**Avaya Solution & Interoperability Test Lab**

# Application Notes for Speech Technology Center Voice Navigator 8 with Avaya Aura® Experience Portal 7.0.1 - Issue 1.0

## Abstract


These application notes describe the configuration steps required for Speech Technology Center Voice Navigator 8 to successfully interoperate with Avaya Aura® Experience Portal 7.0.1. Voice Navigator ASR and TTS features allow Voice XML applications to play written text and understand spoken and DTMF entries.

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 Speech Technology Center Voice Navigator 8 to successfully interoperate with Avaya Aura® Experience Portal 7.0.1. The Voice Navigator server is added as a Speech Server on the Experience Portal Management Server. Using Voice XML sample applications the following aspects of Voice Navigator operation was tested

- TTS Playback.
- DTMF recognition using different grammar types.
- Voice recognition using different grammar types.
- Serviceability.

# 2. General Test Approach and Test Results

The general test approach was to configure Voice Navigator ASR and TTS to communicate with Experience Portal as implemented on a customer's premise. See **Figure 1** for a network diagram. The interoperability compliance testing included feature and serviceability testing. The feature testing verified the ability of Voice Navigator to play prompts and process DTMF and Voice prompts made during Voice XML calls. Responses were prompt and accurate. The serviceability testing introduced failure scenarios to see if Voice Navigator 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 Navigator and Experience Portal.
- Verification that handset DTMF input was processed and output by Voice Navigator correctly.
- Link Failure\Recovery was also tested to ensure successful reconnection after link failure.
- Scenarios included.
    - Voice prompt playback including speed and pitch changes
    - DTMF entry playback and menu entry recognition
    - Voice entry playback and menu entry recognition

## 2.2. Test Results

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

- Currently Voice Navigator must be administered as a Nuance type.
- External grammar of type ABNF is not support in the current version.

## 2.3. Support

Web: http://speechpro.com
Email: support@speechpro.com

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Telephone: +78123258848
Website: http://speechpro.com

# 3. Reference Configuration

**Figure 1** illustrates the network topology used during compliance testing. The Avaya solution consists of Experience Portal, Communication Manager, System Manager, Session Manager and a G450 Gateway. The Experience Portal is configured to connect the Voice Navigator server over IP. A variety of Avaya 9600 Series H323 and SIP IP Deskphones were used to generate calls to Experience Portal applications.

