



Avaya Solution & Interoperability Test Lab

Application Notes for Interactions Virtual Assistant Solutions with Avaya Aura® Experience Portal Using Transport Secure Layer MRCPv2 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate Interactions Virtual Assistant Solutions with Avaya Aura® Experience Portal.

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.

1. Introduction

The objective of compliance test was to validate interoperability of Interactions Virtual Assistant Solutions with Avaya Aura® Experience Portal (Experience Portal).

Interactions Virtual Assistant Solutions provide a complete set a workflow engine that generates Voice XML pages and Automated Speech Recognition (ASR) over MRCPv2 using TLS/SRTP for Experience Portal. The Virtual Assistant Solutions include the iProxy and Curo Automatic Speech Recognizer (ASR), Human Speech Recognition (HSR) and Nova VXML generator platform.

2. General Test Approach and Test Results

General test approach was to verify interoperability of the Interactions Virtual Assistant Solutions with Avaya Experience Portal. The objective of the testing is to verify that Avaya Experience Portal can interoperate correctly with the automatic speech recognition (ASR), human speech recognition (HSR) and the VXML generation features of the Interactions Virtual Assistant Solutions.

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.

2.1. Interoperability Compliance Testing

The interoperability compliance test included feature and serviceability tests. Feature tests focused on the ability of automatic speech recognition, human speech recognition including DTMF recognition and the VXML generation features of the Interactions Virtual Assistant Solutions to successfully exercise appropriate grammar and return expected results.

Serviceability testing focused on verifying the ability of Interactions Virtual Solutions server to recover from adverse conditions, such as restart, power failures and network disconnects.

2.2. Test Results

All test cases were executed and passed.

2.3. Support

To obtain technical support for Interactions Virtual Assistant Solutions:

- **Web:** <http://www.interactions.com/>
- **Phone:** (866) 637-9049

3. Reference Configuration

Following diagram shows the configuration used during interoperability compliance test. Reference configuration consisted of: Avaya Aura® Experience Portal, Avaya Aura® Communication Manager, Avaya Aura® Session Manager, Avaya Aura® System Manager, and Avaya Aura® Media Server running on Virtualized Environment, Avaya G450 Media Gateway was used to connect to PSTN via PRI/T1 trunk as well as providing analog and digital lines for analog and digital phones. Interactions Virtual Assistant Solutions include iProxy ASR and TTS servers, Nova VXML generator and Curo ASR servers.

