Avaya Solution & Interoperability Test Lab

Configuring Avaya IP Softphone with Video and Polycom VSX 3000 with Avaya Communication Manager – Issue 1.0

Abstract

These Application Notes describe how to configure a Polycom VSX 3000 and an IP Softphone with video with Avaya Communication Manager. This configuration allows video and audio calls to be completed using Avaya Communication Manager.

1. Introduction

Videophones allow the users to hear and see each other during the calls. The video and audio streams can be sent over an IP network from one IP phone to the other IP phone. Videophones can be dedicated units, such the Polycom VSX 3000, or can be software based running on a standard Windows PC.

Avaya Communication Manager can be configured to recognize if a station has video capabilities. When two stations call each other, and both are video enabled, Avaya Communication Manager will automatically attempt to setup a video call between the two stations. If one or both are not video enabled, then the call will remain as a voice call. Avaya Communication Manager supports point to point video calls. To setup a video conference call using Avaya Softphone, an external conference server is required.

The Polycom VSX 3000 Video endpoint allows for 3 additional video endpoints to participate in a video conference call.

If the Avaya Softphone is already in use when another phone calls, the first call has to be put on hold to answer the second call. The Polycom VSX 3000 is a Multipoint Conferencing Unit (MCU) and can handle multiple video phone calls at once and connect the calls together. If the Polycom VSX 3000 is called, the call would become a 3-way conference call with video, if available. Video calls can be transferred.

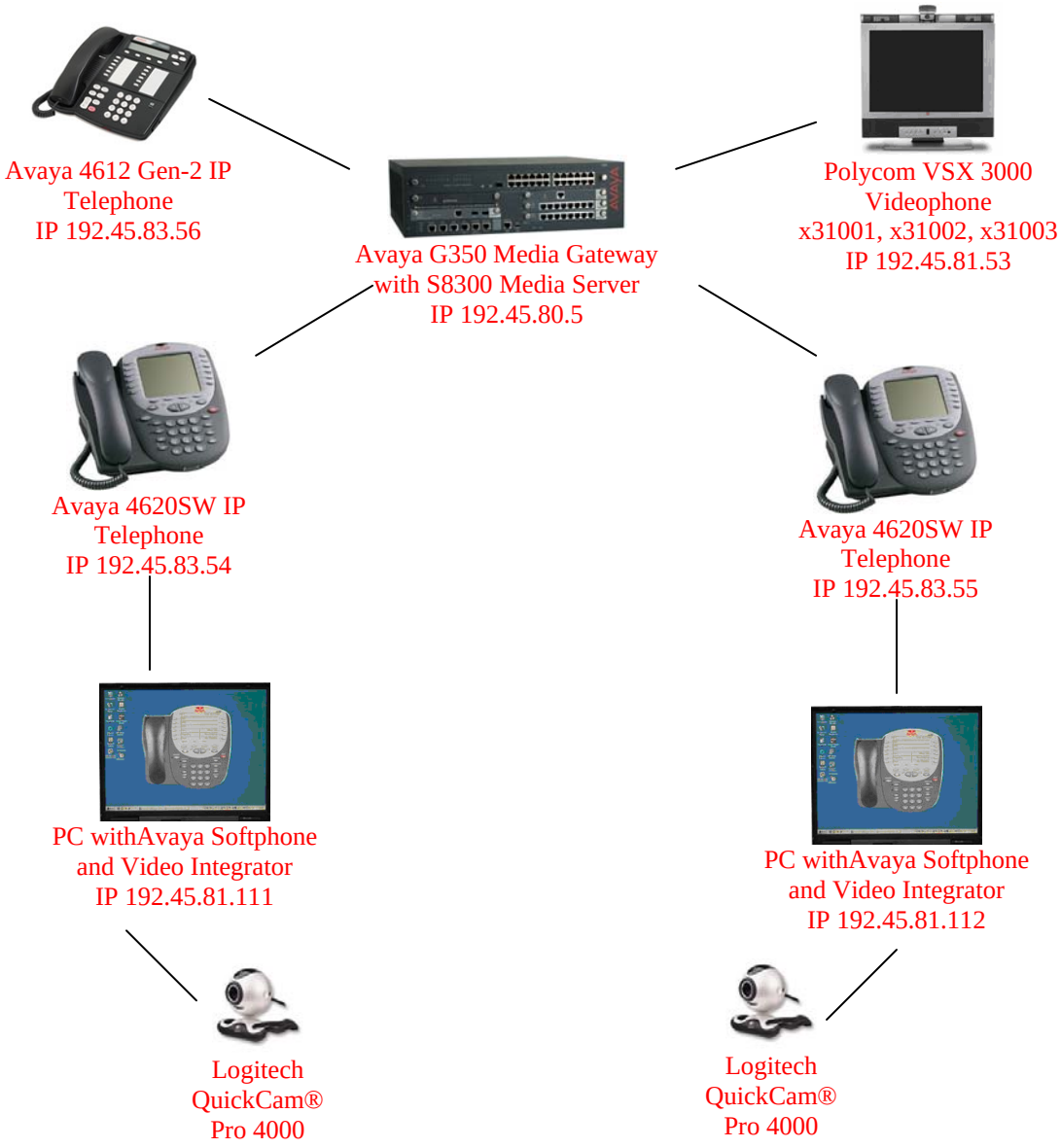


Figure 1 - Videophones and Computers with IP Softphone Software Registering to Avaya Communication Manager

