



Avaya Solution & Interoperability Test Lab

Application Notes for Trinity Mobility trinityENGAGE Citizen Engagement Platform 2.1.0 with Avaya Aura® Contact Center 7.1.2 - Issue 1.0

Abstract

These Application Notes contain instructions for Trinity Mobility trinityENGAGE Citizen Engagement Platform 2.1.0 to successfully interoperate with Avaya Aura® Contact Center 7.1.2 and Avaya Aura® Environment 8.1.3.3 using the Contact Control Service API.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1**, as well as 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.

1. Introduction

These Application Notes describe the configuration steps required for Trinity Mobility trinityENGAGE Citizen Engagement Platform 2.1.0 to interoperate with Avaya Aura® Contact Center 7.1.2 and Avaya Aura® Environment 8.1.3.3.

trinityENGAGE Citizen Engagement Platform includes Operator application that serves Agent desktop service running as a web browser application. trinityENGAGE Citizen Engagement Platform solution is integrated with Avaya Aura® Contact Center using Contact Control Service API to provide contact control capabilities for agent and supervisor.

2. General Test Approach and Test Results

Interoperability testing contained functional tests mentioned in **Section 2.1**. All test cases were performed manually. The general test approach was to validate successful handling of inbound skillset calls using Citizen Engagement Platform Operator. This was performed by calling inbound to a CDN and/or outbound from the Avaya Aura® Contact Center using Citizen Engagement Platform Operator to answer calls. Where applicable, agent actions were performed using the Citizen Engagement Platform Operator Client.

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.

For the testing associated with these Application Notes, the trinityENGAGE Citizen Engagement Platform solution utilized enabled securities capabilities with HTTPS.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability testing. Feature testing included the validation of the following:

- **Agent state change**– Login/Logout
- **Inbound and Outbound Calls**
- **Hold/Transfer/Conference** – Place callers on hold and transfer and conference using Citizen Engagement Platform Operator.
- Proper handling of more call scenarios involving inbound, outbound, ACD, non-ACD, multiple agents, multiple calls, and long duration.
- **Serviceability** - The serviceability testing focused on verifying the ability of trinityENGAGE Citizen Engagement Platform to recover from adverse conditions, such as disconnecting/reconnecting the network.

2.2. Test Results

The testing was successful. All test cases passed.

2.3. Support

Technical support can be obtained for the Trinity Mobility trinityENGAGE Citizen Engagement Platform as follows:

- Email: technicalsupport@trinitymobility.com
- Website: <https://www.trinitymobility.com>
- Phone: +918047902121

3. Reference Configuration

Figure 1 illustrates a sample configuration that consists of Avaya products and the Trinity Mobility trinityENGAGE Citizen Engagement Platform (CEP).