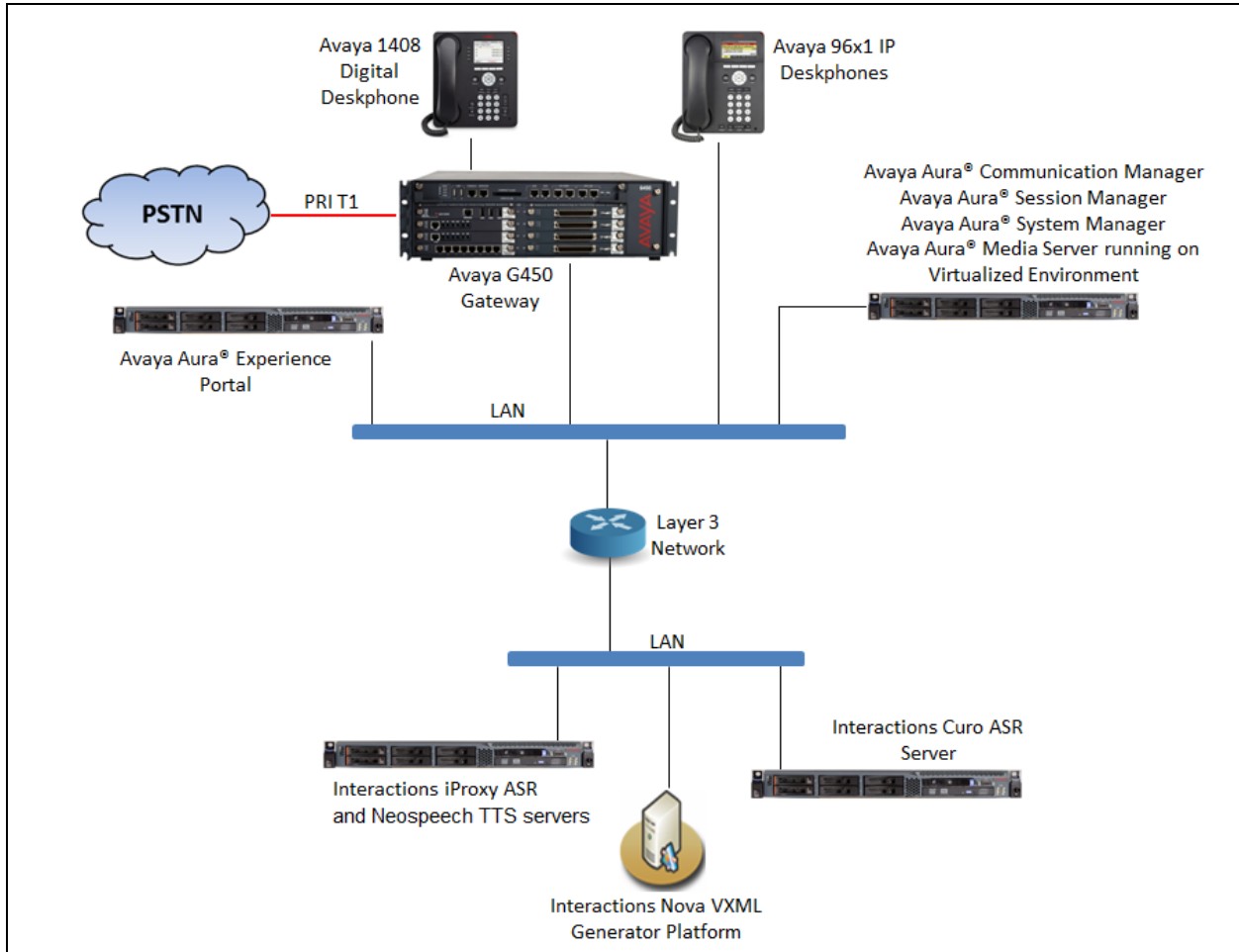


Figure 1: Test Configuration Diagram

4. Equipment and Software Validated

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

| Equipment/Software | Release/Version |
|--|--------------------------------|
| Avaya Aura® Communication Manager running on Virtualized Environment | R017x.00.0.441.0 FP1 SP2 23523 |
| Avaya Aura® System Manager running on Virtualized Environment | Release 7.0.1.2 |
| Avaya Aura® Session Manager running on Virtualized Environment | Release 7.0.1.2 |
| Avaya Aura® Media Server running on Virtualized Environment | Release 7.7.0.34 |
| Avaya Aura® Experience Portal running on Virtualized Environment | Release 7.1.0 and Patch 1117 |
| Avaya G450 Media Gateway | 37.39.0 |
| Avaya 9641 H323 IP Deskphone | Release 6.6.29 |
| Avaya 9611 SIP IP Deskphone | Release 7.0.1 |
| Avaya 1408 Digital Deskphone | R47 |
| Interactions iProxy Automatic Speech Recognition | 6.9.0 |
| Interactions VXML Generator Platform | 6.9.0 |
| Interactions Curo Automatic Speech Recognition | 6.12.2 |
| Neospeech Voiceware MRCP Server | 1.2.0.10 |

5. Configure Avaya Aura® Communication Manager

This document assumes installation and configuration of Avaya Aura® Communication Manager (CM) are already in place. For more information on how to configure CM, please refer to **Section 11**.

6. Configure Avaya Aura® Experience Portal

Experience Portal is configured via the Experience Portal Manager (EPM) web interface, to access the web interface, enter **http://<ip-addr>/** as the URL in a web browser, where <ip-addr> is the IP address of the EPM. Log in using the appropriate credentials.

Note: Some of the screens in this section are shown after the Experience Portal had been configured. Don't forget to save the screen parameters as you configure Avaya Aura® Experience Portal

The screenshot shows the Avaya Aura® Experience Portal Manager (EPM) web interface. The top navigation bar includes the Avaya logo, the user name 'Welcome, admin', and the last login time 'Last logged in yesterday at 11:43:04 AM PDT'. The main content area is titled 'Avaya Aura® Experience Portal Manager' and provides a description of the EPM application. Below this, there are sections for 'Installed Components' including Media Processing Platform, Email Service, HTML Service, Proactive Outreach Manager, and SMS Service. A 'Legal Notice' section at the bottom states '© 2016 Avaya Inc. All Rights Reserved. Notice'.

6.1. Administer Secure Connection

To configure TLS secure connection between Experience Portal and other SIP endpoints, navigate to **Security** → **Certificates**. In the **Certificates** page, select **Root Certificate** tab and export default root CA certificate that is used to install on other endpoints, in the compliance test the root CA certificate of Experience Portal is installed on Session Manager and Interactions iProxy server to establish TLS connection to Session Manager and iProxy server.

Note: To enhance security, it recommends not using the default root CA certificate to deploy in customer's system.

Avaya Aura® Experience Portal 7.1.0 (ExperiencePortal)

You are here: [Home](#) > [Security](#) > [Certificates](#)

Certificates

This page displays the Experience Portal root certificate and all the trusted certificates that are currently in effect.

Root Certificate | **Trusted Certificates**

Security Certificate

Owner: CN=voiceportal.bvwdev.com,OU=SIP CA,O=Avaya
Issuer: CN=voiceportal.bvwdev.com,OU=SIP CA,O=Avaya
Serial Number: e04f6c2065856260
Signature Algorithm: SHA256withRSA
Valid from: September 26, 2016 1:27:21 AM PDT until September 24, 2026 1:27:21 AM PDT

Certificate fingerprints

MD5: b2:e9:2d:51:ed:4e:44:11:10:b9:95:34:7e:b9:2c:4e
SHA: 31:ee:45:1b:0b:a5:8f:fc:eb:72:30:df:68:d0:da:61:1a:6a:f2:a9
SHA-256: 2c:45:f6:50:48:90:41:79:15:d0:e4:ec:fb:13:da:06:0a:36:5f:0c:46:f7:24:08:a1:18:ed:6e:af:b4:7b

[Upload](#) [Generate](#) [Disable Signing](#) [Help](#)

To import trusted certificate into Experience Portal, select **Trusted Certificates** tab. In the **Trusted Certificates** page, select **Upload** button to upload a trusted certificate. In the **Name** field, enter a descriptive name, select **SIP Connection** in the **Type** dropdown menu and click on **Browse** button to browse to the certificate in local PC that needs to be uploaded.