2. Equipment and Software Validated

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

Equipment	Software/Firmware
Avaya S8300 Media Server with G350 Media Gateway	Avaya Communication Manager R3.1 (R013x.01.2.632.1)
Avaya 4620SW IP Telephone (Class 2 and Class 3)	2.4
Avaya IP Softphone	R5.24.38
Avaya 4612 Gen-2 IP Telephone	1.8.3
Avaya Video Integrator	2.0.103
Logitech QuickCam® Pro 4000	8.4.1.1092
Polycom VSX 3000	8.0.3

Table 1 – Network Components and Software Versions

3. Configuring Avaya Communication Manager

The following Avaya Communication Manager provisioning is required to support the Polycom VSX 3000 and Avaya IP Softphone. This provisioning is performed via the Avaya Communication Manager System Access Terminal (SAT) interface. To use either videophone, first stations need to be administered in Avaya Communication Manager.

Add a station for the Polycom VSX 3000.

The Polycom VSX 3000 uses three extensions that are linked in the Hunt-to-Station. Administer a station with the extension, **Type** of **H.323**, a **Security Code**, and the **IP Video** field set to **y**. Repeat 2 more times for each of the additional extensions on the Polycom VSX 3000. Set the **Hunt-to Station** to the next extension for the Polycom videophone (The last one gets the first extension).

```
add station 31001                                  Page   1 of   3
                              STATION

Extension: 31001                      Lock Messages? n          BCC: 0
     Type: H.323                      Security Code: 12345       TN: 1
     Port: S00004                   Coverage Path 1:            COR: 1
    Name: VSX3000-1                Coverage Path 2:            COS: 1
                                    Hunt-to Station: 31002    Tests: y

STATION OPTIONS
              Loss Group: 19          Message Waiting Indicator: none


          Survivable COR: internal
   Survivable Trunk Dest? y
          DTMF over IP: in-band
                                                        IP Video? y
```

Add a station for Avaya IP Softphone.

For the Avaya IP Softphone, the **IP Softphone** field needs to be **y** as well as the **IP Video Softphone** field (it is displayed after changing IP Softphone) being set to **y**.

