



X-Lite 3.0


User Guide

CounterPath X-Lite 3.0

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This document corresponds to X-Lite version 3.0.

1 Introduction

1.1 What is X-Lite?

X-Lite 3.0 is CounterPath's next-generation softphone client, offering users all the productivity of a traditional telephone with desktop and mobile computer enhancements. From a simple click of a mouse button or tap on the keyboard users can dial, answer, or otherwise manage calls and personal availability. Whether over wired or wireless connections, X-Lite supports a variety of headset devices to augment the modern telephony experience, severing the restrictive tethers of traditional, limited telephone receivers.

Designed to work over IP-based systems, X-Lite provides endpoint VoIP solutions that use internet-based telephony servers within an enterprise LAN (Local Area Network) or VoIP service provider network.

Standard Telephone Features

The X-Lite 3.0 softphone has all the standard telephone features, including:

- Two lines
- Call display and Message Waiting Indicator (MWI)
- Speakerphone
- Mute
- Redial
- Hold
- Do not disturb
- Call ignore
- Call history – list of received, missed, dialed and blocked calls
- Call forward
- Call record
- Three-way audio and video conferencing.

Enhanced Features and Functions

The X-Lite 3.0 softphone also supports the following VoIP features and functions:

- Instant messaging and presence using the SIMPLE protocol.
- Managed Contacts list—importing and exporting contacts between X-Lite and other applications.
- Support for Intel® Centrino® Mobile technology, allowing X-Lite to provide more consistent quality of service across both wired and wireless networks using industry standards such as 802.11e.
- “Zero touch” configuration of audio and video devices; no manual setup is required.
- “Zero touch” detection of the bandwidth that a user's computer can access for communication.
- Acoustic echo cancellation, automatic gain control, voice activity detection.
- Support for the following audio codecs:
Broadvoice-32, Broadvoice-32 FEC, G.711aLaw, G.711uLaw, GSM, iLBC, L16 PCM Wideband. For more information about audio codecs, see [page 36](#).
- Support for the following video codecs:
H.263, H.263 1998. For more information about video codecs, see [page 37](#).
- Automatic selection of the best codec based on the remote party's capability, available bandwidth, and network conditions. X-Lite switches codecs during a call in response to changing network conditions.
- Compliance with the RFC 3261 SIP standard.
- STUN and ICE NAT traversal. XTunnels for firewall traversal.
- Support for DTMF (RFC 2833, inband DTMF or SIP INFO messages).

2 Installation and Setup

2.1 Getting Ready

Obtaining Information from a VoIP Service Provider

After choosing a VoIP service provider, users will require specific account information to populate the following X-Lite settings:

- User name
- Password
- Authorization Name
- Domain
- Proxy address and port*
- STUN server address and port*
- XTunnels server address and port*

* value not used by all VoIP service providers

System Requirements

	Minimum	Optimal
Processor	Intel® Pentium III 700 MHz or equivalent	Intel® Pentium 4® 2.0 GHz or equivalent
Memory	256 MB RAM	256 MB RAM
Hard Disk Space	30 MB	30 MB
Operating System	Windows® 2000 Windows® XP	
Connection	IP network connection (e.g. broadband, LAN, wireless)	
Sound Card	Full-duplex, 16-bit	

Multimedia Device Requirements

X-Lite requires users to have both speakers and a microphone for placing and accepting calls. Any of the following configurations are acceptable:

- External speakers and microphone
- Built-in speakers and microphone
- Dual-jack multimedia headset
- Bluetooth® multimedia headset
- USB multimedia headset
- USB phone.

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Optimized Devices

X-Lite is optimized to work with the following devices:

- Actiontec Internet Phone Wizard
- Clarisys Claritel i750
- GN Netcom GN 8120 USB and GN Netcom 8110 USBXP
- Plantronics CS50-USB Wireless Office Headset System
- TigerJet RJ11 to USB Phone Adaptor (incorporating the Tiger560C)
- TigerJet USB Phone Set (incorporating the Tiger560C)
- VoIP Voice Cyberphone (V550MLR USB Phone)
- VoIP Voice Cyberphone K (V652VVMLR USB Phone)
- Legerity PhonePort™ PCI card
- Intel® 600SM PCI card.

Video Cameras

Calls made with X-Lite will work without a video camera, although a camera is necessary for sending real-time images to remote parties. X-Lite supports most USB video cameras.

2.2 Installing X-Lite

1. Run the X-Lite setup executable file and follow the prompts from the install wizard.
2. At the final step of the wizard, check the *Launch X-Lite* checkbox to start using the softphone.
3. Click **Finish** to complete the installation.




Auto Update

Upon startup, X-Lite will check for updates and—if found—will prompt users for authorization to install them.

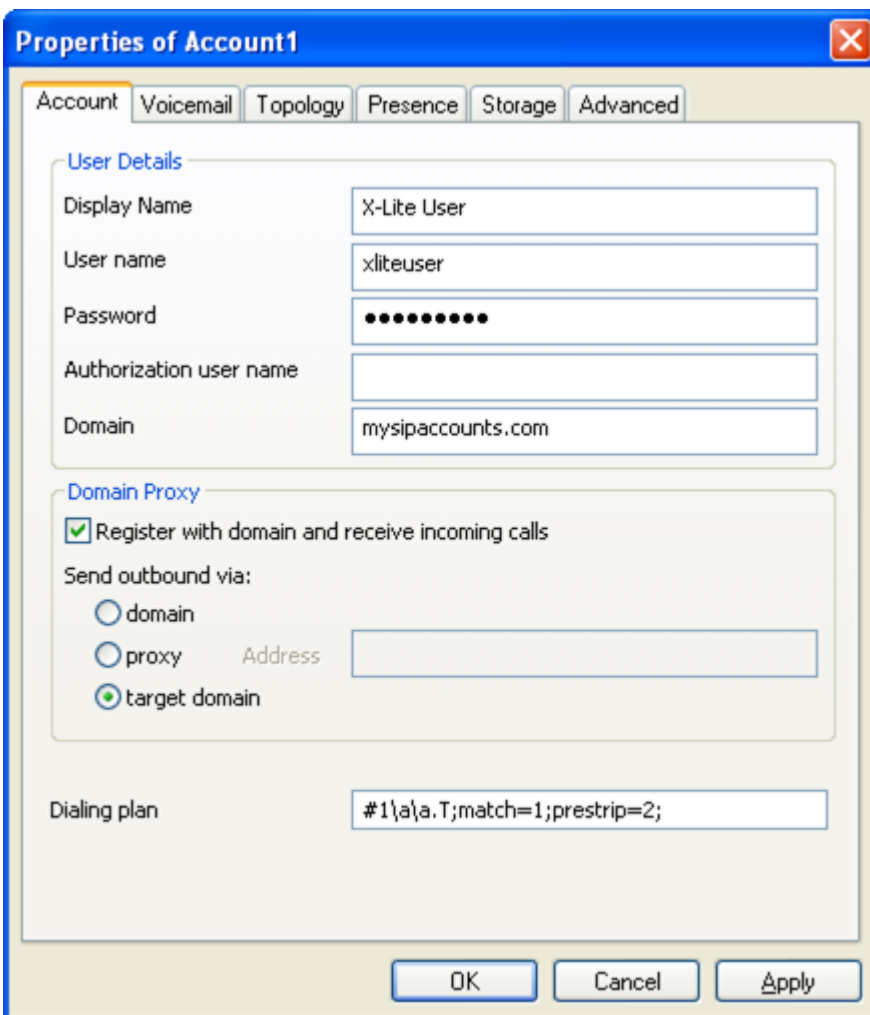
Uninstalling X-Lite

Uninstall X-Lite like any other program: launch the Windows Control Panel from the **Start** menu, then select **Add or Remove Programs**. Follow the prompts.

2.3 Configuring X-Lite

1. Start X-Lite by using the Windows **Start** menu or by double-clicking the desktop icon.
2. The Call display shows *Initializing*, followed by *Discovering network* and *Awaiting proxy login information*. Users must set up at least one account before using X-Lite to place or receive calls. For information about account setup, see “Setting up Accounts” below.
3. To use an account for VoIP communication, the account must be enabled within the X-Lite client. To enable an account, click  at the top of the softphone, choose **SIP Account Settings** and select the *Enable* checkbox for the desired account. For more information about enabling accounts, see [page 42](#).

Setting up Accounts



Properties of Account1

Account | Voicemail | Topology | Presence | Storage | Advanced

User Details

Display Name: X-Lite User

User name: xliteuser

Password: ●●●●●●●●

Authorization user name:

Domain: mysipaccounts.com

Domain Proxy

Register with domain and receive incoming calls

Send outbound via:


domain

proxy Address:

target domain

Dialing plan: #1\a\a.T;match=1;prestrip=2;


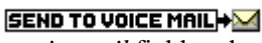
OK Cancel Apply

1. Create the account: click  at the top of the softphone and choose **SIP Account Settings**. Click **Add**. The Properties of Account window appears.
2. Under the Account tab, complete the fields within the *User Details* area.
3. For the remaining tabs, default settings are acceptable, or users can change them to suit a particular setup. Settings that may need immediate changes include:
 - Under the Account tab, fields within the *Domain Proxy* area.
 - Under the Topology tab, settings to help X-Lite traverse NATs and firewalls.

For further details about the Account Settings window, see “SIP Account Settings” on [page 42](#).

2.4 Setting up Voicemail

VoIP service providers may offer voicemail as a complement to their regular phone services. Users with access to voicemail-enabled accounts can set up certain voicemail features within the X-Lite softphone client (see “Account Properties – Voicemail” on [page 45](#)). In particular:

- To enable connecting to voicemail by clicking  on the Call display, X-Lite users must access the Voicemail tab of their SIP account’s properties dialog (see above) and then enter appropriate information within the *Number to dial for checking voicemail* field.
- To enable sending incoming calls to voicemail by clicking  on the Call display, X-Lite users must complete the *Number for sending calls to voicemail* field under the Voicemail tab.

2.5 Setting up a Contacts List

Using a Contacts list is the most efficient way to place calls. Users can set up contacts in several ways:

- During a call, users can add a remote party to their Contacts list (see “Add to Contacts List” on [page 11](#)).
- Users can add entries to the Contacts list one by one (see “Adding a Contact” on [page 17](#)).
- Users can import a Contacts list from an existing file or from another application (see “Importing Contacts” on [page 19](#)).

For general information about contacts (see “Contacts Tab” on [page 16](#)).

3 Using the Softphone

3.1 The On-screen Display



Display

The following information and icons may appear on the Call display:

When the phone is ringing with an incoming call, click here to ignore. X-Lite stops ringing, and a message appears to the remote caller advising that the call could not be established.



The duration of the current or last call.

Message area: During a call, this area may show account balances (hours or currency). Contact the appropriate VoIP service provider for details.




