AVAYA

Avaya Solution & Interoperability Test Lab

Application Notes for Yealink AvayaSoftPhoneMate and USB-P11B USB VoIP Phones with Avaya one-X® Communicator 6.1 - Issue 1.0

Abstract

These Application Notes describe a compliance-tested configuration comprised of Yealink AvayaSoftPhoneMate and USB-P11B USB VoIP Phones with Avaya one-X® Communicator 6.1 and Avaya Aura® Communication Manager. The Yealink USB P11B is a USB-powered phone. It integrates to Avaya one-X® Communicator through Yealink AvayaSoftPhoneMate application, using the Avaya one-X® Communicator Headset Interface.

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 the Yealink AvayaSoftPhoneMate application and Yealink USB-P11B USB VoIP Phones to interoperate with Avaya one-X® Communicator 6.1 and Avaya Aura® Communication Manager. Yealink USB-P11B is a USB-powered phone. It integrates to Avaya one-X® Communicator through the Yealink AvayaSoftPhoneMate application, using the Avaya one-X® Communicator Headset Interface.

2. General Test Approach and Test Results

The general test approach was to verify that the Yealink AvayaSoftPhoneMate application properly controlled the signaling between the Yealink USB-P11B USB VoIP Phones and Avaya one-X® Communicator. It was verified that the Yealink USB-P11B USB VoIP Phones was able to place and receive calls with good talk path in both directions. The type of calls made included calls to voicemail, to internal extensions, and to the PSTN.

The serviceability testing focused on verifying the usability of the Yealink AvayaSoftPhoneMate application and Yealink USB-P11B USB VoIP Phones after restarting Avaya one-X® Communicator, disconnecting and reconnecting the USB phone, and rebooting the PC.

2.1. Interoperability Compliance Testing

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 following features were verified:

- Placing outgoing calls to the voicemail, internal extensions and to the PSTN using the USB phone.
- Answering, ignoring and ending calls using the USB phone.
- Call hold and un-hold using the USB phone.
- Using the volume control buttons on the USB phone to adjust the playback volume.
- Using the mute control button on the USB phone to mute and un-mute the recording level.
- Sending DTMF using the USB phone number pad for voicemail navigation. Note: The Avaya one-X® Communicator Dialpad needs to be displayed.
- Correct handling of telephony events in call transfer and conference scenarios.

For the serviceability testing, the USB phone was disconnected and reconnected to verify proper operation. Avaya one-X® Communicator was also restarted for the same purpose. The desktop PCs were also rebooted to verify that Yealink AvayaSoftPhoneMate application can start automatically after reboot.

2.2. Test Results

All test cases passed successfully. Items not supported included the following:

- Handling of multiple calls using the USB phone. This needs to be done using Avaya one-X® Communicator.
- Under certain conference scenarios using Avaya one-X® Communicator, hanging up using the USB phone may fail. This is currently under investigation.
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2.3. Support

For technical support and information on Yealink products, contact Yealink at:

- Phone: +86-592-570-2000
- Email: support@yealink.com
- Website: http://www.yealink.com/index.php/Support/index/classid/3

