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Avaya Solution & Interoperability Test Lab

Application Notes for Zingtree Conversational Workflows for Contact Centers with Avaya Workspaces for Call Center Elite using Avaya Workspaces Widgets API – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate Zingtree Conversational Workflows for Contact Centers v2022.09.21 with Avaya Workspaces for Call Center Elite R3.8.1.1 and Avaya Aura® Communication Manager R10.1. Zingtree Conversational Workflows for Contact Centers integrates with Avaya Workspaces for Call Center Elite using the Widget Application Programming Interface (API) to call upon a screen pop that populates the agent's Workspaces desktop.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as any observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

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1. Introduction

These Application Notes describe the configuration steps required to integrate Zingtree Conversational Workflows for Contact Centers v2022.09.21 with Avaya Workspaces for Call Center Elite R3.8.1.1 and Avaya Aura® Communication Manager R10.1. Zingtree Conversational Workflows for Contact Centers, referred to hereafter as either Conversational Workflows or Zingtree, integrates with Avaya Workspaces for Call Center Elite (Workspaces) using the Widget Application Programming Interface (API) to call upon a screen pop that populates the agent's Workspaces desktop.

Zingtree's conversational workflow software helps with contact center agent productivity by providing agents with conversational workflows which are suitable for all kinds of processes, such as:

- Agent scripting: Create scripts that guide employees, customer service representatives, salespeople, schedulers, etc., while they interact with customers over the phone.
- Customer self-help: Deflect tickets by giving customers a way to answer their own questions, decide which product to buy, or generate price quotes.
- Call Deflection: Instead of having customers wait in queue, enable an option to receive an SMS that opens a tree on their phone to do self-help while waiting in queue. Could lead to callers getting an answer never having talked with an agent.

For compliance testing, only "Agent Scripting" was used, this involved the agent being presented with a list of questions they could pose to the customer calling in. Different scripts were presented to the agent depending on what skillset was answered by the agent. This screen pop was called upon and contained in the Widget provided by Zingtree. Please refer to pages 19 and 20 to see an example of such screen pops.

DevConnect members make use of the Widget Framework documentation which provides a sample project and a sample widget library for development purposes. Using the sample project, widgets can be created and built for production use. The sample library includes a set of widgets that demonstrate key features of the Widget API. The Widget API provides access to the Avaya Workspaces framework and allows the widget to listen to events and take action in the form of activities such as call pick up, hang up, card active, and card inactive. Widgets offer several options for integrating external systems such as CRM systems into Avaya Workspaces.

- IFRAME - a simple widget can be written to encapsulate the CRM website in an IFRAME and make the CRM system accessible via a web page.
- REST API - If the CRM system has a REST API, a widget can be written to directly query the CRM's REST API, this approach would be considered a pure client-side integration.
- SALESFORCE - Workspaces comes with an in-built Salesforce CRM adapter that provides client-side integration out of the box. Salesforce CRM data is available as a data object in the Widget API.
- BACKEND - a custom CRM can be integrated as a Breeze snap-in and integrated with Workspaces via the UAC component and Client JavaScript SDK, then this integration can be exposed in the Widget API in a similar fashion as the native Salesforce CRM adapter.

- PROXY - a custom CRM can be integrated via a Proxy REST API or a Proxy Web Application. A proxy REST API wraps an existing CRM system and makes it REST capable so that widgets can access CRM data indirectly via the proxy. A proxy web application is a simple web app/page that encapsulates the CRM interface and makes it accessible via an IFRAME indirectly without blocking any content or permission restrictions.

2. General Test Approach and Test Results

The general test approach was to load the Zingtree Widget onto Avaya Workspaces to allow the Workspaces agent make use of scripting provided by the Zingtree screen pop. Serviceability testing was carried out to observe the response of the screen pop when various LAN failures were simulated.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

2.1. Interoperability Compliance Testing

Interoperability compliance testing included feature and serviceability testing. The feature testing focused on the following functionality:
- **Basic calls**– Observing the scripting call flow being presented to the agent (on Workspaces for Elite) for incoming calls into the Contact Center.
- **Call Transfer/Conference** – Observing the scripting call flow when a call is transferred of conferenced between Workspaces agents.
- **IVR front ended calls –** Placing calls to a basic IVR giving the caller choices of pressing 1, 2, 3 for different services and observing that Zingtree is capable of popping different screen pops depending on the choices made by the caller.
- **Caller History –** Observing caller history, for example choices that were made on IVR or certain call flows that were followed previously and noting these when calling again.
- **Serviceability** – Tests the behaviour of Zingtree when there are certain failed conditions such as a LAN failure

2.2. Test Results

All test cases were executed and verified. All test cases passed successfully.

2.3. Support

For technical support on the Zingtree Widget contact Zingtree via phone, email, or internet.

- **Phone:** +1 833-407-0557
- **Email:** support@zingtree.com
- **Web:** https://zingtree.com/en/contact-us

3. Reference Configuration

Figure 1 shows the network topology during compliance testing. The Zingtree Widget was installed on Avaya Workspaces and the Widget library hosted on the Avaya Web Server. Calls were then placed to various VDN's from different customers to simulate a real-life call center environment.
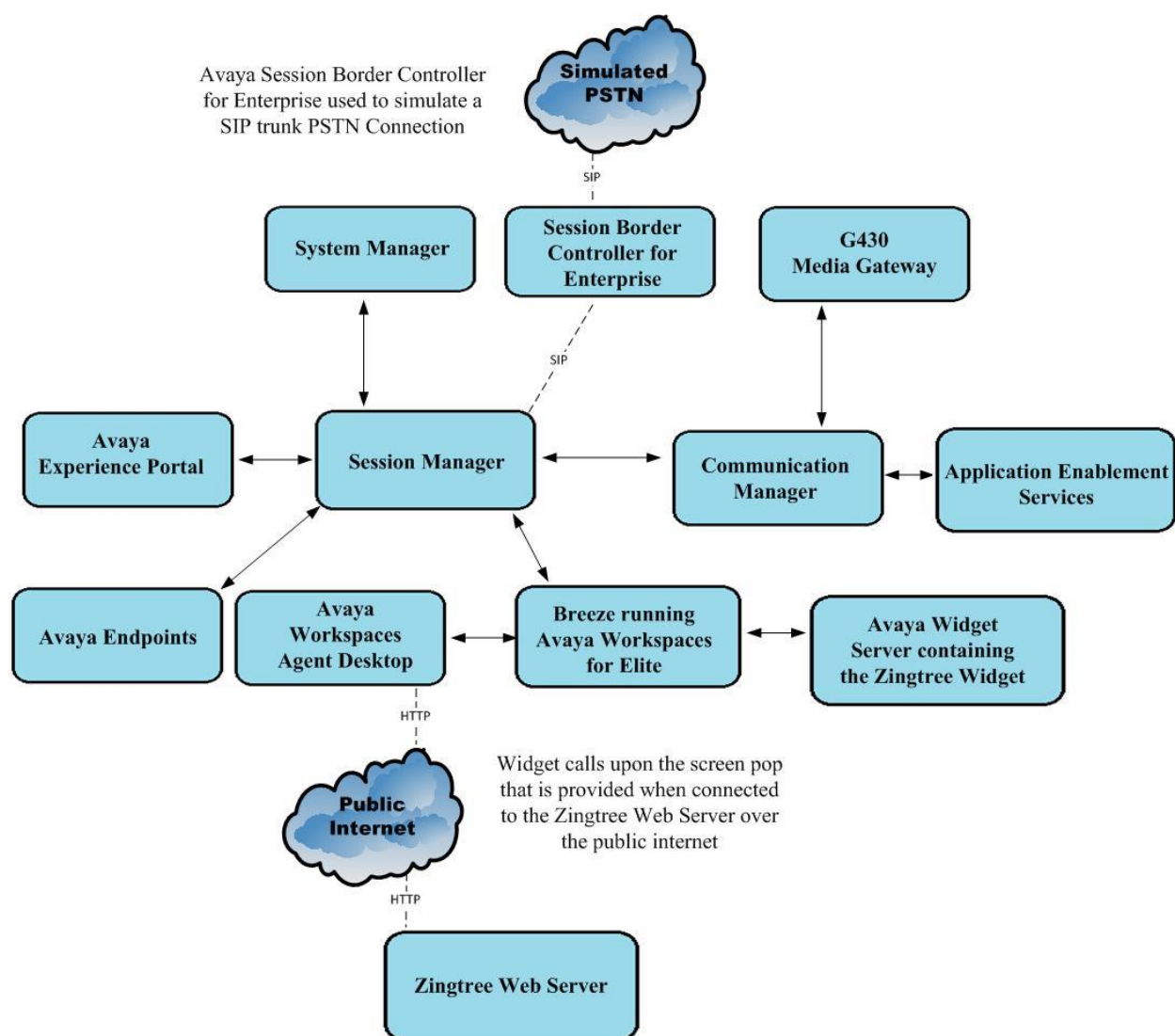
Figure 1: Network solution of Zingtree Conversational Workflows for Contact Centers 2022.09.21 and Avaya Workspaces for Elite R3.8.1.1