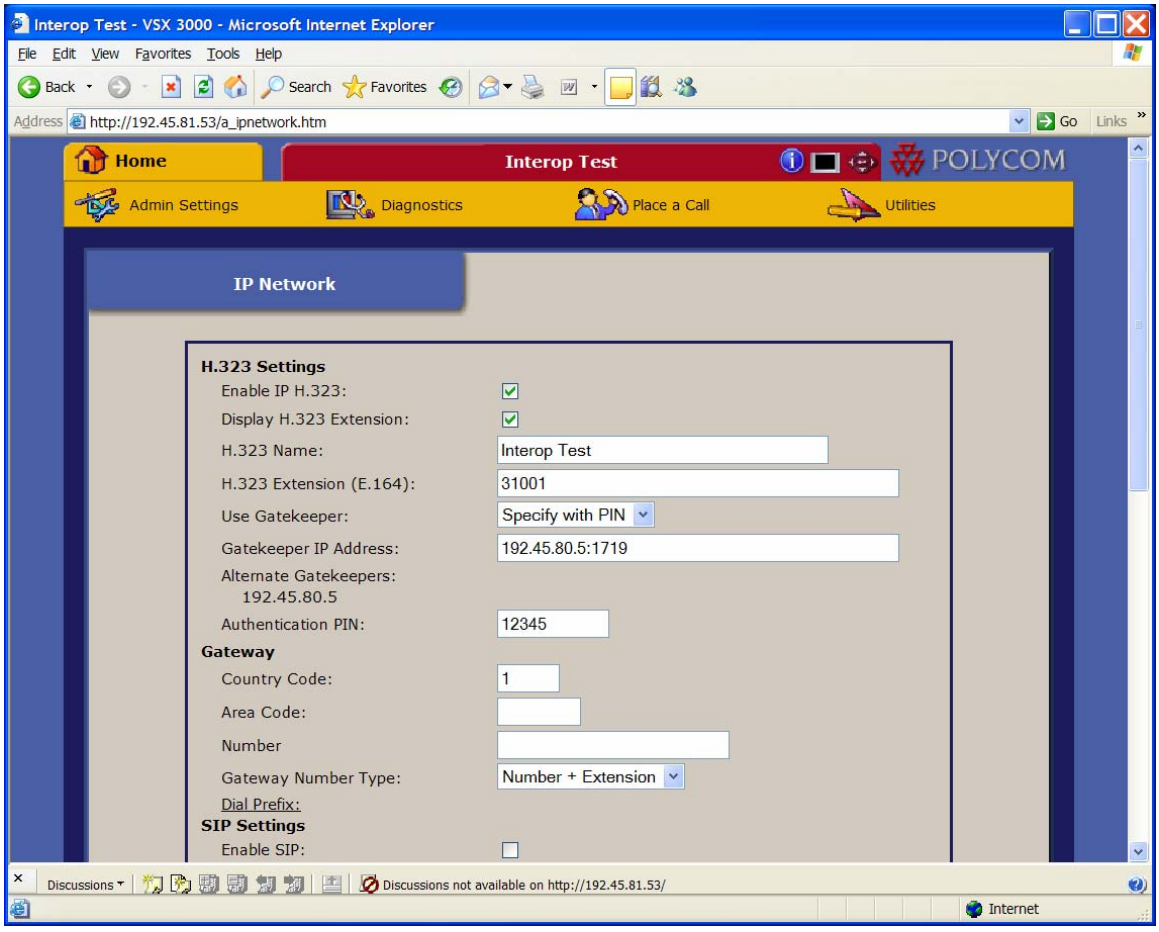
```
add station 30001                                  Page   1 of   4
                              STATION

Extension: 30001                      Lock Messages? n          BCC: 0
     Type: 4620                       Security Code: 12345       TN: 1
     Port: S00000                   Coverage Path 1:            COR: 1
     Name: Ext-30001                Coverage Path 2:            COS: 1
                                    Hunt-to Station:

STATION OPTIONS
              Loss Group: 19       Personalized Ringing Pattern: 1
                                             Message Lamp Ext: 30001
           Speakerphone: 2-way            Mute Button Enabled? y