AVAYA

Avaya Aura® Experience Portal 7.1.0 (ExperiencePortal)

You are here: [Home](#) > [Security](#) > [Certificates](#) > [Upload Trusted Certificate](#)

Upload Trusted Certificate

Use this page to upload a trusted certificate.

Name:

Type:

Security Certificate File: iProxy.crt

[Continue](#) [Cancel](#) [Help](#)

The screenshot below shows the certificate of iProxy imported to Trusted Certificates store in Experience Portal.

The screenshot displays the Avaya Aura Experience Portal interface. On the left, a navigation tree is expanded to 'Security' > 'Certificates'. The main pane shows a list of certificates. The selected certificate, 'iProxy SIP Connection', is displayed with the following details:

- Owner:** CN=Platform,O=Interactions,L=Franklin,ST=Massachusetts,C=US
- Issuer:** CN=Platform,O=Interactions,L=Franklin,ST=Massachusetts,C=US
- Serial Number:** fa256d1823975cfe
- Signature Algorithm:** SHA256withRSA
- Valid from:** November 15, 2016 9:44:46 AM PST until November 13, 2026 9:44:46 AM PST
- Certificate fingerprints:**
 - MD5: 3a:ec:37:3c:1b:05:8b:67:01:d8:b9:07:98:18:c4:4a
 - SHA: 0a:bd:7b:db:8a:b1:6f:6e:ba:05:ea:35:3f:4d:44:c5:3a:98:97:4c
 - SHA-256: 64:e1:69:ae:01:7f:ec:97:78:cc:d7:ab:78:f2:0c:82:ec:61:09:f3:28:d4

The screenshot below shows the certificate of System Manager imported to Trusted Certificates store in Experience Portal.

The screenshot displays the Avaya Aura Experience Portal interface. On the left, a navigation tree is expanded to 'Security' > 'Certificates'. The main pane shows a list of certificates. The selected certificate, 'SMGR10CA SIP Connection', is displayed with the following details:

- Owner:** O=AVAYA,OU=MGMT,CN=SystemManager CA
- Issuer:** O=AVAYA,OU=MGMT,CN=SystemManager CA
- Serial Number:** aa11270856d1ee5
- Signature Algorithm:** SHA256withRSA
- Valid from:** April 14, 2016 7:54:20 AM PDT until April 12, 2026 7:54:20 AM PDT
- Certificate fingerprints:**
 - MD5: 3b:8d:38:f3:5d:82:b6:22:7b:f8:83:66:7a:c8:fe:59
 - SHA: f3:d8:d5:45:eb:ff:f3:55:c4:70:3f:96:11:aa:a3:33:7e:81:54:d6
 - SHA-256: 40:77:90:c3:c5:61:cf:15:e9:97:5e:d1:09:28:06:03:56:0e:3d:16:67:f7

At the bottom of the certificate details, there are buttons for 'Import', 'Upload', 'Delete', and 'Help'.

6.2. Administer VoIP Connection

On the left pane, click on the **VoIP Connections** under **System Configuration** (not shown). To add a **SIP Connection**, click on the **SIP** tab on **VoIP Connections** page (not shown).

- **Name:** Enter a descriptive name.
- **Enable:** Select “Yes” radio button.
- **Proxy Transport:** Select “TLS” if SIP connection to SIP proxy using TLS otherwise select TCP.
- **Proxy Servers:** Enter the SIP signaling IP address of Session Manager.
- **SIP Domain:** Enter a SIP domain “bvwdev.com” as configured in **Section 7.3**.
- In the **Call Capacity** section, enter a number of SIP call that in the **Maximum Simultaneous Calls** and select “All call can be either inbound or outbound” option. All other fields can be left at default.