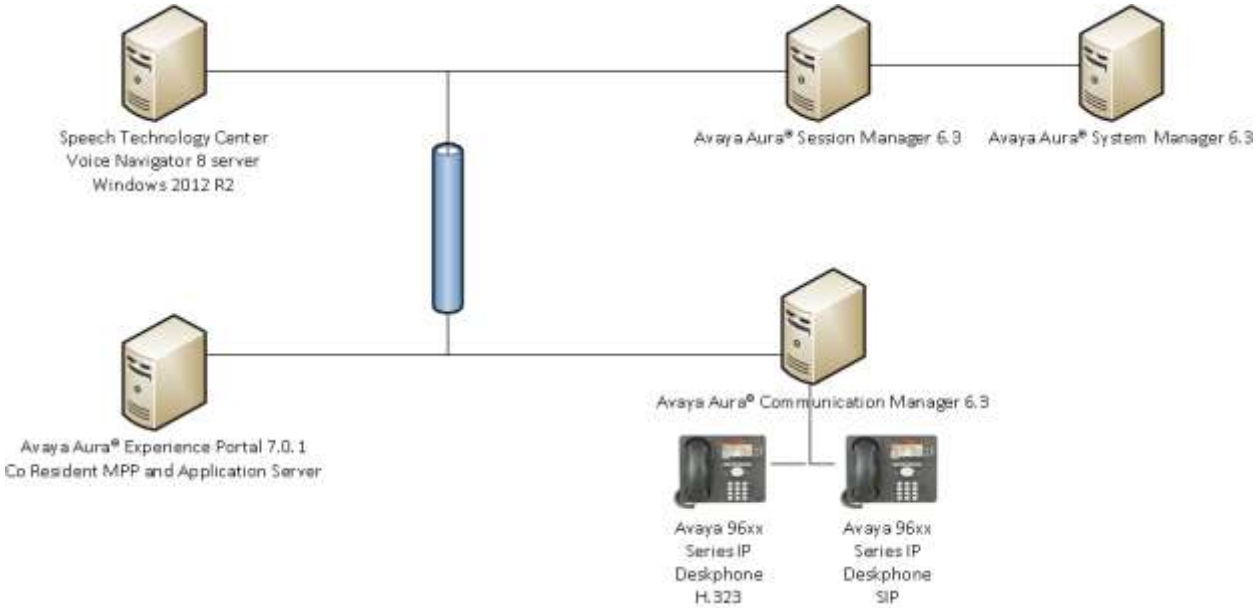



**Figure 1:** Avaya Aura® Experience Portal and Voice Navigator Reference Configuration

# 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 | 7.0.1.0.1601 |
| Avaya Aura® Session Manager running on a virtual server | Session Manager R 6.3 SP11<br>Build No. - 6.3.11.0.631103 |
| Avaya Aura® System Manager running on a virtual server | System Manager R 6.3 SP12<br>Build No. – 6.3.0.8.5682-6.3.8.4903 |
| Avaya Aura® Communication Manager running on a virtual server | R6.3 SP9<br>Build No. - R16x.03.0.124.0-12754 |
| Avaya G450 Media Gateway | 33.12.0/1 |
| Avaya 9640 IP Deskphone | 96x0 H.323 Release 3.2 |
| Avaya 9640 IP Deskphone | 96x0 SIP Release 6.2.1.26 |
| Speech Technology Center Voice Navigator | Version 8.2.5 |

# 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 a working system is already in place, including Media Processing Platform, Apache Tomcat application server and SIP routing via Session Manager. Installation of Voice XML applications is also out with the scope of this document. 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:

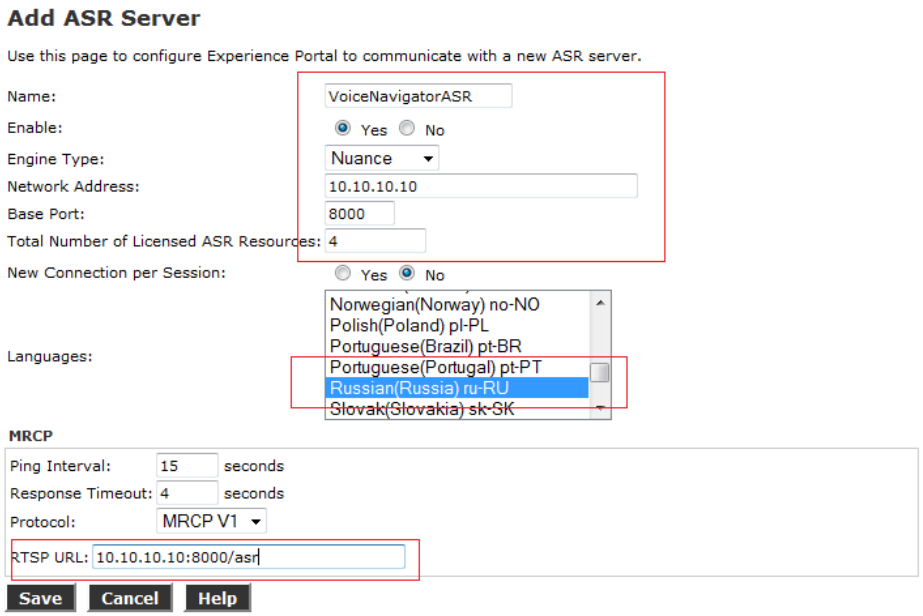
- Add Voice Navigator speech server
- Configure Application

## 5.1. Add Voice Navigator Speech Server

Voice Navigator must be added as a Speech Server using the Experience Portal Manager web interface.

- Log into the Experience Portal Manager web interface.


- From the left hand menu go to **System Configuration → Speech Servers**. On the ASR tab click on **Add** (not shown).
- Give the Speech Server a name.
- Select **Nuance** from the **Engine Type** drop down.
- Enter the **IP Address** of the Voice Navigator server.
- Select the **Languages** required using **Ctrl** to select multiple languages.
- Remove the directories from the **RTSP URL** entry and add **:<port>/asr**.