When the phone is ringing with an incoming call, click here to send the call to voicemail. VoIP service providers have details about their voicemail options (i.e. voicemail is not part of X-Lite's inherent functionality).

If this icon does not appear for incoming calls, X-Lite's voicemail settings are not configured properly (see "Account Properties – Voicemail" on [page 45](#)).




Indicates that there are new voicemail messages. Click this icon to access voicemail.

If clicking this icon does not connect to voicemail, X-Lite's voicemail settings are not configured properly (see "Account Properties – Voicemail" on [page 45](#)).


Click  to add this caller to the Contacts list (see [page 16](#) for information about Contacts lists).

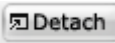
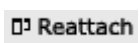
Indicates that the user has missed an incoming call. To clear the icon, click on the call area within the Missed Calls list of the Calls & Contacts drawer.


When a call is in progress, this icon indicates that:

-  – the user is talking
-  – the user is not talking
-  – MUTE is on

Video Drawer

To display the Video drawer, click the black button toward the extreme left edge of the softphone application. Click the same black button to hide the drawer. Users can click the  button to display the operating system's standard window for setting camera properties (this is not an X-Lite window).

To detach the drawer, click the  button; to reattach the drawer, click the  button.

The Video drawer has two panels. The top panel shows incoming video (video from the remote party). The lower panel shows outgoing video. The  button starts and stops transmission of local video.

Advertisement Window

When users have the Video Drawer open but are not engaged in a video call, X-Lite displays advertisements within the top half of the panel (i.e. where X-Lite displays remote video during a video call).

Calls & Contacts Drawer

To display the Contacts drawer, click the black button toward the extreme right edge of the softphone application.

This drawer displays a user's Contacts lists, lists of recent calls, and availability information (i.e. presence) for both the user and contacts. For more information, see [page 15](#).

3.2 Starting X-Lite

1. Start X-Lite by using the Windows **Start** menu or by double-clicking the desktop icon. Note that users can have X-Lite running at the same time as they are running eyeBeam—CounterPath's retail softphone available for purchase at <http://counterpath.com>.
2. Take an appropriate action:
 - If the user has enabled an account, the next message displayed will be *Registering*. X-Lite attempts to log into every enabled account, and when login is complete, the Call display shows *Ready. Your username is*.
 - If the user has not enabled an account, the SIP Accounts window will appear. Enable an account; X-Lite will designate that account as the default. For information about enabling accounts, see "SIP Accounts" on [page 42](#).
 - If the user has set up no account, the final message will be *Awaiting proxy login information*. For information about setting up an account, see "Configuring X-Lite" on [page 4](#).

When logged in to an account, the Call display will show *Ready - Your username is*.

For more information about accounts, see "Rules for Enabled Accounts and Default Account" on [page 43](#).

Showing and Hiding the Softphone

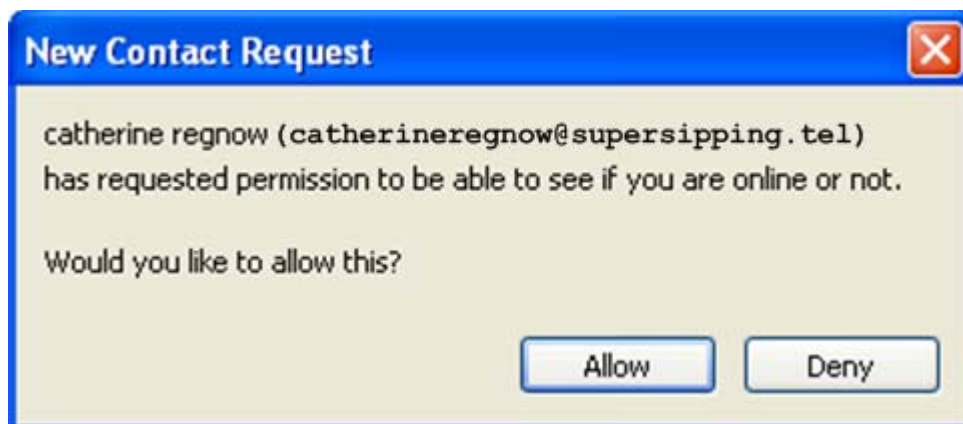
After clicking  to minimize the softphone application, users will still be able to receive calls.

After exiting the application while the softphone is minimized, X-Lite will start minimized for the next session.

Users can specify that X-Lite should provide visual cues whenever a call arrives while the softphone is minimized or covered by another application. See "Options – General – Alerts and Sounds" on [page 32](#).

Receiving a New Contact Request





If local presence availability is enabled, users can receive a New Contact Request dialog box at any time while X-Lite is running. For information about such requests, see "Availability" on [page 22](#).



3.3 Placing a Call

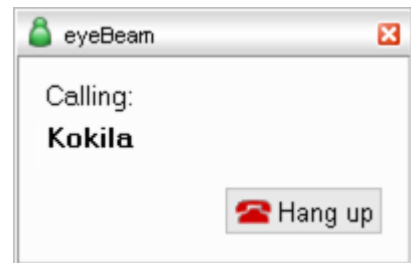
Users can place calls to a remote party using:

- A SIP address (e.g. kpereira@domainabc.com)
- A traditional phone number (if the VoIP service provider for the account supports PSTN gateways)


Method	Description
Keying	<ol style="list-style-type: none"> 1. Enter the SIP address or number in the Call display using the softphone keypad or the computer keyboard. <ul style="list-style-type: none"> • Enter the entire SIP username (kpereira@domainabc.com) or just the name (kpereira). • If the “Turn Letters Into Digits” feature is enabled, X-Lite converts letters that a user types into corresponding numbers from the dialpad. Click Clear, then press the keyboard’s spacebar and try typing again (see “Options – General – Application” on page 30 for details). 2. Click  or press Enter to dial.
Partial keying	<p>After keying in part of a number, X-Lite may suggest additional text for completing the entry. Press Tab to accept the suggestion or continue typing the desired number.</p> <p>Click  or press Enter to dial.</p>
Drag-and-drop	<p>Drag an entry from the Contacts tab or any of the lists in the Calls tab to the Call display (for information about the Calls & Contacts drawer, see page 15).</p> <p>If the Contacts list contains numerous contacts, use the  field to filter the list, then drag the entry.</p>
Right clicking	<p>Right-click an entry on the Contacts tab or any of the lists in the Calls tab, and choose Phone this Person (for information about the Calls & Contacts drawer, see page 15).</p> <p>If the Contacts list contains numerous contacts, use the  field to filter the list, then right-click the entry.</p>
Redialing	Click Redial .

If users have Call Alerts turned on, the Call Alert box will appear at the bottom of the screen to announce incoming calls. For information about turning on alerts, see [page 32](#).

Users will hear a ringing tone while X-Lite attempts to make a connection.



Ending a Call

To hang up, click  on the Call display or Call Alert box, or press **Esc** on the keyboard. Details of the call remain on the Call display. To clear the Call display, click **Clear**.

Note that selecting another line puts an existing call on hold without hanging up.



3.4 Answering a Call

X-Lite must be running to answer incoming calls. (If X-Lite is not running, incoming calls may be directed to voicemail).




The softphone rings and the line of the incoming call lights up. If Call Alerts are on, the Call Alert box appears. If the Bring To Front feature is enabled, the phone comes to the front of the screen above all other running applications. For information about alerts and bring-to-front functionality, see [page 32](#).

X-Lite displays the SIP address of the person calling. If the SIP address for this person is also in the user's Contacts list, X-Lite converts the SIP address into the display name associated with that address.


Users can answer calls in any of three ways:

- Click  on the softphone or  on the Call Alert box.
- Click the appropriate line number on the softphone.
- If X-Lite is the active application, press **Enter** on the keyboard.


Users can ignore calls in any of three ways:

- Click  **IGNORE** on the Call display or  on the Call Alert box; a message appears to the caller advising that the call could not be established. The phone stops ringing, and the call is added to the Received Calls list.
- Click **SEND TO VOICE MAIL**  on the Call display to send the call to voicemail. Voicemail access is a VoIP service provider option, not one of X-Lite's integrated features.
- Ignore the ringing until X-Lite sends the call to voicemail.

Users can also ban any caller, as follows:

- Click  **IGNORE** on the Call display; X-Lite adds the call to the Received Calls list.
- Within the Received Calls list, right-click the entry X-Lite added and select **Ban this Person**.

Ending a Call

To hang up, click  on the Call display or Call Alert box, or press **Esc** on the keyboard. Details of the call remain on the Call display. To clear the Call display, click **Clear**.

Note that selecting another line puts an existing call on hold without hanging up.

3.5 Handling a Call

While the Call Is in Progress



Video

Click **Start** on the Video drawer to transmit video to the remote party. If the remote party has enabled video at their end, users will see them in the top half of the video panel.


Adjusting Volume

Use the microphone slider to adjust the volume of outgoing voice. Use the speaker slider to adjust the volume of incoming sound.

Mute

Click  on the dial pad to mute local sounds and prevent them from reaching remote parties. The  icon will appear within the Call display. While sound is muted, users may wish to stop any local video feed as well.

Speakerphone

Click  on the dial pad to put a caller (or callers within a conference call) on the speaker phone. Note that users must have a speakerphone device configured before accessing this feature.


Call Record

Click **REC** at any time to record a call. Click **REC** again to stop recording. X-Lite saves recordings as .wav files for audio and .avi files for video, placing them in the location specified under **Options** → **Application**.

Call Information

To view information such as the current codecs in use, hover over the line button (e.g. Line 1) on which the call is being made. Information appears as a tool tip.

Add to Contacts List

At any time during a call, users can click  on the Call display to add the remote party to their Contacts list. For information about the fields within the dialog box and about the Contacts list in general, see [page 17](#).

Placing a Call on Hold

Click **Hold** or click any line.

To resume a call, click the line that is on hold.

AA – Auto Answer

Click AA on the dialpad to automatically answer calls as they come in.

Flash

The Flash button on X-Lite works the same way as Flash or Link works on a traditional telephone.


Click **Flash** on the dialpad.


- If a call is active, clicking **Flash** will provide a new line and place the active call on hold.
- If a new incoming call is ringing, clicking **Flash** will answer the call.
- If a line is on hold, clicking **Flash** will pick up the line.

Note: exact functionality depends on VoIP service provider support for Flash.

Sending to Voicemail, DND, and Call Forwarding

Sending to Voicemail

Users can send any incoming call to voicemail by clicking **SEND TO VOICE MAIL**  on the Call display.


Users can access voicemail messages by clicking the  on the Call display (X-Lite displays this icon only when there are new messages).

For important information about voicemail functionality, see “Setting up Voicemail” on [page 5](#).

DND – Do Not Disturb

Click **DND** on the dialpad. X-Lite will either send all subsequent incoming calls to voicemail or provide an audible “busy” indication to remote parties, depending on VoIP service provider support for this feature.

