



Avaya Solution & Interoperability Test Lab

Application Notes for Verbio Voice Biometrics snap-in with Avaya Breeze™ 3.1.1 - Issue 1.0

Abstract

These application notes describe the configuration steps required for Verbio Voice Biometrics snap-in to successfully interoperate with Avaya Breeze™. The Software allows Voice recordings to be analyzed and stored for use in adding extra security to 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 snap-in to successfully interoperate with Avaya Breeze™. The Verbio Voice Biometrics server is situated in the Verbio Cloud and the Voice Biometrics snap-in is installed in a cluster to provide access to the server. The snap-in is designed to work with API's such as telephony self-service to store and access a voice print for use in account transaction security.

2. General Test Approach and Test Results

The general test approach was to load, install and configure the Voice Biometrics snap-in on Avaya Breeze 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 store a number of recorded messages and use them to determine a reliable probability percentage used to determine if the correct person is accessing an account.

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 load, install and configuration of Voice Biometrics snap-in on Avaya Breeze.
- Verification that recordings are saved on the Voice Biometrics server.
- Verification that voiceprints can be trained correctly.
- Verification that voice can be recognised as the account holder.
- Verification that error conditions are handled correctly for:
 - Noisy recordings
 - Incorrect phrase
 - Silence
 - Incorrect codec compression or type
 - Malformed or invalid request messages

2.2. Test Results

All the test cases passed successfully.

2.3. Support

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

Email: support@verbio.com

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C/Loreto, 44 Bajos Derecha

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Spain

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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® System Manager and Avaya Breeze™. Postman Rest Client is used to send the requests to the Verbio Voice Biometrics snap-in API