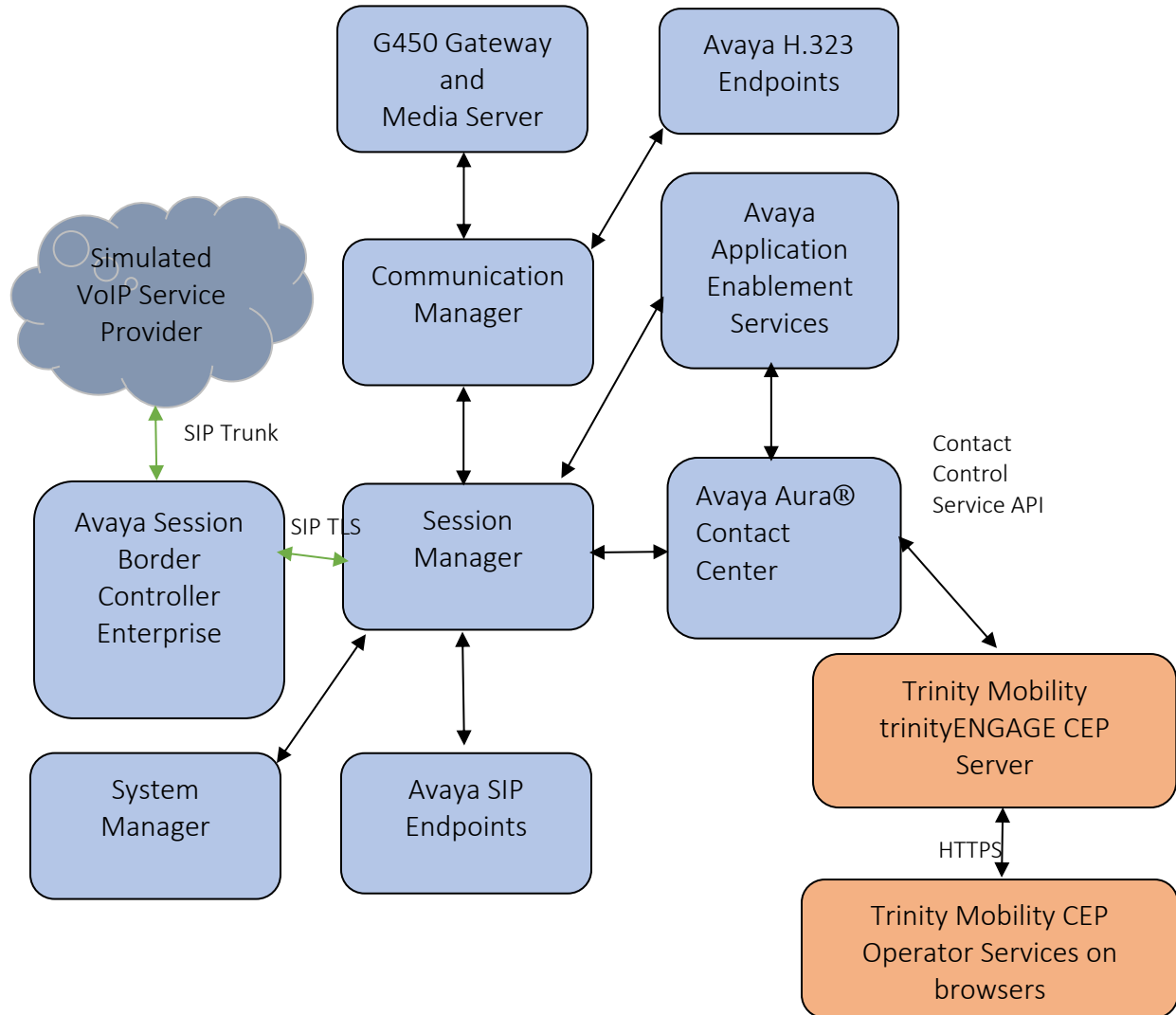


Figure 1: Test Configuration for Trinity Mobility trinityENGAGE Citizen Engagement Platform and the Avaya Platform.

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® System Manager in Virtual Environment	8.1.3.3 - 8.1.3.3.1013878
Avaya Aura® Session Manager in Virtual Environment	8.1.3.3 - 8.1.3.3.813310
Avaya Aura® Communication Manager in Virtual Environment	8.1.3.3 - 01.0.890.0-27168
Avaya G450 Media Gateway	41.34.1
Avaya Aura® Media Server in Virtual Environment	8.0 SP2 - 8.0.2.218
Avaya Aura® Application Enablement Services in Virtual Environment	8.1.3.3
Avaya Session Border Controller for Enterprise	8.1.3
Avaya Aura® Contact Center	7.1.2
Avaya Workplace Client for Windows	3.22.0
Avaya Avaya Vantage™ K155	3.1.1
Avaya J179 SIP Desk phone	4.0.9
Avaya J139 IP Desk phone (H.323)	6.8.5
trinityENGAGE Citizen Engagement Platform	2.1

5. Configure Avaya Aura® Contact Center

It is implied that a working Avaya Aura® Environment, which includes System Manager, Session Manager, Communication Manager, Media Server, Contact Center, is already in place with the necessary licensing. For all other provisioning information, such as initial installation and configuration, please refer to the product documentation in **Section 10**.

This section shows the steps required to add a new CDN and skill on Avaya Aura® Contact Center associated with an agent. Agent can use CEP Operator as agent desktops for handling incoming and outgoing calls.

The following sections give step by step instructions on how to add the following.

- Login to Avaya Aura® Contact Center Manager
- CDN (Route Point) Configuration
- Skillset Configuration
- Add an Application Script
- Configure a Contact Center Agent

5.1. Login to Avaya Aura® Contact Center Manager

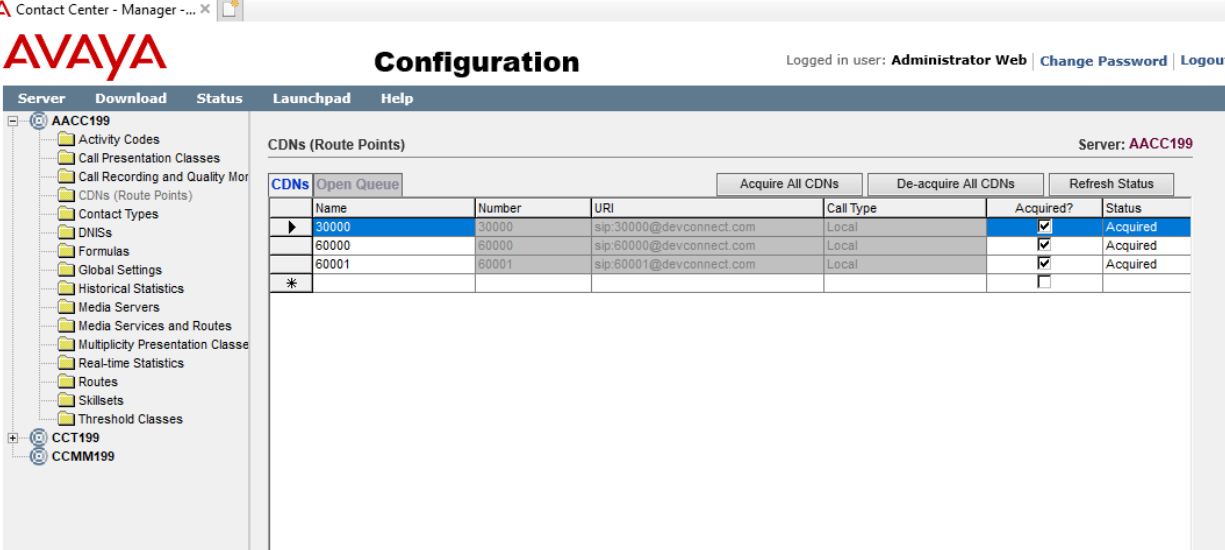
Launch URL: <http://<IP Address of AACC>> and login to the Contact Center Management Administration with administrative credentials. The Contact Center Launch pad is displayed



