Avaya Solution & Interoperability Test Lab

Application Notes for Configuring JPL Headsets from JPL Limited with Avaya 1100 Series IP Telephones using a BL-10P Cord – Issue 1.0

Abstract

These Application Notes describe the configuration steps for provisioning JPL headsets using a BL-10P cord from JPL Limited with Avaya 1100 Series IP Telephones using UNIStim and SIP protocols to ensure full interoperability.

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

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1. Introduction

These Application Notes describe the configuration steps required to integrate JPL Headsets using a BL-10P cord from JPL Limited with Avaya 1100 Series IP Telephones using both UNIStim and SIP protocols. JPL Limited offer a variety of headsets (listed in **Section 4**) that can be used with the Avaya 1100 Series Telephone using the BL-10P cord to connect the headset to the telephone RJ9 headset jack. The headset then provides two-way audio. This solution does not provide call control features directly from the headset, such as answering or terminating a call from the headset. The headsets do not offer volume control or mute functionality.

JPL Limited design and develop professional headsets for the Corporate, Financial, Health, Government, Educational, Industrial, Hotel & Hospitality and Contact Centre market sectors.

2. General Test Approach and Test Results

The interoperability compliance test included feature and serviceability testing. The feature testing focused on placing calls to and from the Avaya 1100 Series IP Telephones with each JPL headset attached using the BL-10P cord and verifying two-way audio. The call types included calls to voicemail, to local extensions, and to the PSTN. The Avaya telephone user should be clearly heard and observed without any distortions or audio issues. The serviceability testing focused on verifying the usability of the JPL headset after restarting the Avaya 1100 Series IP Telephones and re-connecting the JPL headset.

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.

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2.1. Interoperability Compliance Testing

The interoperability compliance testing was carried out on the latest SIP and UNIStim firmware for Avaya 1100 Series IP Telephones. The following JPL headsets were used for compliance testing.

- JPL 401
- JPL 402
- JPL 501
- JPL 502
- JPL 611
- JPL 612
- JPL TT3

Note: The TT3 headset comes in three parts, the mic boom, a monaural headband and a binaural headband. This allows the user to swap out the mic boom between headbands.

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

- Placing calls to the voicemail system. Voice messages were recorded and played back to verify that the playback volume and recording level were good.
- Placing calls from/to internal extensions to verify two-way audio.
- Placing calls from/to the PSTN to verify two-way audio.
- Hearing ring back tone for outgoing calls.
- Toggling between handset, speakerphone, and headset.
- Using the volume control buttons on the Avaya Telephone to adjust the audio volume.

2.2. Test Results

All compliance test cases passed successfully. The following observation was noted.

- No configuration changes were made on the individual telephone. Whatever default settings for the headset were in place was used to test with.
- The Termination/Selection switch on the BL-10P cord must be in position 1 for the Avaya 1100 series IP Telephones.

2.3. Support

Support from Avaya is available by visiting the website http://support.avaya.com. Support from JPL-Limited is available at:

JPL Limited
Unit 1, Church Close Business Park
Church Close, Todber
Sturminster Newton
Dorset DT10 1JH
England
Phone: +44(0)1258 820100
E-Mail: sales@jpl.uk.com

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3. Reference Configuration

Figure 1 shows the network topology during compliance testing. The JPL headsets are connected via the headset port using a BL-10P RJ9 modular plug supplied by JPL Limited to the Avaya 1100 Series IP Telephones.

