



Avaya Solution & Interoperability Test Lab

Application Notes for Verbio Voice Biometrics with Avaya Aura® Experience Portal 7.1 - Issue 1.0

Abstract

These application notes describe the configuration steps required for Verbio Voice Biometrics to successfully interoperate with Avaya Aura® Experience Portal. The Software allows Voice to be recorded and analyzed to create extra security for customer interactions.

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

These application notes describe the configuration steps required for Verbio Voice Biometrics to successfully interoperate with Avaya Aura® Experience Portal. The Verbio Server is situated on the Verbio cloud and is accessed using Voice XML applications configured on Avaya Aura® Experience Portal. Using Voice XML sample applications the following aspects of Verbio Voice Biometrics operation were tested

- Storing of speech recordings for training
- Training user voiceprints
- Verification of speech recordings
- Retrieving of user information
- Validation of audio content

2. General Test Approach and Test Results

The general test approach was to configure the Voice Biometrics applications to communicate with Experience Portal as implemented on a customer's premises. See **Figure 1** for a network diagram. The interoperability compliance testing included feature and serviceability testing. The feature testing verified the ability of Voice Biometrics to process Voice recordings made during Voice XML calls and to analyze their validity. The serviceability testing introduced failure scenarios to see if Voice Biometrics can resume after a failure.

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 testing included:

- Verification of connectivity between Voice Biometrics and Experience Portal.
- Verification that recordings were processed correctly.
- Link Failure\Recovery was also tested to ensure successful reconnection after link failure.
- Scenarios included.
 - Voice Recording
 - Voiceprint Training
 - Status information Enquiries
 - Recording verification
 - Error Handling

2.2. Test Results

Tests were performed to ensure full interoperability between Voice Biometrics and Experience Portal. The tests were all functional in nature and performance testing was not included. All the test cases passed successfully.

2.3. Support

Web: <https://verbio.zendesk.com> (Ticket system)

Email: support@verbio.com

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<http://www.verbio.com>.

3. Reference Configuration

Figure 1 illustrates the network topology used during compliance testing. The Avaya solution consists of Avaya Aura® Experience Portal, Avaya Aura® Communication Manager, Avaya Aura® System Manager, Avaya Aura® Session Manager and an Avaya G430 Gateway. The Avaya Aura® Experience Portal is configured to connect the Voice Biometrics server using Voice XML applications. A 9641g H323 deskphone was used to generate calls to Avaya Aura® Experience Portal Applications.