5.2. CDN (Route Point) Configuration

In the Launch pad, click **Configuration**. In the left pane, click the (+) sign next to the Contact Server manager name, to which the route point is to be added. Select the **CDNs (Route Points)** folder. The following highlighted configurations are required on the **CDNs (Route Points)** window:

- **Name:** Type the name of the route point.
- **Number:** Type the number for the route point.
- **URI:** Type the value of the Uniform Resource Indicator (URI) of the route point of the SIP server.
- **Call Type:** Select Local from the list.
- **Acquired:** Check the Acquired check box.



The screenshot shows the Avaya Configuration interface for server AAC199. The left pane displays a tree view with 'CDNs (Route Points)' selected. The main area shows a table of CDNs with the following data:

Name	Number	URI	Call Type	Acquired?	Status
30000	30000	sip:30000@devconnect.com	Local	<input checked="" type="checkbox"/>	Acquired
60000	60000	sip:60000@devconnect.com	Local	<input checked="" type="checkbox"/>	Acquired
60001	60001	sip:60001@devconnect.com	Local	<input checked="" type="checkbox"/>	Acquired
*				<input type="checkbox"/>	

5.3. Skillset Configuration

Select the **Skillsets** folder in left pannel. The following highlighted configurations are required on the Skillsets window:

- **Contact Type:** Chose Contact Type of skillset (Example: Voice).
- **Skillset Name:** Enter name of Skillset (Exp : TrinityCEP).
- And leave the rest as default.



Configuration

Logged in user: Administrator Web | [Change Password](#) | [Log](#)

Server
Download
Status
Launchpad
Help

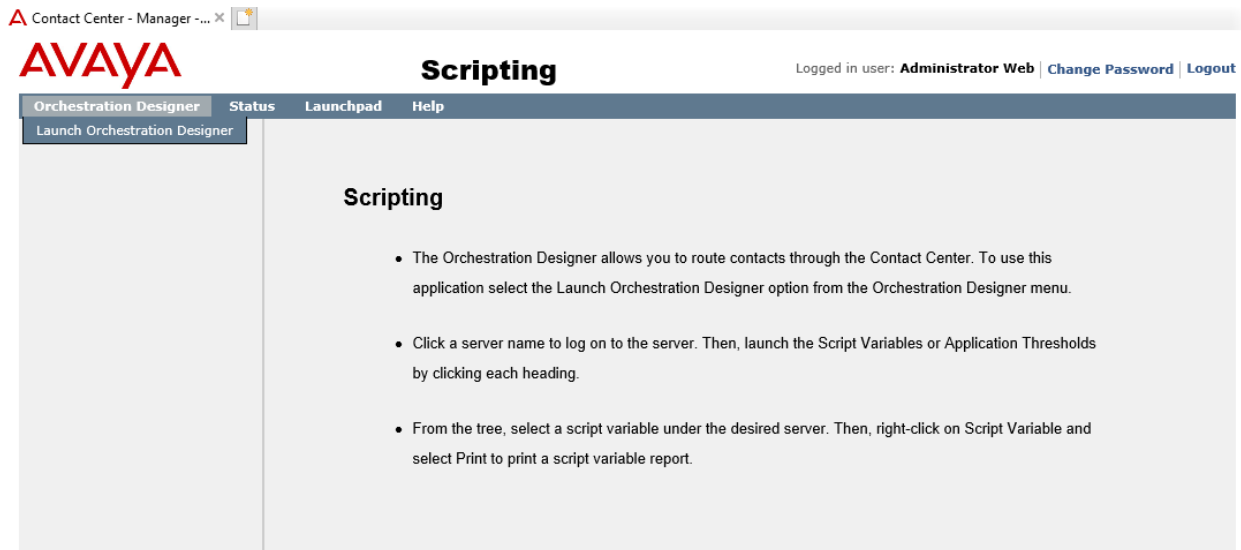
- AACC199
 - Activity Codes
 - Call Presentation Classes
 - Call Recording and Quality Mor
 - CDNs (Route Points)
 - Contact Types
 - DNISs
 - Formulas
 - Global Settings
 - Historical Statistics
 - Media Servers
 - Media Services and Routes
 - Multiplicity Presentation Classe
 - Real-time Statistics
 - Routes
 - Skillsets
 - Threshold Classes
- CCT199
 - CCT Administration
- CCMM199