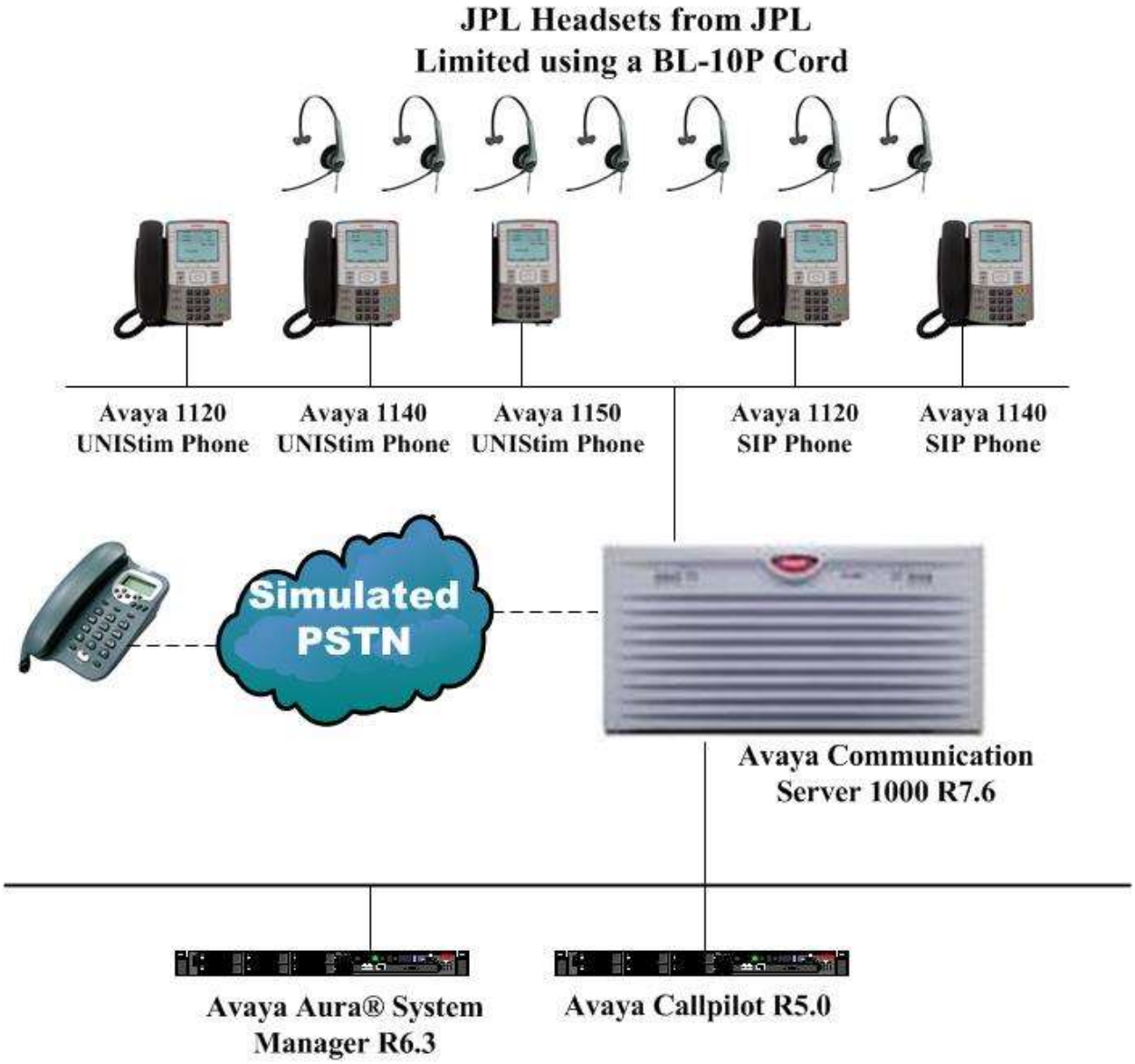


Figure 1: Network Solution of the JPL Headsets connecting to Avaya 1100 Series IP Telephones using a BL-10P cord

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4. Equipment and Software Validated

The following equipment and software was used for the compliance test.