4. Equipment and Software Validated

The following equipment and software were used for the sample configuration:

Equipment/Software	Release/Version
Avaya Workspaces for Elite	3.8.1.1
Avaya Breeze® platform	3.8.1
Avaya Aura® System Manager running on a virtual server	10.1.0.0 Build No. – 10.1.0.0.537353 SW Update Revision No: 10.1.0.0.0614254
Avaya Aura® Session Manager running on a virtual server	10.1 Build No. – 10.1.0.0.1010105
Avaya Aura® Communication Manager running on a virtual server	10.1 Update ID 01.0.974.0-27372
Avaya Aura® Application Enablement Services running on a virtual server	10.1 Build 10.1.0.2.0.12-0
Avaya Experience Portal	8.1.0
Avaya Session Border Controller for Enterprise	8.1.3.0-31-21052
Avaya G430 Media Gateway	41.16.0/1
Avaya J179 H.323 Deskphone	6.8304
Avaya J159 SIP Deskphone	4.0.7.1.5
Zingtree Conversational Workflows for Contact Centers	2022.09.21

5. Configure Avaya Control Manager

This section provides the procedures for configuring the Widget Library on Avaya Control Manager. Avaya Control Manager is used in the provisioning of Workspaces for Elite and although the general configuration of Workspaces for Elite is not covered in these Application Notes, the following screens are specific to the location of the Widget Library.