Call Forwarding

Users can enable or disable call forwarding. When enabled, X-Lite will forward incoming calls to another phone number (other than voicemail). To enable call forwarding, click  at the top of the phone and choose **SIP Account Settings**. Select the desired account, then click **Properties**, then the Voicemail tab, then complete the *Forwarding* section. For details, see “Account Properties – Voicemail” on [page 45](#).

3.6 Conference Calls

There are three ways to set up a conference call:

- “Manual Setup: AA Off and AC Off”, below
- “AA Off and AC On” on [page 13](#)
- “Conference Server Mode: AA on and AC On” on [page 13](#).

Manual Setup: AA Off and AC Off

Users can host a conference by calling the other parties involved, or by allowing them to call in to the local softphone.

Starting a Conference Call

To host a conference between several callers:

1. With one active call, place the call on hold by either:
 - selecting the other line and dialing a third party, or
 - clicking an incoming call.
2. To add all existing calls to a conference, click **CONF**. All lines will become participants in the conference.
3. To suspend a conference, click **CONF** to place all remote parties on hold. The other participants will not be able to speak to one another.

With a conference on hold, users can talk privately to one party by clicking the appropriate line.

4. To restart the conference, click **CONF** again.

Note that users can become a conference host even if they did not initiate the original call. For example, one person could phone in, after which the local user could place and accept other calls and establish a conference.


Adding a Party to an Active Conference

1. Place the conference on hold by clicking **CONF**.
2. Invite another party to the conference by either:
 - Selecting the line of an incoming call.
 - Selecting an available line to initiate a call to an outside party.
 - Right-clicking a name in the Calls & Contacts tab.

Users can speak to new parties while the conference is on hold.


3. To add all active lines to the conference, click **CONF**.

Removing a Party during an Active Conference

1. Suspend the conference by clicking **CONF**.
2. Select the line of the participant who will be leaving the conference.
3. Say goodbye to the party, then click .
4. Click **CONF** to reestablish the conference.

A party can also leave a conference on their own by simply hanging up.

Removing all Parties

If a conference call is in progress (not on hold), users can hang up on all parties and thus end the conference by clicking .

Manual Answering & Automatic Conferencing: AA Off and AC On

“Users answer calls manually and X-Lite adds each to the conference automatically.”

1. Click **AC** to enable auto-conferencing.
2. Answer the first call. There is no need to put the call on hold.
3. Answer the next call that comes in on the second line. X-Lite will create an automatic conference for the local user and both remote parties.
 - The conference gets established even if one line was on hold.
 - X-Lite includes all lines in the conference call, including those that were on hold.

Automatic Conference Server Mode: AA on and AC On

“X-Lite acts as a fully-automated conference server.”

1. Click **AC** and **AA** to enable auto-answering and auto-conferencing.
2. When the first call comes in, X-Lite will answer automatically. Local users can speak to this remote party.
3. When another call arrives, X-Lite will answer automatically and add the remote party to a conference call.

While the Call Is in Progress

Changing the Mode

While a conference call is in progress, users can change between any of the modes described above by enabling the desired combination of *AA* and *AC*.



Video in Conference Mode

Click **Start** on the Video drawer to transmit video to the other parties in a conference. If the remote parties have enabled video transmission at their end as well, local users will see the other parties in the top half of X-Lite’s video panel.


Adjusting Volume

Use the microphone slider to adjust the volume of outgoing voice. Use the speaker slider to adjust the volume of incoming sound.

Mute

Click  on the dial pad to mute local sounds and prevent them from reaching remote parties. The  icon will appear on the Call display. When sound is muted, users may wish to stop any local video feed as well.

Speakerphone

Click  on the dial pad to put a caller (or callers within a conference call) on the speaker phone. Note that users must have a speakerphone device configured before accessing this feature.


Call Record

Click **REC** at any time to record a call. Click **REC** again to stop recording. X-Lite saves recordings as *.wav* files for audio and *.avi* files for video, placing them in the location specified under **Options** → **Application**.

Call Information

To view information such as the current codecs in use, hover over the line button (e.g. Line 1) on which the call is being made. Information appears as a tool tip.

Add to Contacts List

At any time during a call, users can click  on the Call display to add the remote party to their Contacts list. For information about the fields within the dialog box and about the Contacts list in general, see [page 17](#).

Multiple Conference Hosts

An X-Lite conference call may include up to three individuals—the conference host plus a participant on each of the two available lines. Users can establish multiple conference hosts to “daisy chain” a conference call with more than three participants using the X-Lite client.

For example, one person may host two other parties (to occupy all available lines) with one of those parties being a conference of their own containing two other parties. This would bring the total number in the aggregate conference call to four.

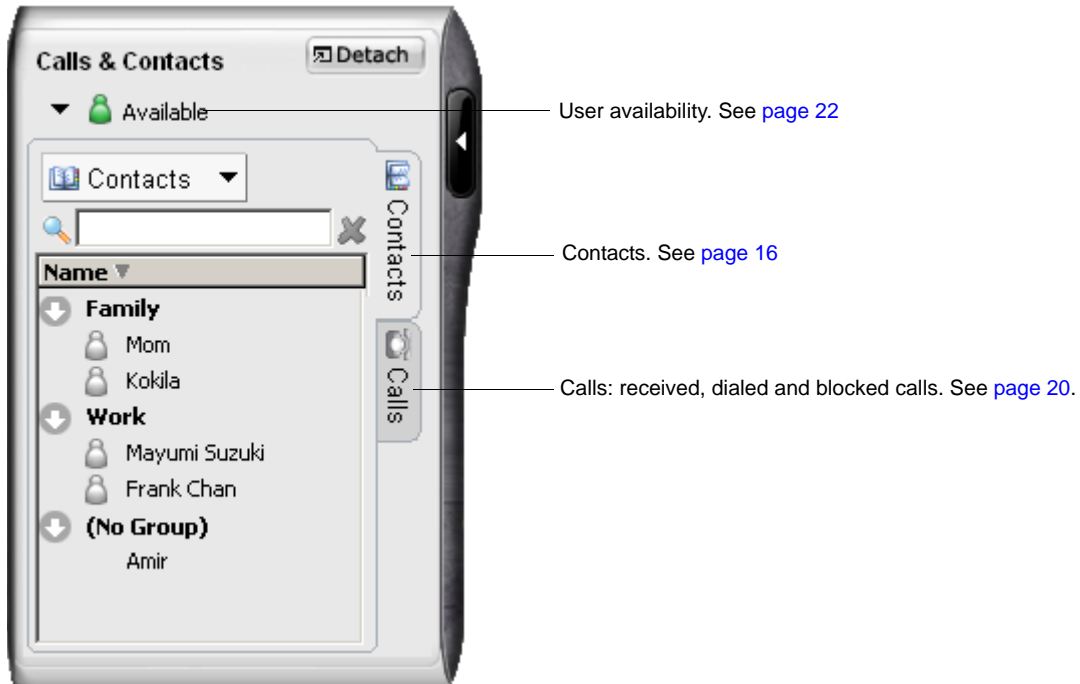
In theory, such “daisy chains” would allow for an unlimited number of parties in a conference call. In a real scenario, however, the number of participants is limited by bandwidth constraints at each of the conference host’s computers, causing audio quality to degrade more and more as new participants arrive.

X-Lite will switch automatically to the best codecs available as required (i.e. as participants are added). For information about codecs, see “Options – Advanced – Audio Codecs” on [page 36](#). If conference call audio is of poor quality, the conference is probably beyond the limits of users’ very best codec—the conference is too big.

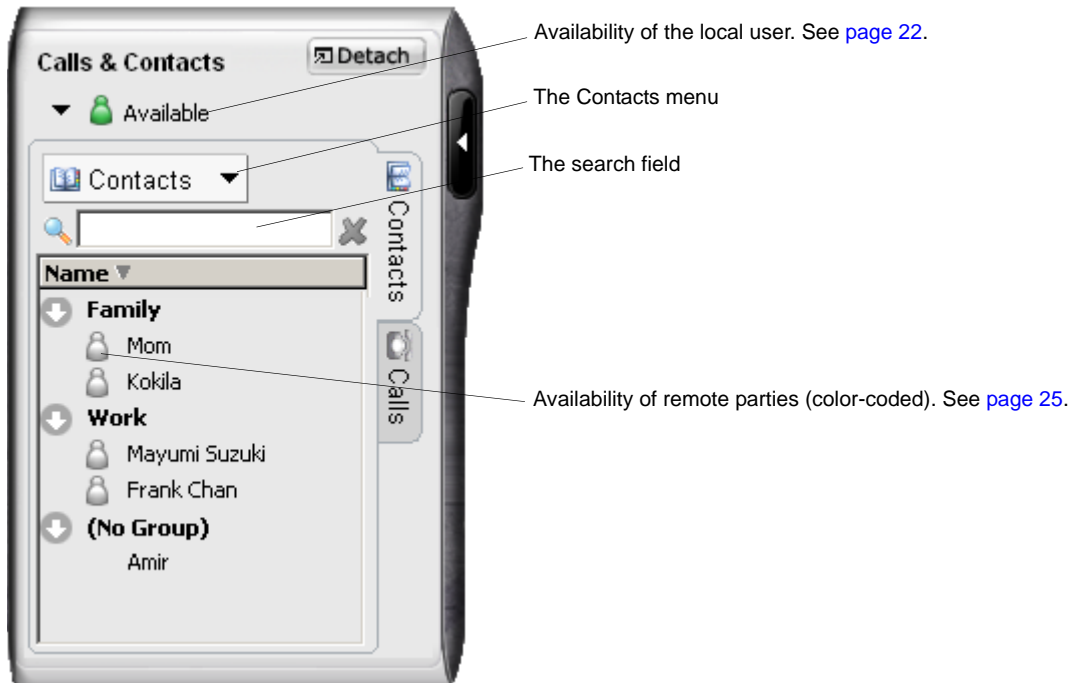
4 Managing Calls and Contacts

4.1 Calls & Contacts Drawer

To display the X-Lite Calls & Contacts drawer, click the black button toward the extreme right edge of the softphone application. Users can open (display) and close (hide) this drawer at any time using the same button.



4.2 Contacts Tab



The Contacts tab displays a user’s contacts and allows multiple contact methods for them, including:

- SIP address (softphone)
- Home phone number
- Cellphone number
- E-mail.

Users can identify one of these contacts as the primary contact method.

Users can phone any contact. If the contact has a SIP address, users can also send them instant messages, watch their availability, and let them watch the local user’s availability. If the contact has an e-mail address, users can send an e-mail from X-Lite.

Typically, X-Lite organizes contacts into one of three built-in groups: *Family*, *Friends*, and *Work*. Users can create more groups as desired (see “Adding, Deleting or Renaming Groups” on [page 17](#)).