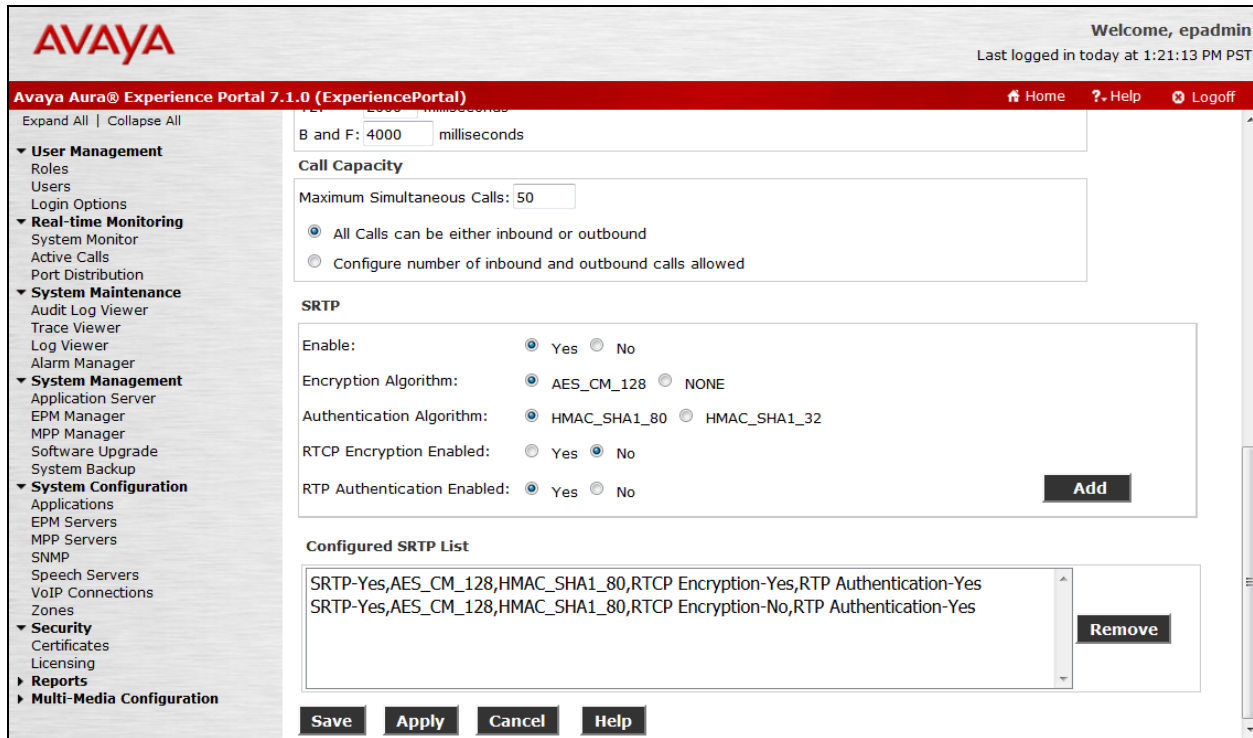
Click **Save** button to save changes.

The screenshot shows the Avaya Aura Experience Portal 7.1.0 interface. The top navigation bar includes the Avaya logo, user information (Welcome, epadmin), and the last login time (Last logged in Dec 28, 2016 at 6:41:00 AM PST). The main content area is titled "Add SIP Connection" and contains the following configuration fields:

- Name:** ASM70
- Enable:** Yes (selected), No
- Proxy Transport:** TLS
- Proxy Servers:** Proxy Servers (selected), DNS SRV Domain
- Proxy Servers Table:**

| Address | Port | Priority | Weight | |
|------------|------|----------|--------|--------|
| 10.33.1.12 | 5061 | 0 | 0 | Remove |
- Listener Port:** 5061
- SIP Domain:** bvwdev.com
- P-Asserted-Identity:** (empty)
- Maximum Redirection Attempts:** 0
- Consultative Transfer:** INVITE with REPLACES (selected), REFER
- SIP Reject Response Code:** ASM (503) (selected), SES (480), Custom 480
- SIP Timers:**
 - T1: 250 milliseconds
 - T2: 2000 milliseconds
 - B and F: 4000 milliseconds
- Call Capacity:**
 - Maximum Simultaneous Calls: 50
 - All Calls can be either inbound or outbound (selected)
 - Configure number of inbound and outbound calls allowed

Scroll down to **SRTP** section; configure two SRTP profiles as shown in the **Configured SRTP List** below.



6.3. Administer Speech Server

6.3.1. Administer ASR

On the left pane, navigate to **System Configuration** → **Speech Servers** (not shown). To add an **ASR** server, click on **ASR** tab (not shown) and click **Add** (not shown). Enter a **Name**, set **Enable** to **Yes** and set **Engine Type** to **Nuance**. Fill in the IP address of iProxy speech server in **Network Address**. In **Base Port**, fill in “5060” for **TCP** and “5061” for **TLS**, in this case the port “5061” was used for TLS. Enter appropriate value in **Total Number of Licensed ASR Resources**, set **New Connection per Session** to **Yes**, set **Languages** to **English(USA) en-US**. In the **MRCP** section, select **MRCP V2** in the **Protocol** dropdown menu, select **TLS** in the **Transport Protocol** dropdown menu and enter the port “5061” in the **Listener Port** field.

AVAYA Welcome, epadmin
⚠ Last logged in Jan 24, 2017 at 8:26:51 AM PST

Avaya Aura® Experience Portal 7.1.0 (ExperiencePortal) Home Help Logoff

Expand All | Collapse All

- ▼ **User Management**
 - Roles
 - Users
 - Login Options
- ▼ **Real-time Monitoring**
 - System Monitor
 - Active Calls
 - Port Distribution
- ▼ **System Maintenance**
 - Audit Log Viewer
 - Trace Viewer
 - Log Viewer
 - Alarm Manager
- ▼ **System Management**
 - Application Server
 - EPM Manager
 - MPP Manager
 - Software Upgrade
 - System Backup
- ▼ **System Configuration**
 - Applications
 - EPM Servers
 - MPP Servers
 - SNMP
 - Speech Servers
 - VoIP Connections
 - Zones
- ▼ **Security**
 - Certificates
 - Licensing
- ▼ **Reports**
 - Standard
 - Custom
 - Scheduled
- ▼ **Multi-Media Configuration**
 - Email
 - HTML
 - SMS

You are here: [Home](#) > [System Configuration](#) > [Speech Servers](#) > [Change ASR Server](#)

Change ASR Server

Use this page to change the configuration of an ASR server.