Log into Avaya Control Manager by opening a web browser to the Control Managers IP address. Enter the appropriate credentials and click on **Log in**.
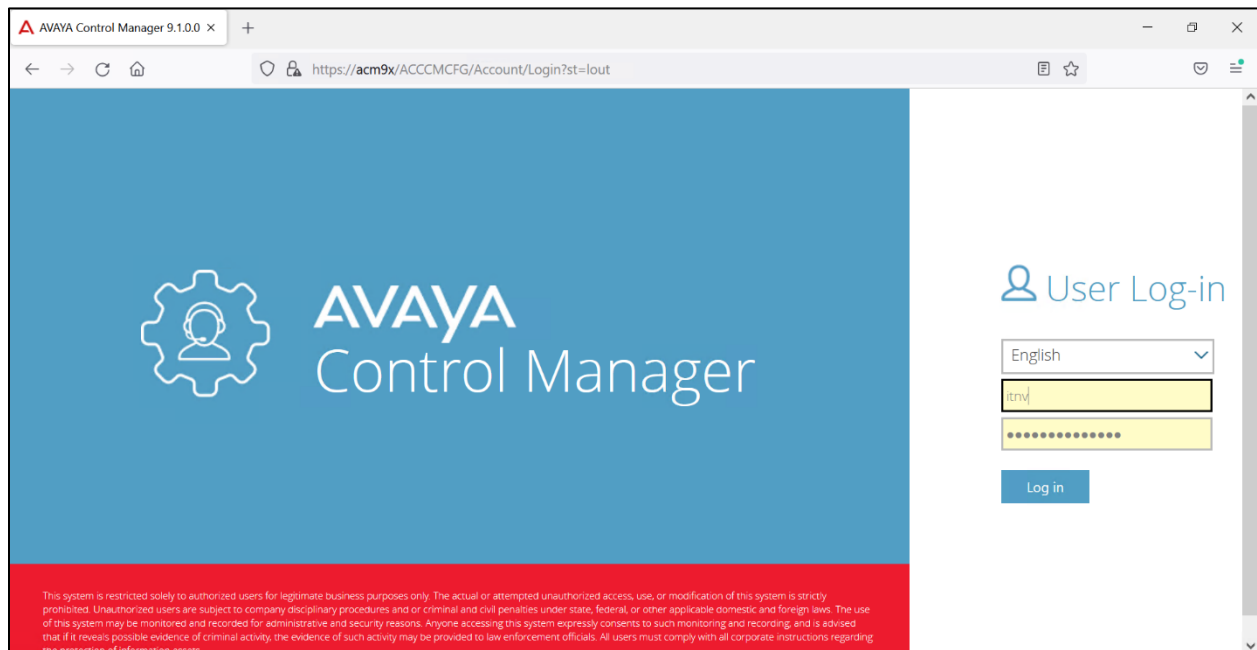
Navigate to **Configuration** → **Customer Engagement** → **Workspaces for Elite**, some of which is shown below.
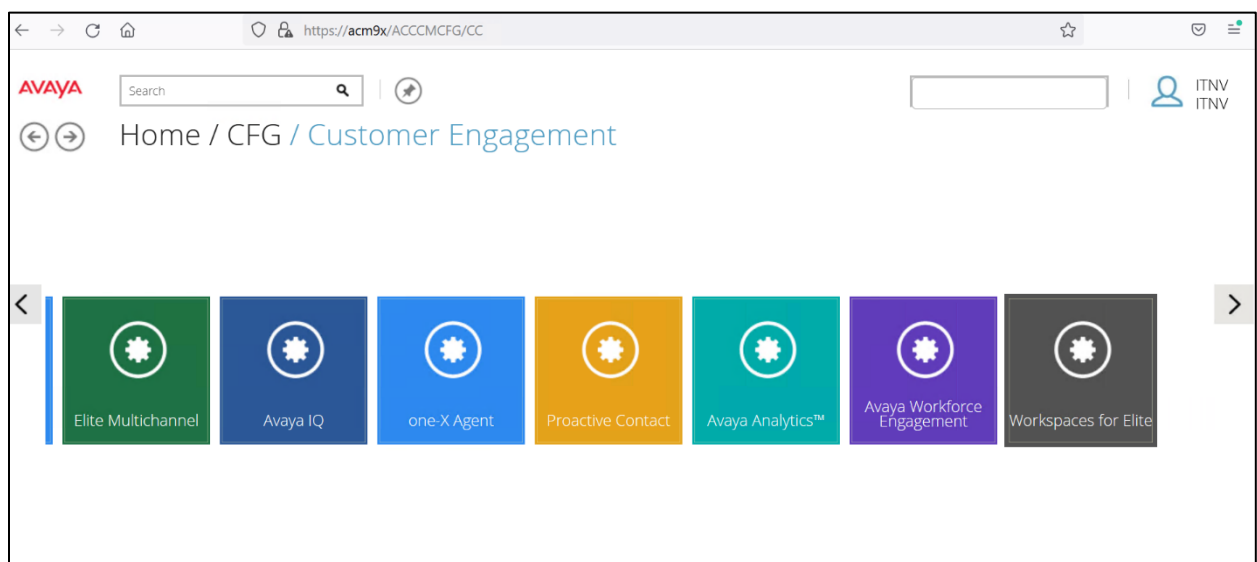
Double-click on the server listed at the bottom of the screen, shown below.
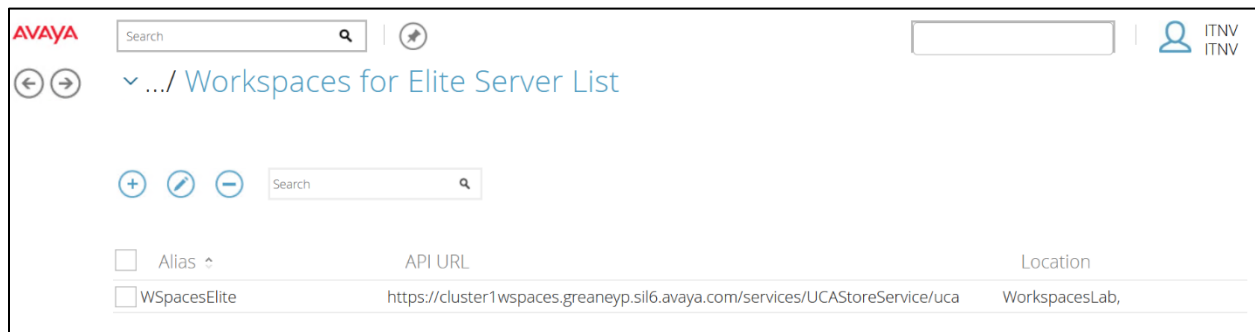
Navigate to **System Properties**, highlighted.
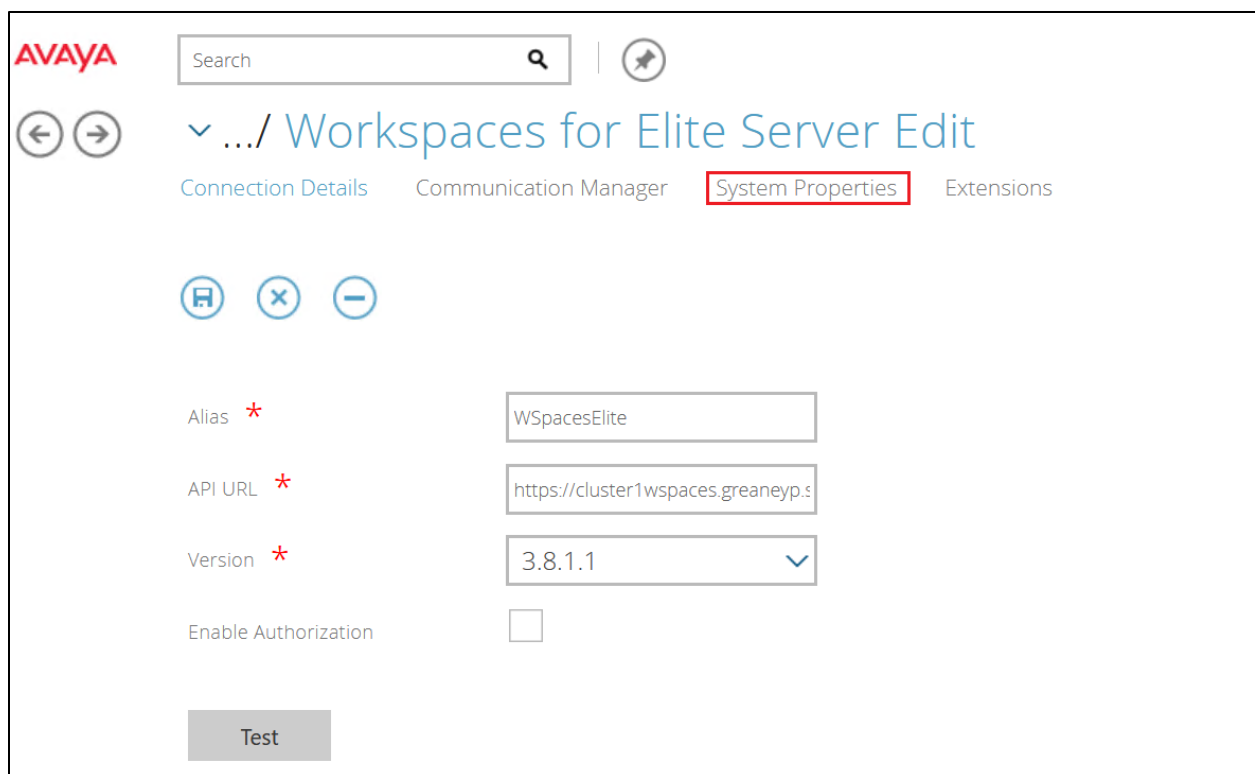
Under the **Widget Library** section in the main window, ensure that **Enable An External Widget Library** is ticked and enter the **Workspaces Library URL**, as shown below. The example below shows that the Windows Server 2016 IP address **10.10.40.7** was added as this server running IIS hosts the library.
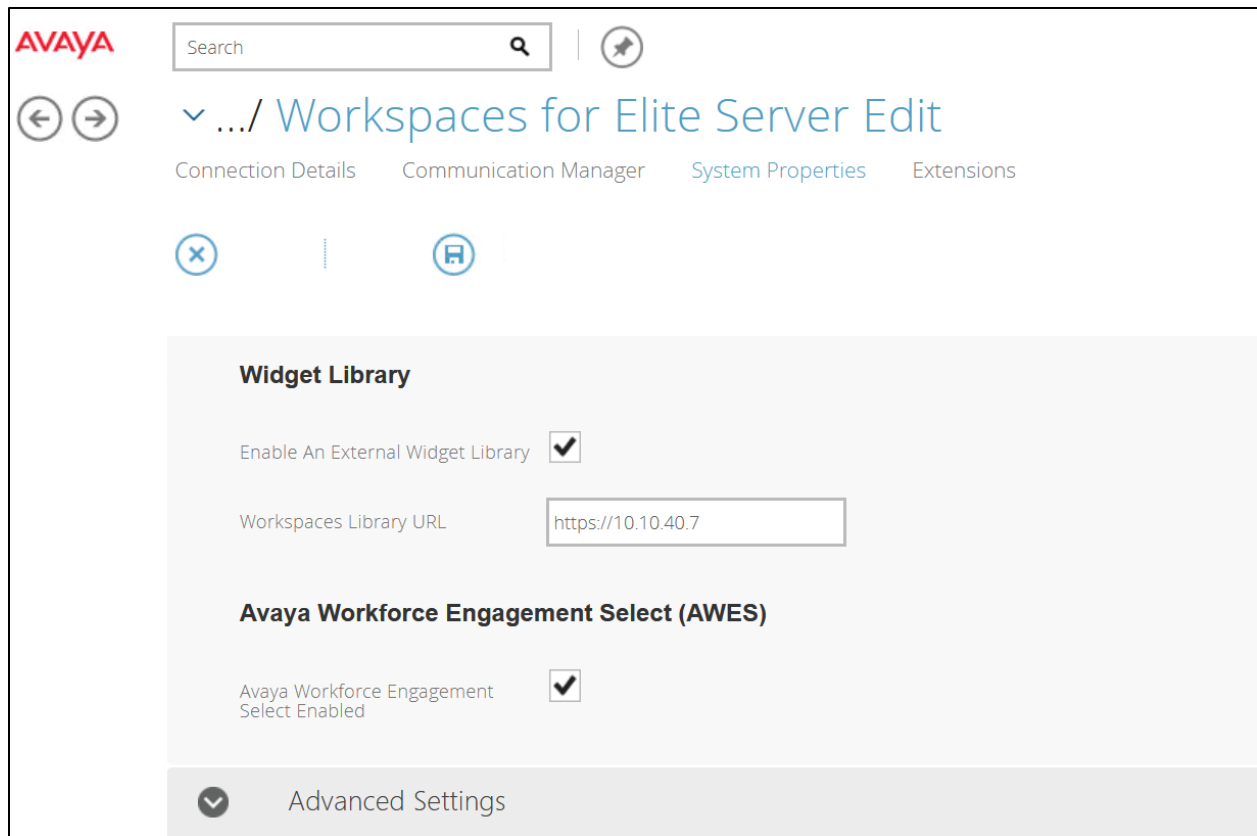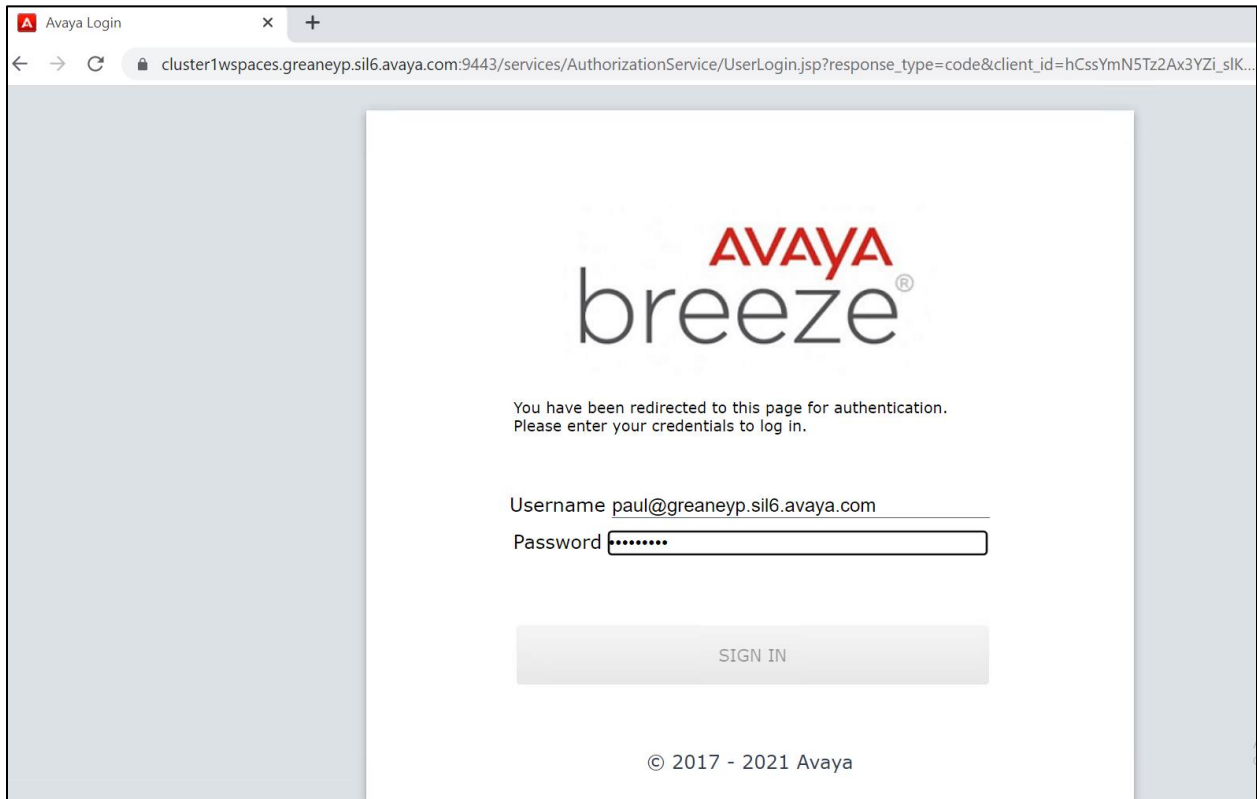
6. Configure Avaya Workspaces for Elite

