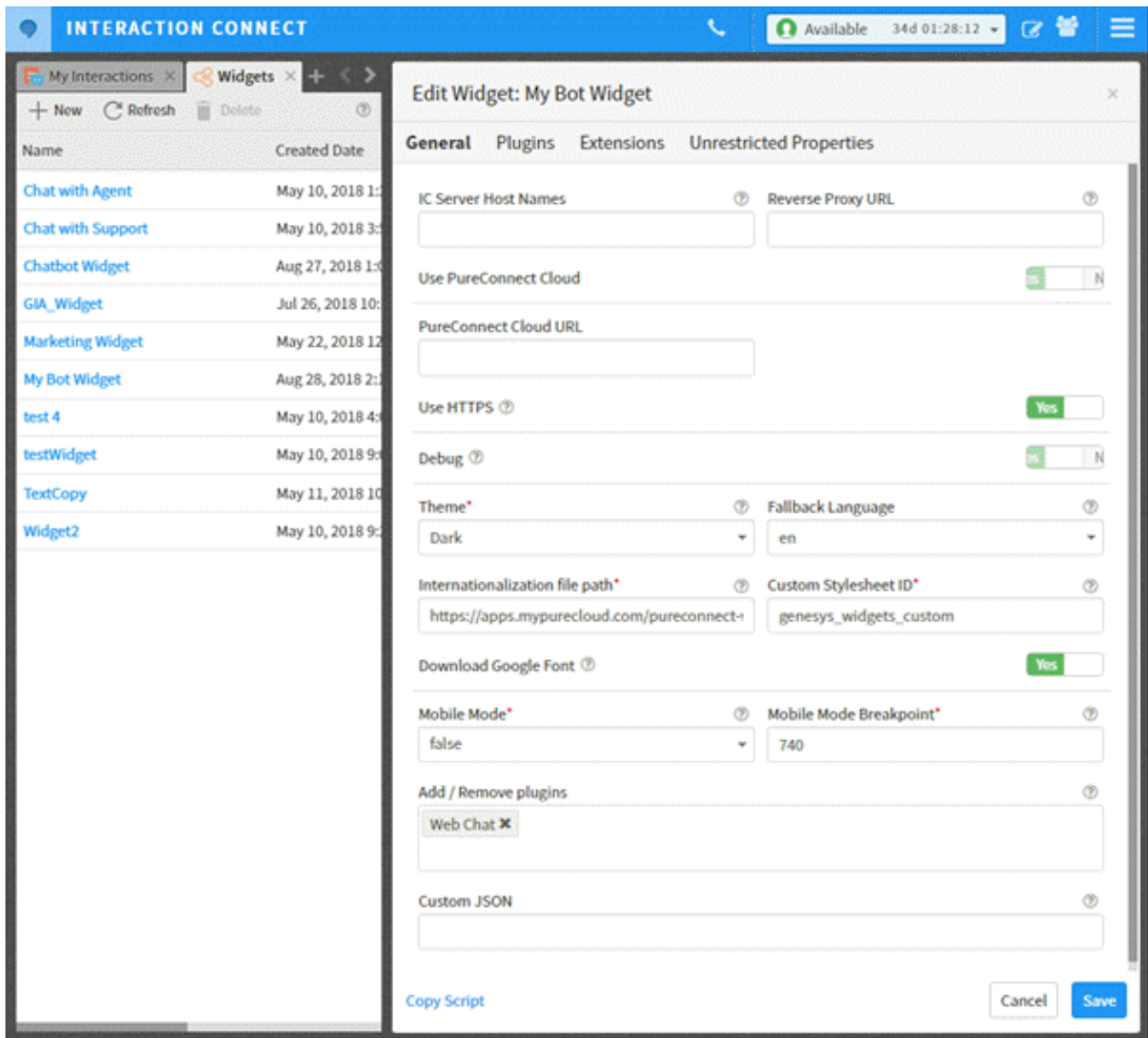1. Log on to Interaction Connect and then click the **Widgets** tab.

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 this 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.