Skillsets
Server: AACC199

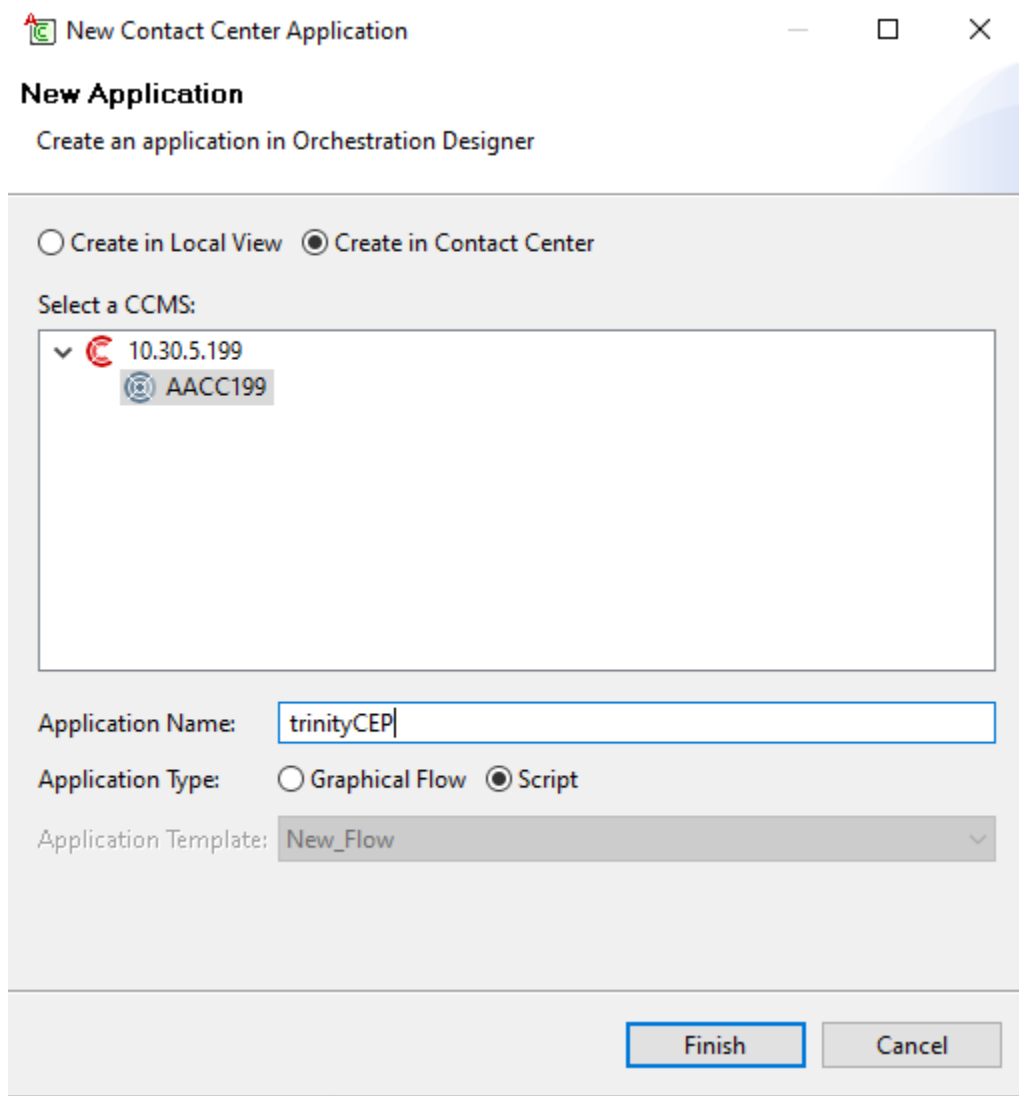
Contact Type	Prefix	Skillset Name	Default Activity Code	Threshold Class	Call Age Preference
Social_Networking	SN_	Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Voice_Mail	VM_	Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
SMS	SM_	Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Fax	FX_	Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Scanned_Document	SD_	Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
OpenQ	OQ_	Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
M	M_	Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Video	VI_	Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Outbound	OB_	Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Web_Communications	WC_	Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
E-Mail	EM_	Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Voice		Default_Skillset	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Voice		vu1	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
E-Mail	EM_	vu_em1	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Fax	FX_	vu_fax1	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Outbound	OB_	vu_OB1	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Scanned_Document	SD_	vu_scan1	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
SMS	SM_	vu_sms1	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Voice_Mail	VM_	vu_vm1	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Web_Communications	WC_	vu_wc1	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Voice		vu2	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Voice		vu_em2	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue
Voice		TrinityCEP	00, Skillset_Default_Activity_Code	Skillset_Template	First In Queue

5.4. Add an Application Script

Applications contain instructions that determine the sequence of steps that a contact follows after the contact arrives at Avaya Aura® Contact Center. These steps can include call treatments (such as music or ringback), call routing (such as skill-based routing), or interaction with the caller (entering account numbers). Applications perform two major functions: they define the path a contact follows, and they provide treatments to a contact as the contact moves through Contact Center. In the Launch Pad click **Scripting** (not shown). Choose **Orchestration Designer**, **Launch Orchestration Designer**. If prompted to download the Orchestration Designer, click OK. Follow the instructions of the installer and Install the Program. After the Program is installed, select **Launch Orchestration Designer**.