The Zingtree Widget must be added to Workspaces for Elite. The Widget invokes a screen pop once a call is answered. The type of screen pop can be different depending on the skillset that is called upon, also depending on the number of the caller. These rules are typically defined by Zingtree and the customer before the installation takes place.

6.1. Import the Zingtree Widget

Open a browser to the Workspaces cluster, as shown below. Log in using a user with administrative rights on Workspaces. This user must have administrative rights to allow configuration on the widget to take place.
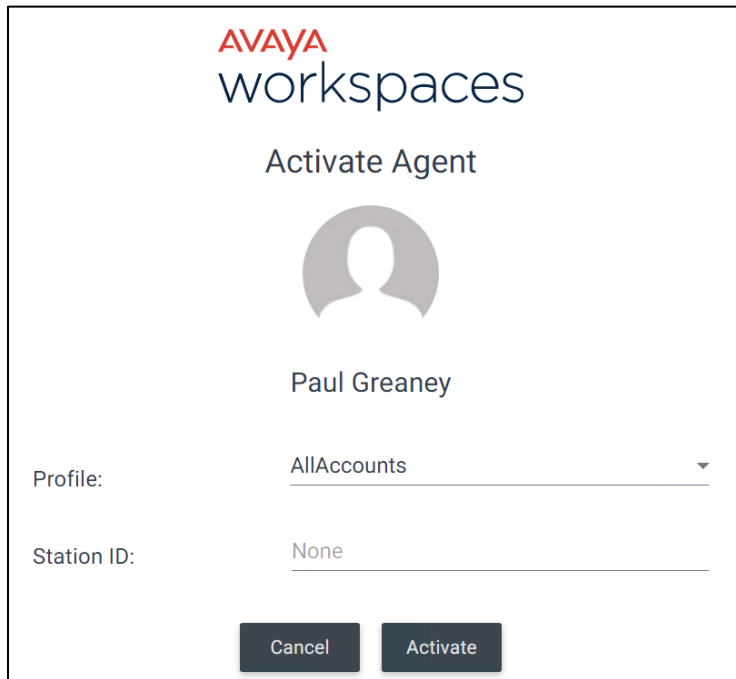
Click on **Activate** to continue with the login process.
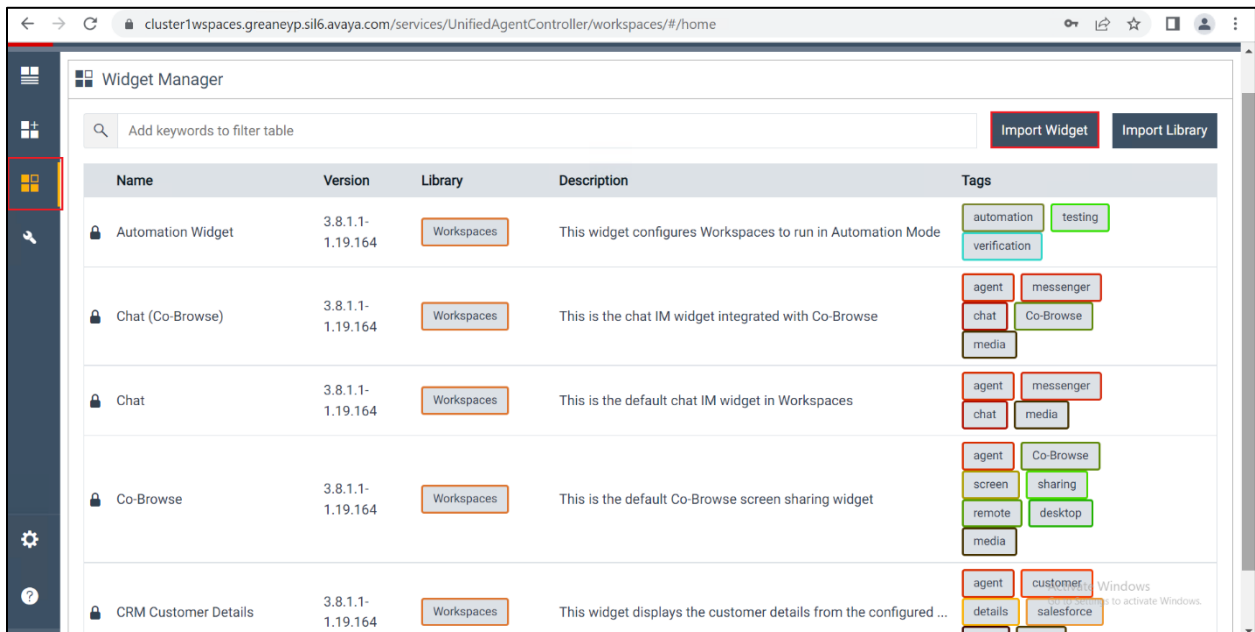
Click on the **Widget Manager** icon, highlighted in the left window, and click on **Import Widget** in the main window.

Browse to the location of the **.json** file that is associated with the Widget in question and click on **Open**.
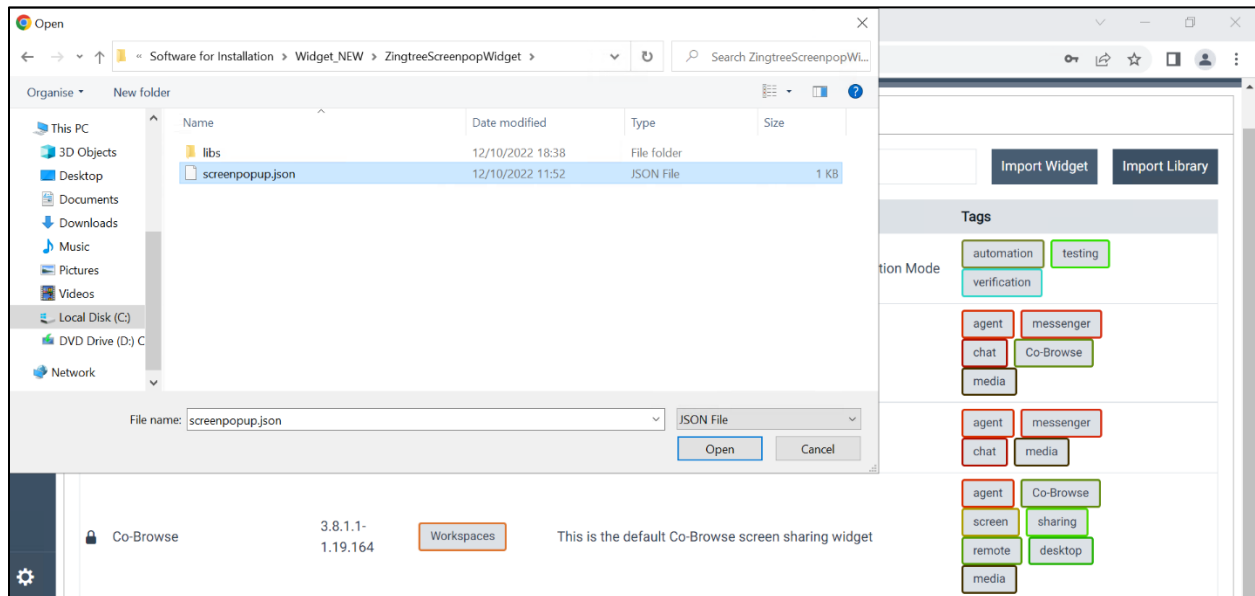
The new Widget called **screenpopup** is now visible at the bottom of the screen.

