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Avaya Solution & Interoperability Test Lab

Application Notes for VXi VEHS-A2 EHS Cable and VXi V200 Office Headset with Avaya 1400 Series Digital Deskphones - Issue 1.0

Abstract

These Application Notes describe the steps required to verify interoperability of the VXi VEHS-A2 EHS Cable and VXi V200 Office Headset with Avaya 1400 Series Digital Deskphones.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as the 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 to integrate the VXi VEHS-A2 EHS (Electronic Hook Switch) Cable and VXi V200 Office Headset with Avaya 1400 Series Digital Deskphones. The VXi V200 Office headsets provide two-way audio. This solution provides call control features directly from the headset, such as answering or terminating a call from the headset. Volume control and mute are provided directly from the Avaya Digital Deskphone as well as from the headset.

In this compliance testing, the following headsets and accessories were tested:
- V200 Headset – Wireless headset.
- VEHS-A2 EHS Cable - provides headsets the ability to hear ring tones, answer and end calls, and mute/un-mute calls directly from the headset when the user is away from their Avaya deskphones.

2. General Test Approach and Test Results

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.

Avaya's formal testing and Declaration of Conformity is provided only on the headsets/handsets that carry the Avaya brand or logo. Avaya may conduct testing of non-Avaya headset/handset to determine interoperability with Avaya phones. However, Avaya does not conduct the testing of non-Avaya headsets/handsets for: Acoustic Pressure, Safety, Hearing Aid Compliance, EMC regulations, or any other tests to ensure conformity with safety, audio quality, long-term reliability or any regulation requirements. As a result, Avaya makes no representations whether a particular non-Avaya headset will work with Avaya's telephones or with a different generation of the same Avaya telephone.

Since there is no industry standard for handset interfaces, different manufacturers utilize different handset/headset interfaces with their telephones. Therefore, any claim made by a headset vendor that its product is compatible with Avaya telephones does not equate to a guarantee that the headset will provide adequate safety protection or audio quality.

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to and from the Avaya 1400 Series Digital Deskphones with the VXi VEHS-A2 EHS Cable and VXi V200 Office Headset and verifying two-way audio. The call types included calls to voicemail, to local extensions, and to the PSTN.

The serviceability testing focused on verifying the usability of the V200 Headset after restarting the Avaya 1400 Series Digital Deskphones and re-connecting the V200 Headset.

2.1. Interoperability Compliance Testing

All test cases were performed manually. The following features were verified:

The following features and functionality will be covered:

- Placing calls to the voicemail system. Voice messages were recorded and played back to verify that the playback volume and recording level were acceptable.
- Placing and receiving calls to and from internal extensions to verify two-way audio.
- Placing and receiving calls to and from the PSTN to verify two-way audio.
- Verify ring back tone for outgoing calls.
- Verify ring alert for incoming calls
- Toggling between handset, speaker phone and headset.
- Using the volume control buttons on headset to adjust the audio volume.
- Using the mute control button on Avaya deskphone to mute and un-mute the audio.
- Using the mute control button on headset to mute and un-mute the audio.
- Using the headset with 1416 Digital Deskphones.

For the serviceability testing, the 1400 Series Digital Deskphone was restarted to verify proper operation of the headset after the reboot was completed.

2.2. Test Results

All test cases passed with the following observation(s):

- If the headset is off, the headset button on Avaya Deskphone button will not able to activate the VXi headset, work around is to use call control button on the VXi headset instead.
- If a user is active on a call using the headset, and the call drops, the headset will not go inactive – the green LED is still on. The user can use the headset button to hang up the call and turn off the headset LED.
- If the headset is off – the green LED phone is off on a headset base, upon an incoming call, call alert is heard through headset. When the headset is on – the green LED phone is on, the alert heard on the headset is lower than when it is off.
- During a call if a user uses the mute button on the headset to mute the call, the audio is muted, and the headset indicates the call is muted, but the mute button on the deskphone and the mute icon on the deskphone screen do not update to reflect correct status.
- During a call if user presses the mute button on the deskphone to mute the call, the audio is muted, and the status indicators on the deskphone show that the call is muted, but the user hears/sees no indication on the headset that the call is muted.
- When the far end disconnects the call, the headset button on the deskphone remains activated. This is the default behavior of Avaya Digital Deskphones.