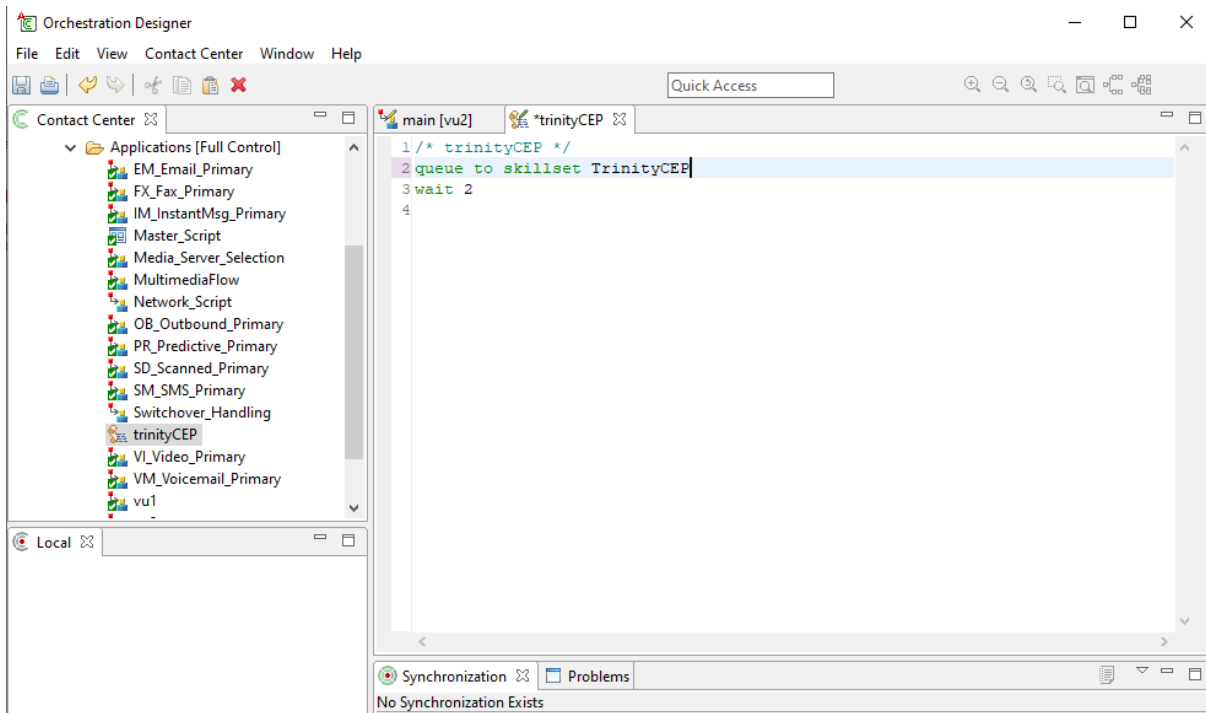
On the **Orchestration Designer** window (not shown), on the left pane click the (+) sign next to the Contact Server name and right click on **Applications [Full Control]**. Select **New → Application**. Provide the **Application Name** and select **Script** radio button. Click **Finish**.



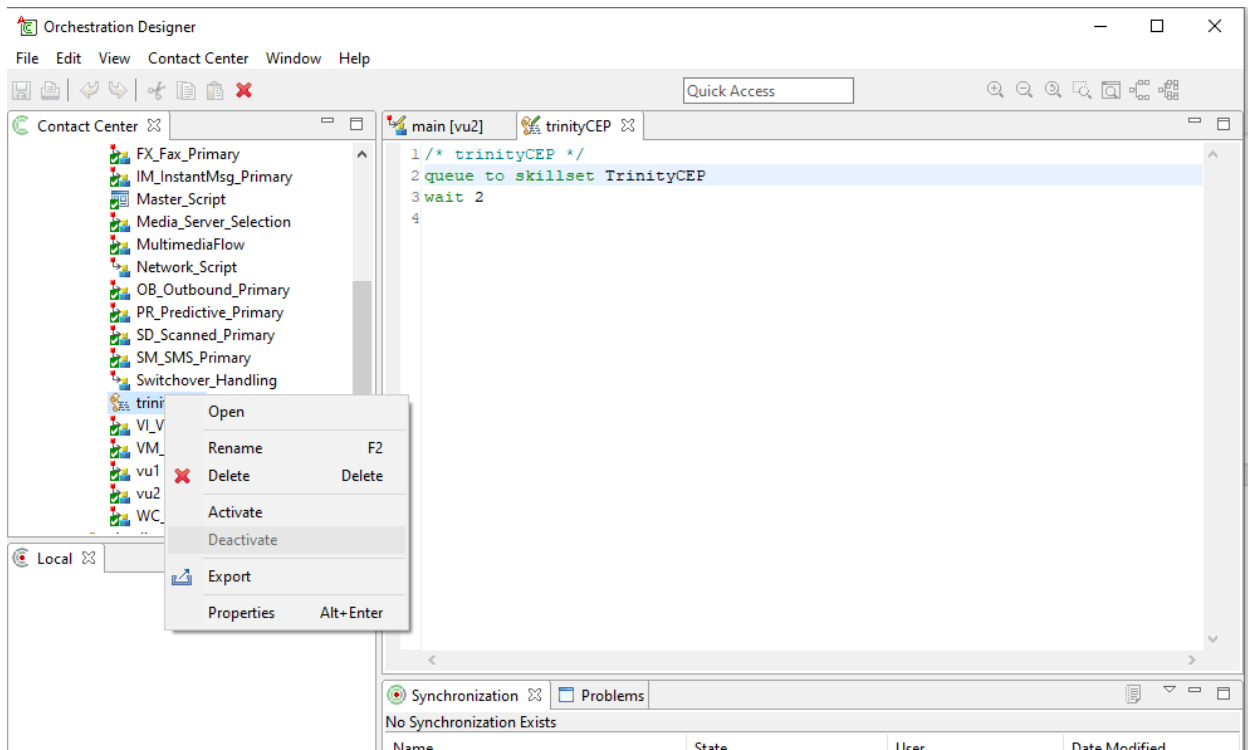
Edit the above created application script to have the following lines:

- queue to skillset TrinityCEP
- wait 2

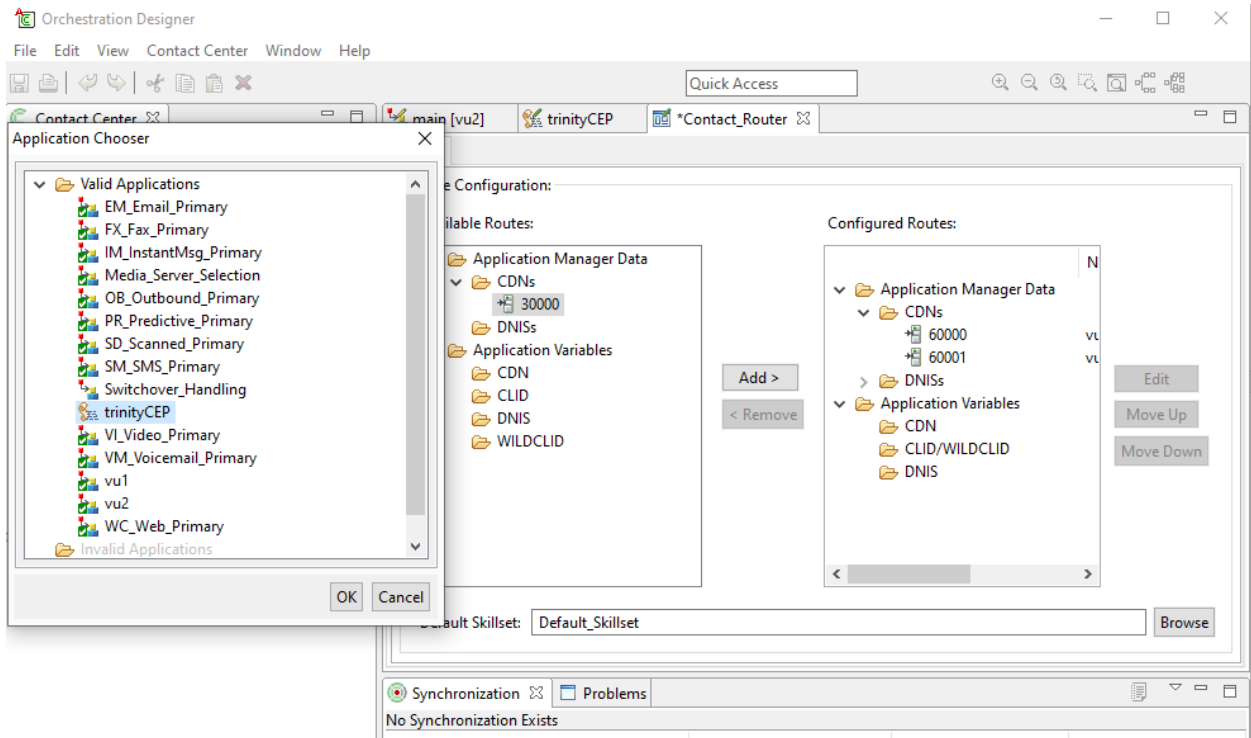
Save the application.



Right click on the application name and select **Activate**. The message of Application Activation is displayed (not shown).



From the list in the **Applications [Full Control]** folder, double click on **Master_Script**. A new pane appears on the top right side called **Contact_Router** (not shown). Under the **Route Configuration** and **Available Routes** section, in **Application Manager Data** folder, click on **CDNs** folder to open it. This opens and the CDN name which was configured earlier now appears. Associate the application and the CDN created correctly in the Master script. Click on the CDN called 30000 and then on the **Add >** button to map this from the list of **Available Routes** to the **Configured Routes**.



5.5. Configure a Contact Center Agent

In the Launch pad, click **Contact Center Management** (not shown). In the left pane, click the Contact Center Manager to which the agent is to be added. On the top menu, select **Add → Agent**. The following highlighted fields were configured:

- **User Type:** Select Agent as User Type.
- **First Name:** Type a first name for the agent.
- **Last Name:** Type a last name for the agent.
- **Login ID:** The number the agent enters to logon to the phone. In this case the field is set to the extension (85001).
- **Primary Supervisor:** Select Default Supervisor from the list.
- **Voice URI:** The SIP address of the TR87-controlled terminal dedicated to this agent, in the format sip:agent (use Extension@SIPdomain, where SIPdomain is the CCMS Local SIP Subscriber Domain name. For example; sip:85001@devconnect.com).
- Enable CTI for this agent: Check the check box.