4. Complete at least the required information and then click the **Plugins** tab.
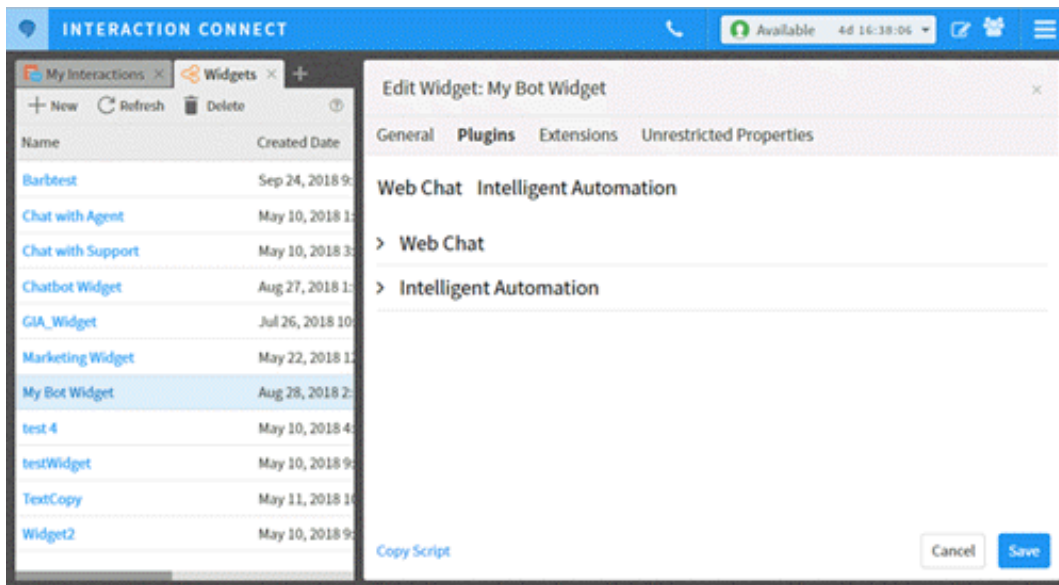
5. Expand the **Web Chat** section.
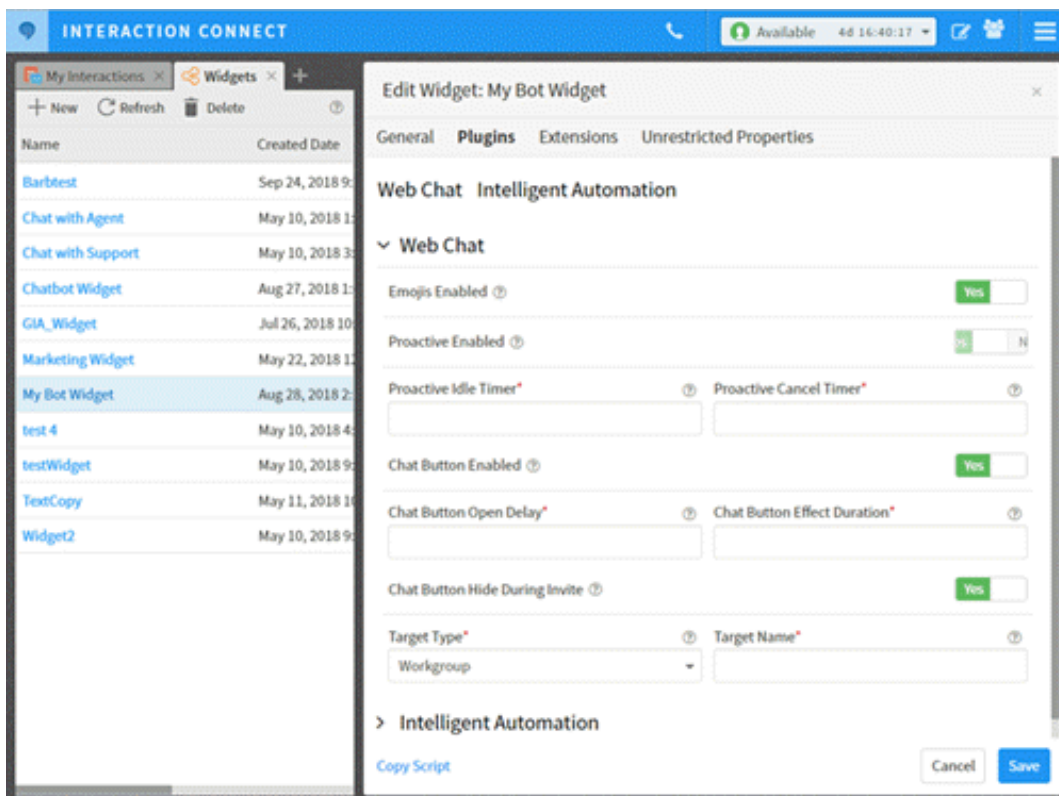
6. Do the following:
   a. To display the emoji menu inside the chat message input, move the **Emoji Enabled** slider to **Yes**.
   b. To invite a website visitor to chat after a specified number of seconds, move the **Proactive Enabled** slider to **Yes**.
   c. In the **Proactive Idle Timer** box, specify the number of seconds to wait after a visitor reaches your webpage before displaying a chat invitation.
   d. In the **Proactive Cancel Timer** box, specify the number of seconds for the chat invitation to remain visible.
   e. Move the **Chat Button Enabled** slider to **Yes**.
   f. In the **Chat Button Open Delay** box, specify the number of milliseconds to wait before displaying the chat button.
   g. In the **Chat Button Effect Duration** box, specify the number of milliseconds to wait before displaying the chat button fade-in animation.
   h. To hide the chat button when inviting a website visitor to chat, move the **Chat Button Hide During Invite** slider to **Yes**. If the visitor dismisses the chat invitation, the widget displays the chat button.
   i. In the **Target Type** box, specify a queue type for ACD routing.
   j. In the **Target Name** box, specify the name of the queue.

