



Avaya Solution & Interoperability Test Lab

Application Notes for Configuring Interalia SBX2 with Avaya IP Office R8.1 using Analog connections- Issue 1.0

Abstract

These Application Notes describe the configuration steps for provisioning Interalia's SBX2 system to successfully interoperate with Avaya IP Office R8.1 using analog connections. Interalia's SBX2 is a voice application platform that supports Recorded Announcements, Music on Hold and basic Interactive Voice Response technology.

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 compliance tested configuration using Intermedia's SBX2 solution with Avaya IP Office R8.1 using analog connections. The Intermedia's SBX2 is an entry-level system providing up to 8 analog ports and one hour of audio storage. The Intermedia's SBX2 is a microprocessor-based voice application platform that supports multiple applications simultaneously on a port-by-port basis. Typical SBX2 applications include:

- ACD/RAN announcements
- Auto attendant
- Information Lines
- Music on hold (MOH)

These Application Notes do not focus on the SBX2 configuration, but only on the connectivity between Avaya IP Office SBX2 and the Avaya IP Office configuration.

2. General Test Approach and Test Results

The test approach was to validate the correct operation of typical interactive voice response applications such as an Auto Attendant. The following tests were performed to insure full interoperability between the SBX2 and Avaya IP Office. The tests were all functional in nature and performance testing was not included. All the test cases passed successfully.

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 both feature functionality and serviceability testing. The feature functionality testing focused on verifying that the voice application response is activated in various scenarios. The testing included:

1. Connectivity of SBX2 to Avaya IP Office
 - Testing of the connection between the SBX2 and Avaya IP Office and the surrounding hardware (IP sets)
2. Music on hold from internal/external callers on Avaya IP Office. Testing on the ability to hear Music during the following call scenario
 - Caller placed on hold/transferred
3. Playing Interactive Voice Response (IVR) services from callers both internally and externally
 - An analog extension is assigned to the SBX2 by Avaya IP Office.
 - Callers both internally and externally call this extension to hear the IVR services.
4. Recovery of the SBX2
 - The SBX2 was disconnected and reconnected

The compliance testing focused on testing using only analog connections between the SBX2 and Avaya IP Office. The failure/recovery testing focused on verifying the ability of the SBX2 to recover from disconnection such as power supply failure.

2.2. Test Results

All testing passed successfully however the ACD/RAN announcements application of SBX2 was not tested since Avaya IP Office does not offer an option for 3rd party ACD announcements.

2.3. Support

Technical support can be obtained for Intermedia's SBX2 as follows:

- Email: support@intermedia.com
- Website: www.intermedia.com
- Phone: +1 800 661 9406

3. Reference Configuration

Figure 1 shows the network topology during compliance testing. The SBX2 is connected using its analog port to the Avaya IP Office analog phone port (card number 700417231). Also one of the audio out port of the SBX2 is connected to the Avaya IP Office audio port.