Name: iProxy

Enable: Yes No

Engine Type: Nuance

Network Address: 172.18.5.39

Base Port: 5061

Total Number of Licensed ASR Resources: 50

New Connection per Session: Yes No

Languages:

- English(Australia) en-AU
- English(UK) en-GB
- English(India) en-IN
- English(Singapore) en-SG
- English(South_Africa) en-ZA
- English(USA) en-US

MRCP

Ping Interval: 15 seconds

Response Timeout: 4 seconds

Protocol: MRCP V2

Transport Protocol: TLS

Listener Port: 5061

Scroll down to **SRTP** section, select SRTP profile as shown in the **Configured SRTP List**. Click **Save** to save changes.

SRTP

Enable: Yes No

Encryption Algorithm: AES_CM_128 NONE

Authentication Algorithm: HMAC_SHA1_80 HMAC_SHA1_32

RTCP Encryption Enabled: Yes No

RTP Authentication Enabled: Yes No **Add**

Configured SRTP List

SRTP-Yes,AES_CM_128,HMAC_SHA1_80,RTCP Encryption-Yes,RTP Authentication-Yes
 SRTP-Yes,AES_CM_128,HMAC_SHA1_80,RTCP Encryption-No,RTP Authentication-Yes **Remove**

Save Apply Cancel Help

6.3.2. Administer TTS

On the left pane, navigate to **System Configuration** → **Speech Servers** (not shown). To add a **TTS** server, click on **TTS** tab and click **Add** (not shown). Enter a **Name**, set **Enable** to **Yes**, set **Engine Type** to **Nuance**, type in the IP address of Neospeech TTS in **Network Address**. In **Base Port**, type in “7000”, enter appropriate value in **Total Number of Licensed ASR Resources**, set **New Connection per Session** to **No**, set **Voices** to **English(USA) en-US Kate F** or any language that is supported in TTS server and the **RTSP URL** box is automatically filled out with the IP address in Network Address field to **/<ip-address>/media/speechsynthesizer**. ip-address is the IP Address of iProxy TTS. Click **Save** to save changes.

Note that the TTS was not a part of Virtual Assistant Solutions therefore any TTS server can be used, during the compliance testing the Nuance TTS server was used.

The screenshot displays the Avaya Aura Experience Portal 7.1.0 interface. The top navigation bar includes the Avaya logo, the user name 'Welcome, epadmin', and the last login time 'Last logged in Jan 24, 2017 at 8:26:51 AM PST'. The main navigation menu on the left is expanded to show 'System Configuration' > 'Speech Servers'. The main content area is titled 'Change TTS Server' and contains the following configuration fields:

- Name: iProxyTTS
- Enable: Yes No
- Engine Type: Nuance
- Network Address: 172.19.38.35
- Base Port: 7000
- Total Number of Licensed TTS Resources: 50
- New Connection per Session: Yes No
- Voices: English(USA) en-US Ethan M, English(USA) en-US Evan M, English(USA) en-US Evelyn F, English(USA) en-US Jennifer F, English(USA) en-US Jill F, English(USA) en-US Kate F (selected)
- MRCP:
 - Ping Interval: 15 seconds
 - Response Timeout: 4 seconds
 - Protocol: MRCP V1
- RTSP URL: 172.19.38.35/media/speechsynthesizer

At the bottom of the form are four buttons: Save, Apply, Cancel, and Help.

6.4. Administer Applications

Application is needed to drive calls in Experience Portal. To add a new application, from the left pane, navigate to **System Configurations** → **Applications** and in the Application page click **Add** button (not shown). Below is main application used during the compliance test. In the Speech Server section, select the ASR and TTS servers as configured in **Section 5.2**.

Change Application

Use this page to change the configuration of an application.

Name: Nova

Enable: Yes No

Type: VoiceXML

Reserved SIP Calls: None Minimum Maximum

Requested:

URI

Single Fail Over Load Balance

VoiceXML URL: **Verify**

Mutual Certificate Authentication: Yes No

Basic Authentication: Yes No

Speech Servers

ASR: Nuance
Languages: English(USA) en-US

TTS: Nuance
Voices: English(USA) en-US Lisa F
English(USA) en-US Jennifer F
English(USA) en-US Tom M