Changing the Contacts List View

To display the drawer in a realizable window, detach the Calls & Contacts drawer.

To show contacts organized into groups, click the Contacts menu and select **Show Categorized**.

To show only those contacts who have designated themselves as “available” and are currently online, click the Contacts menu and select **Show only contacts with availability**.

To sort contacts, click the Contacts menu and select a desired **Sort By** rule.

Using Contacts

Call a contact	To use the person's primary number, double-click or drag the contact to the Call display. To choose a specific number to use, right-click the contact and select Call , then click the desired number.
E-mail a contact for whom the user has designated a valid email address	Right-click and select Send E-mail .
Send an IM to a contact who has a SIP address	Right-click and select Instant Message .
Watch the availability of a contact who has a SIP address	See Table 2 on page 25 for definitions of the availability icons. See "Availability" on page 22 for information about obtaining availability information for remote parties.

Managing Contacts

Adding, Deleting or Renaming Groups



Click the Contacts menu and select **Manage Groups**. The Manage Groups dialog will appear.

- To create a new group, click **New Group**, type a name, then press **Enter**.
- To delete a group, highlight the group and select **Remove**. X-Lite moves contacts that were in that group to a catch-all "No Group" group.
- To rename a group, highlight the group and select **Edit**. Type the new name and press **Enter**.

Adding a Contact

Click the Contacts menu and select **Add Contact**. The Contact Properties dialog box appears (see below).

Finding a Contact

If the Contacts list is long, use the  field to filter for the desired contact. To clear the filter and re-display all contacts, clear the  field.

Changing Contact Information

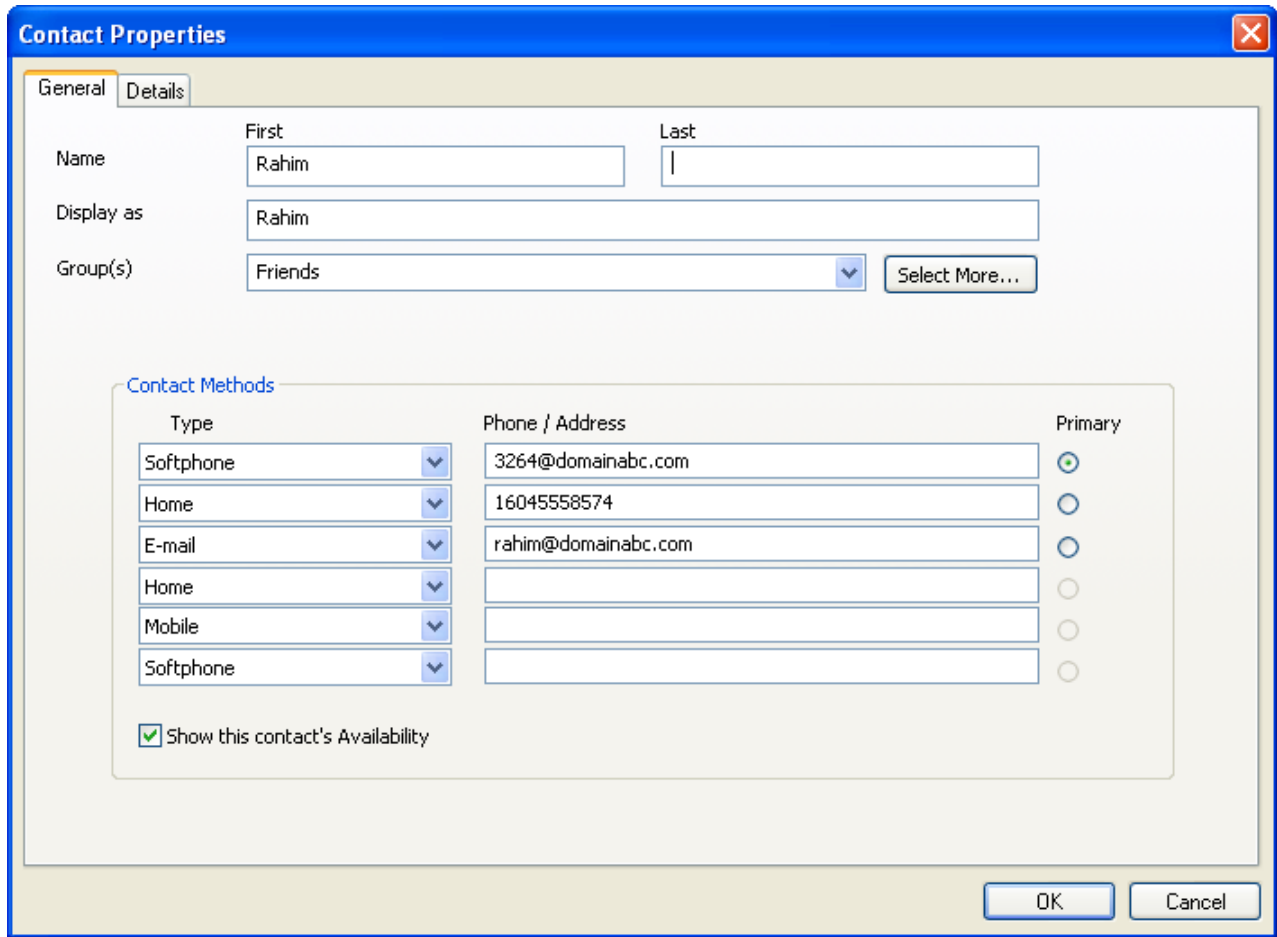
To change information for a contact, right-click the contact and select **Edit**. The Contact Properties dialog box will appear (see below). Changes that users can make to contact information include:

- Any contact details.
- Adding, deleting or changing one or more contact methods.
- Switching the primary contact method.
- Moving a contact to a different.
- Adding an existing contact to additional groups by selecting one or more extra groups.
- Changing the **Show this contact's Availability** checkbox to enable or disable availability information for the contact. For information about Availability, see [page 22](#).

Moving or Deleting a Contact

- To move a contact to a different group, select the contact and drag it to the desired group's name.
- To delete a contact, right-click the contact and select **Delete**. X-Lite removes the contact from the group.

Contact Properties Dialog Box




1. Enter the desired information under the two tabs.
2. After clicking **OK**, X-Lite adds the contact to the group or groups specified and displays the designated primary contact method in the list.

Table 1: Contact Properties Dialog Box

Field	Description
<i>Name</i>	Complete as desired.
<i>Display as</i>	Required. This is the name that will appear in the Call display and the Call Alert when this person phones.
<i>Group(s)</i>	Either: <ul style="list-style-type: none"> • Choose one group. • Click Select More and select several groups. The new contact will be added to each group. • Create a new group by clearing the field and typing in a new name. The new contact will be added to the newly-named group. • Clear the displayed group in order to add the contact to “No Group”

Table 1: Contact Properties Dialog Box

Field	Description
<i>Contact Methods</i>	Enter as many contact methods as desired. E-mail and SIP entries must follow the format: <name>@<domain> If desired, change the primary contact method within the <i>Contact Methods</i> area.
<i>Show this contact's Availability</i>	Check this box to obtain the contact's availability for display within the Contacts list. This field is enabled only when at least one SIP address is specified for the contact. The contact will have a  beside their name in the Contacts list. Initially, this icon will be gray; later the icon will change in color to indicate the contact's current availability. For details on Availability, see page 22 .
<i>Details tab</i>	Complete as desired.

Importing Contacts

Users can import an existing Contacts list from:

- A comma-separated-value file. Use this approach to import contacts from a Microsoft® Excel® file. Users will first have to set up the file (see below).
- A Microsoft® Outlook® or Microsoft® Exchange contacts list (a * .pst file).
- A vCard file (* .vcf file). A vCard is an electronic business card that users can attach to outgoing email.

X-Lite will add new contacts to any existing contacts.

1. Click the Contacts menu and select **Import**. The Import Contacts wizard will start.
2. After clicking **Finish** within the wizard, X-Lite updates the Contacts tab to show the imported entries. Note that none of the new entries is set up with availability turned on; to view the availability of these new contacts, users must modify the appropriate entries by changing their **Show this contact's Availability** checkbox. See above for details.

Setting up an Excel File for Import

1. Remove any introductory text or headings from the top of the file. (X-Lite will ignore text at the end of the file during import).
2. Insert a blank row as the first row, then insert the headings that X-Lite will use to interpret the meaning of each contact-related column (users can specify these columns in any order). Popular headings are:
 - display-name
 - entry_id
 - given_name
 - surname
 - postal_address.

For a complete list of headings, see “Appendix C: Contact List Headings” on [page 60](#).

3. Save the file as <filename>.csv.

Exporting Contacts

Users can export a Contacts list to a comma-separated-value file, a .pst file or a .vcf file.

1. Click the Contacts menu and select **Export**. The Export Contacts wizard will start.
2. After clicking **Next**, the export starts. The result of exporting will be one of the following:
 - For an Outlook® export, X-Lite updates the existing .pst file to include entries from the X-Lite Contacts list. If Outlook® is open, the entries appear immediately in that application's contacts list.

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X-Lite exports all information from the Contacts list to Microsoft® Outlook®. Only information that can be displayed in Outlook® actually appears in the Outlook® contacts window. Typically, this means that X-Lite exports SIP addresses (stored in custom fields) but Outlook® does not display them all.

- For other formats, X-Lite creates a new file of the specified type.

4.3 Calls Tab










There are three lists that show calls made and received:

- **Missed Calls:** incoming calls that the user missed.
- **Received Calls:** incoming calls, both answered and missed.
- **Dialed Calls:** outgoing calls, both answered, unanswered and hung up.
- **Blocked Incoming Calls:** X-Lite will block an incoming call from a person whom the user has banned (see “Privacy Rules” on [page 53](#)).

Managing Calls Lists

Users can open and close each list to show or hide the contents.

Icon	Meaning
	The list is empty.
	There are calls in the list.
	There are calls in the list, at least one of which is an unanswered call.
	The list is expanded to show the contents.
	The list is expanded to show the contents, at least one of which is an unanswered call.
	The user answered the call.
	The user missed the call (i.e. the user was unavailable for or chose to ignore the call).

Users can select a list and click **Calls** in order to:

- Delete all entries from the list.

Users can also right-click any entry within the Received or Dialed list to select one of:

- **Ban this Person** — the person will not be able to initiate phone calls or instant messages with the local user, and will not be able to see their online status. Users can change these privacy rules at any time (see [page 25](#)).
- **Delete Call**.
- **Add to Contacts** — the Add Contact dialog box will appear. Complete the dialog box and press **OK**. For more information about the fields involved, see “Managing Contacts” on [page 17](#).



