



How to Troubleshoot

These sections help you troubleshoot common problems you may experience you use Cisco IP SoftPhone:

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Frequently Asked Questions (FAQs)

These Frequently Asked Questions (FAQs) help you resolve common problems you may experience with Cisco IP SoftPhone.

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When I Start Cisco IP SoftPhone, Why Don't I See Any Lines to Control?

There are several possible causes for this:

Possible Cause You have not selected a line.

Recommended Action Refer to the [“How to Select Lines to Control”](#) section on page 3-2.

Possible Cause Your system administrator has not assigned you a line on the Cisco CallManager.

Recommended Action Ask your system administrator to assign and associate a line for you on the Cisco CallManager.

Possible Cause You may not have properly configured Cisco IP SoftPhone to see lines.

Recommended Action Check the Cisco IP SoftPhone configuration. See the [“Verify the Cisco IP SoftPhone Configuration”](#) section on page A-3.

Possible Cause You may not have properly configured the Cisco local TSP (installed with Cisco IP SoftPhone).

Recommended Action Verify the Cisco Local TSP configuration. See the [“Verify the Cisco TSP Configuration”](#) section on page A-4.

Possible Cause You may not have restarted the Telephony Service on your computer.

Recommended Action Restart the Telephony service. See the [“Restart the Telephony Service”](#) section on page A-6.

Possible Cause You do not have proper network access.

Recommended Action Verify Network Connectivity. See the [“Verify Network Connectivity” section on page A-7.](#)

Verify the Cisco IP SoftPhone Configuration

Use this procedure to verify that local TSP (Telephony Service Provider) is enabled on the Cisco IP SoftPhone.

Procedure



- Step 1** Click the **Settings** toolbar icon.
 - Step 2** Click the **Advanced** tab.
 - Step 3** Verify that the User Name, the Password, the Primary CTI Manager and (optionally) the backup CTI Manager are correct.
 - Step 4** If there are errors, make any required corrections to these fields and restart the Telephony service.
See the [“Restart the Telephony Service” section on page A-6.](#)
 - Step 5** Launch Cisco IP SoftPhone.
If you still do not see any lines, see the [“Verify the Cisco TSP Configuration” section on page A-4.](#)
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Verify the Cisco TSP Configuration

Use the following procedures to verify that the Cisco TSP is properly configured to communicate with the Cisco CallManager:

- [Verify the Cisco TSP Configuration for Cisco CallManager 3.1 and later, page A-4](#)
- [Verify the Cisco TSP Configuration for Cisco CallManager 3.0, page A-5](#)



Note Ask your system administrator which Cisco CallManager version you use for Cisco IP SoftPhone.

Verify the Cisco TSP Configuration for Cisco CallManager 3.1 and later

Procedure

- Step 1** From the Windows Control Panel, select **Telephony** (Windows 95/98/ME/NT) or **Phone and Modem Options** (Windows 2000/XP).
- Step 2** Click the **Telephony Drivers** tab (Windows 95/98/ME/NT) or **Advanced** tab (Windows 2000/XP).
- Step 3** Select **Cisco TSP001.tsp** in the selection box and click **Configure...**
- If you do not see the **Cisco IP PBX Service Provider** telephony driver in the drop-down list box or if you see a list for **ciscotsp.tsp**, uninstall Cisco IP SoftPhone and run the install program again. If you still do not see any lines, see your system administrator.
- Step 4** Configure (or verify) the following settings in the **Cisco IP PBX Service Provider** window:
- a. Click the **User** tab and re-enter the username and password assigned to this user on the Cisco CallManager.
 - b. Click the **CTI Manager** tab and verify that the CallManager IP Address radio button is enabled and that the correct IP address is displayed for the Cisco CallManager.

If the wrong IP address is displayed, enter the correct address.
 - c. Click the **Advanced** tab and enter 15 in the “Synchronous Message Timeout” field.

- Step 5** Click **OK**.
- Step 6** Restart the telephony service.
See the [“Restart the Telephony Service”](#) section on page A-6.
- Step 7** Launch Cisco IP SoftPhone.
If you still do not see any lines, see the [“Verify Network Connectivity”](#) section on page A-7.
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Verify the Cisco TSP Configuration for Cisco CallManager 3.0