7. Expand the **Intelligent Automation** section.

8. Do the following:
   a. Move the **Genesys Chatbots Enabled** slider to **Yes**.
   b. In the **Intelligent Automation Site ID** box, type the site ID that Genesys Intelligent Automation generated when you created an application or module. For more information, see Create an Application or Module.
   c. In the **Intelligent Automation Authorization Key** box, type the authorization key that Genesys Intelligent Automation generated when you created a company. For more information, see Identify the Company Authentication Key.
   d. To use a reverse proxy for Intelligent Automation, do the following:
      I. Move the **Use a Reverse Proxy for Intelligent Automation URL** slider to **Yes**.
      II. In the **Intelligent Automation Server** box, type the FQDN of the web Intelligent Automation server. The system uses the **Reverse Proxy URL** specified on the **General** tab to create the end-result URL to access Intelligent Automation.

      > **Note:** After completing the remaining steps to configure the chatbot widget, see Configure Reverse Proxy Rewrite Rules.

   e. If you are not using a reverse proxy, in the **Intelligent Automation URL** box, type the Intelligent Automation URL for your Intelligent Automation server. (The URL is in Genesys Intelligent Automation under **Administration** > **Servers**.)
8. Click **Save**.
9. Click **Copy Script** and then, in the **Widget Script** dialog box, click **Copy to Clipboard**. Interaction Connect copies the script to your Clipboard.
10. Close the confirmation dialog box.
11. 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 Intelligent Automation in the **Intelligent Automation** section of the **Widgets** tab, configure the reverse proxy rewrite rules. If you use the **same** reverse proxy for CIC Web Applications, place the 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)/([^/]+)/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
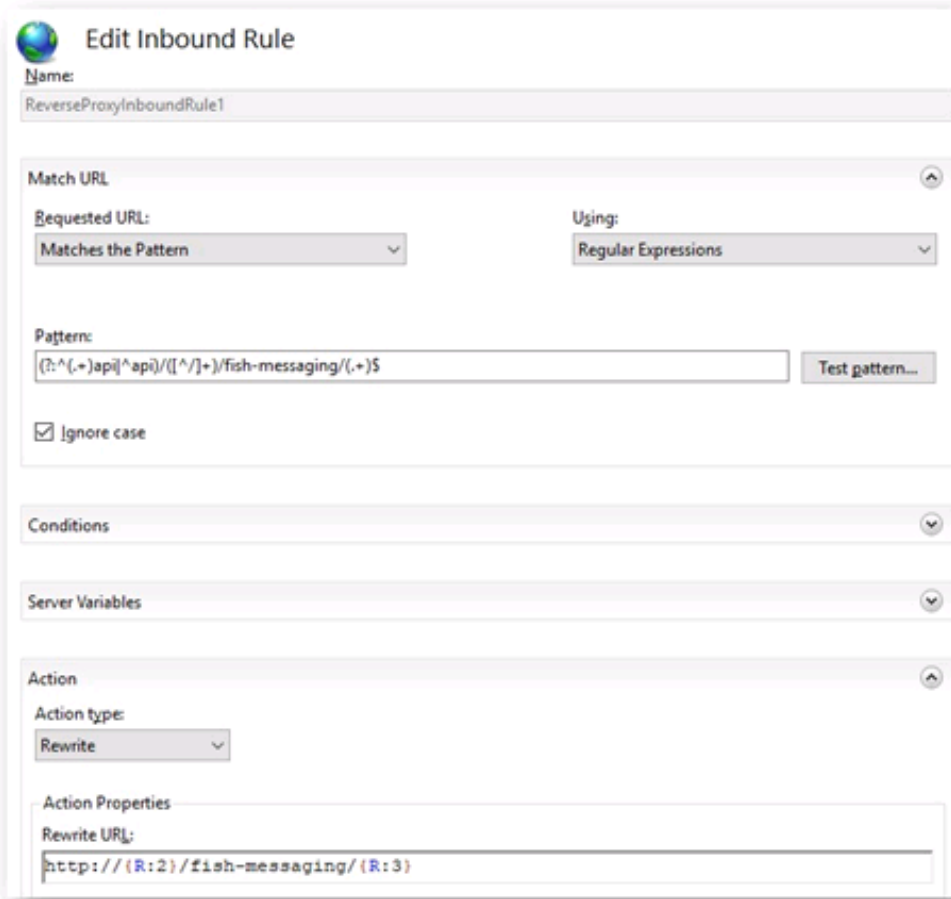
For more information about reverse proxy configuration for CIC Web Applications, see the CIC Web Applications and Configuration Guide.