        Display Language: english            Expansion Module? n
 Survivable GK Node Name:
          Survivable COR: internal           Media Complex Ext:
   Survivable Trunk Dest? y                       IP SoftPhone? y

                                           IP Video Softphone? y

                                          Customizable Labels? y
```

4. Configuring the Polycom VSX 3000

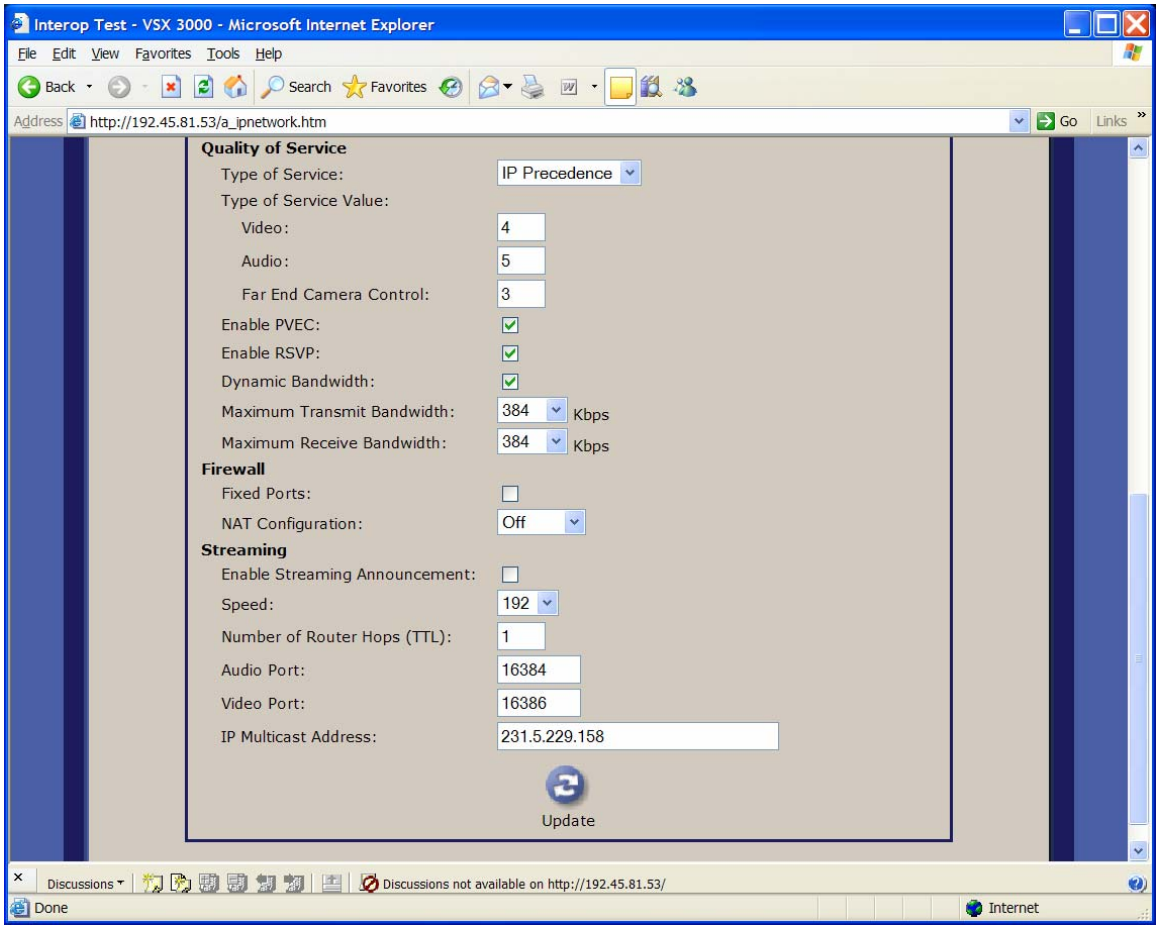
For the Polycom VSX 3000, connect the necessary cables, and plug the system into the network so it can reach the server. Turn on the unit. The unit has 3 power switches, one is in front of the unit, one is on the back of the screen, and one is under the hardware in the back of the unit.