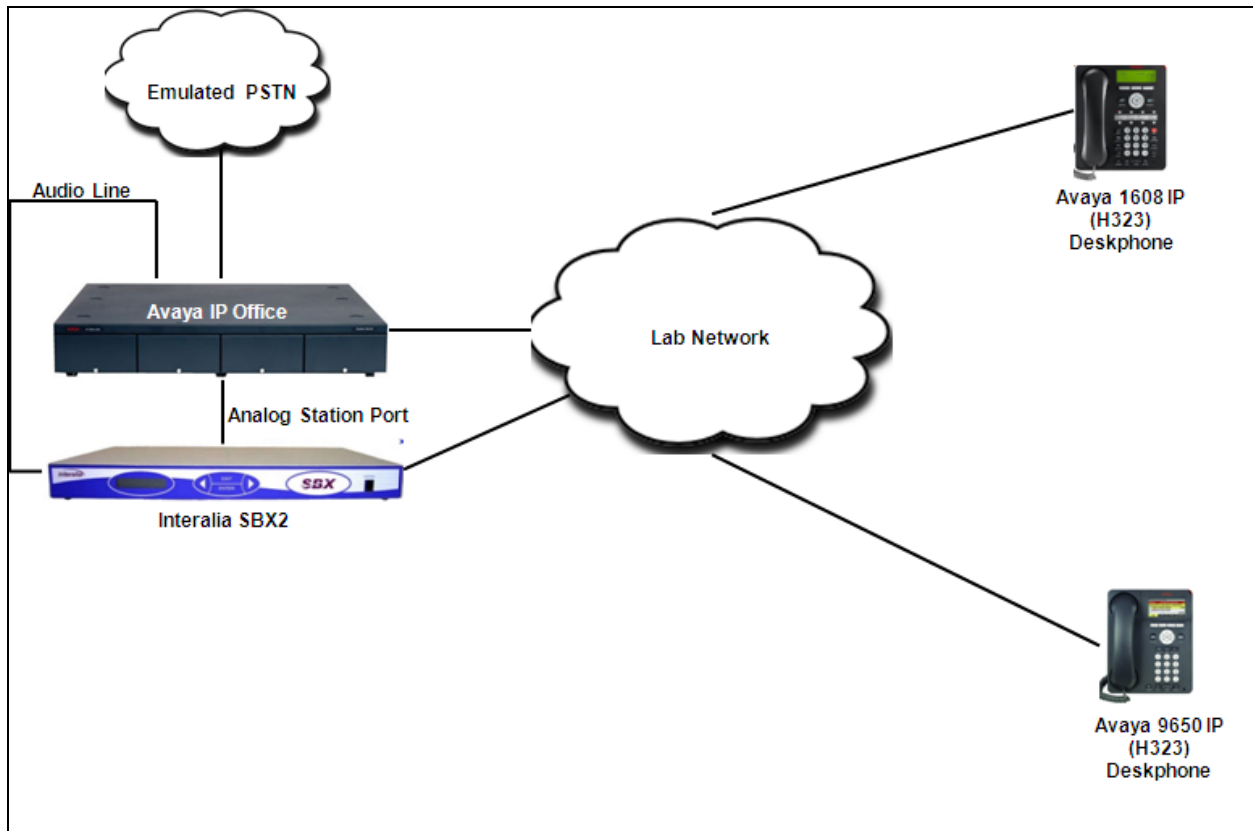


Figure 1: Network Topology and Connectivity for Interalia SBX2 and Avaya IP Office

4. Equipment and Software Validated

All the hardware and associated software used in the compliance testing is listed below.

Equipment/Software	Release/Version
Avaya IP Office	8.1.52
Avaya IP Telephones <ul style="list-style-type: none">• 9650 (H323)• 1608 (H323)	3.104S 1.302S
Interalia SBX2	1.38.10

Table 1: Hardware and Software Version Numbers

Note: Testing was performed with IP Office 500 R8.1, but it also applies to IP Office Server Edition R8.1. Note that IP Office Server Edition requires an Expansion IP Office 500 v2 R8.1 to support analog or digital endpoints or trunks.