Procedure

- Step 1** From the Windows Control Panel, open **Telephony** (Windows 95/98/ME/NT) or **Phone and Modem Options** (Windows 2000/XP).
- Step 2** Click the **Telephony Drivers** tab (Windows 95/98/ME/NT) or **Advanced** tab (Windows 2000/XP).
- Step 3** Select **Cisco IP PBX Service Provider** in the selection box and click **Configure...**
If you do not see the **Cisco IP PBX Service Provider** telephony driver in the drop-down list box or if you see a list for **ciscotsp.tsp**, uninstall Cisco IP SoftPhone and run the install program again. If you still do not see any lines, see system administrator.
- Step 4** Configure (or verify) the following settings in the Cisco IP PBX Service Provider window:
- In the Security section, re-enter the username and password assigned to this user on the Cisco CallManager.
 - In the CallManager Location section, verify that “CallManager IP Address” is enabled and that the correct IP address is displayed for the Cisco CallManager.
If the wrong IP address is displayed, enter the correct address.
 - In the “Message Timeout” section, enter 15000.
- Step 5** Click **OK**.

- Step 6** Restart the telephony service.
See the [“Restart the Telephony Service”](#) section on page A-6.
- Step 7** Launch Cisco IP SoftPhone.
If you still do not see any lines, see the [“Verify Network Connectivity”](#) section on page A-7.
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Restart the Telephony Service

For Windows 95/98/ME:

Close all applications and wait for approximately 15 seconds. If this does not fix the problem for which you need to restart the telephony service, restart the computer.

For Windows NT/2000/XP:

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- Step 1** From the Windows Control Panel, open **Services** (Windows NT) or **Administrative Tools** and then **Services** (Windows 2000/XP).
- Step 2** Scroll down and select **Telephony Service**.
- Step 3** If the status is Started, click **Stop** and then **Start**.
You may be unable to stop the service, especially if other processes such as the Remote Access Connection Manager are running. If you are unable to stop the service, reboot the computer.
- Step 4** If you still do not see any lines, see the [“Verify Network Connectivity”](#) section on page A-7.
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Verify Network Connectivity

Use this procedure to verify that the client PC has network connectivity to the Cisco CallManager.

Procedure

- Step 1** Open a DOS window or command prompt.
- Step 2** Type **ping a.b.c.d** where “a.b.c.d” is the IP address of your Cisco CallManager. If you are able to communicate with the Cisco CallManager, you receive a “reply” message with the Cisco CallManager IP address. If you are not able to communicate with the Cisco CallManager, you do not receive a “request timed out” message. This indicates there is a network problem.
- Step 3** If you do not know how to fix the problem, reboot the computer.
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I Can See a Line But When I Try To Open it, Cisco IP SoftPhone Displays a 'Could not open address' Error.

Possible Cause This error typically occurs if another application has already opened the line (locally or on another computer), or the line is out of service. Each line can be opened only once. If the line has been opened before and the line is now out of service, the line will automatically go back in use. You do not have to do anything. If you tried to open a line that is out of service, you may need to restart the Telephony service and launch Cisco IP SoftPhone again.

Recommended Action Restart the Telephony service. See the [“Restart the Telephony Service”](#) section on page A-6.

Possible Cause This error may occur because your VPN connectivity is not up.

Recommended Action To avoid this problem, be sure to launch VPN client before you launch Cisco IP SoftPhone. To resolve this problem, restart VPN client and launch Cisco IP SoftPhone again. See the [“Restart VPN Client” section on page A-8](#).

Restart VPN Client

Use this procedure if you have problems using Cisco IP SoftPhone with VPN access:

Procedure

- Step 1** Start your machine.
- Step 2** Launch your VPN Client and confirm that it is working.
- Step 3** Launch your Cisco IP SoftPhone.
- Step 4** Verify that you can select a line to open and that you have 2-way audio:
 - a. Click the **Settings** toolbar icon.
 - b. Click the **Advanced** tab in the settings dialog window.
 - c. Click **Select Lines...** on the Advanced tab and select the line you want to control in the line selection dialog window.

Your line will open with 2-way audio.

If the line still does not open, the problem is not with VPN access. See the [“When I Start Cisco IP SoftPhone, Why Don’t I See Any Lines to Control?” section on page A-2](#).

Why Does the Audio Sound Jittery and Broken?

Possible Cause Your sound cards or audio drivers may be incorrectly installed.

Recommended Action Verify that your sound cards and audio drives are correctly installed. Check the documentation that came with your computer or sound cards or audio drivers.

Possible Cause The jitter buffer is set too small.

Recommended Action You may need to increase the size of the jitter buffer. Refer to [“Change the Jitter Buffer Size” section on page 3-47](#).

Possible Cause You may be using too many applications that are CPU-intensive or network-intensive.

Recommended Action Close any unnecessary applications.

Why Do I Get One-way Audio?

One-way audio occurs when you fail to receive incoming audio.