The Polycom VSX 3000 can be configured for DHCP or an IP address can be chosen manually. Use the remote to navigate the Polycom videophone. Go to **System →Admin Settings → LAN Properties**. If the field IP Address is set for DHCP operation, change the field to **Obtain IP address automatically**. If not, then choose **Enter IP address manually** and type in the IP address for the Polycom videophone. The remainder of the configuration can be performed via a webpage or it can be done through the Polycom VSX 3000, using the remote connection. The menus and steps are the same. The images below are taken from the webpage configuration method.

To access the web interface for the Polycom VSX videophone, type the IP address for the Polycom into a web browser. From the **Admin Settings → Network → IP Network**, check the **Enable IP H.323**, set the **Use Gatekeeper** field as **Specify with PIN**, and ensure that the **Gatekeeper IP Address** field has the correct IP address for the call server and the correct port number (1719). The extension and authentication PIN need to match the extension security code of the station in Avaya Communication Manager.

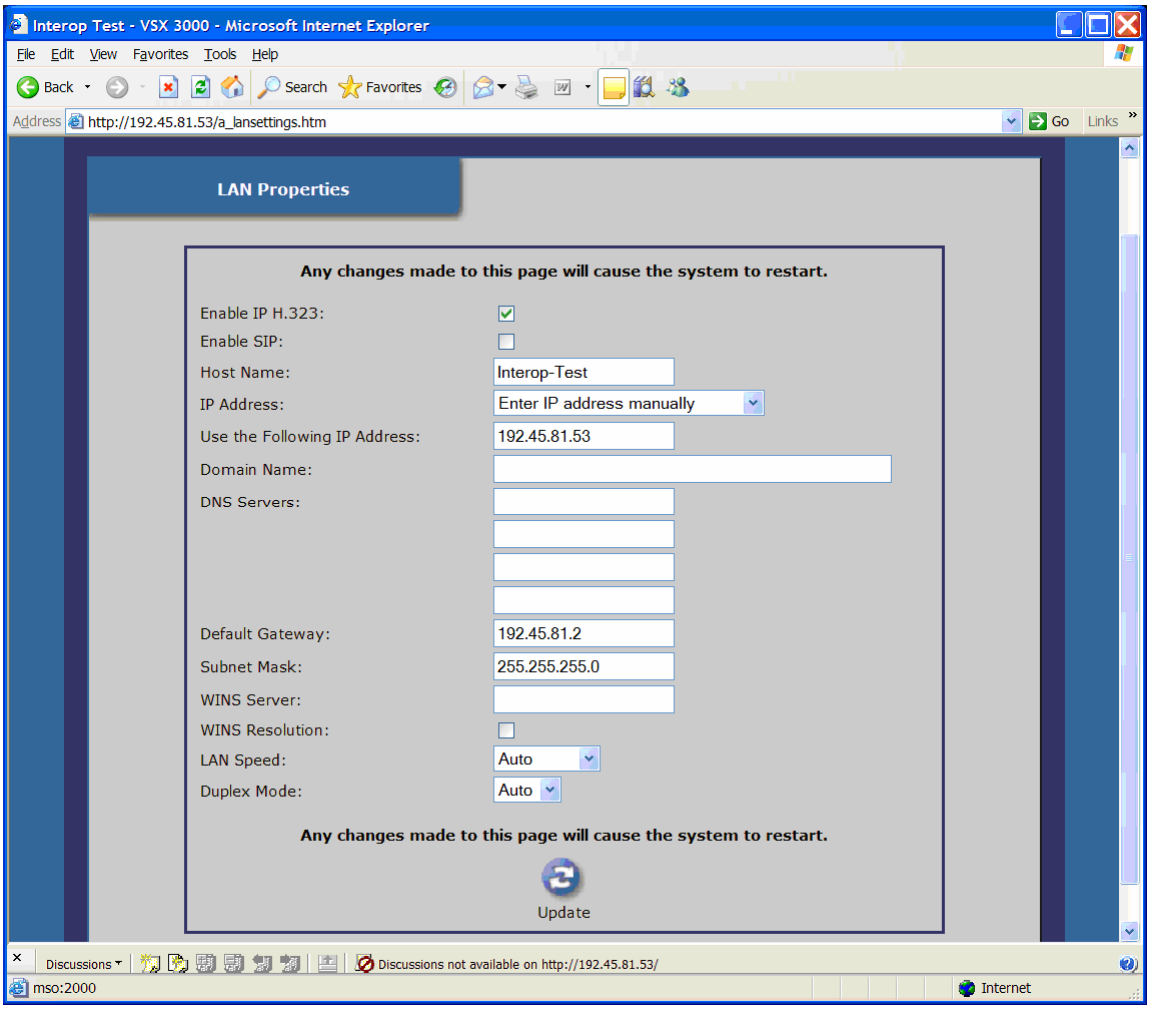


Scroll down the page. The **Type of Service** should be **IP Precedence**. The **Maximum Transmit Bandwidth** and **Maximum Receive Bandwidth** should be set as needed. Keep the remaining fields as default values.



Next, go to **Admin Settings → LAN Properties**. The **Domain Name** and **DNS Servers** should be set up for the network. **LAN Speed** and **Duplex Mode** should be set to **Auto**. The default gateway should also be entered along with the subnet mask.

Click **Update**.