Phoning and Sending IM from a List

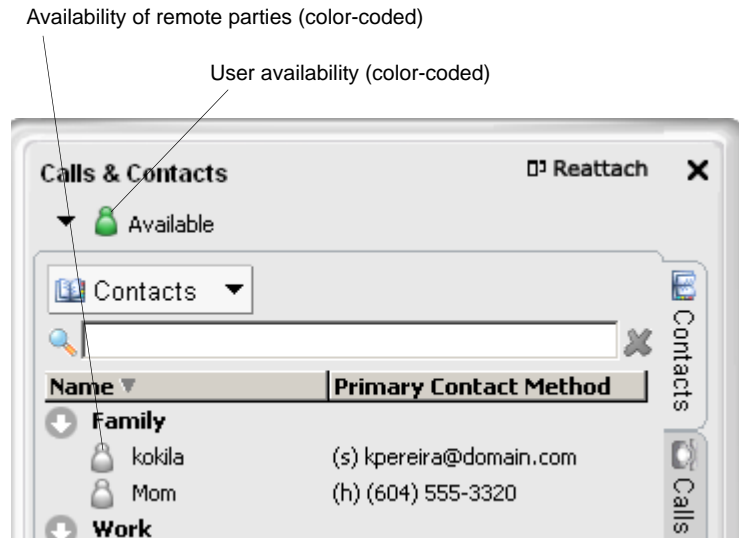
Users can right-click on an entry in the Received or Dialed list to:

- Phone the person.
- Phone the person and add them to an existing conference call. For more information about conference calls, see “Conference Calls” on [page 12](#).
- Send an instant message to the person. For details, see [page 28](#).

4.4 Availability

Availability refers to a user's ability to see whether a remote contact is available or not (online, on phone, busy, etc.). X-Lite displays availability information within in the Calls & Contacts drawer.

Users can publish their availability to contacts who have SIP addresses, and can configure X-Lite to view the availability of other contacts.



Sharing Availability

Watching Others' Availability

To enable viewing the availability of a remote party, either add that person to the Contacts list while making sure to check the **Show this contact's Availability** field, or modify existing contact information by checking the field. For more information, see [page 17](#).

As soon as the person is set up in the Contacts list, X-Lite sends them a notification request. The request asks them to authorize the local user for viewing that person's online availability. If the person allows this request, then the icon beside their name in the Contacts list becomes color-coded (see below for details) to help the local user determine their availability.

Allowing Remote Parties to View A User's Availability (Publishing Local Availability)

When a remote party authorizes a notification request from a local X-Lite user (see above), the local user's name is added to their Contacts list. As soon as a remote party adds an X-Lite user to their list, their SIP client sends a request back asking that they be able to view the local user's online availability.

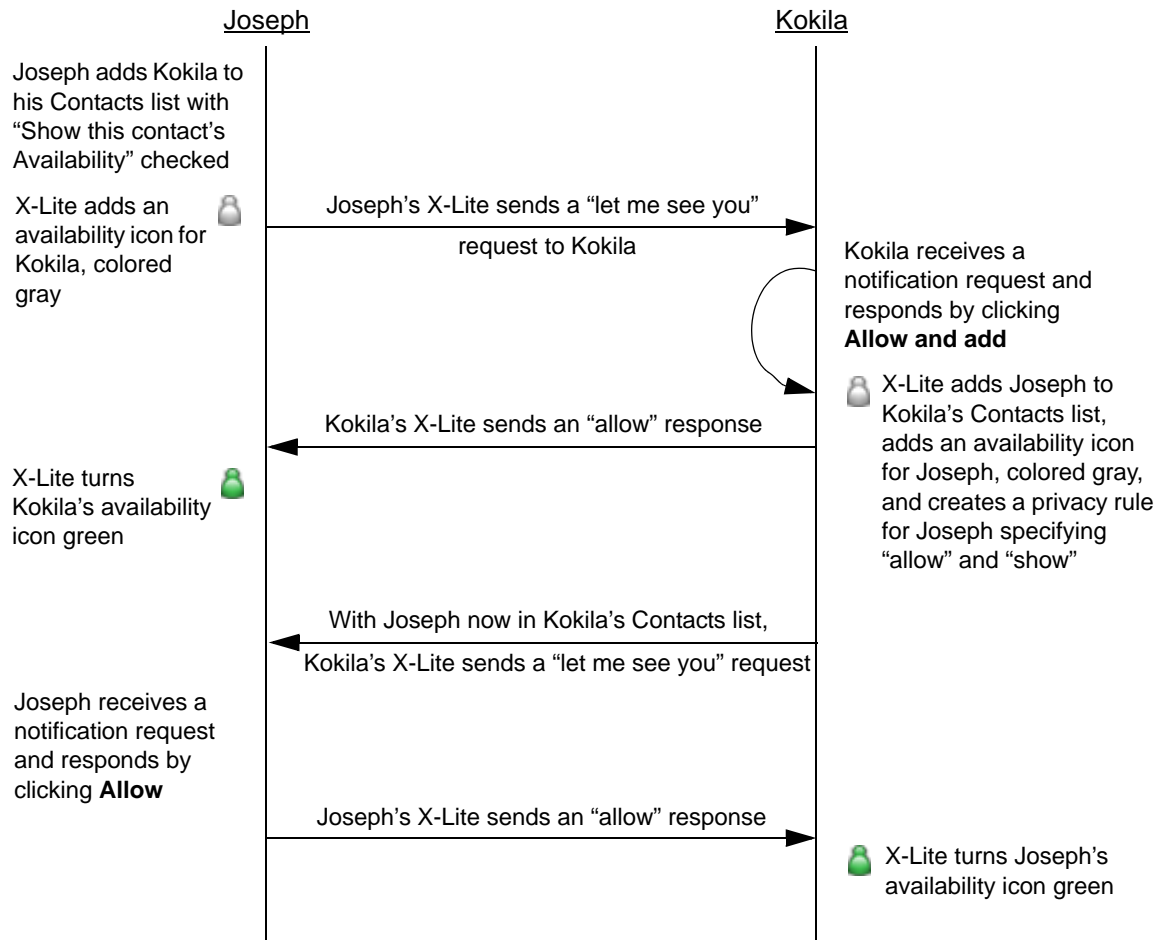
If a user does not yet have a privacy rule set up for the remote party, the request will appear as a *New Contact Request*. If the user did set up a privacy rule before the remote party makes a request for viewing local availability, the local user will never see a prompt for authorization; X-Lite will reply automatically to the request according to the rule specified for the remote party.



Respond to the request:

Button	Next Action	Result
Allow		The remote party will be able to view local availability. X-Lite will add the remote party to the local user's privacy rules with <i>Show my Status</i> set to "Yes." Users can change this rule later (see page 27).
Allow and add	This button appears only if the remote party is not already on the local Contacts list. When a user clicks Allow and add , the Add Contact dialog box appears. Complete the dialog box and press OK . For more information about the fields involved, see "Managing Contacts" on page 17 .	The remote party will be able to view local availability. X-Lite will add the remote party to the Contacts list, and to the local user's privacy rules with <i>Show my Status</i> set to "No." Users can change this rule later (see page 27). In the future, users will not receive any availability-related requests from that particular remote party, because the user has already set up a rule to allow or ban that person from viewing local availability. In addition, X-Lite will send this same request to the remote party for authorization to view their availability.
Deny		The remote party will not be able to view local availability. X-Lite will add the remote party to the local user's privacy rules with <i>Show my Status</i> set to "No."
Close the window		The remote party will not be able to view local availability. X-Lite will not add the remote party to the local user's privacy rules.

The following diagram illustrates how the sharing of availability occurs.



Changing Availability Permissions

- If a user decides that they no longer want a remote party to view their online availability, they can change the *Show My Status* field for that person within their Privacy Rules (see [page 27](#)). X-Lite will change the icon for that person to “Offline.”
- If a user decides that they no longer want to watch remote party’s online availability, they can uncheck the **Show this contact’s Availability** field within the Contact Properties dialog box (see [page 17](#)).

Managing Local Availability

Changing Local Availability

Click the downward-facing arrow beside the status indicator, then select the desired availability from among the list (see Table 2 below).








When local availability changes, X-Lite sends the updated availability to everyone whom the user has authorized to view their availability.

Setting up Availability Indicators

Users can create custom availability indicators, and can edit or delete both custom and built-in indicators.

In the Calls & Contacts drawer, click the downward-facing arrow beside the availability icon, then select **Availability Settings** (see [page 33](#) for details).

Table 2: Availability Indicators


	Indicator	Meaning for local Availability	Meaning for remote Availability
	Auto-detect	X-Lite will set the availability as appropriate, one of: <ul style="list-style-type: none"> • <i>Available</i> — The user is logged in but is either not on the phone or idle. • <i>On the phone</i> — Appears as soon as the user places a call or answers a call. • <i>Idle</i> — The user has not moved/clicked the mouse or pressed a keyboard key for the Idle period. Set the Idle period in Options → General → Availability (see page 33). 	Not applicable
	Available	Either: <ul style="list-style-type: none"> • The user set their availability to this status • The user set their availability to “Auto-detect” and X-Lite determined that they are not occupied. 	The remote user, for which the local user has subscribed to receive availability information, appears to be available.
	Busy	The user set their availability to this status.	The remote user, for which the local user has subscribed to receive availability information, appears to be busy.
	On the phone	Either: <ul style="list-style-type: none"> • The user set their availability to this status • The user set their availability to “Auto-detect” and X-Lite determined that they are engaged with a call. 	The remote user, for which the local user has subscribed to receive availability information, appears to be on the phone with another caller.
	Idle	Either: <ul style="list-style-type: none"> • The user set their availability to this status • The user set their availability to “Auto-detect” and X-Lite determined that they have not moved or clicked the mouse or pressed a keyboard key for the Idle period. To set the Idle period see Options → General → Availability on page 33. 	The remote user, for which the local user has subscribed to receive availability information, appears to be idle.
	Away	The user set their availability to this status.	The remote user, for which the local user has subscribed to receive availability information, appears to be away.
	Offline	Not applicable	The remote user, for which the local user has subscribed to receive availability information, appears to be offline.
no icon		Not applicable	The local user appears to not be watching this remote contact’s availability (see “Sharing Availability” on page 22).