Possible Cause The audio stream is being misdirected.

Explanation There are multiple Network Interface Cards (NICs) on the PC or the system uses Virtual Private Network (VPN) or Network Address Translation (NAT) to connect to the corporate network.

Recommended Action Configure the Network Audio Settings. See the [“Set Network Audio Settings”](#) section on page 3-51.

Possible Cause Your sound card is not a full-duplex card.

Recommended Action Determine whether you have a full-duplex or half-duplex sound card. See the [“Determine Your Type of Sound Card: Full-duplex vs. Half-duplex”](#) section on page A-11.

Possible Cause The audio settings for your PC need adjustment.

Recommended Action Adjust the audio settings for your PC. See the [“How to Adjust the Audio Settings”](#) section on page A-16.

Determine Your Type of Sound Card: Full-duplex vs. Half-duplex

Cisco IP SoftPhone requires a full-duplex sound card for proper operation. Full-duplex sound cards can capture audio and play audio at the same time which allows a conversation. The sound cards on most computers are full-duplex; however, in rare instances, you may find a computer with a half-duplex card. If you have one-way audio with Cisco IP SoftPhone, you may have a half-duplex sound card installed in your computer.

To determine which type of sound card you have, check the documentation that came with your computer or sound card. You can also perform this simple test to determine whether you have a full-duplex or half-duplex sound card.

Procedure

- Step 1** Exit Cisco IP SoftPhone.
 - Step 2** Launch Microsoft NetMeeting.
 - Step 3** Make a Microsoft NetMeeting call to a friend running NetMeeting.
Make sure your friend is in the same building or campus and that the call does not go through a firewall.
 - Step 4** Once the call connects, begin to speak at the same time as your friend.
If you can hear your friend while you speak, and your friend can hear you, you have a full-duplex sound card.
If this test fails, you probably have a half-duplex sound card. You must install a full-duplex sound card for proper operation of Cisco IP SoftPhone.
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Why Do I Get a “Could Not Initialize Audio Error” When I Start Cisco IP SoftPhone?

Possible Cause You do not have a sound card in your machine.

Recommended Action Install a full-duplex sound card in your machine.

Possible Cause You do not have the proper audio drivers installed.

Recommended Action Download the latest audio drivers for your sound card from the manufacturer’s website. To verify that the audio drivers, microphone, and speaker work correctly, try to record and play audio with an application such as Microsoft Sound Recorder.

Possible Cause Another application may be using the microphone.

Recommended Action Close any applications that may be using the microphone. Use Microsoft Sound Recorder to see if you can hear your own recording. If the Sound Recorder fails, restart your PC.

How to Find and Change the IP Address for the Cisco CallManager

To determine which Cisco CallManager a Cisco IP Phone uses:

Step 1 Click the **Settings** button on the Cisco IP Phone and then select **Network Configuration** from the menu on the LCD.

Step 2 Scroll down until you see an entry for Cisco CallManager 1.

The IP Address for the Cisco CallManager displays as “Active.” Use this address when you install Cisco IP SoftPhone.

Determine Which Cisco CallManager the Cisco IP SoftPhone Uses

Before You Begin

Ask your system administrator if you use Cisco CallManager 3.2, 3.1, or 3.0.

For an alternate method to determine your version of Cisco CallManager, click on the **Settings** button and then click on the **Advanced** tab. If the CTI Manager field displays, you have Cisco CallManager 3.2 or 3.1. If the CM Manager field displays, you have Cisco CallManager 3.0.

For Windows 95/98/ME/NT

- Step 1** From the Windows Control Panel, select **Telephony**.
- Step 2** Click the **Telephony Drivers** tab.
- Step 3** Select the Cisco TSP Service Provider in one of the following ways:
- If you use Cisco CallManager 3.2 or Cisco CallManager 3.1, select **Cisco TSP001.tsp** in the selection box.
 - If you use Cisco CallManager 3.0, select **Cisco IP PBX Service Provider** in the selection box.
- Step 4** Click **Configure...**

The IP Address for the Cisco CallManager you use with Cisco IP SoftPhone displays in the CallManager Location of the Cisco IP PBX Service Provider window.

If this is not the same IP address that your Cisco IP Phone uses, you must edit it to match the Cisco IP Phone IP address.

For Windows 2000/XP

Step 1 From the Windows Control Panel, select **Phone and Modem Options**

Step 2 Click the **Advanced** tab.

Step 3 Select the Cisco TSP Service Provider in one of the following ways:

- If you use Cisco CallManager 3.2 or 3.1, select **Cisco TSP001.tsp** in the selection box.
- If you use Cisco CallManager 3.0, select **Cisco IP PBX Service Provider** in the selection box.