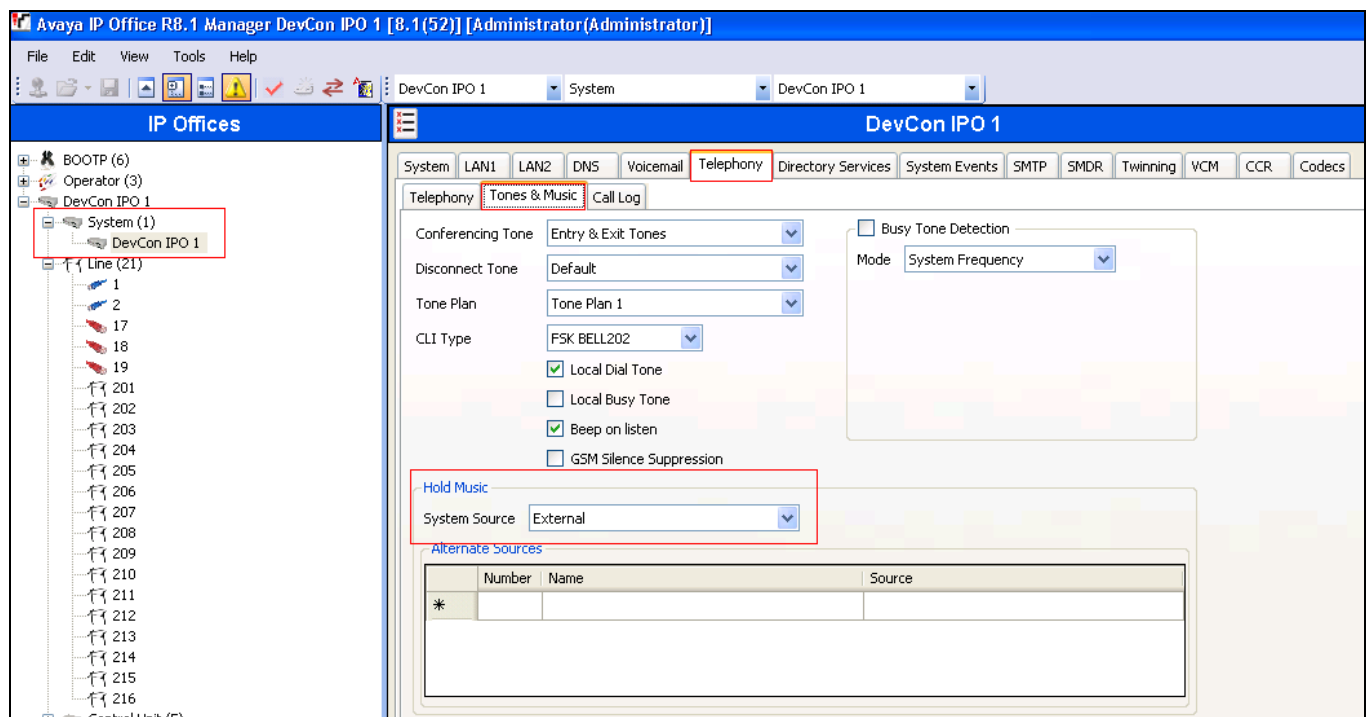
5. Configure Avaya IP Office

This section provides the procedure for configuring Avaya IP Office. Assumption is made here that the Avaya IP Office Users and Extensions are already configured and therefore will not be discussed.

5.1. Configure Music On Hold Source on Avaya IP Office

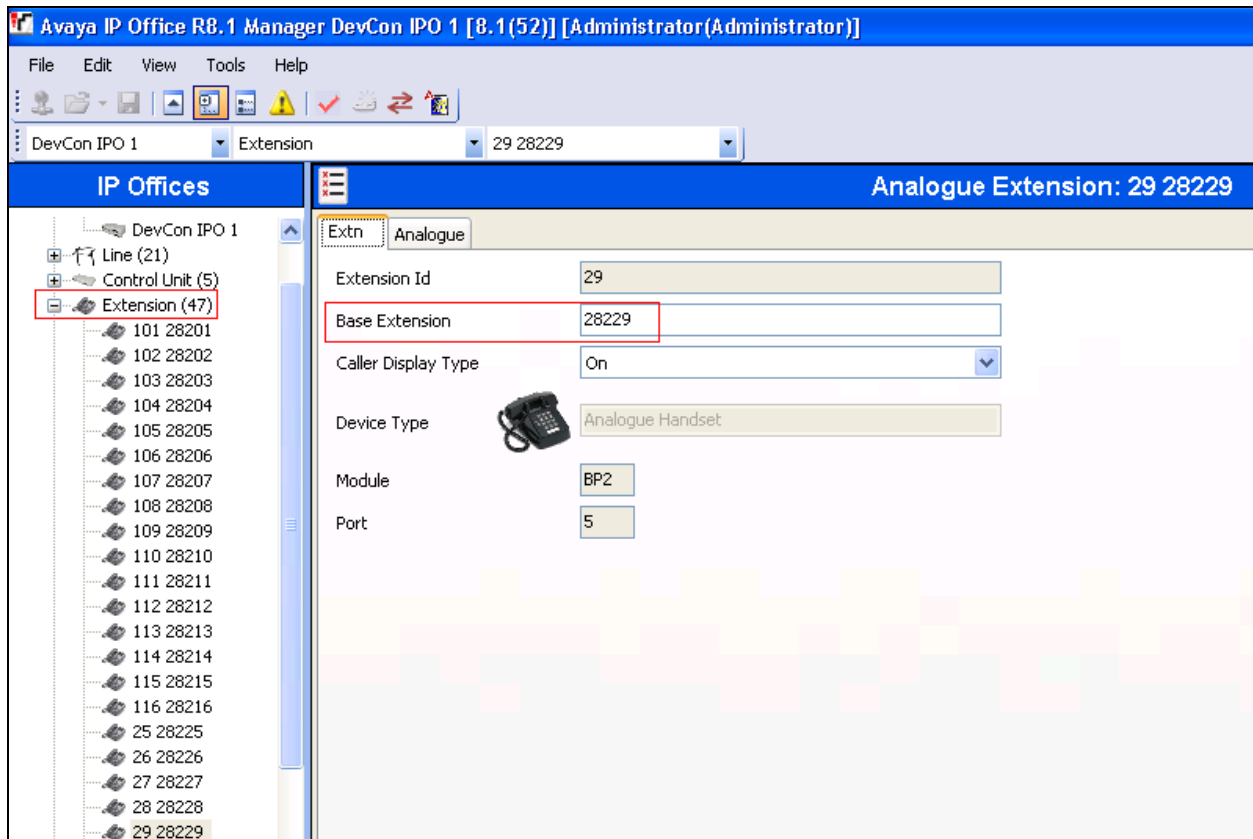
From a PC running the Avaya IP Office Manager application, select **Start → Programs → IP Office → Manager** to launch the Manager application. Select the proper IP Office system, and log in with the appropriate credentials (not shown).