Application Launch

Inbound Inbound Default Outbound

Number Number Range URI

Called Number: **Add**

Remove

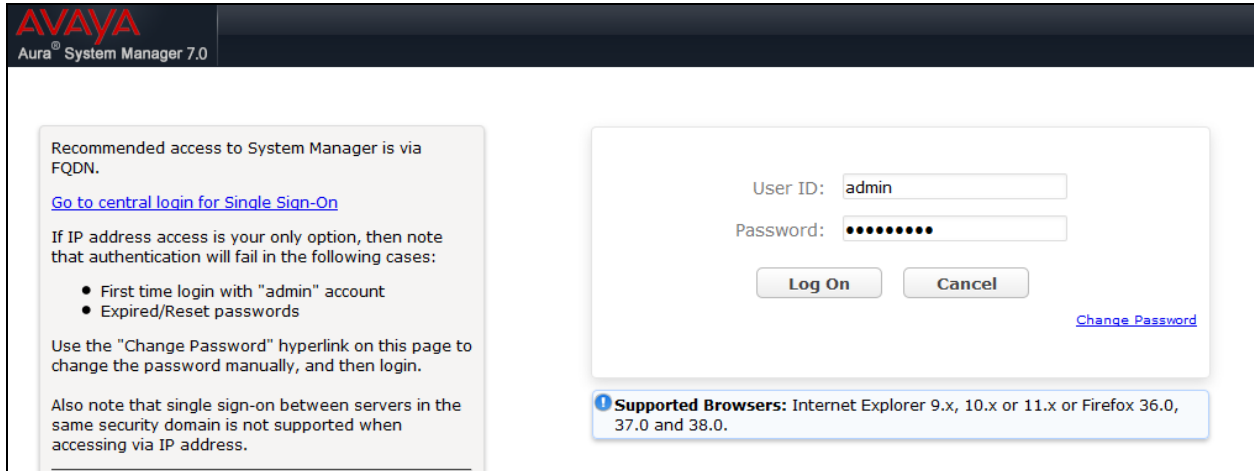
Speech Parameters ▶
Reporting Parameters ▶
Advanced Parameters ▶

Save **Apply** **Cancel** **Help**

7. Configure Avaya Aura® Session Manager

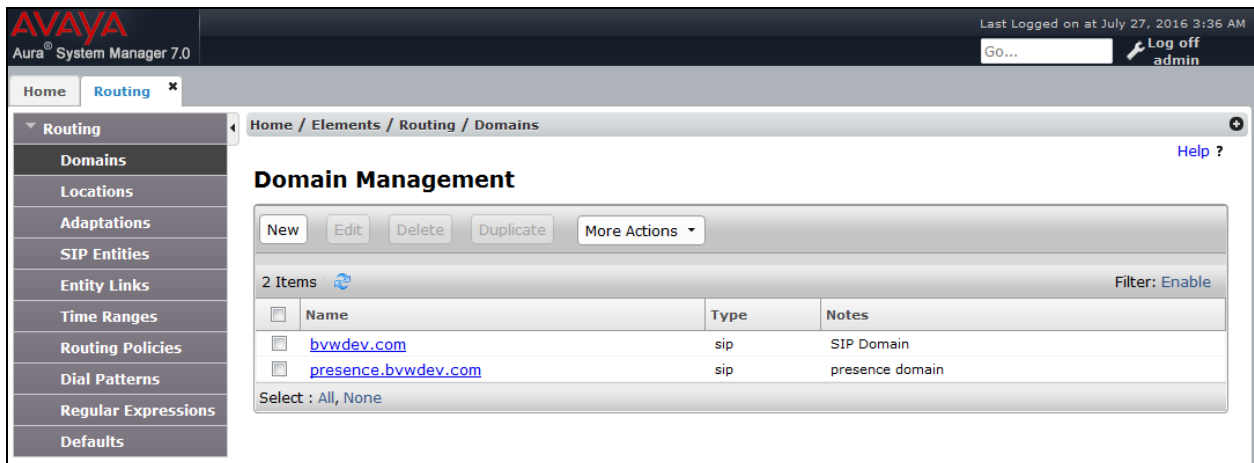
Describe Configuration for Session manager is performed via System Manager, from a web browser type in [https://\[IP-Address\]/SMGR](https://[IP-Address]/SMGR) where IP-Address is the IP Address of System Manager. Log in using appropriate credentials.

Please note that configuration of each item is not shown in detail. In the following sections, screen captures of the configured items during compliance testing are shown. For details steps on configuration of each item, refer to Document [3].



7.1. Configure Domain

Once logged in, select **Routing** (not shown). On the left pane select **Domains**. Click **New** to add a new domain. For compliance testing, domain of **bwdev.com** was added.



7.2. Configure Locations

From the left pane, select **Location**. To add a new location, select **New**. For compliance testing, location of **CM_LOC** and **VoicePortal_LOC** were added.

AVAYA
Aura System Manager 7.0
Last Logged on at July 27, 2016 3:36 AM
Go... Log off admin

Home Routing

Routing Domains Locations Adaptations SIP Entities Entity Links Time Ranges Routing Policies Dial Patterns Regular Expressions Defaults

Home / Elements / Routing / Locations Help ?

Location

New Edit Delete Duplicate More Actions

5 Items Filter: Enable

| <input type="checkbox"/> | Name | Correlation | Notes |
|--------------------------|-----------------------------------|--------------------------|-------|
| <input type="checkbox"/> | AT&T-Location | <input type="checkbox"/> | |
| <input type="checkbox"/> | BvwDevSIL | <input type="checkbox"/> | |
| <input type="checkbox"/> | CM_LOC | <input type="checkbox"/> | |
| <input type="checkbox"/> | IPO_LOC | <input type="checkbox"/> | |
| <input type="checkbox"/> | VoicePortal_LOC | <input type="checkbox"/> | |

Select : All, None

7.3. Configure SIP Entities

From the left pane, select **SIP Entities**. To add a new SIP Entity, select **New**. For compliance testing, three SIP Entities were added as shown below.