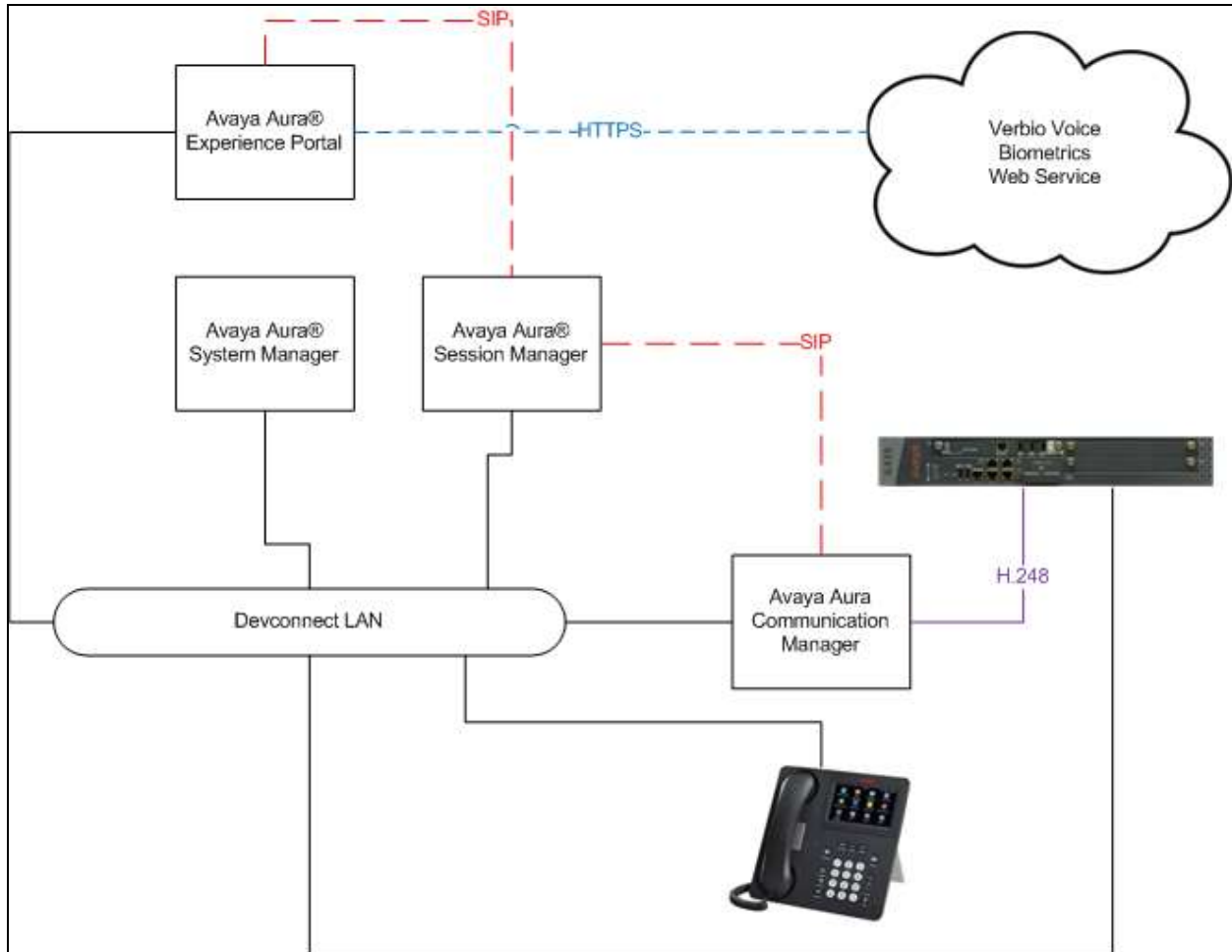


Figure 1: Avaya Aura® Experience Portal and Verbio Reference Configuration

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya Aura® Experience Portal running on a virtual Server	7.1.0.0.1107
Avaya Aura® Session Manager running on a virtual Server	Session Manager R 7 Build No. - 7.0.1.0.701007
Avaya aura® System Manager running on a virtual server	System Manager R 7.0.1.0 Build No. – 7.0.0.0.16266 Revision 7.0.1.0.064859 FP1
Avaya Aura® Communication Manager running on a virtual server	R17x.00.0.441.0 Build No. – 7.0.1.0.0.441.23012
Avaya G430 gateway	37.21.0
Avaya 9641g Series Deskphone	96x1 H.323 Release 6.6029
Verbio Voice Biometrics	9.0

5. Configure Avaya Aura® Experience Portal

Configuration and verification operations on the Experience Portal illustrated in this section were all performed using either the Experience Portal Management web interface or SSH connection to the server. The information provided in this section describes the configuration of the Experience Portal for this solution. It is implied that a working system is already in place, including Media Processing Platform, Apache Tomcat application Server and SIP routing via Session Manager. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**. The configuration operations described in this section can be summarized as follows:

- Deploy tomcat application.
- Add Voice XML applications
- Configure Application attributes