The **Avaya IP Office R8.1 Manager** screen is displayed as shown in the screen below. From the configuration tree in the left pane, select **System** → **Telephony** → **Tones & Music**. From the **Hold Music** section select “External” from the drop down menu. Rest of the values remain at default.



5.2. Configure an Analog Extension and User on Avaya IP Office

From the configuration tree in the left pane, select **Extension**. Select an analog extension and assign an available *Base Extension* number in the **Extn** tab as shown in the screen below. During compliance testing a number “28229” was configured. This will be the extension that will be used to dial the SBX2 box by both internal and external callers. Rest of the values remain at default. Click on the **OK** button (not shown) to complete the configuration.



To assign a user to the extension created above, navigate to **User** from the configuration tree in the left pane. Right click on **User** and select **New** (not shown). Screen below shows extension “28229” being assigned to this new user. Enter the extension number configured above in the **Extension** field and enter a name in the **Name** field. Rest of the fields can be left at default. Click on the **OK** button (not shown) to complete the configuration. Click on the **Save** button (not shown) to save both the extension and user configuration.

6. Configure Intermedia SBX2

During compliance testing since the focus was on testing proper audio for Music On Hold (MOH) and IVR announcement options, only the physical connectivity from SBX2 to Avaya IP Office is discussed here. Note that the SBX2 box used during compliance testing was already preconfigured with music and IVR announcements by Intermedia and therefore will not be discussed in this document.

6.1. Physical Connectivity of SBX2 to Avaya IP Office for MOH.

Position the SBX2 near the Avaya IP Office. Using the RCA cable with mini-jack adaptor, connect the SBX’s Audio “ Out 1” to the MOH input on the Avaya IP Office jack labeled “Audio”.

6.2. Physical Connectivity of SBX2 to Avaya IP Office for IVR.

Position the SBX2 near the Avaya IP Office. Plug one end of a RJ-11 analog phone cable to the “Analog” port on the SBX2 box and the other end to a free analog phone port of the Avaya IP Office. During compliance testing the analog port on the Avaya IP Office with extension 28229 is used.

7. Verification Steps

This section provides the tests that can be performed to verify correct configuration of the Avaya IP Office and SBX2.

The following steps can be performed to verify the basic operation of the system components,

- Place external and internal calls to Avaya IP Office and perform hold and transfer operations to verify that music is played as expected.
- Dial the extension 28229 from both internal and external phones. Confirm if the IVR announcement plays all the configured options and correct response is provided to the user when each option in the menu is selected.
- Dial the extension 28229 from both internal and external phones. Confirm if the SBX2 can successfully complete a blind and supervised transfer.
- Disconnect power to the SBX2 unit while a call is put on hold and music is being played. Verify that the call is not dropped. Connect the power back and verify that the music on hold starts playing when the unit is back into complete operation.
- Reboot the Avaya IP Office when a call is on hold and music is being played. Calls are dropped. Verify that Avaya IP Office is operational after the reboot is completed and music on hold operation is working after the reboot.

8. Conclusion

These Application Notes describe the configuration steps required for Intermedia SBX2 to successfully interoperate with Avaya IP Office using Analog extensions. All functionality and serviceability test cases were completed successfully.

9. Additional References

This section references the product documentation relevant to these Application Notes.

1. *IP Office 8.1GA Knowledge Base Documentation*, December 17, 2012, available at <http://support.avaya.com>
2. Product documentation for Intermedia SBX2 can be found at <http://www.intermedia.com/Support/SBX/SBX.php>

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