Step 4 Click **Configure...**

The IP Address for the Cisco CallManager you use with Cisco IP SoftPhone displays in the **CTI Manager** tab section of the Cisco IP PBX Service Provider window.

If this is not the same IP address that your Cisco IP Phone uses, you must edit it to match the Cisco IP Phone IP address.

Change the Cisco CallManager IP Address Configured for the Cisco IP SoftPhone

For Windows 95/98/ME/NT

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- Step 1** Type the IP Address of the Cisco CallManager to which you want to connect in the CallManager Location section of the Cisco IP PBX Service Provider window.
- Step 2** In the Security section of the Cisco IP PBX Service Provider window, type the username and password assigned to you for that Cisco CallManager.
- Step 3** Click **OK**.



Note To use Cisco IP SoftPhone with a Cisco IP Phone, the username and password configured for Cisco IP SoftPhone must be exactly the same as the username and password assigned to this user on the Cisco CallManager.

For Windows 2000/XP

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- Step 1** Click **CTI Manager tab** in the Cisco IP PBX Provider window and select the IP address radio button.
- Step 2** Type the IP address of the Cisco CallManager to which you want to connect in the IP Address field.
- Step 3** Click the **User** tab of the Cisco IP PBX Service Provider window and type the username and password assigned to you for that Cisco CallManager.
- Step 4** Click **OK**.



Note To use Cisco IP SoftPhone with a Cisco IP Phone, the username and password configured for Cisco IP SoftPhone must be exactly the same as the username and password assigned to this user on the Cisco CallManager.

How to Adjust the Audio Settings

Frequently, the volume settings on client PC's are improperly set which prevents two-way audio in a telephone call. Use this procedure to check and adjust these settings.

Procedure

Step 1 Select **Start > Programs > Accessories > Multimedia > Sound Recorder**.

Step 2 Use the microphone to record your voice for 5-10 seconds.

Step 3 Play back the recorded voice.

If you hear your voice, your audio settings are properly set.

If you do not hear your recorded voice, close the Sound Recorder application and go to Step 4.

Step 4 Select **Start > Programs > Accessories > Multimedia > Volume Control**.

Step 5 Select **Options > Properties**.

Step 6 Under "Adjust volume for" select **Playback**.

Step 7 Under "Show the following volume controls" make sure every item in the list is checked.

Not all items are visible so be sure to scroll down to the end of the list.

Step 8 Click **OK**.

Step 9 Under "Adjust volume for" select **Recording** and repeat Steps 7 and 8.

Step 10 Select **Options > Advanced Controls**.



Note If your sound card does not support advanced controls, this feature is not available.

Step 11 In the Master Out volume control window, set all the volume controls to about 80 percent. Set all balance controls to the middle.

Step 12 Make sure that the Mute box is not checked for the Master Out control or the Wave control.

- Step 13** Although it may seem strange, make sure the microphone's Mute box is checked in order not to route the microphone's input directly to the multimedia speakers or internal speaker for your computer.
- You can mute the other controls as appropriate for your voice-computing applications.
- Step 14** Select **Options > Properties** and verify that you use the proper audio device (sound card) to handle recording and playback.
- Step 15** Repeat Steps 1 through 3.
- If you still cannot get the Sound Recorder application to work, you do not have a Cisco IP SoftPhone problem. Ask your system administrator to help configure your audio settings.
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How to Diagnose Problems with Collaboration

Symptom I have defined the correct Associated PC for a person in my directory but I still cannot collaborate with him.

Possible Cause The person has moved on the LAN/WAN (e.g., the person has a portable computer) and the directory services of the LAN have not yet updated to reflect the current IP address.

Recommended Action Wait until Cisco IP SoftPhone detects the new IP address for the Associated PC and try to collaborate with that person again. Verify that the Net IP Audio Setting is set to Automatic and that the Cisco CallManager is properly configured.

Symptom I have met all the conditions on the Collaboration Checklist but I still cannot collaborate.

Possible Cause You have not tuned the audio settings or configured user settings for Microsoft NetMeeting. If you install a newer version of NetMeeting after you install Cisco IP SoftPhone, you need to configure user and audio settings for NetMeeting before you can collaborate. You need only do this one time. Perform the following steps to configure user and audio settings for NetMeeting.

Procedure

- Step 1** Launch NetMeeting from the **Start > Programs** menu.
 - Step 2** Follow the directions to tune audio and configure user settings.
 - Step 3** Quit NetMeeting.
 - Step 4** Restart Cisco IP SoftPhone.
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