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.
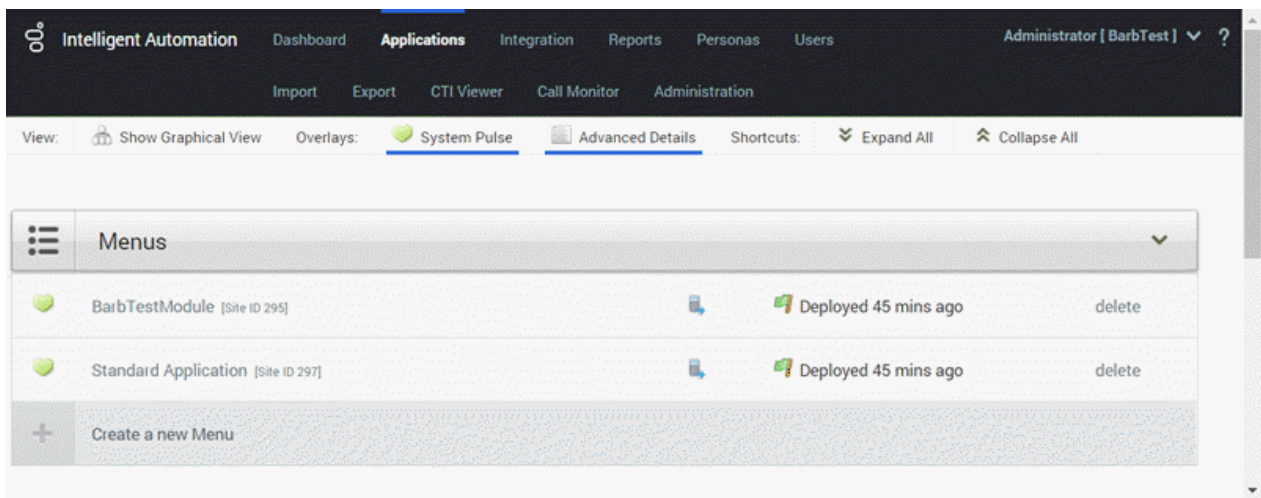
To set up a chatbot call flow