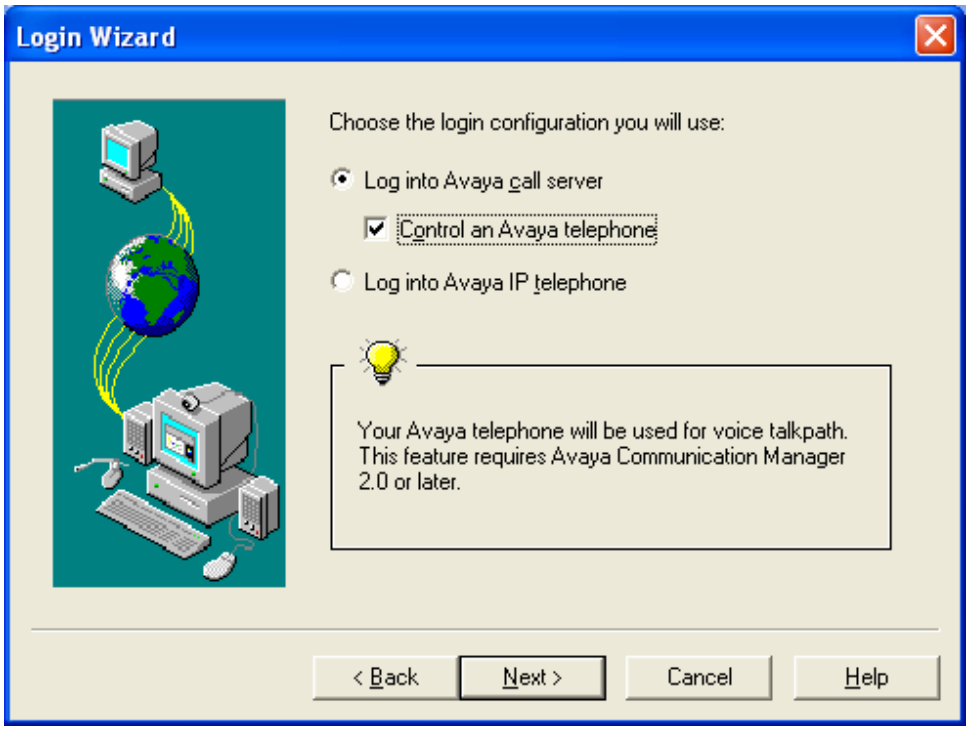


5. Configuration Steps for the Avaya IP Softphone with Video

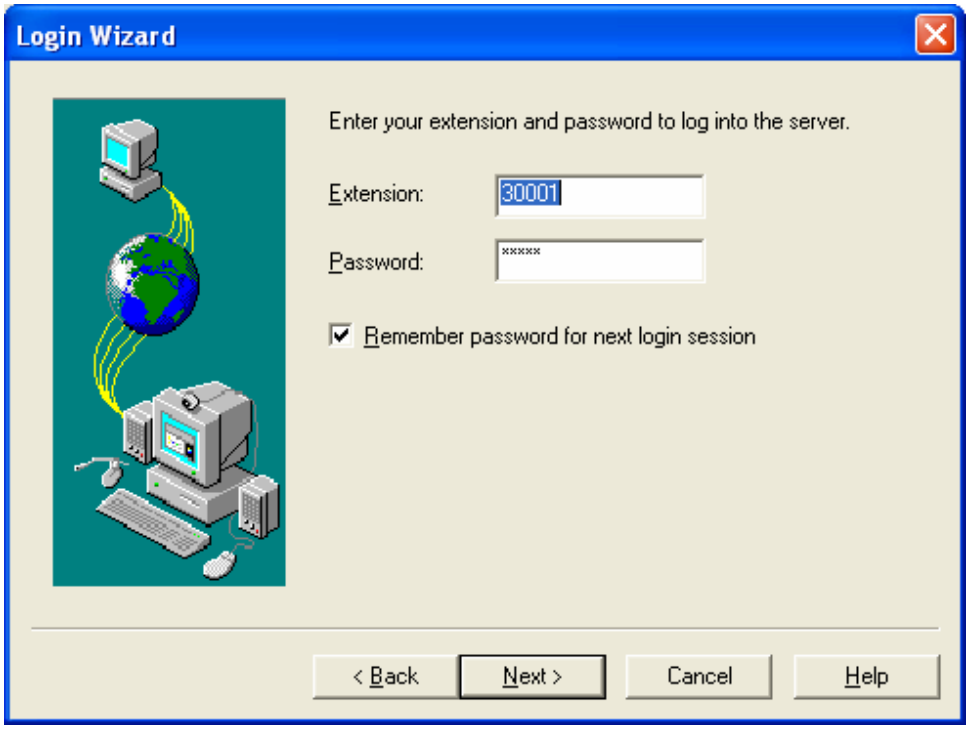
Install the Avaya Softphone and Video Integrator software. After the software is installed, run the program.

To open the program, click **Start → Programs → Avaya IP Softphone →Avaya IP Softphone**.

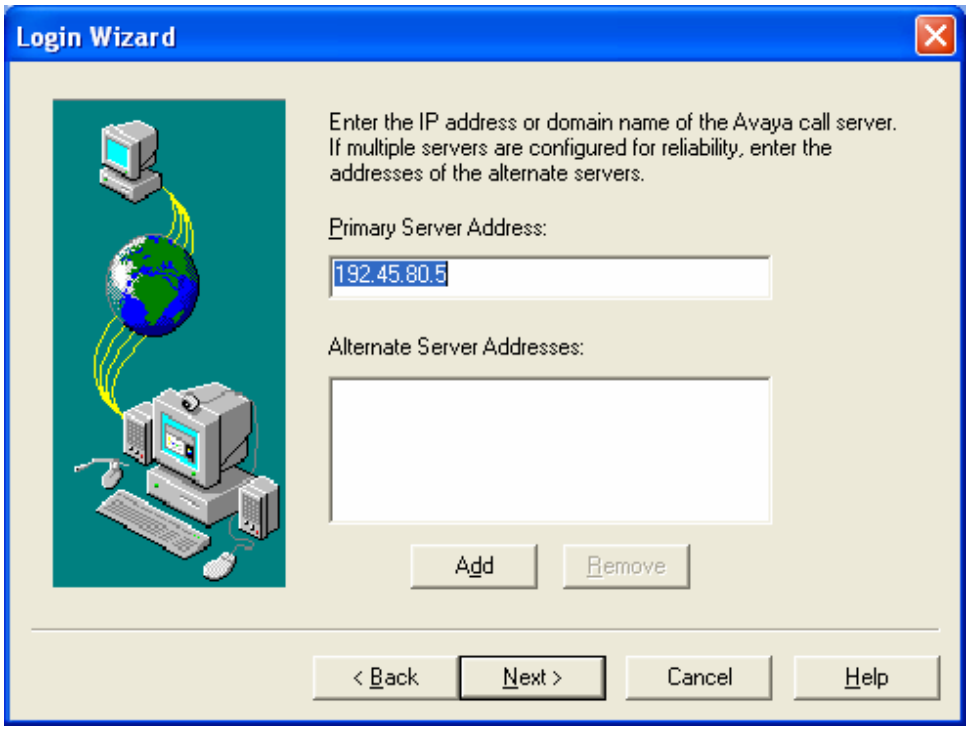
The option **Log into Avaya call server** should be chosen and **Control an Avaya telephone** must be checked to use the phone's handset for speech. Click **Next.**