- ACM-Trunk1-Private: Communication Manager SIP Entity
- AEP71: Experience Portal SIP Entity
- ASM70A: Session Manager SIP Entity

AVAYA
Aura System Manager 7.0
Last Logged on at October 11, 2016 10:15 AM
Go... Log off admin

Home Routing

Routing Domains Locations Adaptations SIP Entities Entity Links Time Ranges Routing Policies Dial Patterns Regular Expressions Defaults

Home / Elements / Routing / SIP Entities Help ?

SIP Entities

New Edit Delete Duplicate More Actions

18 Items Filter: Enable

| <input type="checkbox"/> | Name | FQDN or IP Address | Type | Notes |
|--------------------------|------------------------------------|--------------------|-----------------|------------------------|
| <input type="checkbox"/> | ACM-Trunk1-Private | 10.33.1.6 | CM | |
| <input type="checkbox"/> | AEP71 | 10.33.1.25 | Voice Portal | Experience Portal R7.1 |
| <input type="checkbox"/> | ASM70A | 10.33.1.12 | Session Manager | |
| <input type="checkbox"/> | ASM70B | 10.33.1.22 | Session Manager | Secondary SM |
| <input type="checkbox"/> | Avaya_SBCE70 | 10.33.10.102 | SIP Trunk | For Gold Line SP |

7.4. Configure Entity Links

For each SIP Entity, with the exception of Session Manager, an entity link needs to be added. On the left pane, select **Entity Links**. To add a new entity link, select **New**. For compliance testing two entity links, one for Communication Manager and another for Experience Portal, were added.

Avaya Aura System Manager 7.0 interface showing the Entity Links configuration page. The left sidebar shows 'Entity Links' selected. The main area displays a table with 29 items, including two links:

| Name | SIP Entity 1 | Protocol | Port | SIP Entity 2 | DNS Override | Port | Connection Policy | Deny New Service | Notes |
|---|--------------|----------|------|--------------------|--------------------------|------|-------------------|--------------------------|-------|
| ASM70A_AEP71_5061_TLS | ASM70A | TLS | 5061 | AEP71 | <input type="checkbox"/> | 5061 | trusted | <input type="checkbox"/> | |
| ASM70_ACM_Trunk1_5061_TLS | ASM70A | TLS | 5061 | ACM-Trunk1-Private | <input type="checkbox"/> | 5061 | trusted | <input type="checkbox"/> | |

7.5. Configure Time Ranges

On the left pane, select **Time Ranges**. To add a new time range, select **New**. For compliance testing, time range of 24/7 was added.

Avaya Aura System Manager 7.0 interface showing the Time Ranges configuration page. The left sidebar shows 'Time Ranges' selected. The main area displays a table with 1 item:

| Name | Mo | Tu | We | Th | Fr | Sa | Su | Start Time | End Time | Notes |
|----------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|------------|----------|-----------------|
| 24/7 | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | 00:00 | 23:59 | Time Range 24/7 |

7.6. Configure Routing Policies

On the left pane, select **Routing Policies**. To add a new routing policy, select **New**. For compliance testing, two routing policies were added, one for Communication Manager and another for Experience Portal.

The screenshot shows the Avaya Aura System Manager 7.0 interface. The left sidebar is expanded to 'Routing Policies'. The main content area shows the 'Routing Policies' configuration page. At the top, there are buttons for 'New', 'Edit', 'Delete', 'Duplicate', and 'More Actions'. Below this, a table lists 10 items. The table has columns for 'Name', 'Disabled', 'Retries', 'Destination', and 'Notes'. Two items are visible:

| Name | Disabled | Retries | Destination | Notes |
|------------------------------|--------------------------|---------|--------------------|--------------------------------|
| To-EPVM71 | <input type="checkbox"/> | 0 | AEP71 | Route to Experience Portal 7.1 |
| To-CM-Trunk1 | <input type="checkbox"/> | 0 | ACM-Trunk1-Private | |

7.7. Configure Dial Patterns

On the left pane, select **Dial Patterns**. To add a new dial pattern, select **New**. For compliance testing four dial patterns were added:

- 33 and 34: All calls starting with pattern 33 and 34 with 4 digits were routed to communication manager. For compliance test, Experience Portal routed calls to extensions 3301, 3302 and 3401 which were routed to Communication Manager
- 49: All calls starting with pattern 49 and 4 digits long were routed to Experience Portal
- 9: All calls starting with 9 and having from 10 to 14 digits long were routed to Communication Manager. This was used for routing calls out to PSTN via PRI trunk configured in Communication Manager.

The screenshot shows the Avaya Aura System Manager 7.0 interface. The left sidebar is expanded to 'Dial Patterns'. The main content area shows the 'Dial Patterns' configuration page. At the top, there are buttons for 'New', 'Edit', 'Delete', 'Duplicate', and 'More Actions'. Below this, a table lists 21 items. The table has columns for 'Pattern', 'Min', 'Max', 'Emergency Call', 'Emergency Type', 'Emergency Priority', 'SIP Domain', and 'Notes'. Four items are visible:

| Pattern | Min | Max | Emergency Call | Emergency Type | Emergency Priority | SIP Domain | Notes |
|--------------------|-----|-----|--------------------------|----------------|--------------------|------------|-------|
| 33 | 4 | 4 | <input type="checkbox"/> | | | bvwdev.com | |
| 34 | 4 | 4 | <input type="checkbox"/> | | | bvwdev.com | |
| 49 | 4 | 4 | <input type="checkbox"/> | | | bvwdev.com | |
| 9 | 10 | 14 | <input type="checkbox"/> | | | bvwdev.com | |

8. Configure Interactions Virtual Assistant Solutions

The configuration of Integrations iProxy automatic speech recognition and Nova VXML generator platform are done by Interactions engineer and is outside of the scope of these Application Notes. To obtain further information on Integrations Virtual Assistant Solutions system configuration please contacts an authorized Interactions representative.