4.5 Privacy Rules

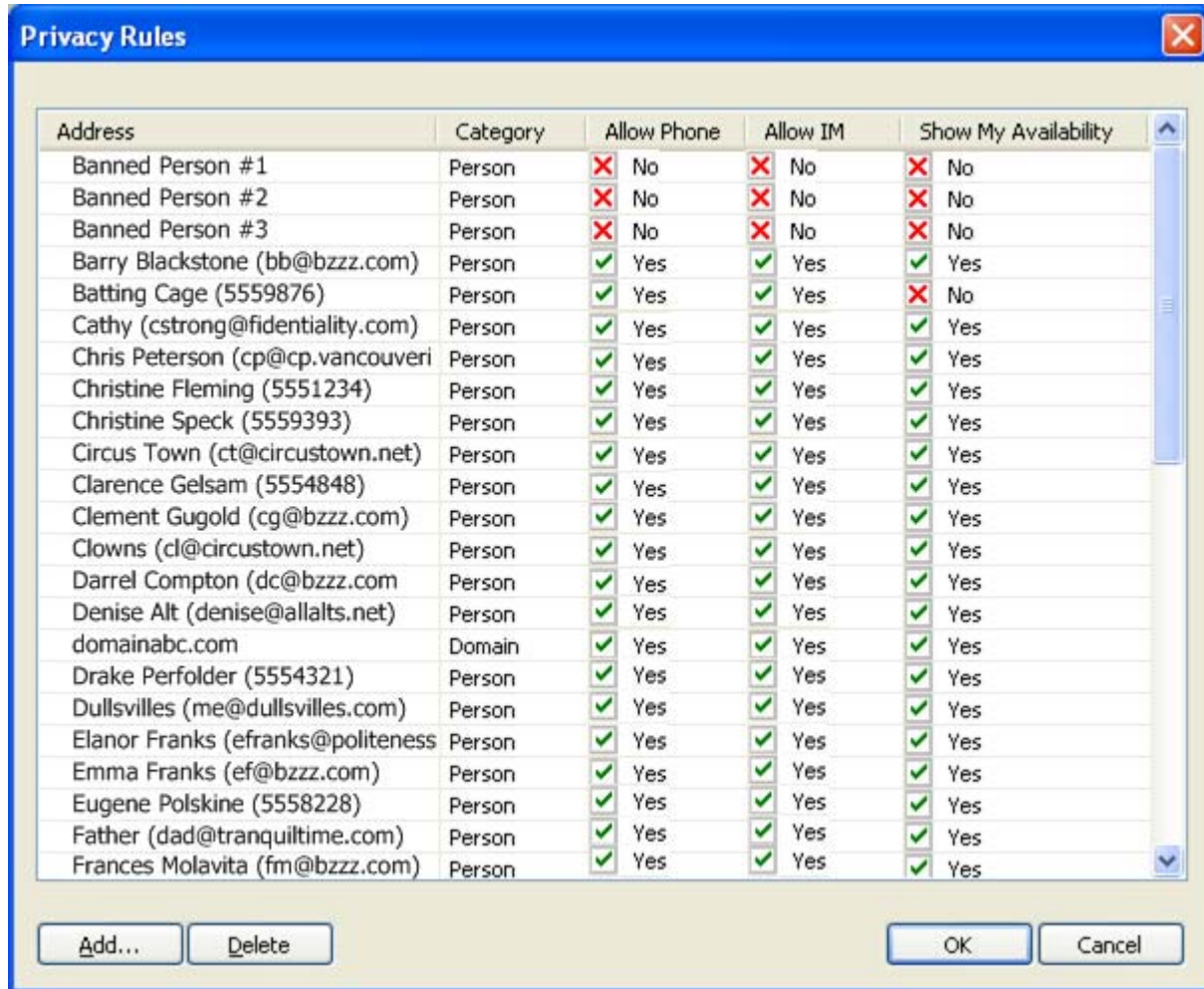
Users can allow other people to contact them or ban other people from contacting them. There are separate rules for incoming phone calls, incoming instant messages, and availability viewing. Users can ban/allow an individual person, or an entire domain.

Users can also ban a person listed in a Calls list. Right-click on the name and select **Ban this Person**.

Privacy Rules Window

Click  at the top of the phone and select **Privacy Rules**.

The window may show rules added during availability exchanges (see “Sharing Availability on [page 22](#)”).



Adding a Name or Domain

1. Click **Add**.
2. Complete the dialog box. If adding an individual (“Add rule for a person”), enter a SIP address. X-Lite fills in any omitted domains with the domain of the local user. If adding an entire domain (“Add rule for a domain”), enter the domain only.

X-Lite adds the new name/domain to the user’s Privacy Rules list with all groups set to “Yes” or “No.”

If a user receives a new contact request from a person in their rules list, X-Lite responds according to the specified rule (X-Lite will not display the New Contact Request dialog box).

Add new privacy rule

Rule Category

Add rule for a person

Add rule for a domain

Person or domain address:

Rule Status

Add as blocked

Add as allowed

Add

Cancel

Changing Rules

To change the settings for an existing name, click the cell to be changed. X-Lite changes the value (e.g. from “No” to “Yes”).

Deleting an Entry

Highlight the desired entry and click **Delete**. X-Lite deletes the entry.

- If the rule was for a person who is either in the user’s Contacts list or has a contact list of their own that contains the user, X-Lite will display a New Contact Request for that person.
- If the rule was for a domain within which any person is either in the user’s Contacts list or has a contact list of their own that contains the user, X-Lite will display a New Contact Request for that person.

5 Instant Messaging (IM)

5.1 Sending and Receiving an IM

To display the IM window, right-click any entry in the Calls & Contacts drawer and select **Instant Message**.

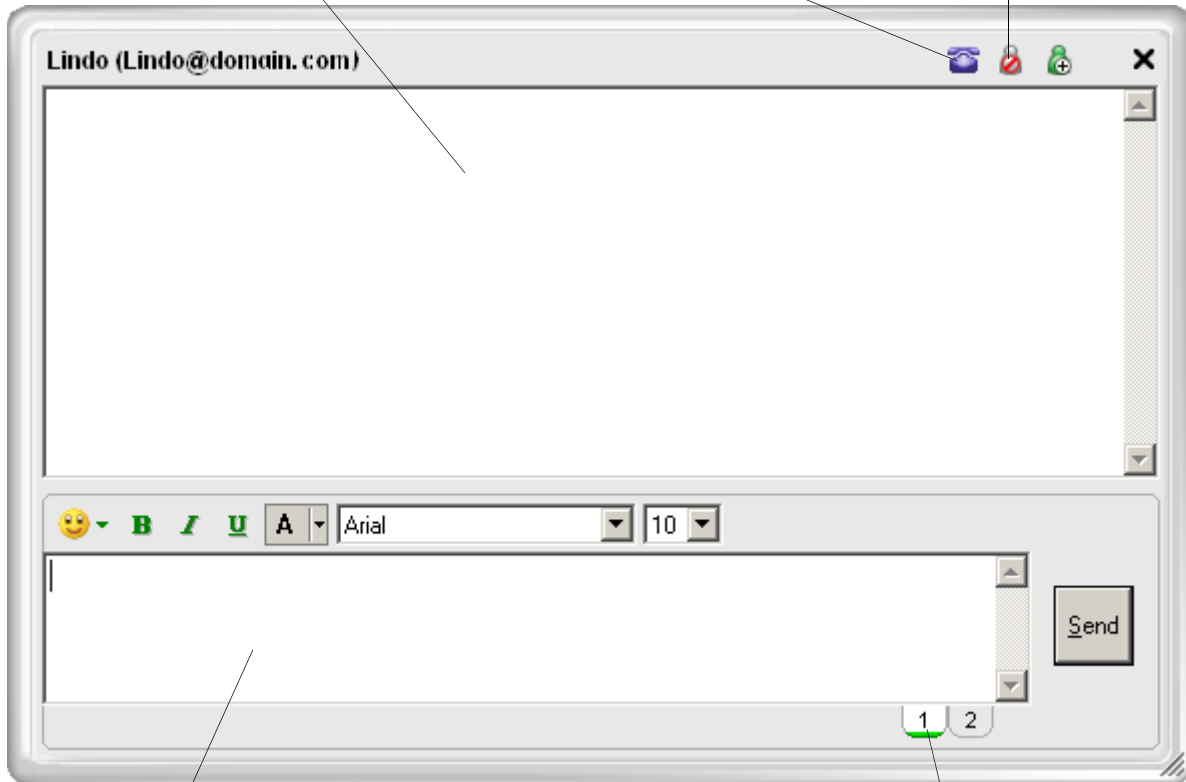
Type a message, including formatting as desired, then click **Send**.

Conversation area

Note: users can press **Ctrl-F** to search for specific text within a lengthy conversation.

Click to place a phone call to the remote person's SIP address


Users can click this icon to ban the remote party from sending instant messages, from calling and from viewing their online status. To un-ban a person, see "Privacy Rules" on [page 25](#).



Message input area

These tabs can be used to switch between two separate message compositions, which can be helpful if the user is busy typing a message when another message arrives (from the same person) that requires an immediate response. Clicking **Send** sends only the message under the selected tab.


Adding to the Contacts List

Users can click  to add a person to their Contacts list.

The Add Contact dialog box appears. Complete the dialog box and press **OK**. For more information about the fields involved, see "Managing Contacts" on [page 17](#).



6 The X-Lite Menu

Access the X-Lite menu by clicking  at the top of the phone. The menu items include:

- *Options* — options control the way users can work with X-Lite, and apply to all potential accounts (see “Options – General – Application” on [page 30](#)).
- *SIP Account Settings* — these settings control how X-Lite interacts with a VoIP service provider (see [page 42](#)).
- *Privacy Rules* — allows a user to control who may and who may not communicate with them (see [page 25](#)).
- *Open Diagnostic Log* — a VoIP service provider’s customer support representative may ask users to open this log if they are experiencing problems with X-Lite (see “Options – Advanced – Diagnostics” on [page 41](#)).
- *Open Diagnostic Folder* — a VoIP service provider’s customer support representative may ask users to open the diagnostics folder if they are experiencing problems with X-Lite (see “Options – Advanced – Diagnostics” on [page 41](#)).
- *Help* — this menu item directs users to <http://support.counterpath.net>.
- *About* — provides users with information about the version of X-Lite that is running.
- *Exit* — allows users to exit the X-Lite softphone application.

6.1 Options

Options are settings and preferences that apply to all potential accounts that a user might create.