5.1. Deploy Tomcat application

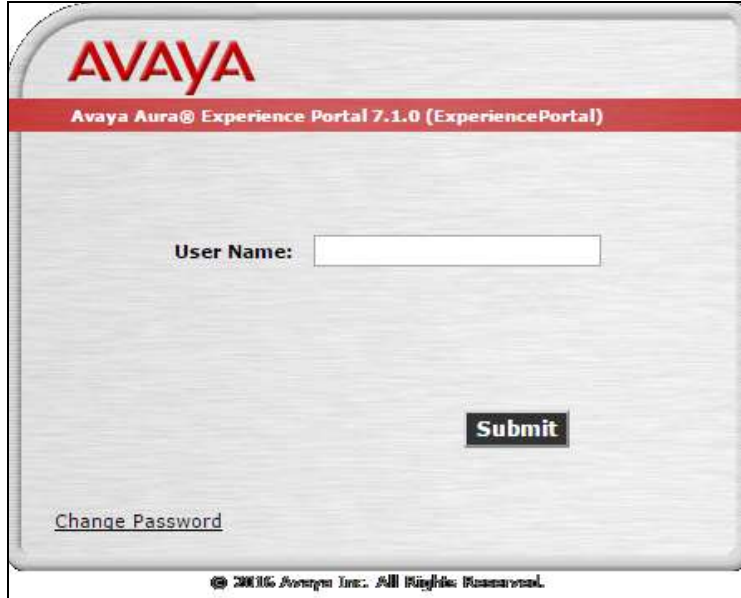
The Voice XML application must be deployed in the Tomcat webapps folder on the application server used to access the Experience Portal applications. The Application must be copied onto the server and placed in a directory accessible to an ssh user. When the Application has been copied to the **webapps** directory Tomcat will deploy the application in the form of a directory. The below example shows that tomcat is installed under **opt/Appserver/tomcat**.



```
craft@AAEP71620:~  
[craft@AAEP71620 ~]$ cp *.war /opt/Appserver/tomcat/webapps/
```

5.2. Add Voice XML applications

Voice application must be added using the Experience Portal web interface. Browse to https://<Experience_PortalIP>. Login using valid credentials

The image shows the login interface of the Avaya Aura Experience Portal 7.1.0. At the top, the 'AVAYA' logo is displayed in red. Below it, a red banner contains the text 'Avaya Aura® Experience Portal 7.1.0 (ExperiencePortal)'. The main area is light gray and contains a 'User Name:' label followed by a white text input field. Below the input field is a black 'Submit' button. At the bottom left, there is a link that says 'Change Password'. At the very bottom, a small copyright notice reads '© 2016 Avaya Inc. All Rights Reserved.'

From the left hand menu select **Applications** under **System Configuration**.

Avaya Aura® Experience Portal 7.1.0 (ExperiencePortal)

Expand All | Collapse All

You are here: Home

Avaya Aura® Experience Portal Manager

Avaya Aura® Experience Portal Manager (EPM) is the consolidated web-based application for administering the Experience Portal, check the status of an Experience Portal component, and generate reports related to system components.

Installed Components

Media Processing Platform
Media Processing Platform (MPP) is an Avaya media processing server. When an MPP receives a call, it then communicates with ASR and TTS servers as necessary to process the call.

Email Service
Email Service is an Experience Portal feature which provides e-mail capabilities.

HTML Service
HTML Service is an Experience Portal feature which supports web applications with HTML5 capabilities.

Proactive Outreach Manager
Avaya Proactive Outreach Manager (POM) provides a solution for unified, multichannel, inbound and outbound channels of interaction, from Short Message Service (SMS) to e-mail to the traditional voice and video channels.

SMS Service
SMS Service is an Experience Portal feature which provides SMS capabilities.

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Click on **Add** to administer a new application

Avaya Aura® Experience Portal 7.1.0 (ExperiencePortal)

Expand All | Collapse All

You are here: [Home](#) > System Configuration > Applications

Applications

This page displays the applications that are currently deployed.