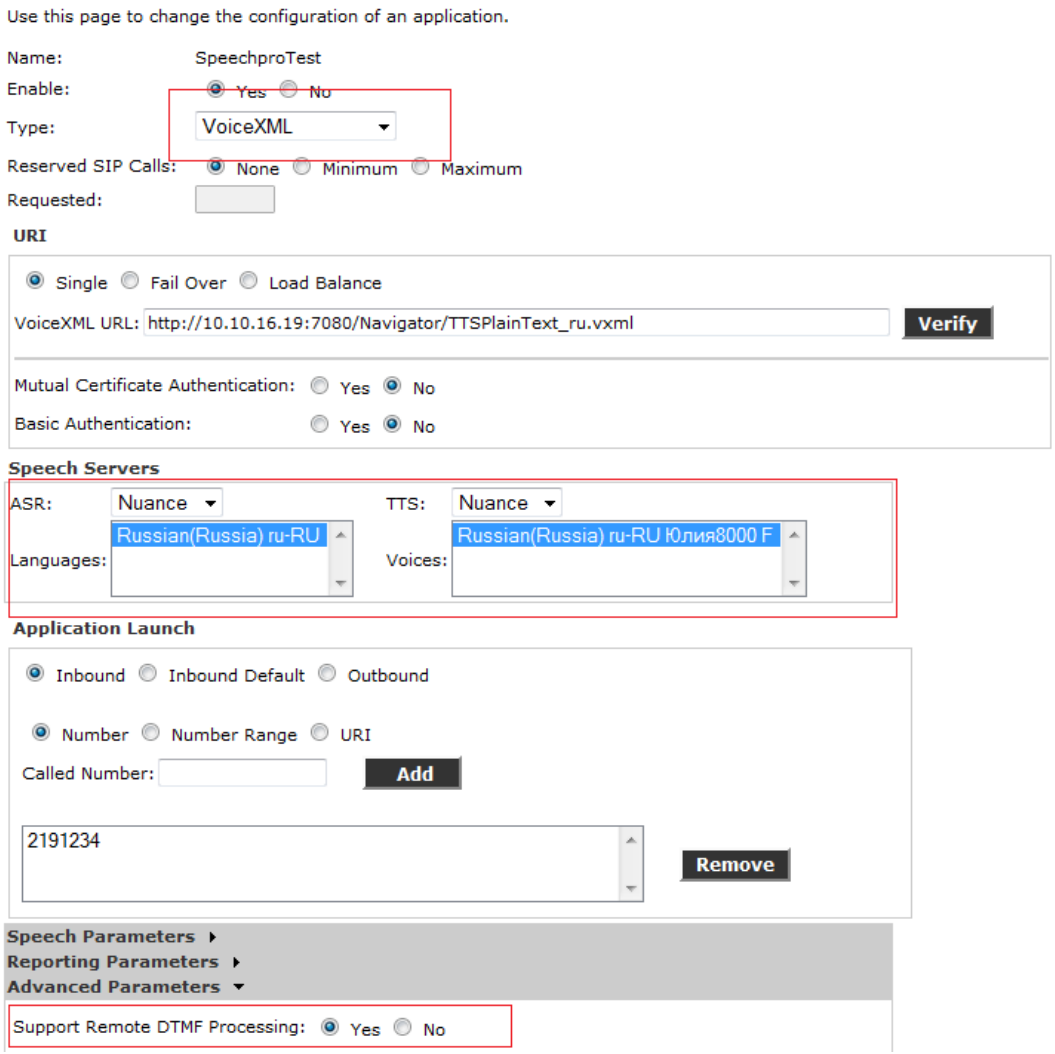



- This configuration must be repeated on the **TTS** tab (not shown).
- The only difference is that for the **RTSP URL** entry add **:<port>/tts**
- When the ASR and TTS servers are added the MPP/s need to be restarted.

## 5.2. Configure Application

This section shows how to add the Voice Navigator Speech Server to an application configuration.

- From the left hand menu go to **System Configuration → Applications** and click on **Add** (not shown).
- Select **VoiceXML** as the **Type**.
- Select **Nuance** as the **ASR** and **TTS** Speech Server.
- Choose the **Languages** the Application requires.
- Set **Support Remote DTMF Processing** as **Yes**.