Equipment Description	Software Release
Avaya Aura® System Manager running on a virtual server	6.3.11 (SP11) Build No. – 6.3.0.8.5682-6.3.8.3204 Software Update Revision No: 6.3.7.7.2275
Avaya Communication Server 1000 running on an Avaya CPPM	R7.6
Avaya Callpilot Server	R5.0
Avaya 1120E IP Deskphone	UNIStim 0624C8Y
Avaya 1120E IP Deskphone	SIP 04.00.04.12
Avaya 1140E IP Deskphone	UNIStim 0625C8Y
Avaya 1140E IP Deskphone	SIP 04.03.12.0
Avaya 1150E IP Deskphone	UNIStim 0627C8Y
JPL Headset • JPL 401 • JPL 402 • JPL 501 • JPL 502 • JPL 611 • JPL 612 • JPL TT3	N/A
JPL Limited BL-10P Cord	N/A

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5. Configure Avaya Communication Server 1000

It is assumed that a fully functioning Avaya Communication Server 1000 (CS1000) is in place with the necessary licensing. It is assumed that the Avaya 1100 Series IP Telephones, UNIStim and SIP, are all configured. For further information on how to configure these telephones and on the configuration of CS1000 please see **Section 10** of these Application Notes.

Note: An example of a configured 1140E UNIStim and SIP telephone is included in the **Appendix** of these Application Notes.

6. Configuring Avaya 1100 Series IP Telephones

The headset can be used with the Avaya 1100 Series IP Telephones settings all left as default. Calls can be made and answered using the headset button on the telephone set. Some settings can be changed to allow the headset be the default answering device for all incoming calls if required.

6.1. Setting the Audio Path on Avaya 1100E Series IP Telephone

The OnHook Default Path option allows the use of the headset or the Handsfree feature to operate the IP Deskphone while it is on-hook. To enable the OnHook Default Path,

1. Press the Services key.
2. Select Telephone Options.
3. Select OnHook Default Path.
4. Press the Up/Down navigation keys to highlight Headset Enable.
5. Press the Select soft key to save the default path and return to the Telephone Options menu.

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7. Configure JPL Headsets to work with Avaya Telephones

There are several RJ9 cords available to connect the headset to the Avaya telephone depending on the telephone in question. For the Avaya 1100 series telephones a BL-10P cord with the terminating switch set in position 1 is used.

7.1. Connecting to Avaya 1100E Series Telephones

In connecting the JPL headset to the Avaya 1100 series telephone the suggested cord to use is the BL-10P cord with the terminating switch set to position 1. The BL-10P offers 8 switch positions which can be changed by selecting position 1 – 8 along the side of the cord. After compliance testing it was agreed that position 1 proved the best for audio and speech. Connect each headset to the BL-10P cord, and then connect the BL-10P cord directly to the headset port of the Avaya 1100 Series IP Telephone.

8. Verification Steps

The following steps can be taken to ensure that connections between the JPL headsets and Avaya 1100 Series IP Telephones are achieved.

1. When the headset is connected to the telephone set press the HEADSET key on the telephone set. The headset LED should light up and dial tone should be heard.
2. To answer a call press the headset key when the telephone is ringing again the headset LED should be lit.

9. Conclusion

These Application Notes outline the steps necessary to configure the JPL headsets from JPL Limited using a BL-10P cord to allow full interoperability with Avaya 1100 Series IP Telephones, with both UNIStim and SIP firmware. Please refer to **Section 2.2** of these Application Notes for test results and observations.

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10. Additional References

This section references documentation relevant to these Application Notes. Product documentation for Avaya products may be found at http://support.avaya.com

[1] *Software Input Reference Administration Avaya Communication Server 1000, Release 7.6;* Document No. NN43001-611_05.02
[2] *Avaya 1120E IP Deskphone User Guide,* Document number NN43113-103
[3] *Avaya 1140E IP Deskphone User Guide,* Document number NN43113-106
[4] *Avaya 1150E IP Deskphone User Guide,* Document number NN43114-100