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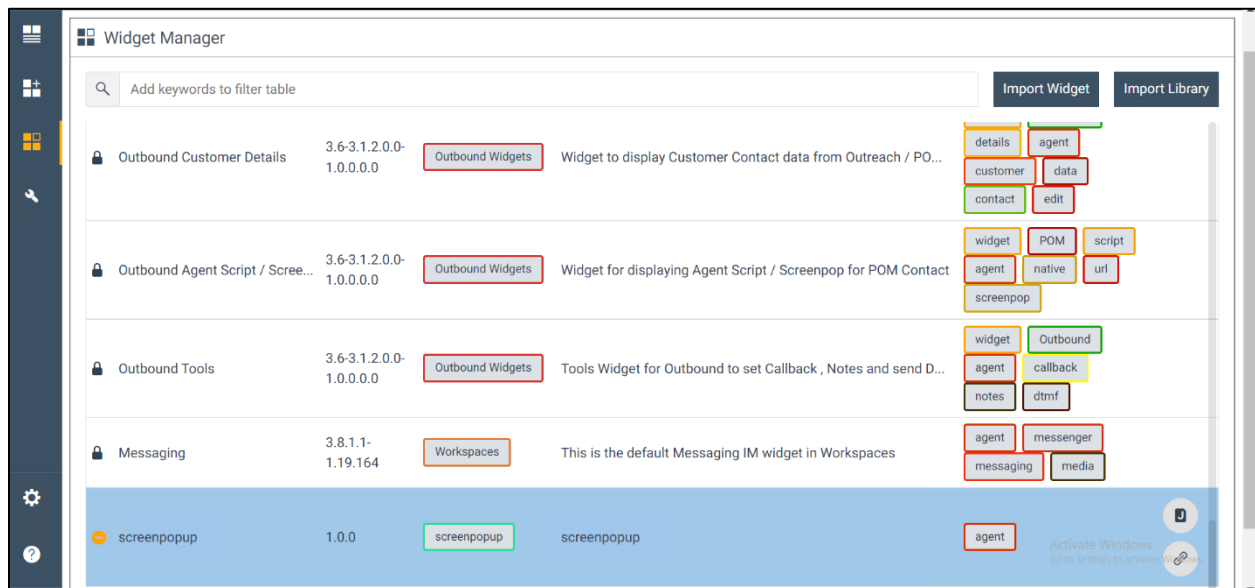
6.2. Configure the Zingtree Widget

Click on the **Layout Manager** icon in the left window, ensure that **ELITE** is selected as the layout and edit the **Default** layout, as shown below.

Note: A new layout may also be added, for compliance testing the simplest route was taken to create the screen pop and so the default layout was used.
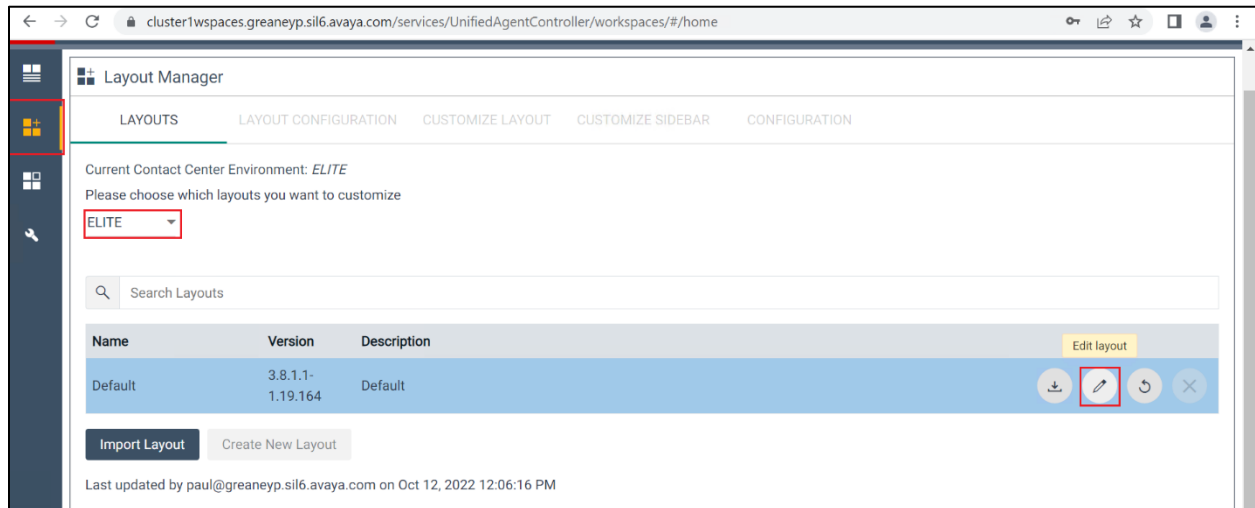
Navigate to the **Customize Layout** tab. Click on **Voice**, as we are dealing with incoming voice calls to activate the Widget and screen pop.
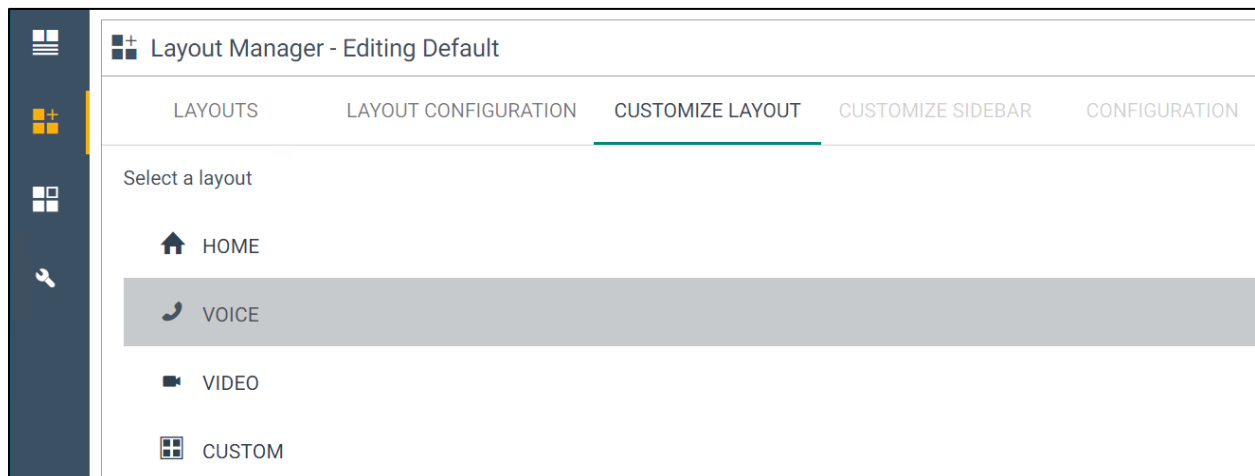
Navigate to the **Configuration** tab. There are a number of different ways to configure the presentation of the screen pop, for compliance testing a simple screen pop that filled the agents screen was chosen. The correct widget name was added, that being **screenpopup**. The other fields were left as default, these are shown below. Click on **Save Changes** at the bottom of the screen once complete.
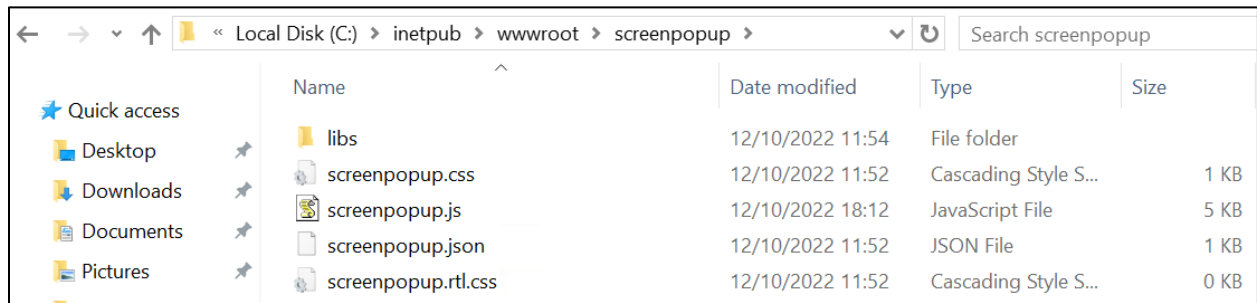
6.3. Import the Zingtree Widget Library