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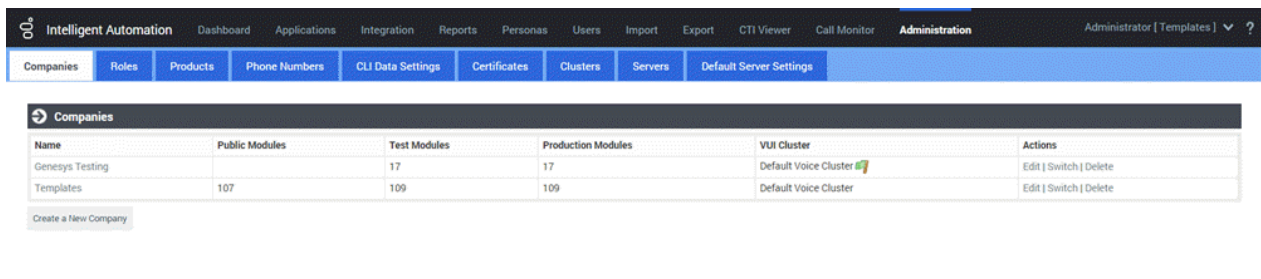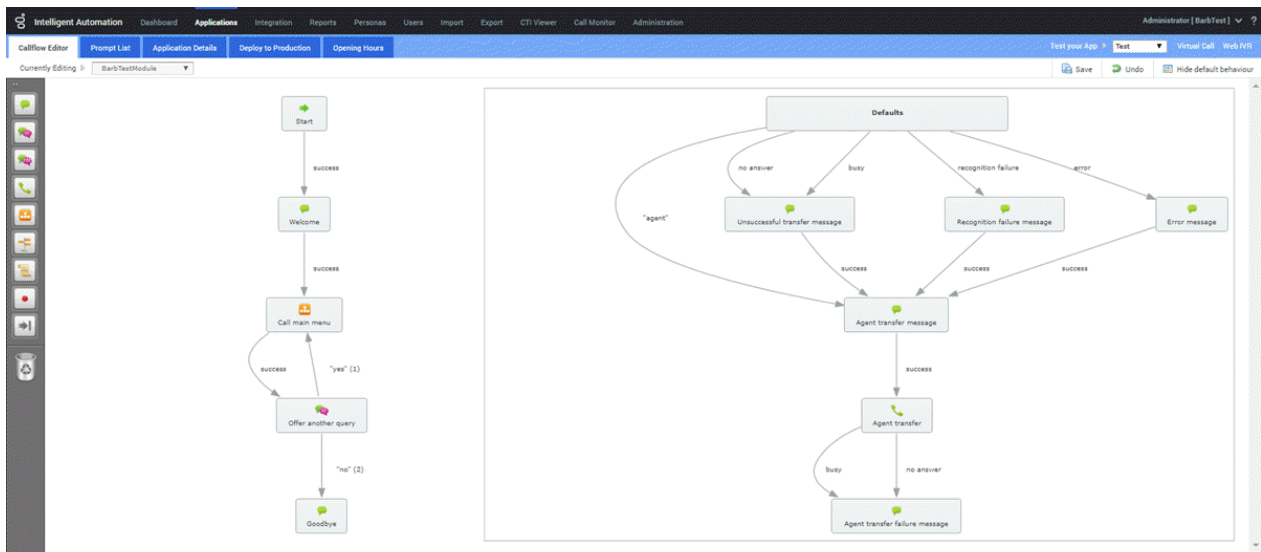

2. Click the company that you created. The **Dashboard** tab appears.
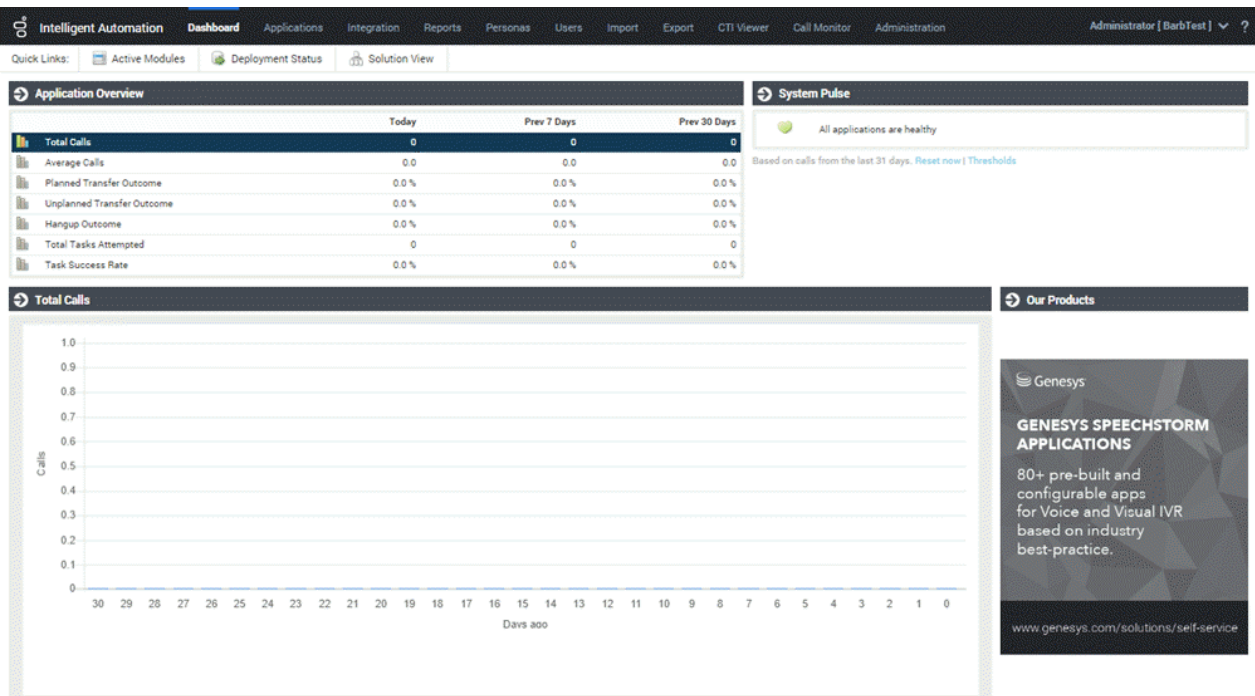
3. In the menu bar, click **Active Modules**.