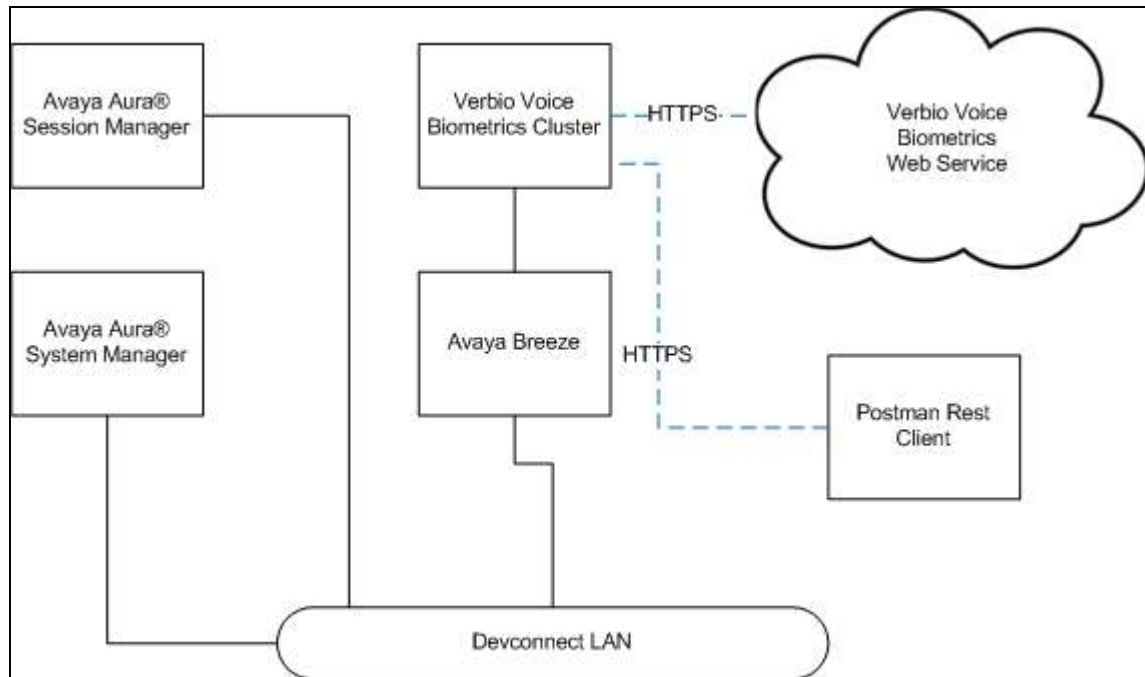


Figure 1: Avaya Breeze™ and Verbio Voice Biometrics Reference Configuration

4. Equipment and Software Validated

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

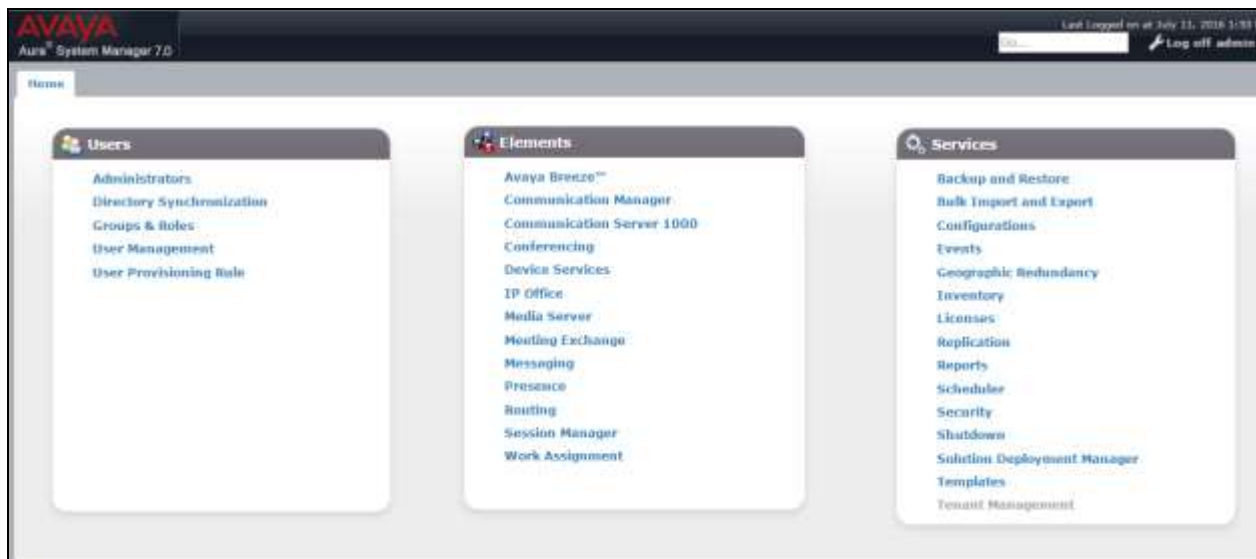
Equipment/Software	Release/Version
Avaya Breeze™	3.1.1.1.311103
Avaya Aura® System Manager running on a virtual server	System Manager R 7.0.1.0 Build No. – 7.0.0.0.16266 Revision 7.0.1.0.064859 FP1
Verbio Voice Biometrics snap-in	1.0.0.0
Verbio Voice Biometrics server	9.0

5. Configure Avaya Breeze™

The information provided in this section describes the configuration of the Avaya Breeze for this solution. Configuration and verification operations on the Avaya Breeze illustrated in this section were all performed using the System Manager web interface. It is implied a working system is already in place, including the Avaya Breeze server instance and entity. 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:

- Load Voice Biometrics snap-in
- Configure Service Global Attributes
- Create Voice Biometrics cluster and install snap-in

Log into the SMGR web interface using <https://<smgrIP>/SMGR> using valid credentials (not shown). The SMGR home screen is displayed

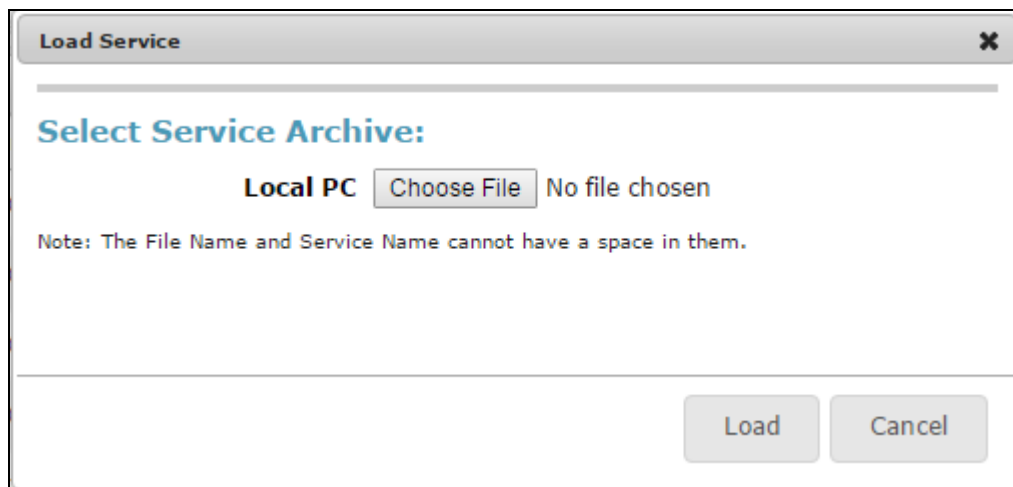


5.1. Load Voice Biometrics snap-in

A valid svar file for the Voice Biometrics snap-in must be obtained from Verbio and loaded onto System Manager via the SMGR web interface. Select **Avaya Breeze™** from the **Elements** menu (not shown). Select **Service Management** and click on **Load**



On the resulting screen click on **Choose File** and browse to the location of the VoiceBiometrics snap-in svar on the **Local PC** (not shown). When selected click on **Load** to add the Voice Biometrics service



When returned to the Service Management screen the Service and Version show in the list of services as **Loaded**.