# 6. Configure Speech Technology Center Voice Navigator

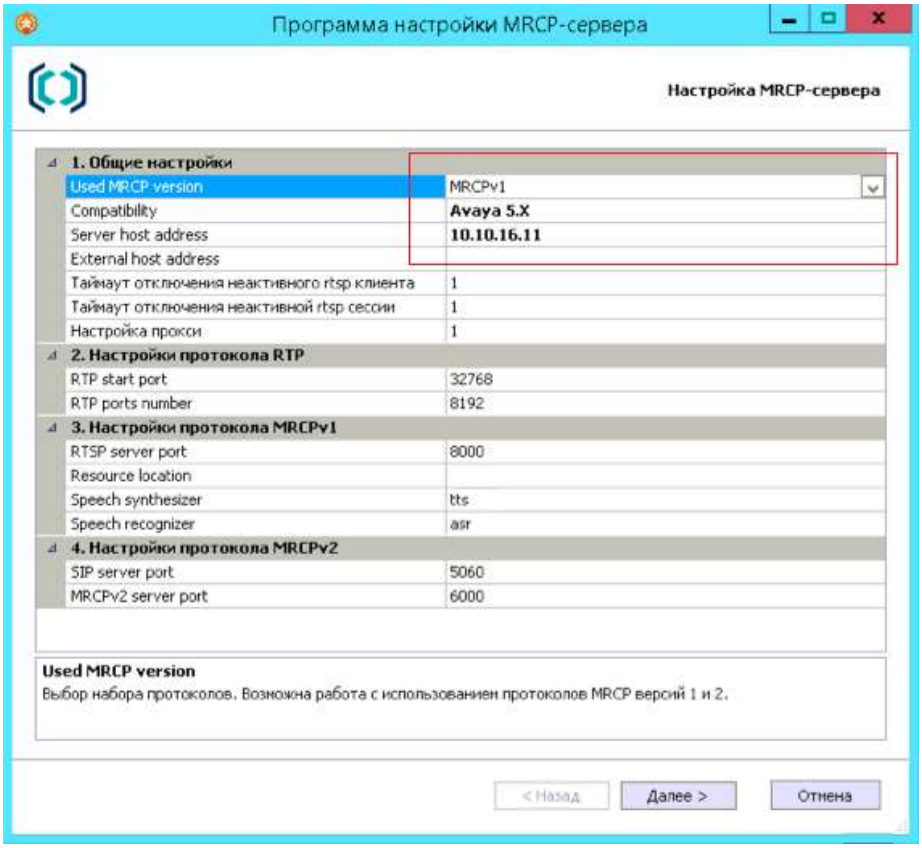
The following sections describe the steps required to configure the base configuration required to enable Voice Navigator to interoperate with Experience Portal. It is implied a working system is already in place. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 9**. The configuration operations described in this section can be summarized as follows:

- Configure MRCP

## 6.1. Configure MRCP

The Platform Type must be set and the port for connection checked. Default for both Voice Navigator and Experience Portal is **8000**.

- From Windows search for **MRCP Configuration Management tool**.
- Enter the **Compatibility** as **Avaya 5.X**.
- Enter the Voice Navigator server IP address as **Server host address**.