Add **Delete** **Clear MPP Cache** **Help**

<input type="checkbox"/>	Name	Enable	Type
--------------------------	------	--------	------

Give the Application a descriptive **Name** and select **Enable Yes**. Under URI enter the address of the application files copied earlier. Under **Speech Servers** select an Available speech server for **ASR** and **TTS** and choose an appropriate **Language** and **Voice**. Finally enter a routable **Called Number** to allow access to the Application.

Avaya Aura® Experience Portal 7.1.0 (ExperiencePortal)

Expand All | Collapse All

You are here: [Home](#) > [System Configuration](#) > [Applications](#) > Add Application

Add Application

Use this page to deploy and configure a new application on the Experience Portal system.

Start With:

Name:

Enable: ☒ Yes ☐ No

Type:

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: TTS:

English(USA) en-US English(USA) en-US Jennifer F

Languages: Voices:

Application Launch

☒ Inbound ☐ Inbound Default ☐ Outbound

☒ Number ☐ Number Range ☐ URI

Called Number: **Add**

6. Configure Voice Biometrics

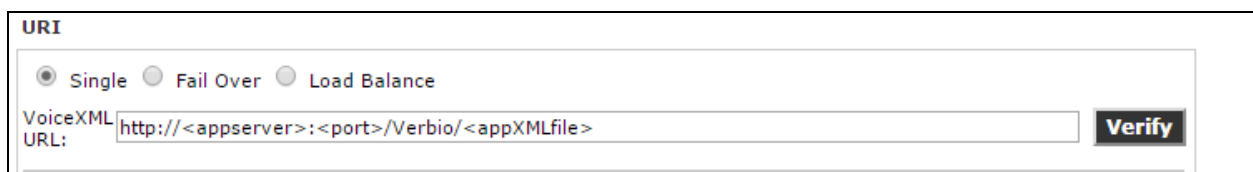
There are no configuration steps required for Voice Biometrics to interoperate with Experience Portal and the installation and configuration of valid user accounts and Dashboard services are carried out by Verbio technicians.

7. Verification Steps

This section provides tests that can be performed to verify correct configuration of the Experience Portal and Verbio solution.

7.1. Verify Avaya Aura® Experience Portal Application

Select the VoiceBiometrics Application from the **Applications** menu under **System Configuration** (not shown) on Experience Portal. Click on the verify button to open a browser showing the xml file content (not shown). The Application can be verified by dialing the routable number configured above and dialing this from a handset. A voice prompt is heard meaning the Application is working properly.



The screenshot shows a web interface for configuring a URI. At the top, the title "URI" is displayed. Below it, there are three radio buttons for selecting a configuration mode: "Single" (which is selected), "Fail Over", and "Load Balance". Underneath these buttons, the text "VoiceXML URL:" is followed by a text input field containing the placeholder URL "http://<appserver>:<port>/Verbio/<appXMLfile>". To the right of the input field is a dark button labeled "Verify".

7.2. Verify requests are being updated in the Voice Biometrics dashboard via the Voice Biometrics snap-in

Browse to <https://<Verbio Cloud URL>/asv/> and enter the credentials provided by Verbio when prompted (not shown). Login using a valid admin user (not shown). On the dashboard home screen, the requests sent via the Experience Portal applications can be viewed.



8. Conclusion

These Application Notes describe the compliance tested configuration used to validate Verbio Voice Biometrics with Avaya Aura® Experience Portal Version 7.1. A full set of feature and functional test cases were performed during Compliance testing. Verbio Voice Biometrics is considered compliant with Avaya Aura® Experience Portal. All test cases have passed with any issues and observations outlined in **Section 2.2**.

9. Additional References

These documents form part of the Avaya official technical reference documentation suite. Further information may be had from <http://support.avaya.com> or from your Avaya representative.

[1] *Avaya Aura® Experience Portal Overview and Specification*

[2] *Deploying Avaya Aura Experience Portal in an Avaya Customer Experience Virtualized Environment*

Verbio documentation can be obtained by using the contact details listed in **Section 2.3**.

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