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

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* at https://docs.genesys.com/Documentation/GAAP/latest/iaHelp/Callflow.
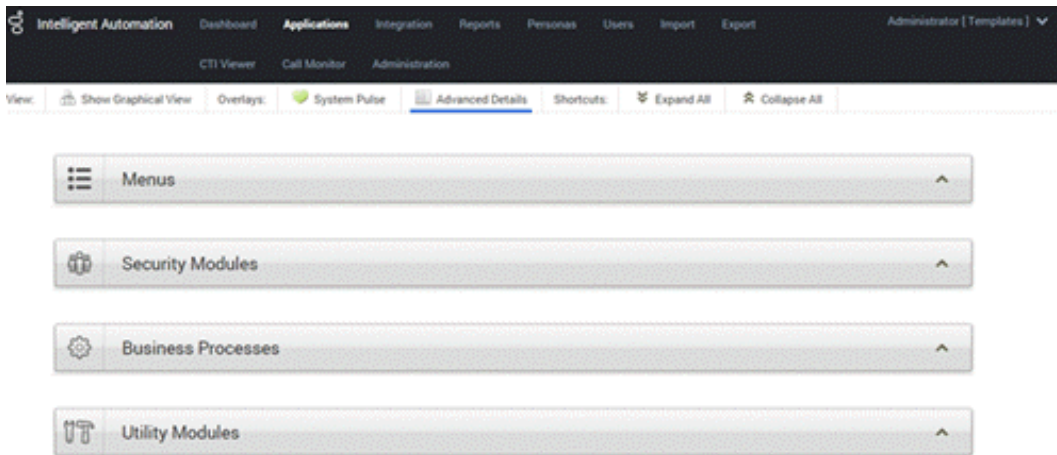
Microapps

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 from https://www.genesys.com/resources/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.
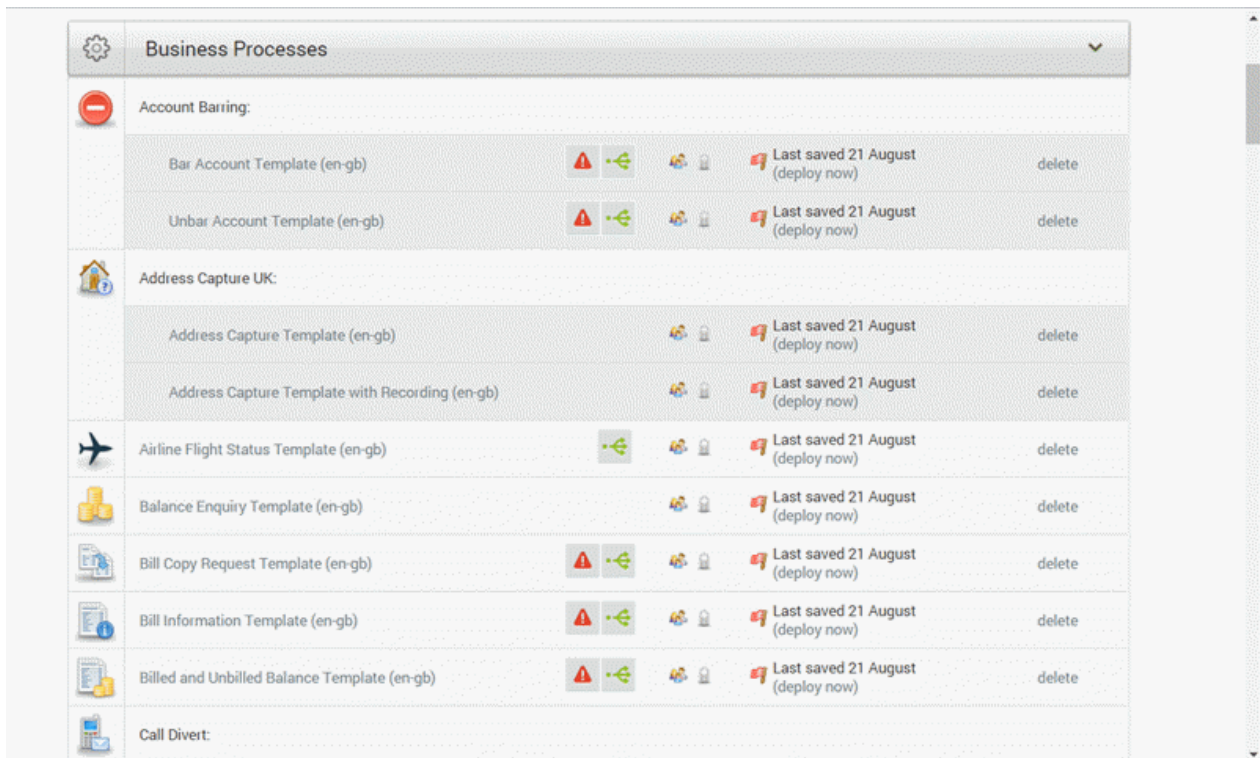
For more information about using microapps, see "Using WebIVR Microapps" in the *Genesys Intelligent Automation Reference Guide* at https://docs.genesys.com/Documentation/GAAP/Current/iaRef/WebIVRWidgets.