The Widget folder is added to the web server, the Widget folder must be hosted on the widget library using a web server. Any standard web server can be used e.g., http-server, nginx, tomcat. For compliance testing a Windows Server 2016 running IIS was used. The screenpopup folder was added to the **wwwroot** folder as shown below.
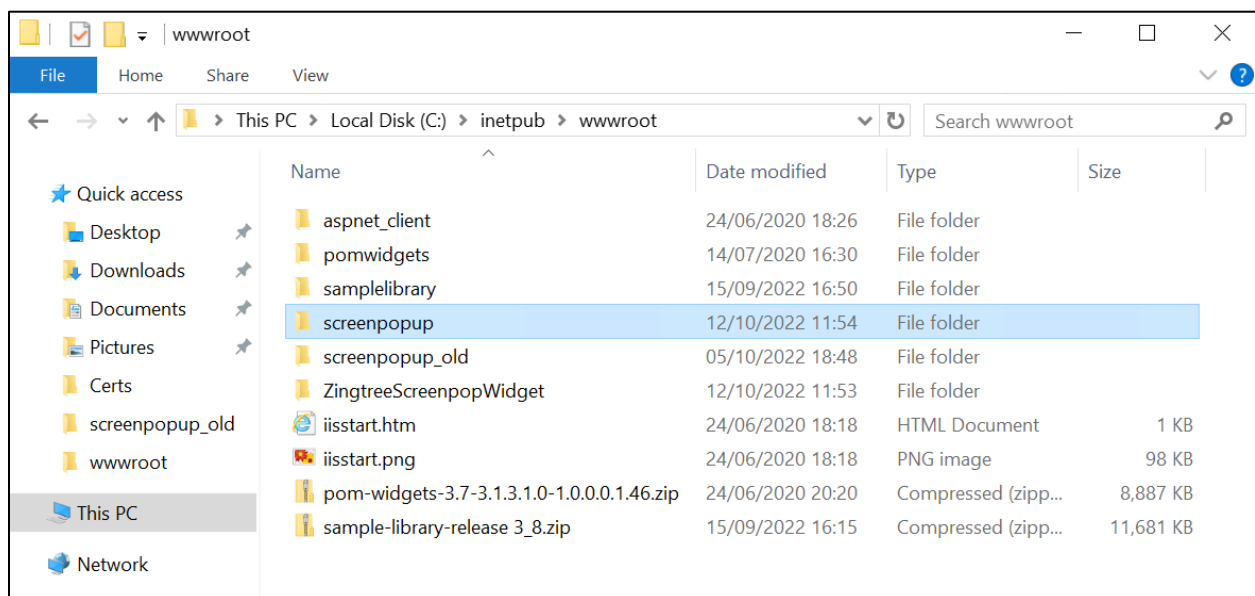
This particular Widget contained the following files. The **Java Script** file can be altered to include various rules for the screen pop to be called upon.
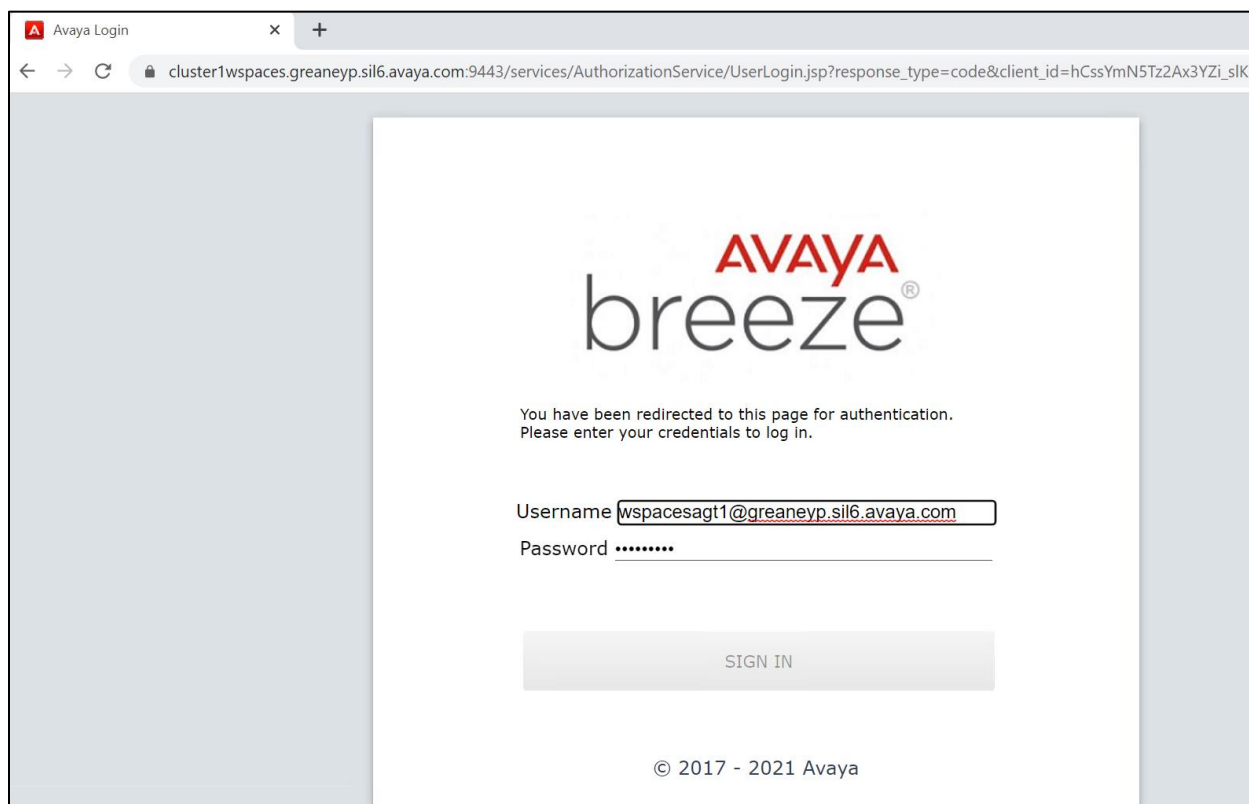
Name	Date modified	Type	Size
libs	12/10/2022 11:54	File folder	
screenpopup.css	12/10/2022 11:52	Cascading Style S...	1 KB
screenpopup.js	12/10/2022 18:12	JavaScript File	5 KB
screenpopup.json	12/10/2022 11:52	JSON File	1 KB
screenpopup.rtl.css	12/10/2022 11:52	Cascading Style S...	0 KB

Path: « Local Disk (C:) > inetpub > wwwroot > screenpopup >

Search screenpopup

Quick access
- Desktop
- Downloads
- Documents
- Pictures

7. Verification Steps
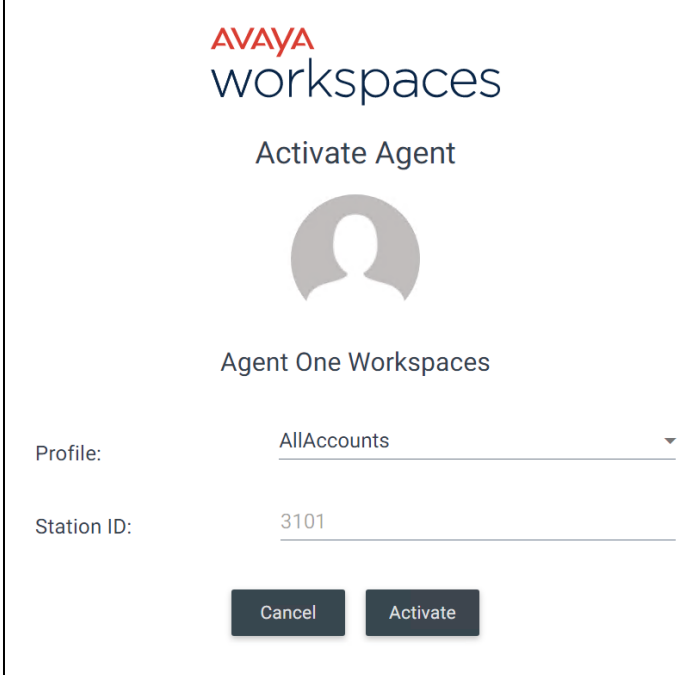
To verify the connection between Zingtree and Avaya, calls are made to VDN's answered by an agent logged into Workspaces, and the screen pops that are invoked by the Zingtree Widget are observed.