5.2. Configure Service Global attributes

The Service Global attributes must be set with a Username and Password provided by Verbio to allow the snap-in to access the Voice Biometrics server. Select **Attributes** under **Configuration** from the left hand Avaya Breeze menu and click on the **Service Globals** tab. Select **VoiceBiometrics** from the **Service** drop down. Select the **Verbio Login** and **Verbio Password** to **Override Default** and enter the details provided by Verbio. Click on **Commit** to save changes

The screenshot shows the 'Service Globals' configuration page for the 'VoiceBiometrics' service. The left sidebar contains a menu with 'Configuration' expanded, showing 'Service Profiles', 'Service Clusters', 'Service Globals', 'Attributes', 'Logging', 'Avaya Aura®', 'Media Server', 'Event Catalog', 'HTTP Security', 'Implicit User', 'Profiles', 'JDBC Providers', 'JDBC Sources', 'Service Ports', and 'System Tools'. The main content area has tabs for 'Service Profiles', 'Service Clusters', and 'Service Globals'. The 'Service' dropdown is set to 'VoiceBiometrics'. Below, a table lists attributes for the 'DEFAULT_GROUP'.

Name	Override Default	Effective Value	Description
Enable Anti-Spoofing	<input type="checkbox"/>	false	Enable the anti-spoofing mechanism for countering spoofing attacks ('true' or 'false').
Speech Language	<input checked="" type="checkbox"/>	en_US	Default speech language. A valid language must be defined e.g. en_US.
Speech Recognition Threshold	<input type="checkbox"/>	35	Default confidence threshold for speech recognition (integer between 0-100).
Supplier ID	<input type="checkbox"/>	20001003	Avaya provided supplier id.
Verbio Host	<input checked="" type="checkbox"/>	server-verbio.com	Verbio server host name.
Verbio Login	<input checked="" type="checkbox"/>	avaya	Verbio account username.
Verbio Password	<input checked="" type="checkbox"/>	*****	Verbio account password.

At the bottom right, there are 'Commit' and 'Cancel' buttons.

5.3. Create Voice Biometrics Cluster

A voice Biometrics cluster must now be created using the **General Purpose** template. Select **Cluster Administration** from the left hand Avaya Breeze menu. Click on **New**.

The screenshot shows the 'Cluster Administration' page in the Avaya Breeze interface. The left sidebar has 'Cluster Administration' selected. The main content area has a header 'Cluster Administration' and a sub-header 'This page allows you to view, edit and delete Avaya Breeze clusters.' Below this, there is a section 'Avaya Breeze Clusters' with a table showing 3 items. The table has columns for 'New', 'Create', 'Certificate Management', and 'Cluster State'. The 'Filter' is set to 'Enable'.

From the resultant screen select **General Purpose** from the drop down menu (not shown). On the **General** tab enter a descriptive **Cluster Name**. All other entries on this tab can be left as default.

Select the **Servers** tab and select the server the snap-in is to be installed on. Click on the **+** to move the server from **Unassigned** to **Assigned**

Name	Version	Description
BCP16182	3.1.1.1.311103	BCP16182

Select the **Services** tab and use the **+** to add **VoiceBiometrics** to **Assigned Services**. Click on **Commit** to save changes.

Name	Version	Action Pending
EventingConnector	3.1.1.1.311102	Install
CalEventControl	3.1.1.1.311102	Install
VoiceBiometrics	1.0.0.0.0	Install

Back at the **Cluster Administration** screen select **Accept New Service** from the **Cluster State** drop down (not shown). The status of the Cluster is shown is **Section 7**.

6. Configure Voice Biometrics

There are no configuration steps required for Voice Biometrics to interoperate with Avaya Breeze 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 Avaya Breeze and Voice Biometrics solution