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.

Template call flow example

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

Start

success

Start business task

success

Please wait

success

Perform lookup

success   max attempts   not found

Post lookup   Not found

success   success

Play status   Handle not found

success   "yes" (1)

Offer to repeat status

"no" (2)

Repeat declined
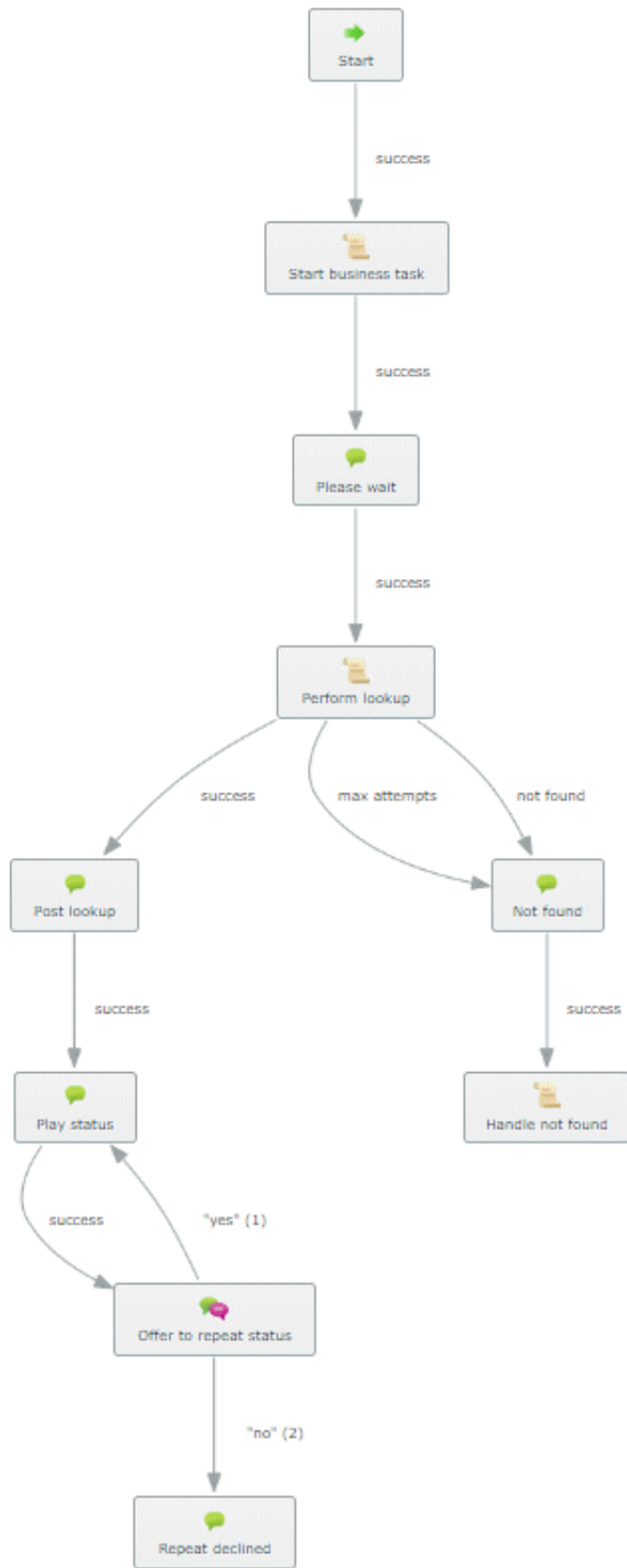
Create a Custom Widget Extension