- When a user is active on a call using the headset, and the user lifts the handset to transfer call to handset, the headset LED still shows active, but there is no audio path to the headset, only to the handset.
- When a user is active on a call using the handset, and wishes to transfer the call to the headset, the user can press the headset button on the phone, but the headset LED has to be on first. If the headset LED is off, the call will not go to the headset.
- During a call if user walks away from the deskphone out of supported zone (about 300 feet), the call will be dropped and headset goes inactive

2.3. Support

For technical support and information on VXi V200 Office Headsets, contact VXi Support at:
- Phone: 1-800-742-8588 (USA Toll Free)
  1-603-742-2888
- Website: http://www.vxicorp.com

3. Reference Configuration

Figure 1 1 illustrates the test configuration used to verify the VXi V200 Office Headsets and VXi VEHS-A2 EHS Cable with Avaya 1416 Digitals Deskphones. The configuration consists of an Avaya Aura® Communication Manager Virtual Machine (VM) with Avaya Aura Media Server VM and an Avaya G450 Media Gateway. The Session Manager/System Manager VM provides connectivity to the simulated SIP PSTN via SIP trunk (not shown). Avaya Aura® Messaging was used as the voicemail system for user on Communication manager. The VXi V200 Office Headsets were connected to the VXi VEHS-A2 EHS Cable which in turn is connected to the headset port of the Avaya deskphone.
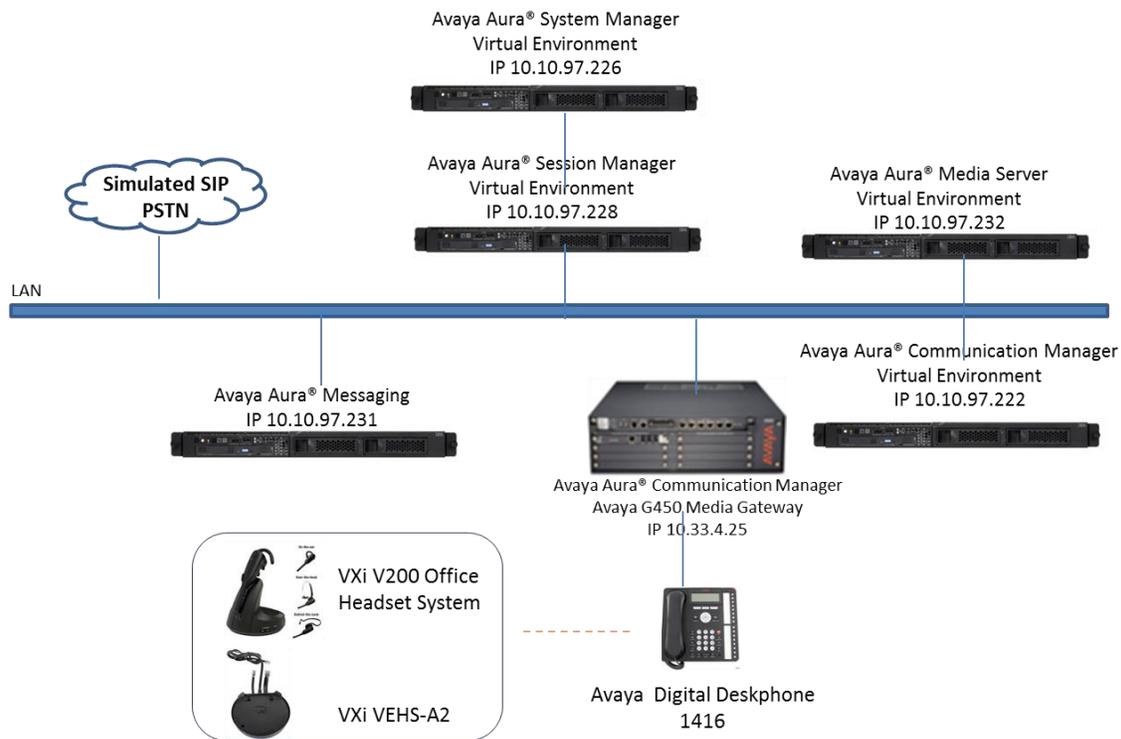