7.1. Verify Voice Biometrics snap-in is installed and configured

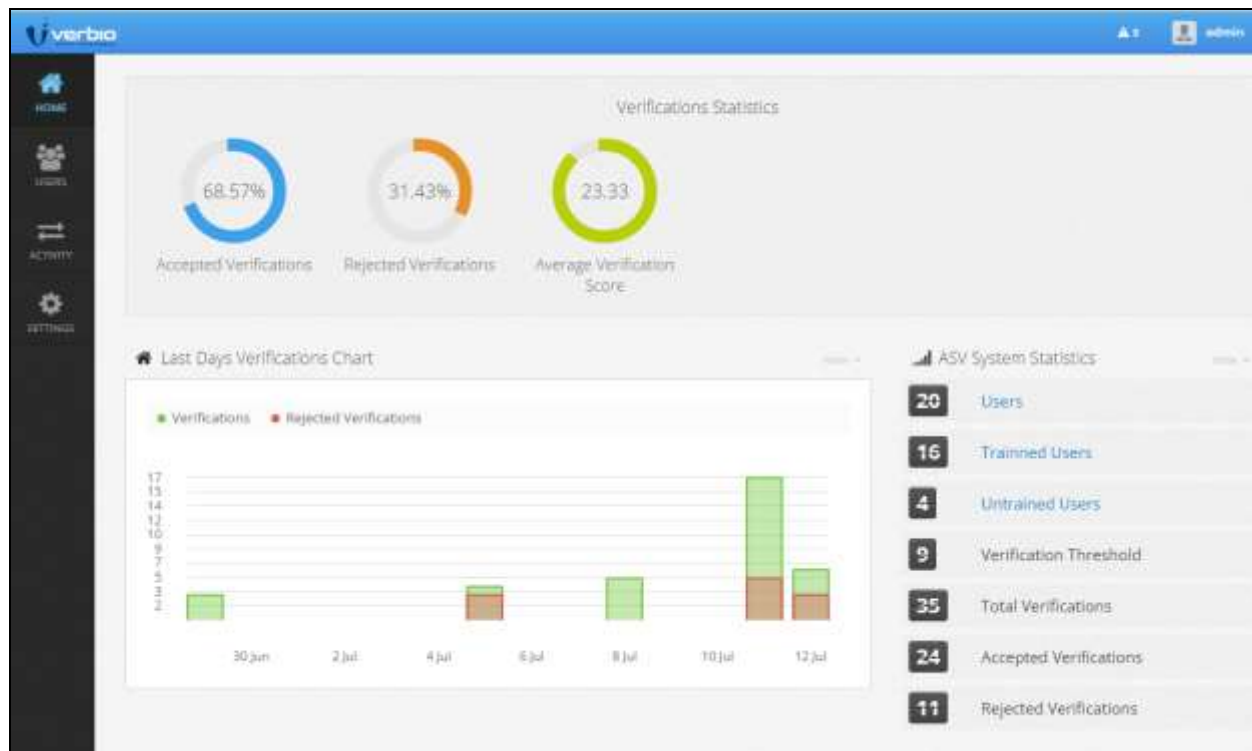
Select Avaya Breeze from the Elements menu on the System Manager home screen (not shown). Verify that the **VerbioVB** is showing **Cluster State** as **Accepting [1/1]**, there is a tick under **Service Install Status** and **Data Grid Status** is **Up [1/1]**.

The screenshot shows the Avaya Aura System Manager 7.0 interface. The left sidebar contains a menu with options: Home, Avaya Breeze™, Server, Administration, Cluster, Administration, Service Management, Configuration, and System Tools. The main content area is titled "Cluster Administration" and includes a sub-header "Avaya Breeze Clusters". Below this, there is a table with columns: Details, Cluster Name, Cluster IP, Cluster Profile, Cluster State, Alarms, Activity, Cluster Database, Data Replication, Service Install Status, Tests Pass, Data Grid Status, Overload Status, and Service URL. The table contains one row for the "VerbioVB" cluster, which is highlighted. The "Cluster State" is "Accepting [1/1]", "Service Install Status" is "Up", and "Data Grid Status" is "Up".

Details	Cluster Name	Cluster IP	Cluster Profile	Cluster State	Alarms	Activity	Cluster Database	Data Replication	Service Install Status	Tests Pass	Data Grid Status	Overload Status	Service URL
Hide	VerbioVB		General Purpose	Accepting [1/1]	0/0/0	0	Disabled		Up	1/1	Up		

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

Browse to https://<breeze_securityIP>/services/VoiceBiometrics/admin/index.php and login using a valid admin user (not shown). On the dashboard home screen the requests sent via the VoicBiometrics snap-in can be viewed.



8. Conclusion

These Application Notes describe the compliance tested configuration used to validate Verbio Voice Biometrics snap-in with Avaya Breeze™ 3.1.1. A full set of feature and functional test cases were performed during Compliance testing. Verbio Voice Biometrics snap-in is considered compliant with Avaya Breeze™. All of the 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] *Administering Avaya Breeze, Release 3.1, Issue 3, 09-May 2016*
- [2] *Avaya Breeze Overview and Specification, Release 3.1, Issue 3, 09-May 2016*
- [3] *Deploying Avaya Breeze, Release 3.1, Issue 309-May 2016*

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

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