To pass custom data to a microapp, create a custom widget extension.

Template

Following is a template for creating a custom widget extension.

```
window._genesys.widgets.bus.command('App.registerExtension', { name: 'NAME', extension: function($,
CXBus, Common) {
    'use strict';

    var service = CXBus.registerPlugin('PLUGINNAME');

    if (!service) {
        return;
    }

    service.registerEvents([
        'EVENTNAME'
    ]);

    service.registerCommand('MYCOMMAND', function(e) {
        // TODO
    });

    service.subscribe('App.ready', function(e) {
        // TODO
    });

    service.republish('ready');
}});
```

Example

Following is an example of a custom widget extension that passes a customer ID and product ID to the microapp.

```
1   // Create a custom extension
2   window._genesys.widgets.bus.command('App.registerExtension', { name: 'cx-speechstormZ', extension: function($, CXBus, Common) {
3       'use strict';
4
5       // Register your plugin
6       var service = CXBus.registerPlugin('SpeechstormZ');
7
8       // Subscribe to a specific event on the CXBus
9       service.subscribe('App.ready', function(e) {
10
11          var customData = {
12              customerId: 1145728,
13              productId: 777
14          };
15
16
17          // When the MicroApp is opened, any custom data assigned with this command will be sent to the microApp as parameters.
18          // This command will also assign the customData object to window._genesys.widgets.speechstorm.customData
19          service.command('WebChatService.setSpeechStormCustomData', customData);
20      });
21  }});
```

Custom Extension Process Flow

The following diagram shows the process flow for custom extensions.
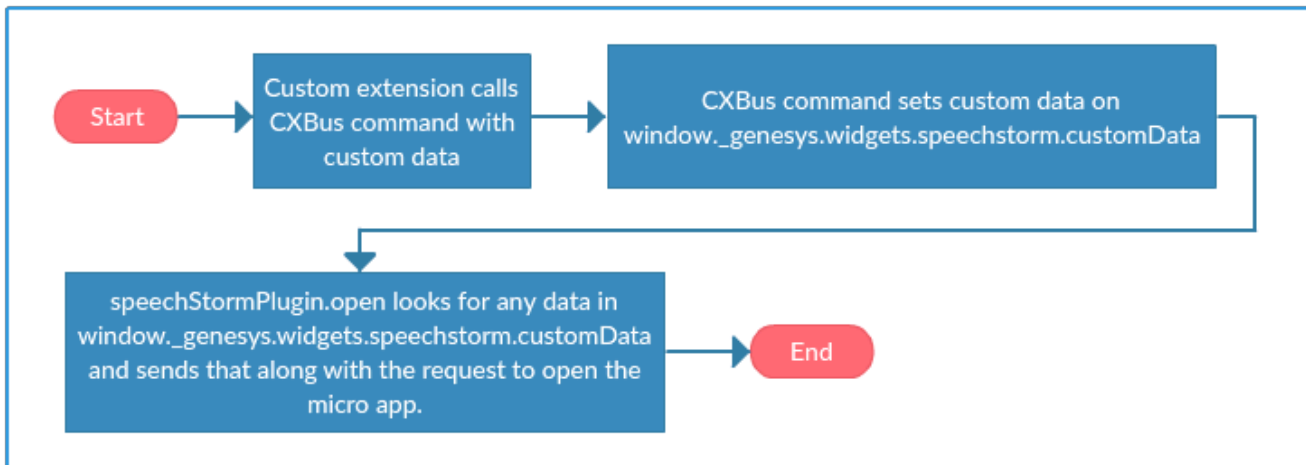
Test Microapp with Chat Widget

Use the following instructions to test the microapp with the 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

Change Log

The following table lists the dates and changes to this document:

Date	Changes
04-October-2018	First publication