Click **Contact Types**, which is then expanded. Select the check box beside each **Contact Type** to assign to the agent (for example, **Voice**).

The screenshot displays the Avaya Contact Center Management web interface. The top navigation bar includes the Avaya logo, the title "Contact Center Management", and user information: "Logged in user: Administrator Web | Change Password | Logout". The main interface is divided into a left sidebar and a central content area. The sidebar shows a tree view of "CCM Servers (Supervisors)" with "AACC199" expanded to show "Supervisor Default", "Agent Default", "VoiceAgent1 VoiceA", and "vu3 vu3". The central content area contains a form for adding a new agent. The form fields are as follows:

- First Name:** Operator1
- Last Name:** trinityCEP
- Title:** (empty)
- Department:** (empty)
- Language:** English
- Comment:** (empty)
- User Type:** Agent
- Login ID:** 85001
- Voice URI:** sip:85001@devconnect.com
- IM URI:** sip:
- Account Type:** (empty)
- Create CCT Agent

Below the main form, there are sections for "Agent Information" and "Contact Types".

Agent Information:

- Primary Supervisor:** Supervisor Default
- Login Status:** Logged Out
- Call Presentation:** Call_Centre_Administrator
- Multiplicity Presentation Class:** MPC_Off
- Threshold:** Agent_Template

Contact Types:

Contact Type	Selected
SMS	<input type="checkbox"/>
Social_Networking	<input type="checkbox"/>
Video	<input type="checkbox"/>
Voice	<input checked="" type="checkbox"/>
Voice_Mail	<input type="checkbox"/>

At the bottom of the form, there are buttons: Clear, Submit, Create Copy, Create Many, and Logout Agent.

Click the **Skillsets** heading to expand the branch. Click **List All** to list all skillsets configured on the server. From the **Priority** list for each skillset to assign to the agent, select the priority levels (For example select **Voice** and set the priority level 1).

▼ [Skillsets](#)

Skillset Name	Contact Type	Priority
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▼ [Assign Skillsets](#)

Show all skillsets on server AACC199 where:

Skillset name

Skillset Name (23) ▼	Contact Type	Priority
SM_vu_scan1	Scanned_Document	Unassigned ▼
SM_Default_Skillset	SMS	Unassigned ▼
SM_vu_sms1	SMS	Unassigned ▼
SN_Default_Skillset	Social_Networking	Unassigned ▼
TrinityCEP	Voice	1 ▼
VI_Default_Skillset	Video	Unassigned ▼
VM_Default_Skillset	Voice_Mail	Unassigned ▼
VM_vu_vm1	Voice_Mail	Unassigned ▼

6. Configure Trinity Mobility trinityENGAGE Citizen Engagement Platform

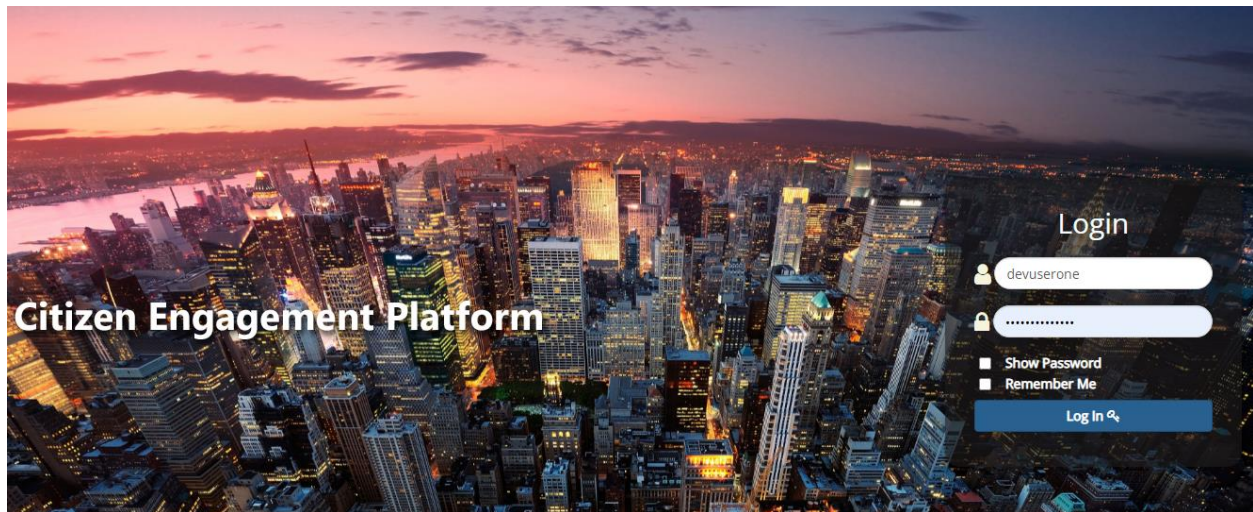
All configuration related to trinityENGAGE Citizen Engagement Platform is performed by trinity engineers and, thus, is not documented.