Figure 1: Avaya 1400 Series Digital Deskphone with VXi VEHS-A2 EHS Cable and VXi V200 Office Headset

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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 in Virtual Environment	7.0.1.2 FP1-SP2
Avaya G450 Media Gateway	7.0.1.2
Avaya Aura® Media Server in Virtual Environment	7.7 SP2 (v.7.7.0.281)
Avaya Aura® Messaging	6.3.2
Avaya 1416 Digital Deskphones	Rel 40 Vintage 09
VXi V200 Office	PN 203940
VXi VEHS-A2 EHS Cable	PN 203930

5. Configure Avaya Aura® Communication Manager

These Application Notes assume that Communication Manager is configured and operational, and the appropriate endpoints are configured; refer to [1] for endpoint configuration. There are no additional settings required to be configured for the connection of the VXi headsets to Avaya telephones.

5.1. Configure a Station for Avaya 1400 Series Digital Deskphone

Use the **add station** command to create a station for the 1416 digital deskphone. Set the **Type** field to the station type to be emulated. In this example, 1416 was used. Set the **Port** field to the appropriate slot location of the digital board and port.

Note: To enable Auto-Answer on the digital telephone set the **Auto Answer** field on **Page 2** (not shown) to the appropriate value, such as *all*.

```
add station 56104                                           Page   1 of   5
                                 STATION
Extension: 56104                    Lock Messages? n                BCC: 0
      Type: 1416                    Security Code:                   TN: 1
      Port: 001V401              Coverage Path 1:                   COR: 1
      Name: NineOFour            Coverage Path 2:                   COS: 1
                                 Hunt-to Station:
STATION OPTIONS
                                       Time of Day Lock Table:
             Loss Group: 2      Personalized Ringing Pattern: 1
                                         Message Lamp Ext: 56104
           Speakerphone: 2-way        Mute Button Enabled? y
       Display Language: english
         Survivable COR: internal
  Survivable Trunk Dest? y                        IP SoftPhone? n
                                        Remote Office Phone? n
                                                  IP Video? n
                                        Customizable Labels? y
```

6. Connect VXi VEHS-A2 EHS Cable and VXi V200 Office Headset

Connect the VXi V200 Office headsets to the VXi VEHS-A2 EHS Cable, and then connect the EHS cable directly to the headset port of the Avaya 1416 Digital Deskphone as described in VXi V200 Office Quick Start Guide.

7. Verification Steps

This section provides the steps that can be performed to verify proper installation of the VXi V200 Office Headset with the Avaya 1400 Series Digital Deskphones:

1. Press the Headset button on the headset; verify dial tone is heard on the headset.
2. Place a call to another extension.
3. Verify two-way talk path between the headset and the called extension.
4. Press the Mute button on the 16xx telephone and verify the call can be muted/unmuted.
5. Verify the volume can be adjusted by the Volume control on the headset.
6. Disconnect the call by pressing the call control button on headset. Verify that the call is properly disconnected.

8. Conclusion

These Application Notes describe the configuration steps required to integrate the VXi VEHS-A2 EHS Cable and VXi V200 Office Headset with Avaya 1400 Series Digital Deskphones. All test cases were completed successfully with observations noted in **Section 2.2**.

9. Additional References

This section references the Avaya and VXi documentation that are relevant to these Application Notes.

The following Avaya product documentation can be found at http://support.avaya.com.

[1] *Administering Avaya Aura® Communication Manager Release 7.0.1 03-300509 Issue 2.1 August 2016*
[2] *Avaya 1400 Series Digital Deskphones for Avaya Aura™ Communication Manager Installation and Maintenance Guide Release 1.0 16-603143 Issue 2 March 2017*

The VXi product documentation is available with the headset and at
http://www.vxicorp.com/v200