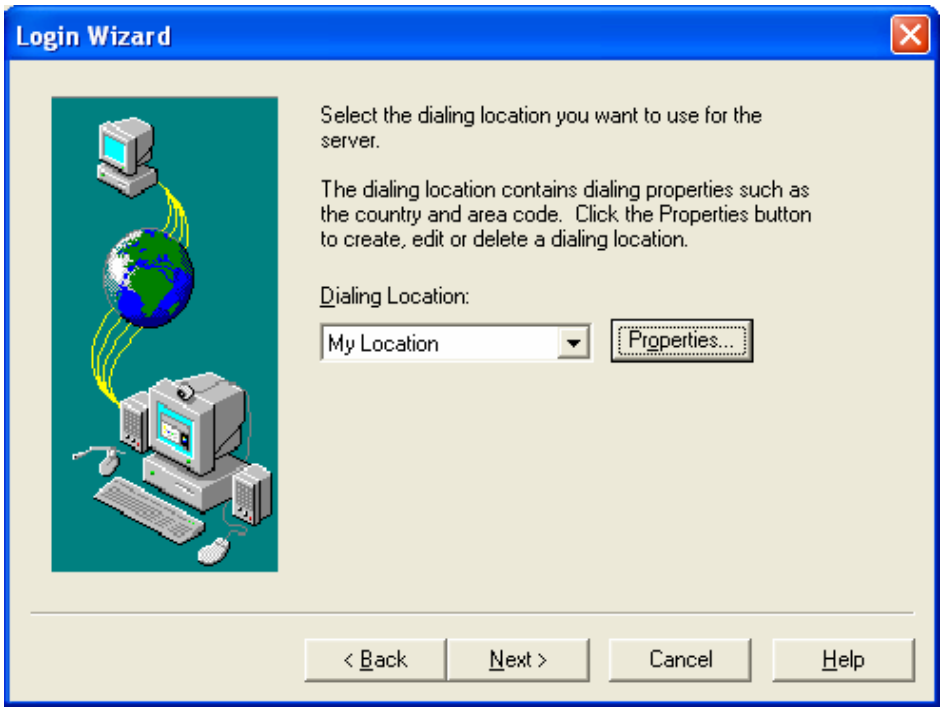
Enter the Avaya IP Softphone **Extension** number and the **Password**. Click **Next**.



Type in the call server address in **Primary Server Address** and any **Alternate Server Addresses** (if applicable), and then choose **Next**.

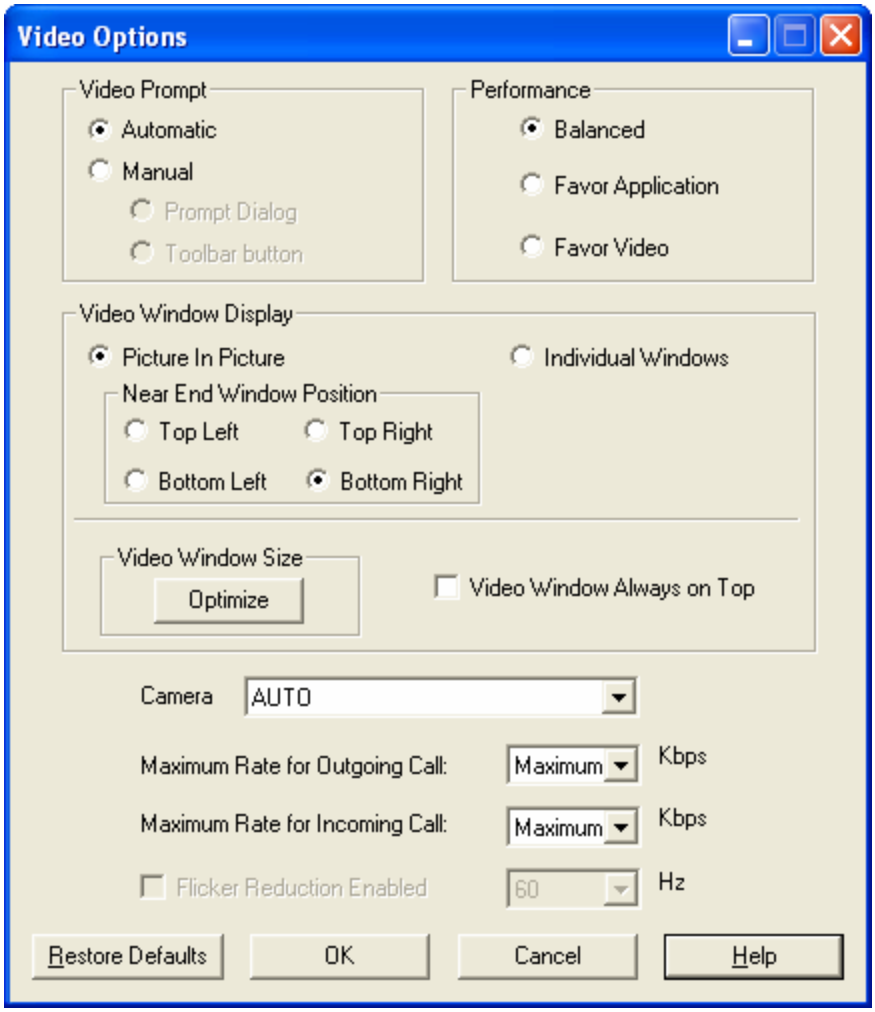


To add a location, click on **Properties** then the **Dialing Rules** tab. Click on **New** and the **General** tab (not pictured). Enter the new area code and name the location. Click **Save** then choose the location. Click **Next**.