Open a web browser to the Workspaces cluster in order to log an agent into Workspaces. Enter the appropriate credentials and click on **Sign In**.
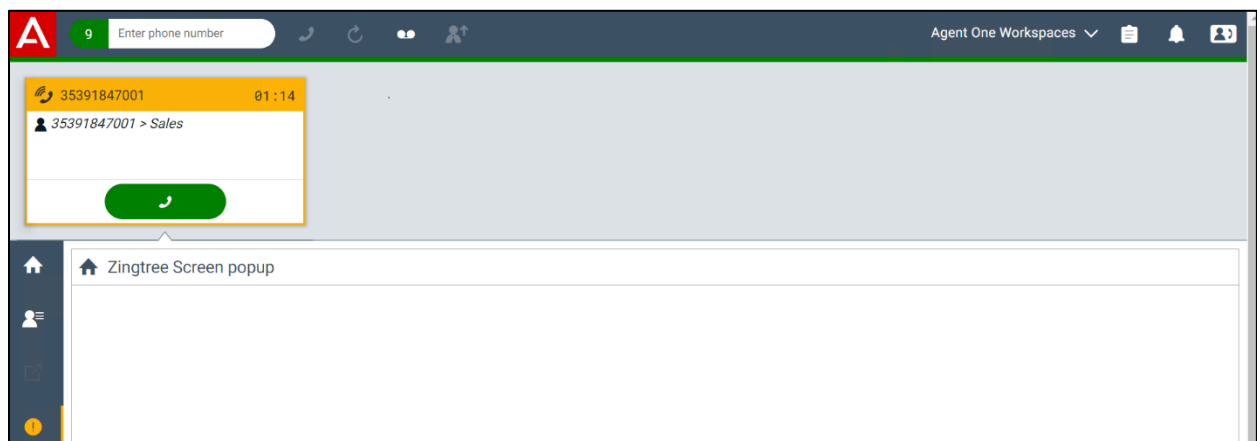
Click on **Activate** to proceed.