JPL headset product documentation can be found at http://www.jpltele.com

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Appendix

Avaya 1140E IP UNIStim Deskphone

```
DES  JPL-Limited
TN   096 0 00 00  VIRTUAL
TYPE 1140
CDEN 8D
CTYP XDLC
CUST 0
NUID
NHTN
CFG_ZONE 00001
CUR_ZONE 00001
MRT
ERL  0
ECL  0
TGAR 0
LDN  NO
NCOS 0
LNRS 16
XLST 0
SCPW 1234
SFLT NO
CAC_CIS 0
CAC_MFC 0
CLS  UNR FBD WTA LPR PUA MTD FND HTD TDD HFD CRPD
     MWD LMPN RMMD SMWD AAD IMD XHD IRA NID OLD VCE DRG1
     POD SLKD CCSD SWD LNA CNDD
     CFTD SFD MRD DDV CNID CDCA MSID DAPA BFED RCBD
     ICDD CDMD LLCN MCTD CLBD AUTU
     GPUD DPUD DNDD CFXD ARHD CNTD CLTD ASCD
     CPFA CPTA ABDD CFHD FICD NAID DNAA RDLA BUZZ AGRD MOAD
     UDI RCC HBTD AHA IPND DDGA NAMA MIND PRSD NRWD NRCD NROD
     DRDD EXR0
     USMD USRD ULAD CCBD RTDD RBDD RBHD PGND OCBD FLXD FTTC DNDY DNO3 MCBN
     FDSD NOVD VOLA VOUA CDMR PRED RECA MCDD T87D SBMD
     KEM3 MSNV FRA  PKCH MUTA MWTD DVLD CROD ELCD
CPND_LANG ENG
PLEV 02
PUID
UPWD
DANI NO
SPID NONE
DNDR 0
KEY  00 SCR 5000
     01 MSB
     17 TRN
     18 AO6
     19 CFW
     20 RGA
     21 PRK
     22 RNP
     24 PRS
     25 CHG
     26 CPN
```


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Avaya 1140E IP SIP Deskphone

```
DES  SIP
TN   096 0 01 00  VIRTUAL
TYPE UEXT
CDEN 8D
CTYP XDLC
CUST 0
UXTY SIPL
MCCL YES
SIPN 1
SIP3 0
FMCL 0
TLSV 0
SIPU 3230
NDID 200
SUPR NO
UXID
NUID
NHTN
CFG_ZONE 00001
CUR_ZONE 00001
MRT
ERL  0
ECL  0
VSIT NO
FDN
TGAR 0
LDN  NO
NCOS 0
SGRP 0
RNPG 0
SCI  0
SSU
LNRS 16
XLST
SCPW 3230
SFLT NO
CAC_CIS 0
CAC_MFC 0
CLS  UNR FBD WTA LPR MTD FND HTD TDD HFA CRPD
     MWD LMPN RMMD SMWD AAD IMD XHD IRD NID OLD VCE DRG1
     POD SLKD CCSD SWD LNA CNDD
     CFTD SFD MRD DDV CNID CDCA MSID DAPA BFED RCBD
     ICDD CDMD LLCN MCTD CLBD AUTU
     GPUD DPUD DNDD CFXD ARHD FITD CLTD ASCD
     CPFA CPTA ABDD CFHD FICD NAID DNAA RDLA BUZZ AGRD MOAD
     UDI RCC HBTD AHA IPND DDGA NAMA MIND PRSD NRWD NRCD NROD
     DRDD EXR0
     USMD USRD ULAD CCBD RTDD RBDD RBHD PGND OCBD FLXD FTTC DNDY DNO3 MCBN
     FDSD NOVD VOLA VOUD CDMR PRED RECD MCDD T87D SBMD ELMD
     MSNV FRA  PKCH MWTD DVLD CROD ELCD
CPND_LANG ENG
HUNT
PLEV 02
PUID
UPWD
DANI NO
AST  00
IAPG 1
```


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```
AACS NO
ITNA NO
DGRP
MLWU_LANG 0
MLNG ENG
DNDR 0
KEY  00 SCR 3230 0     MARP
        ANIE 0
     01 HOT U 3231 MARP 0
        ANIE 0
     02
     03
     04
     05
     06
     07
     08
     09
     10
     11
     12
     13
     14
     15
     16
     17 TRN
     18 AO6
     19 CFW 16
     20 RGA
     21 PRK
     22 RNP
     23
     24 PRS
     25 CHG
     26 CPN
     27
     28
     29
     30
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