7. Verification Steps

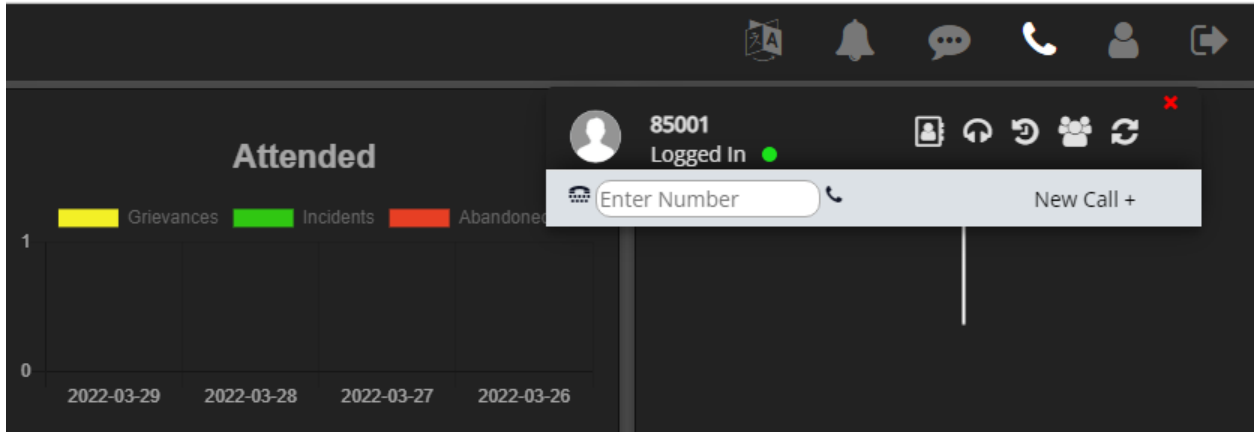
This section provides the tests that can be performed to verify proper configuration.

7.1. Verify Trinity Mobility trinityENGAGE Citizen Engagement Platform - Operator

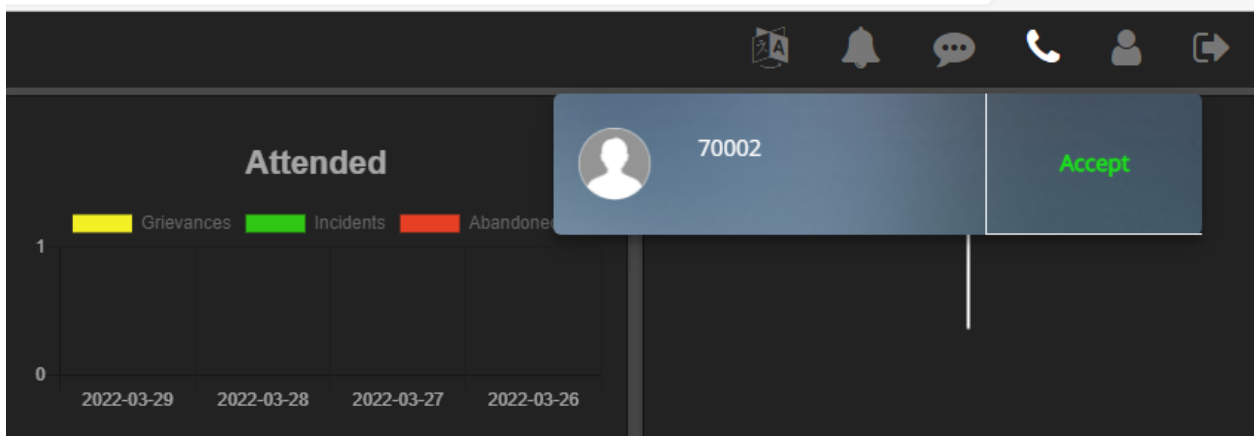
On web browser, enter trinityEngage CEP-Operator URL page:
http://<trinityCEP_FQDN>:9072/CEPOperatorService/



Login with Operator credentials which was created in **Section 5.5**. Verify that Operator login successfully and control station with status **Logged In**.



Make an inbound call to the CDN and answer the call using CEP Operator. Click **Accept** to answer the call.



8. Conclusion

Trinity Mobility trinityENGAGE Citizen Engagement Platform 2.1 solution was able to successfully interoperate with Avaya Aura® Environment 8.1.3.3 and Avaya Aura® Contact Center 7.1.2 using Contact Control Service API. All test cases passed successfully.

9. Additional References

Documentation related to Avaya can be obtained from <https://support.avaya.com>.

[1] *Administering Avaya Aura® Communication Manager*, Release 8.1.x, Issue 8, Nov 2020

[2] *Administering Avaya Aura® Session Manager*, Release 8.1.x, Issue 8, Feb 2021

[3] *Administering the Avaya Aura® Web Gateway*, Release 3.8 Issue 2, July 2020

[4] *Administering Avaya Aura® Application Enablement Services*, Release 8.1.x, Issue 8, Feb 2021

[5] *Avaya Aura® Contact Center Server Administration*, Release 7.1, Issue 07.06, Sept 2021

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