9. Verification Steps

9.1. Include Avaya Aura® Experience Portal

This section provides the verification steps that may be performed to verify that Avaya Aura® Experience Portal can run Curo Speech ASR and TTS servers.

1. From the EPM web interface, verify that the Curo Speech resource and status. Navigate to **System Monitor** → **MPP** (click on MPP link) → **Service Menu** (under Miscellaneous section) → **Resources** → **Speech Servers**, the **Speech Servers** is displayed as shown below.

The screenshot shows the Avaya Aura Experience Portal MPP interface. The top navigation bar includes the Avaya logo and the user name 'Welcome, eadmin'. Below the navigation bar, the breadcrumb trail reads 'You are here: Home > Resources > Speech Servers'. The main content area is titled 'Speech Servers' and contains a table with the following data:

| Name | Type | Status | Values | Ports | Errors | Latency |
|-----------|------|--|---------------------------------------|-------------------------|--|--|
| iProxy | ASR | Server is UP | H (Total): 50 M (Simultaneous): 50 | Active: 0 Reserve: 0 | Timeout: 2 Setup: 0 Application: 0 | Average: 2521 Maximum: 4000 Minimum: 710 |
| iProxyTTS | TTS | Server is UP | H (Total): 50 M (Simultaneous): 50 | Active: 0 Reserve: 0 | Timeout: 0 Setup: 0 Application: 0 | Average: 85 Maximum: 210 Minimum: 60 |
| Nuance | TTS | Server is Down or Disabled Due To Errors Please run connectivity check for more information | H (Total): 24 M (Simultaneous): 24 | Active: 0 Reserve: 0 | Timeout: 0 Setup: 0 Application: 0 | Average: 0 Maximum: 0 Minimum: 0 |

Below the table, the date and time 'Mon Jan 30 08:56:55 2017' are displayed. The left sidebar contains a navigation menu with categories like Home, Activity, Applications, Certificates, Configuration, Diagnostics, Logs, Resources, and Users.

- From the EPM web interface, verify that the MPP servers are online and running. On the left pane, navigate to **System Management** → **MPP Manager**.

You are here: [Home](#) > System Management > MPP Manager

MPP Manager (Feb 28, 2017 3:49:44 AM PST) Refresh

This page displays the current state of each MPP in the Experience Portal system. To enable the state and mode commands, select one or more MPPs. To enable the mode commands, the selected MPPs must also be stopped.

Last Poll: Feb 28, 2017 3:49:36 AM PST

| | Server Name | Mode | State | Config | Auto Restart | Restart Schedule | | Active Calls | |
|--------------------------|-------------|--------|---------|--------|--------------|------------------|-----------|--------------|-----|
| | | | | | | Today | Recurring | In | Out |
| <input type="checkbox"/> | mpp | Online | Running | OK | Yes | No | None | 0 | 0 |

State Commands

Restart/Reboot Options

One server at a time
 All servers

Mode Commands

- Verify that the ports on the MPP server are in service. On the left lane, click on **Port Distribution**. Select the MPP server and click **OK**.

You are here: [Home](#) > Real-Time Monitoring > [Port Distribution](#) > Port Distribution Report

Port Distribution Report (Feb 28, 2017 3:54:12 AM PST) Refresh

This page displays information about how the telephony resources have been distributed to the MPPs. You configure the telephony resources on the VoIP Connections page.

Total Ports: 50 Last Poll: Feb 28, 2017 3:54:05 AM PST

| Port | Mode | State | Port Group | Protocol | Current Allocation | Base Allocation |
|------|--------|------------|------------|-----------|--------------------|-----------------|
| 50 | Online | In service | ASM70 | SIP_Trunk | mpp | |

- Place calls to the experience portal number 4920 as configured in Section 6.3, listen to the prompt say “yes” after the first prompt and continue responding to next prompts until the end of application, during the call the iProxy Virtual Assistant will respond with results that user just enters for each prompt, verify that what iProxy responds are as correct as what user inputs.

10. Conclusion

These Application Notes describe the configuration steps required to integrate Interactions Virtual Assistant Solutions that include an Automated Speech Recognition, human speech recognition and VXML generator platform with Avaya Aura® Experience Portal using MRCPv2 TLS and SRTP. All features and serviceability test cases were completed successfully refer to **Section 2.2** for details.

11. Additional References

This section references the Avaya documentation relevant to these Application Notes. The following Avaya product documentation is available at <http://support.avaya.com>.

- [1] Administering Avaya Aura® Communication Manager, Release 7.0.3, Document 03-300509, Issue 10, June 2016
- [2] Administering Avaya Aura® Session Manager, Release 7.0, Issue 7, May 2016
- [3] Administering Avaya Aura® Experience Portal, Release 7.1, May 2016

Interactions Virtual Assistant Solutions documentation is always available from <http://www.interactions.com/library/>

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