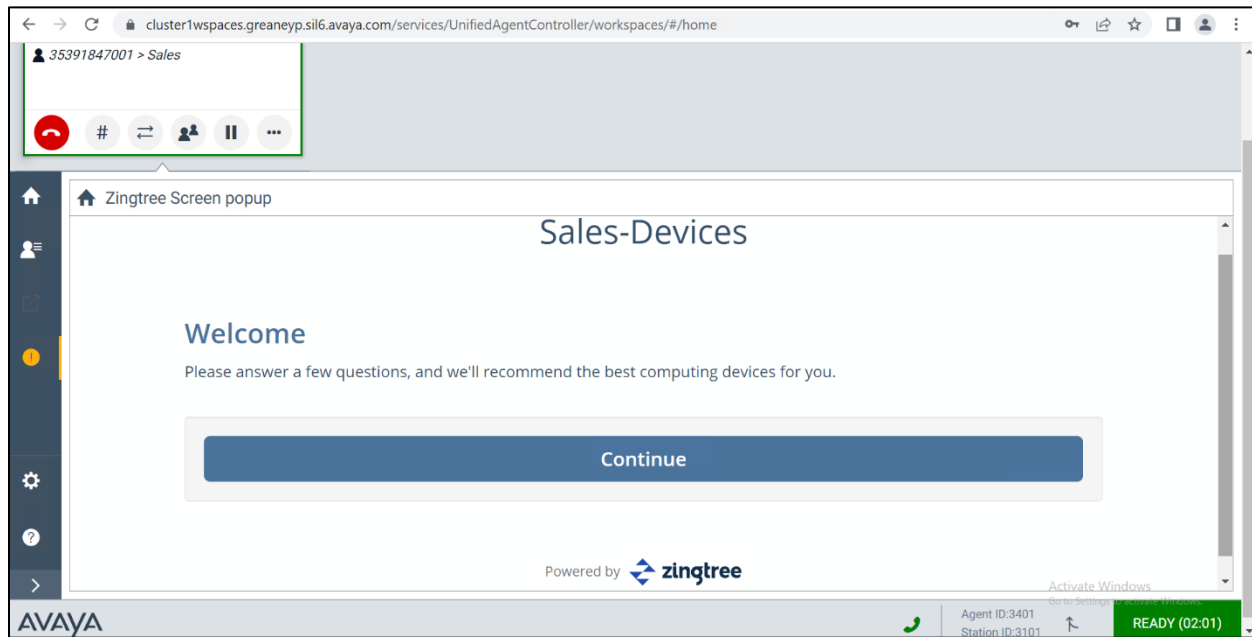Once logged in, click on **Start Work**.
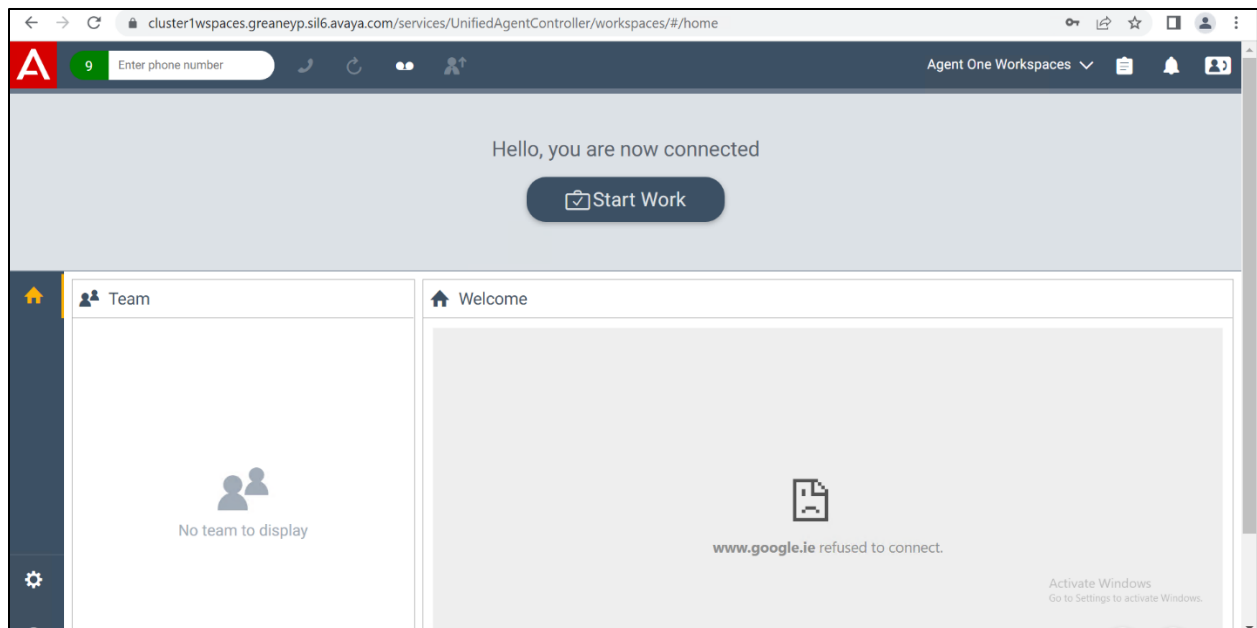
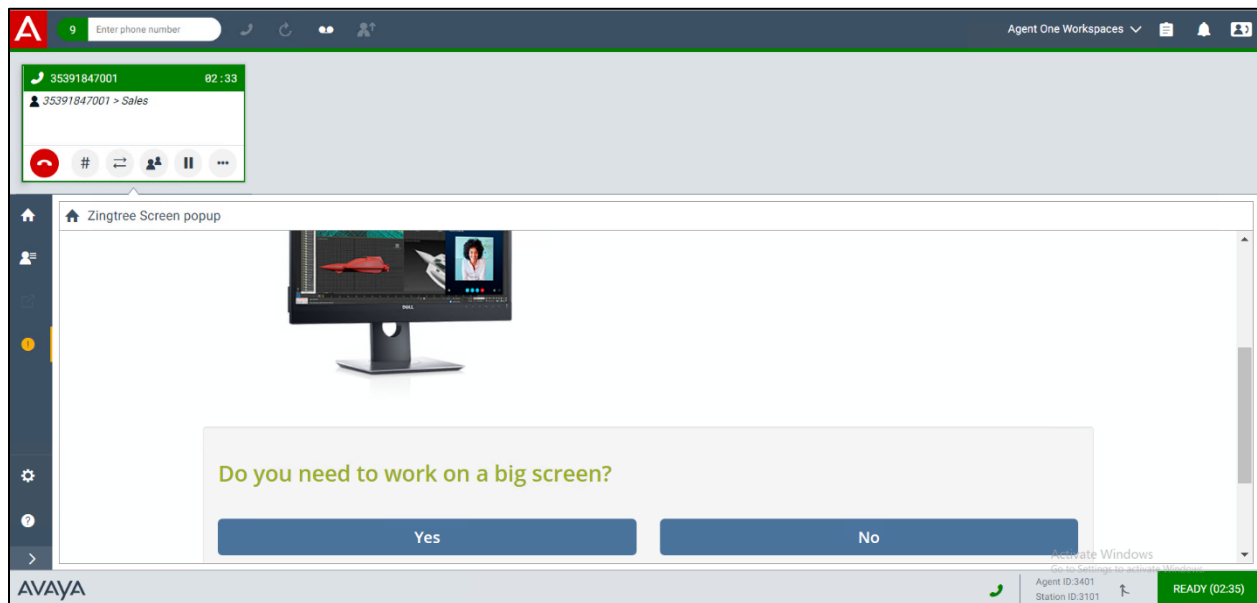The agent is now ready to receive calls.
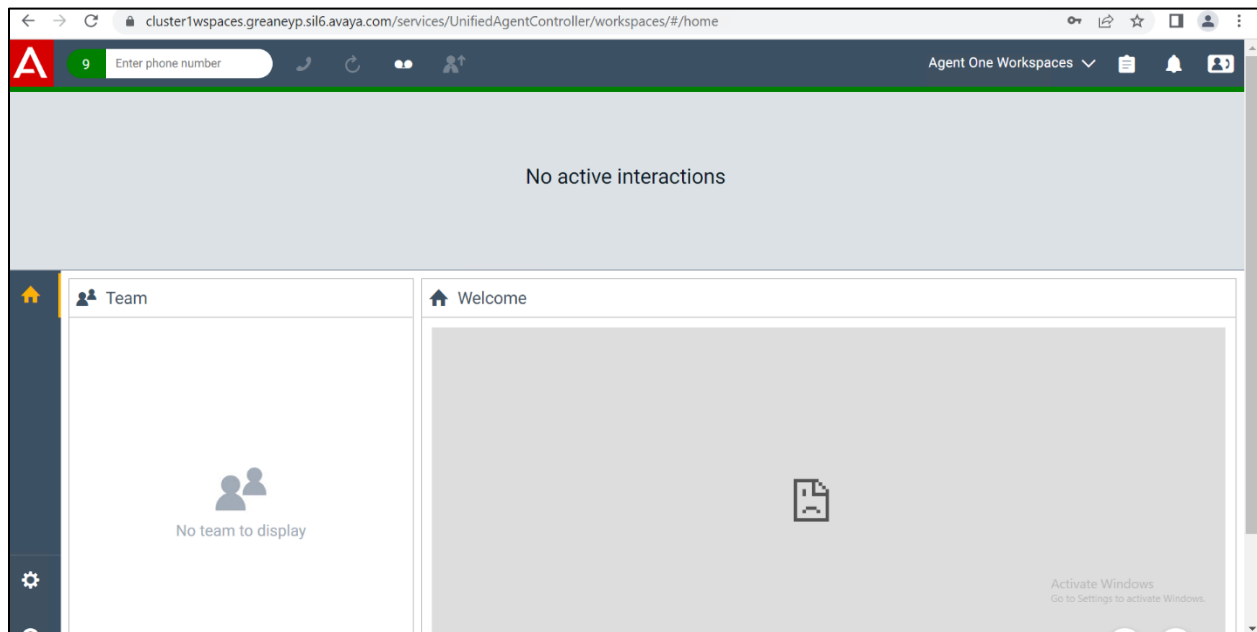
A call was placed to the VDN associated with the **Sales** skillset from **35391847001**. The call is answered.
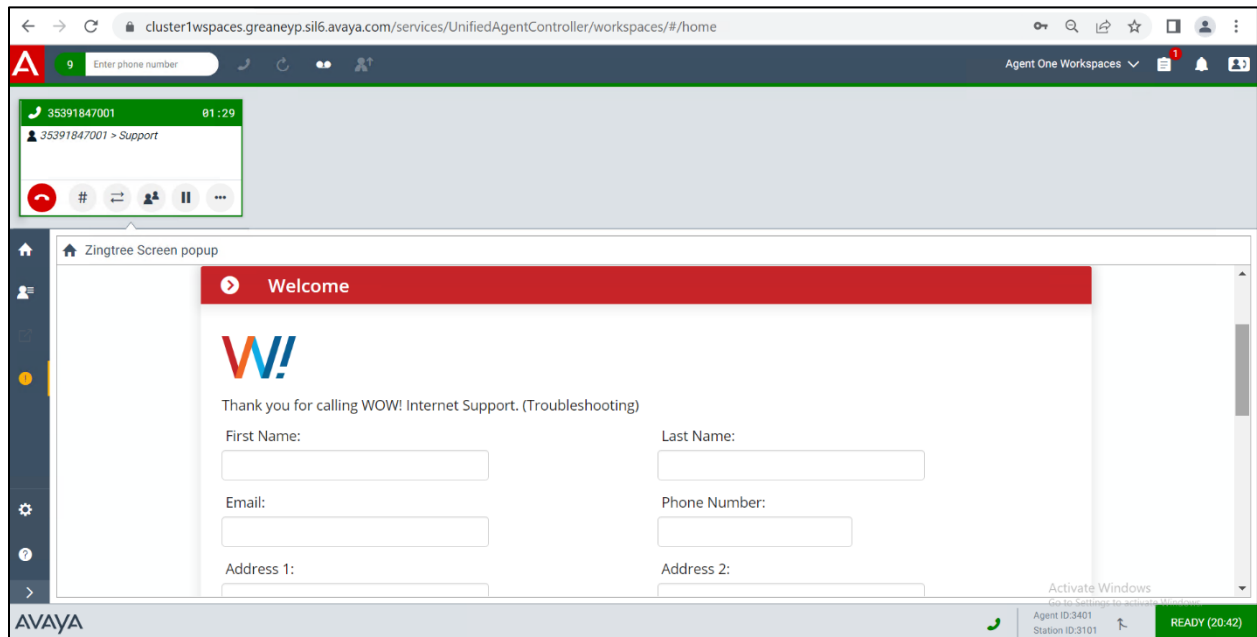
The following screen pop is called upon by the Zingtree Widget. This is a script designed to aid the sales agent.

The screen pop(s) guide the agent through the sales call.

If a different skill is called, for example **Support**, and different screen is popped, as shown below. This is designed to aid a different type of agent through a support call.

Note: There are a number of different screens that can be popped, depending on the skillset that is called, and these may also be popped depending on the number that was dialled, or the number that the call is coming from. All of these rules are provisioned in the Java Script file in the Widget Library.

8. Conclusion

These Application Notes describe the configuration steps required to integrate Zingtree Conversational Workflows for Contact Centers v2022.09.21 with Avaya Workspaces for Call Center Elite R3.8.1.1 and Avaya Aura® Communication Manager R10.1. All feature and serviceability test cases were completed successfully.

9. Additional References

This section references the product documentation that is relevant to these Application Notes. Documentation for Avaya products may be obtained via http://support.avaya.com

[1] *Deploying Avaya Workspaces for Call Center Elite. Release 3.8, Issue 5, May 2022.*
[2] *Using Avaya Workspaces for Call Center Elite. Release 3.8, Issue 2, April 2021.*
[3] *Avaya Workspaces for Elite 3.8.0.0 Solution Release Notes.*
[4] *Deploying Avaya Breeze® platform. Release 3.8.1, Issue 2, November 2021.*
[5] *Administering Avaya Aura® Communication Manager. Release 10.1, Issue 1, December 2021.*
[6] *Administering Avaya Aura® Application Enablement Services. Release 10.1.x, Issue 4, April 2022.*

Documentation related to Conversational Workflows for Contact Centers may directly be obtained from Zingtree.