3. Reference Configuration

Figure 1 illustrates the test configuration used to verify the Yealink solution. The configuration comprised of an Avaya S8800 Server running Avaya Aura® Communication Manager and an Avaya G650 Media Gateway with connections to the following: an Avaya 9640 IP Telephone, Avaya A175 Desktop Video Device and an ISDN-BRI trunk to the PSTN. Avaya Aura® Communication Manager Messaging was used as the voicemail system. Avaya one-X® Communicator was installed on two desktop PCs respectively, each having a Yealink USB-P11B USB VoIP Phone attached to the USB Port of the desktop PC. Yealink AvayaSoftPhoneMate was installed in the same PCs. Avaya Aura® System Manager and Avaya Aura® Session Manager provide the required SIP support to Avaya one-X® Communicator running as a SIP endpoint and other SIP endpoints. The Avaya 4548GT-PWR Ethernet Routing Switch provides Ethernet connectivity to the servers, Media Gateway, desktop PCs and IP endpoints.
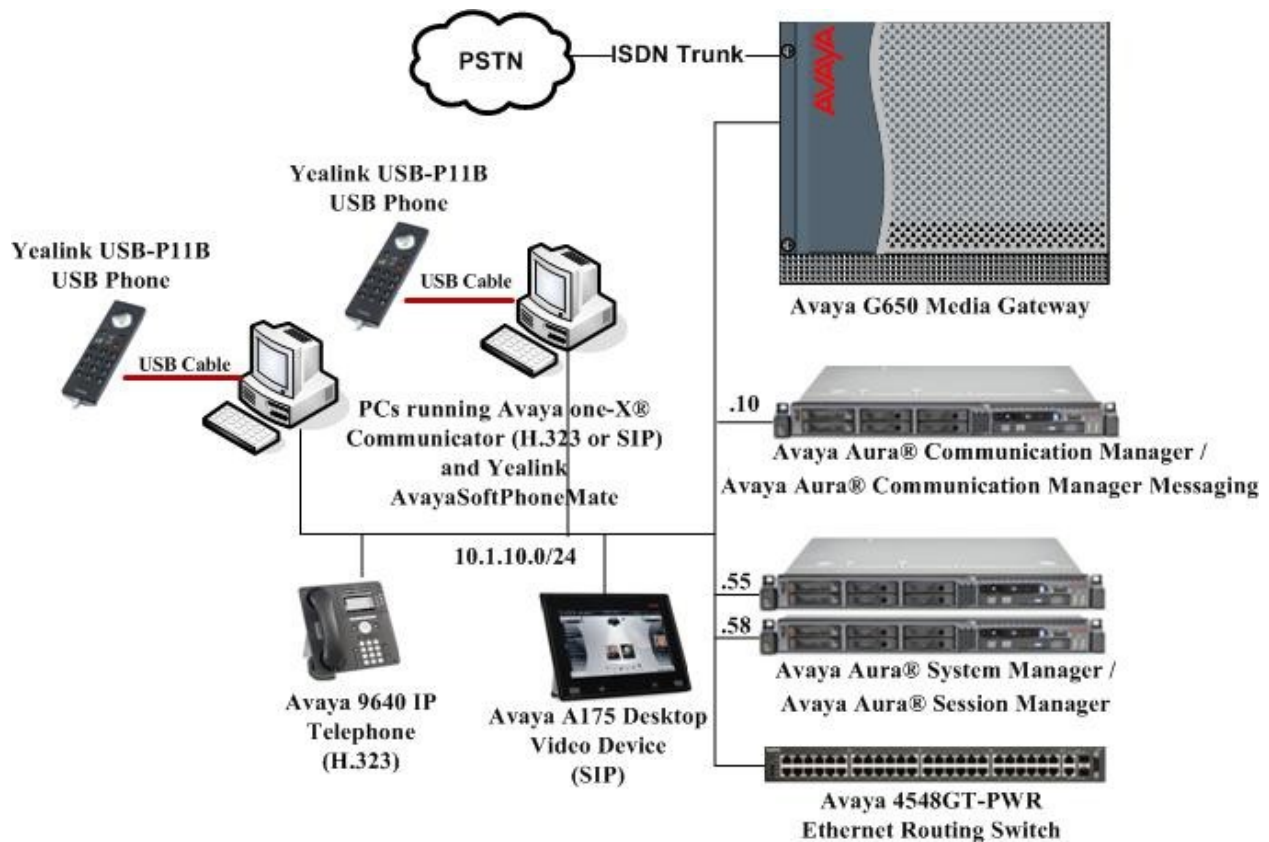

Figure 1: Test Configuration

4. Equipment and Software Validated

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

Equipment	Software
Avaya S8800 Server	Avaya Aura® Communication Manager 6.0.1 with Service Pack 3 (00.1.510.1-19009)
Avaya G650 Media Gateway • TN2312BP IP Server Interface • TN799DP C-LAN Interface • TN2602AP IP Media Processor	- HW07, FW054 HW01, FW040 HW02, FW059
Avaya S8800 Server	Avaya Aura® System Manager 6.1 Service Pack 2
Avaya S8800 Server	Avaya Aura® Session Manager 6.1 Service Pack 2
Avaya one-X® Communicator running on Microsoft Windows Vista/7 Professional PC	6.1 (6.1.0.12-GA-30334) (H.323 or SIP)
Avaya 9640 IP Telephone	3.1 SP2 (H.323)
Avaya A175 Desktop Video Device	1.0.3
Avaya C364T-PWR Converged Stackable Switch	4.5.18
Yealink USB-P11B USB VoIP Phones	-
Yealink AvayaSoftPhoneMate	1.0.0.15

5. Configure Communication Manager

The following sections show the relevant configuration screens for Communication Manager. The screen shots included in this section focused only on the configuration of the station and ip-codec-set forms. The configuration is performed via the System Access Terminal (SAT) on Communication Manager.