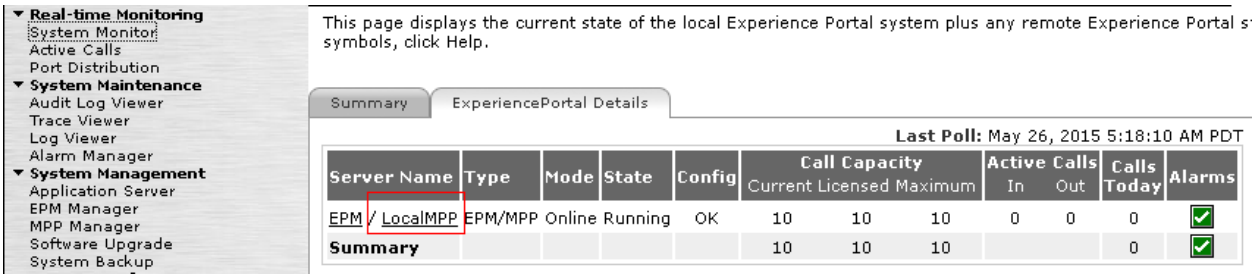
# 7. Verification Steps

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

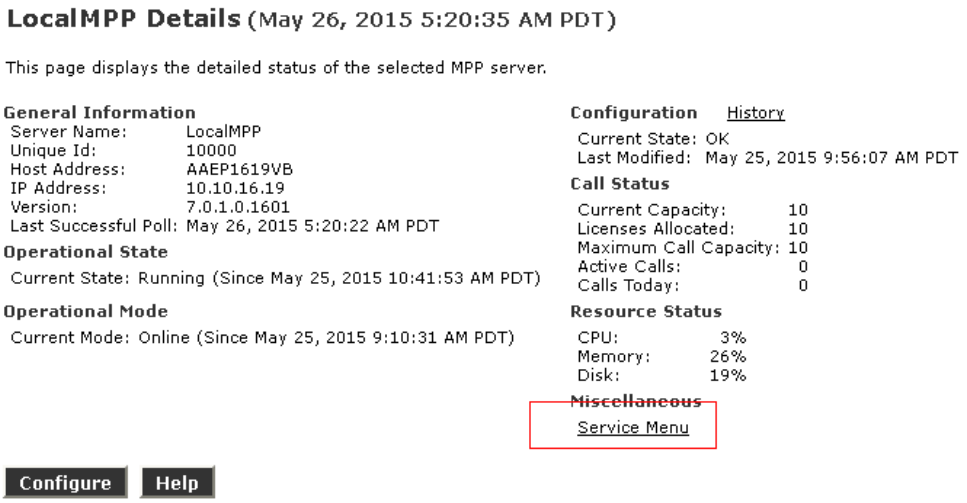
## 7.1. Verify Speech Server Connection is Established

- Log into Experience Portal Manager web interface.

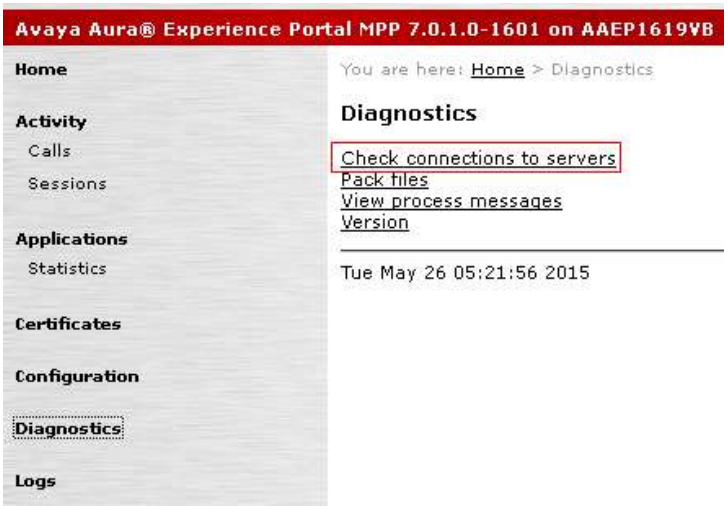

- From the left hand menu go to **Real-time Monitoring → System Monitor**.
- Click on the **MPP**.



- From the MPP screen click on **Service Menu**.




- From the left hand menu select **Diagnostics** and click on **Check connections to servers**.




- The **ASR** and **TTS** servers are listed and the **ICMP Check*** is **Success**

**Speech Servers**

| Type | Name | Address | Engine Type | Base Port | Languages/TTS Voices | ICMP Check* | Service Check |
|---|---|---|---|---|---|---|---|
| ASR | VoiceNavigatorASR | 10.10.16.11 | nuance osr | 8000 | ru-RU | Success | Check ASR Server |
| TTS | VoiceNavigatorTTS | 10.10.16.11 | nuance realspeak | 8000 | ru-RU:Юлия8000:female | Success | Check TTS Server |

- Click on **Check TTS Server** to see the connection to Voice Navigator ASR and TTS on port 8000 was successfully opened.

**Check Server Status**

A connection to host *10.10.16.11* on port *8000* was successfully opened.

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# 8. Conclusion

These Application Notes describe the compliance tested configuration used to validate Speech Technology Center Voice Navigator Version 8 with Avaya Aura® Experience Portal Version 7.0.1. A full and comprehensive set of feature and functional test cases were performed during compliance testing. Voice Navigator 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 7.0.1 Overview and Specification*

[2] *Deploying Avaya Aura® Experience Portal 7.0.1 in an Avaya Customer Experience Virtualized Environment*


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

Please e-mail any questions or comments pertaining to these Application Notes along with the full title name and filename, located in the lower right corner, directly to the Avaya DevConnect Program at devconnect@avaya.com.