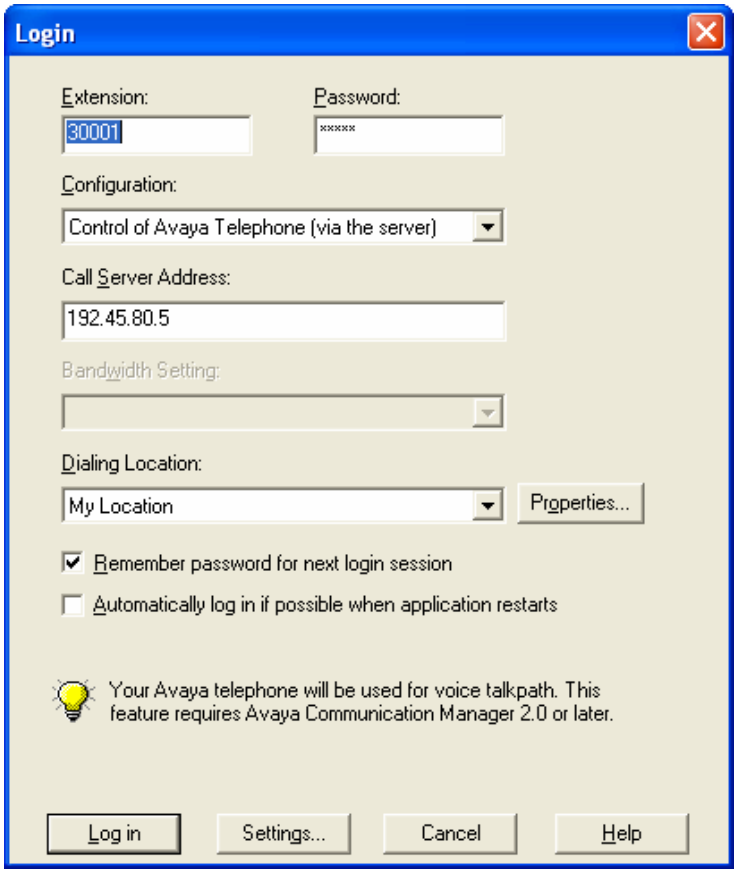


Check **Enable Emergency Call Handling feature** and use **Your extension number** of the phone. Choose **Next**.

Under **Video Options**, choose **Picture In Picture** to include the video feed on the screen. Also, set **Video Prompt** to **Automatic** to have the phone automatically enable video if the calling phone has video capabilities. Click **OK**.



To open the program, click **Start → Programs → Avaya IP Softphone →Avaya IP Softphone**. When starting the program, the prompt below is displayed. Click **Log in** unless a change is needed.



6. Verification Steps

The following are steps that can be used to verify that the configuration described in these Application Notes is correct.

- Verify the Avaya IP Softphone connects video and audio to other Avaya IP Softphones during a call.
- Verify the Avaya IP Softphone connects video and audio to Polycom VSX 3000 videophone during a call.
- Verify the Avaya IP Softphone connects audio to non-video phones.
- Verify the Avaya IP Softphone accepts transfer calls.
- Verify the Polycom VSX 3000 creates 3-way visual conference with two Avaya IP Softphones when calls are made.
- Verify the Polycom VSX 3000 accepts transfer calls.
- Verify the Polycom VSX 3000 connects audio to non-video phones.

Notes:
To use the transfer option with the Polycom VSX 3000, the star button and then the dot button need to be pressed. A few seconds after pressing the dot button, there should be a dial tone. Dial the number the call is being transferred to, make sure the line picks up, and then hang up to complete the transfer. The call will become a video call if both phones have video capabilities.

To create an audio conference, follow the transfer option steps above. Instead of hanging up the phone, hit the dot button one more time to reconnect the first phone.

7. Conclusion

The Avaya IP Softphone is capable of making videophone calls. It can be used to control a regular IP telephone, or in a standalone mode. Both the Avaya IP Softphone and Polycom VSX 3000 were able to communicate with each other and non-video telephones.

8. References

Product documentation for Avaya products may be found at: http://support.avaya.com

[1] *Administrator Guide for Avaya Communication Manager*, Doc # 03-300509, Issue 1, June 2005

Product documentation for PolyCom products may be found at:
http://www.polycom.com/home

Please e-mail any questions or comments pertaining to these Application Notes along with the full title and filename, located in the lower right corner, directly to the Avaya Solution & Interoperability Test Lab at interoplabnotes@list.avaya.com