Note: The configuration for the station used by Avaya one-X® Communicator running as a SIP endpoint has been omitted in these application notes. Refer to Reference [2] for details.

5.1. Configure Station for Avaya one-X® Communicator (H.323)

Use the **add station n** command; where **n** is an available extension in the dial-plan. To create a station to be used by Avaya one-X® Communicator running as a H.323 endpoint, the following information should be provided:

- **Type:** The IP Telephone type that will be emulated. In this compliance testing, the type was set to **9630**.
- **Security Code**: Password used by Avaya one-X® Communicator to log in.
- **IP SoftPhone?**: **y**
- **IP Video SoftPhone?**: **y** (Optional, if video feature is required)

```
add station 10024                                          Page   1 of   5
                               STATION

Extension: 10024                    Lock Messages? n            BCC: M
      Type: 9630                  Security Code: 12345           TN: 1
      Port: IP                   Coverage Path 1:              COR: 1
      Name: 1XC H323User1         Coverage Path 2:              COS: 1
                                  Hunt-to Station:
STATION OPTIONS
               Location:            Time of Day Lock Table:
             Loss Group: 19    Personalized Ringing Pattern: 1
                                      Message Lamp Ext: 10024
           Speakerphone: 2-way        Mute Button Enabled? y
      Display Language: english         Button Modules: 0
 Survivable GK Node Name:
          Survivable COR: internal     Media Complex Ext:
   Survivable Trunk Dest? y           IP SoftPhone? y

                                      IP Video Softphone? y
                    Short/Prefixed Registration Allowed: default

                                      Customizable Labels? y
```

5.2. Configure IP Codec Set

The following screen shows the codec set configuration that was used during the test. To configure the codec set, use the **change ip-codec-set n** command, where **n** is the IP codec set used by Avaya one-X® Communicator. In this compliance testing, the G.722-64K and G.711 mu-law codec were used.

```
change ip-codec-set 1                                      Page   1 of   2

                       IP Codec Set

   Codec Set: 1

   Audio         Silence      Frames    Packet
   Codec         Suppression  Per Pkt   Size(ms)
 1: G.722-64K                    2         20
 2: G.711MU         n            2         20
 3:
```

6. Configure Avaya one-X® Communicator

Launch Avaya one-X® Communicator and select ⚙️ˇ > **Settings** from the menu as shown below.
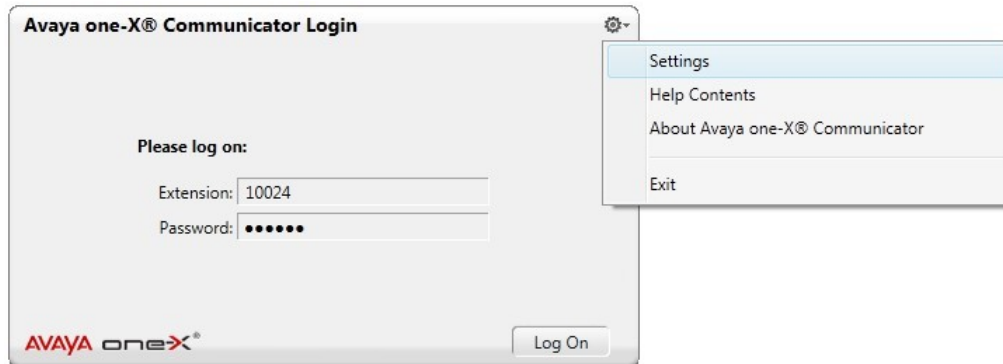
Select **Audio** from the left panel and click the **Basic** tab. Yealink USB-P11B USB VoIP Phone is automatically detected in Microsoft Windows as an audio device with the name **BenQ USB Audio**. Select this device as the **Microphone** and **Speaker** as shown below.
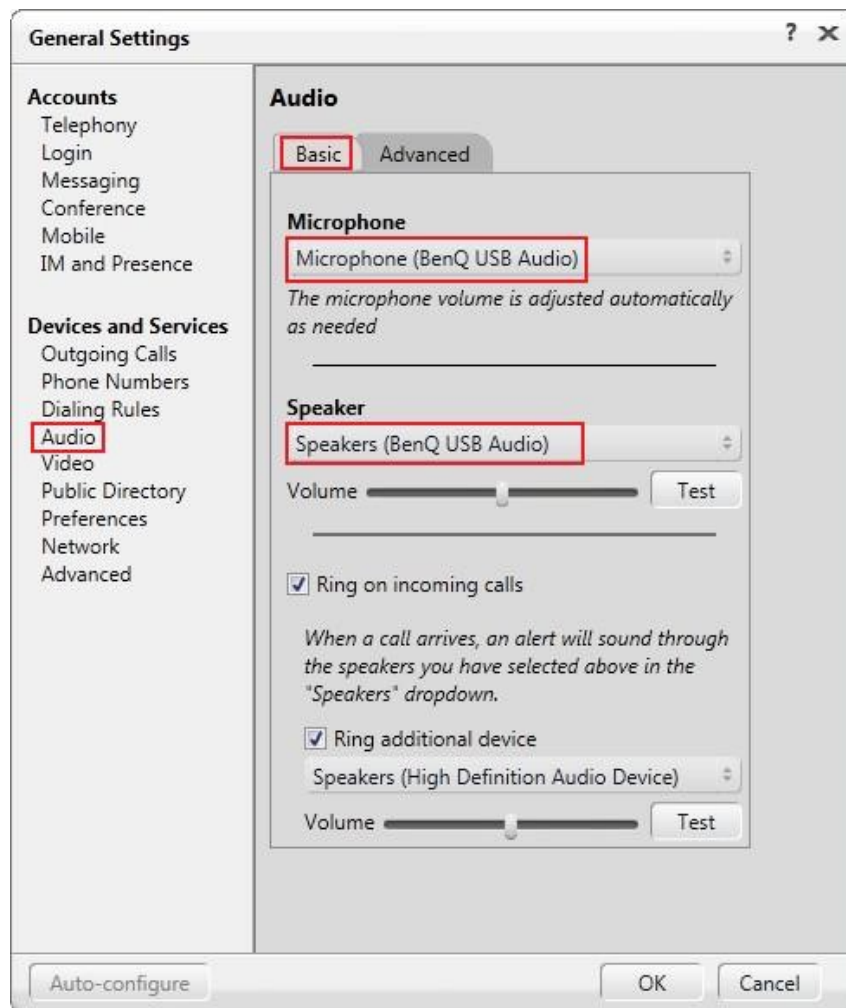
7. Configure Yealink USB-P11B USB VoIP Phones

The Yealink USB-P11B USB VoIP Phones are USB plug-and-play devices. When plugged into the USB Port of the desktop PC, they are automatically detected in Microsoft Windows without requiring any additional driver software. In this test configuration, the Yealink USB-P11B USB VoIP Phone is detected as an audio device with the name **BenQ USB Audio** in Windows Vista and Windows 7.

7.1. Install Yealink AvayaSoftPhoneMate

The Yealink AvayaSoftPhoneMate application enables the USB phone to perform telephony functions through its integration to Avaya one-X® Communicator using the Avaya one-X® Communicator Headset Interface. The following describes the steps to install the Yealink software.

- Log into an account that is a member of the Administrators group.
- Insert the Yealink CD-ROM and execute the executable provided (in this case **AvayaSoftPhoneMate 1.0.0.15.msi**).
- Follow the on-screen instructions to install the software.
- Launch the **AvayaSoftPhoneMate** application. An icon will appear in the Windows Notification Area.

8. Verification Steps

The Yealink AvayaSoftPhoneMate application displays an icon in the Windows Notification Area, which changes according to the status of the application as following:

 - USB phone not detected, or not connected to the USB port.

 - USB phone detected and working. Avaya one-X® Communicator is not running.

 - USB phone detected and working. Avaya one-X® Communicator is running. This is the working state.

9. Conclusion

These Application Notes describe the configuration steps required for Yealink AvayaSoftPhoneMate and Yealink USB-P11B USB VoIP Phones to interoperate with Avaya one-X® Communicator 6.1. Testing was successful and observations are noted in section 2.2.

10. Additional References

This section references the Avaya and Plantronics 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^{TM} Communication Manager*, June 2010, Release 6.0, Issue 6.0, Document Number 03-300509.
[2] *Administering Avaya one-X® Communicator*, April 2011.
[3] *Using Avaya one-X® Communicator Release 6.1*, April 2011.

Yealink product documentation is provided with the USB phone.