Options – General – Application

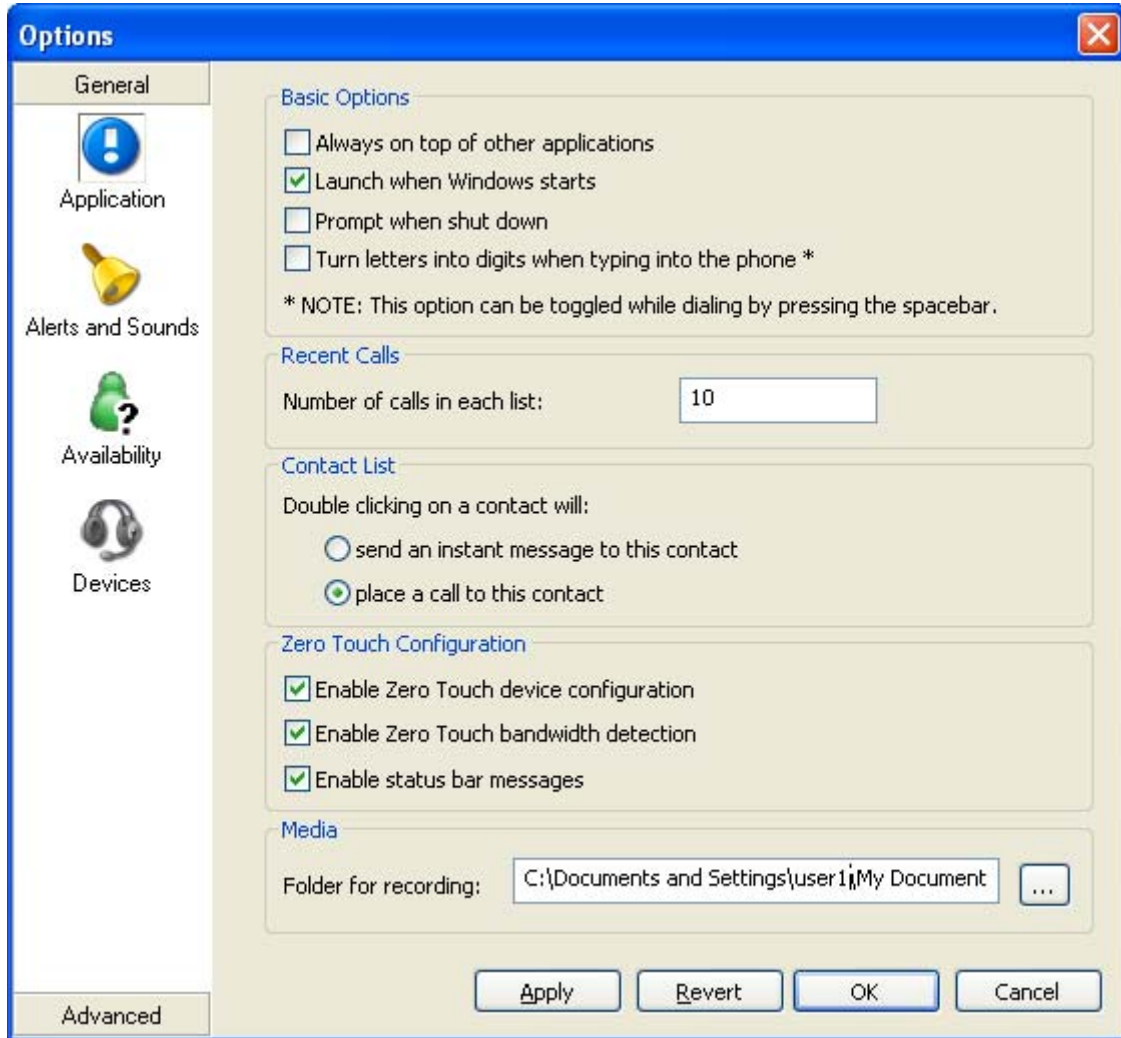
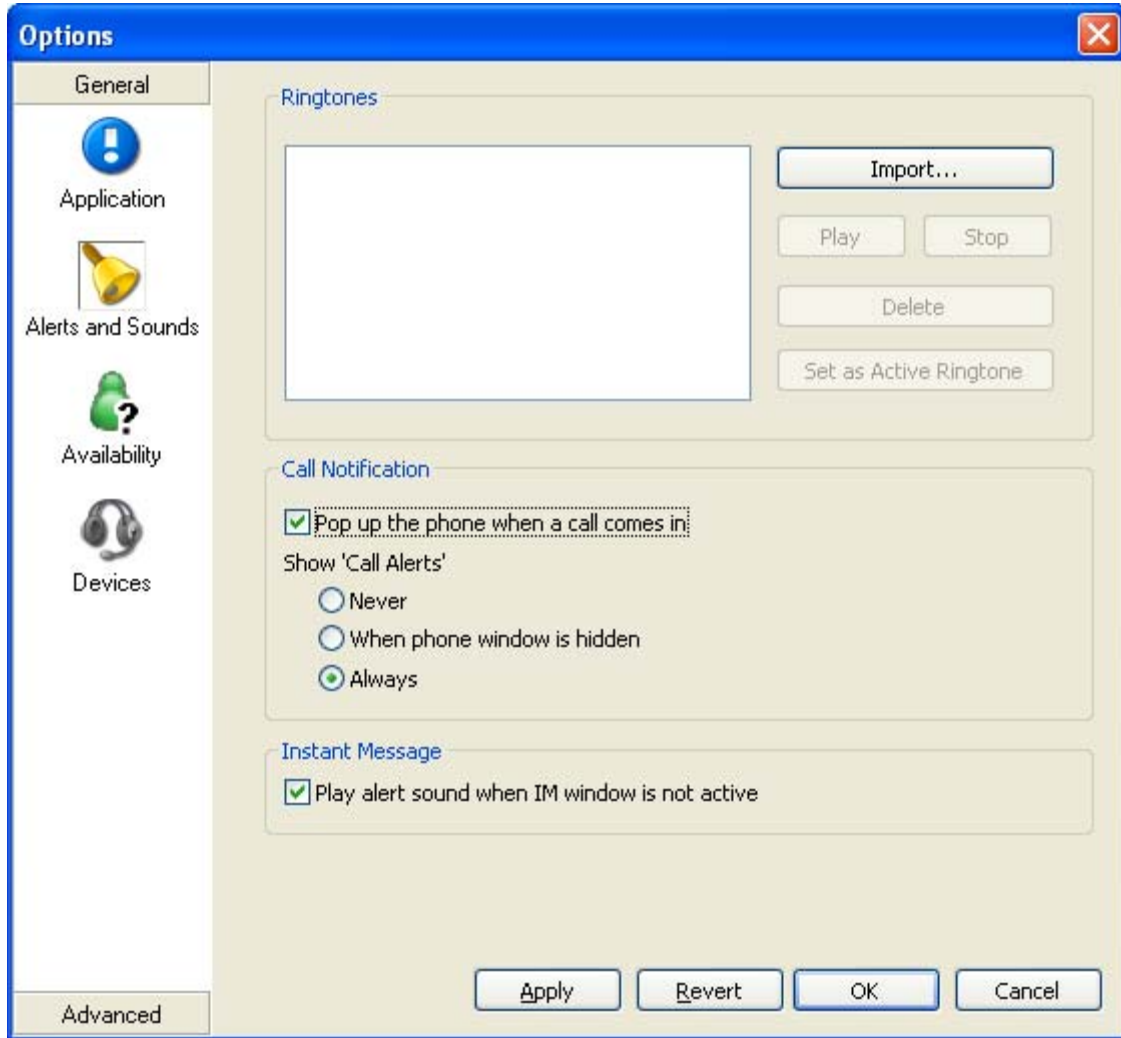


Table 3: Options – General – Application

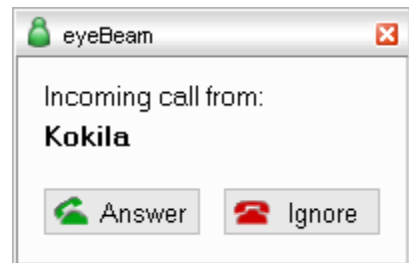
Field	Description
<i>Always on top of other applications</i>	Check or uncheck to suit individual preferences.
<i>Launch when Windows starts</i>	Check or uncheck to suit individual preferences.
<i>Prompt when shutdown</i>	Check or uncheck to suit individual preferences.
<i>Turn letters into digits when typing into the phone</i>	Check or uncheck to suit individual preferences. Users can also toggle this feature at any time by pressing the spacebar .
<i>Number of calls in each list</i>	Enter a number to suit individual preferences.
<i>Double clicking</i>	Choose an action to suit individual preferences.
<i>Enable Zero Touch device configuration</i>	When checked, X-Lite detects installed audio and video devices and configures one of them for use with the application. If a user has several audio or video devices and does not like the device that X-Lite selects, they can override the selection on the Devices pane (see page 34).
<i>Enable Zero Touch bandwidth detection</i>	When checked (recommended), X-Lite detects network connection speed and hence the potential bandwidth for VoIP. If the user moves their computer to a different IP address, X-Lite detects the new connection speed automatically. When unchecked, users must specify their network connection (see “Options – General – Devices” on page 34).
<i>Enable status bar messages</i>	When checked, messages relating to zero touch configuration will appear in a notification balloon at the lower right corner of the screen whenever X-Lite’s configuration changes. Note: notification balloons are supported in newer versions of Windows®.
<i>Folder for recording</i>	Specify a location for saving files containing recorded conversations.

Options – General – Alerts and Sounds

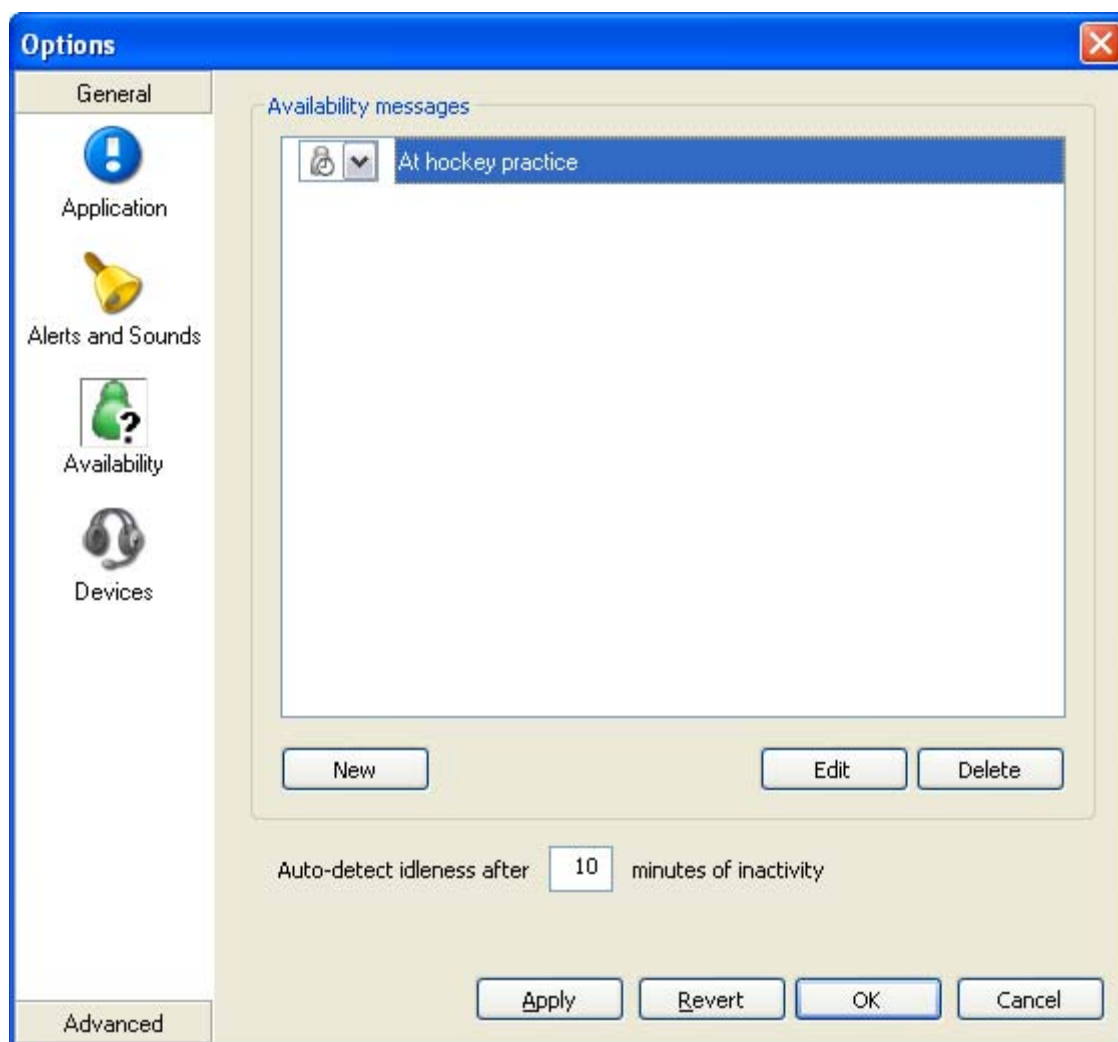


On this page users can:

- Manage custom ringtones. Users can import a ringtone (a .wav file), then play it to assess its worthiness. Users can activate one ringtone, and can delete any ringtone no longer desired.
- Set up X-Lite to bring the softphone to the front automatically whenever a call comes in.
- Set up X-Lite to display the Call Alert box (see right) when a call comes in (either always or only when the softphone is not visible).



Options – General – Availability



This screen lets users add status indicators to X-Lite’s standard Availability indicators. For more information about Availability, see [page 22](#).

- Users can set the Idle timer, which represents the time since the user last moved the mouse, clicked the mouse, or pressed a keyboard key. After the timer expires, X-Lite changes the user’s availability to “Idle.”
- Users can add a custom indicator by clicking **New**, typing in the new status description, and assigning an icon (e.g. a user might create an indicator called “Client meeting” that uses the standard “Away” icon).
- Users can edit or delete a custom indicator.

Options – General – Devices

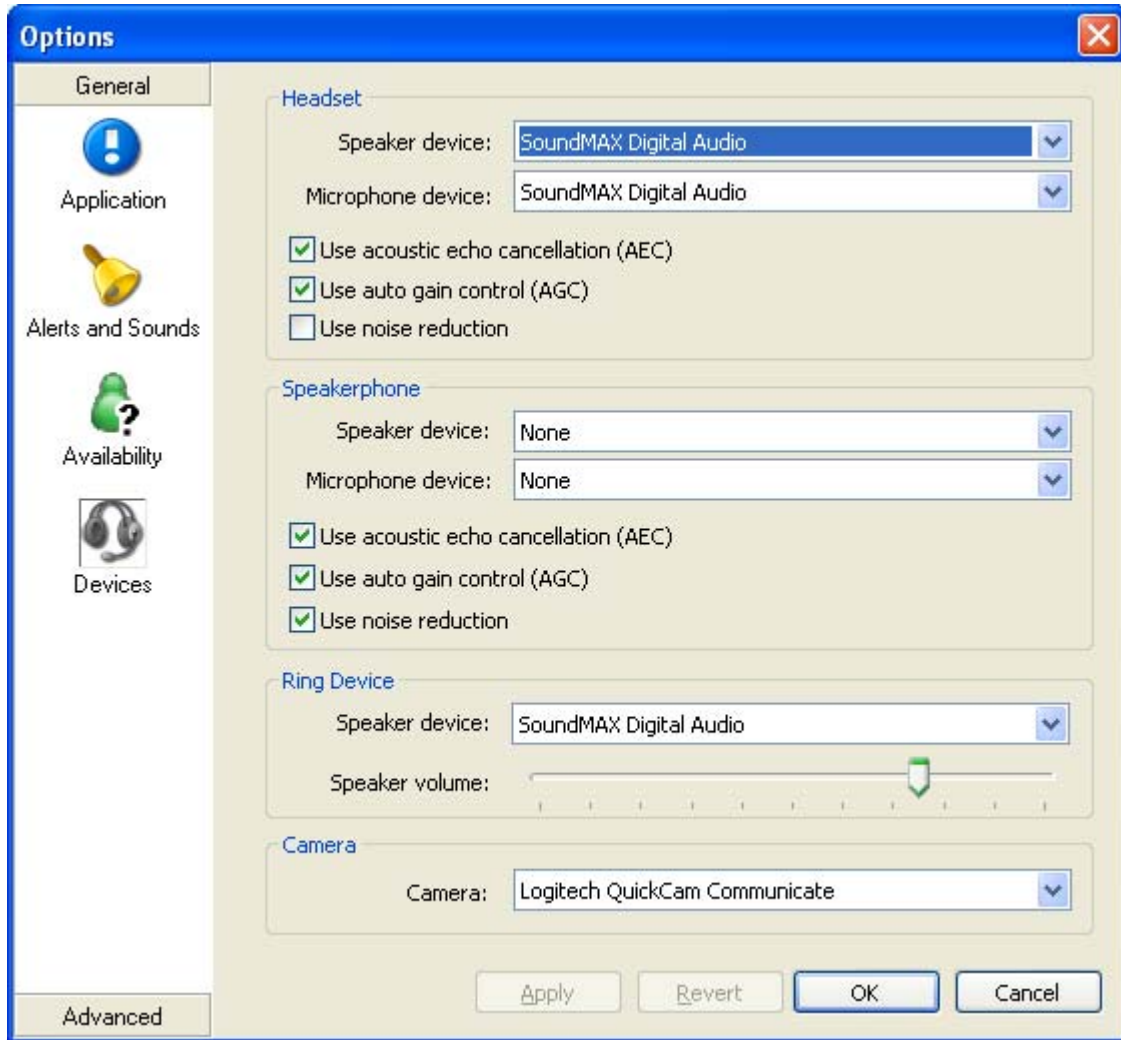


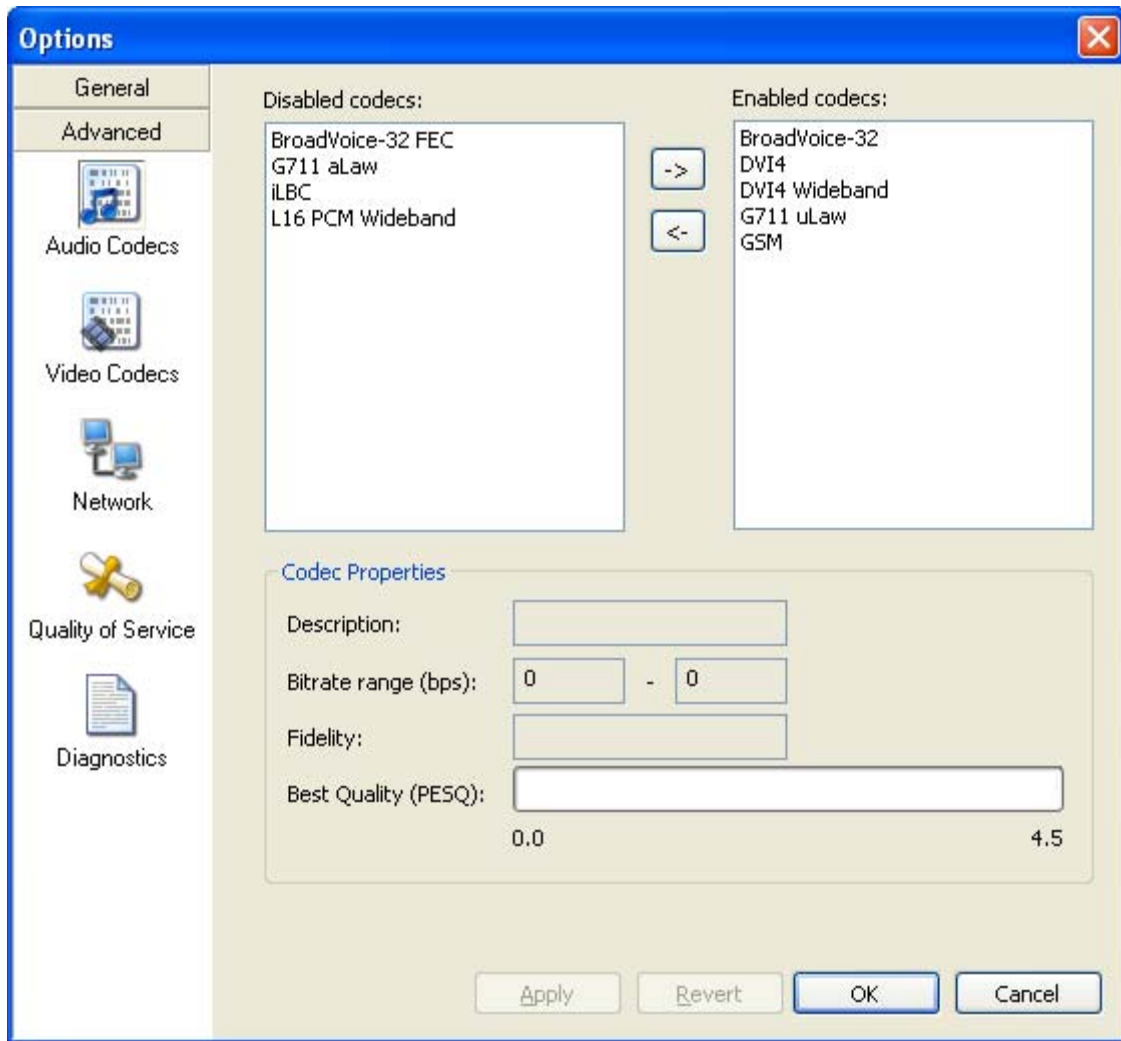
Table 4: Options – General – Devices

	Field	Description
Headset	<p><i>Speaker device</i></p> <p><i>Microphone device</i></p>	<p>Change these fields only to override the device that X-Lite’s zero touch device configuration selected (see Table 3 on page 31).</p> <p>In both these fields, select the appropriate headset device.</p> <p>The headset is the device that is usually used for audio out (sounds heard) and audio in (voice input). The only situation in which a headset is not used is when a user presses the Speaker Phone button.</p> <p>Users must make a selection here unless planning to use speakerphone mode only. Select the headset in both the <i>Speaker device</i> field and the <i>Microphone device</i> field.</p>
	<i>Use acoustic echo cancellation (AEC)</i>	<p>Reduces the echo effect that can arise if the sound from the speakerphone or headphone feeds back into the microphone. Turning on this feature improves general audio quality.</p> <p>Typically on.</p>

Table 4: Options – General – Devices

	Field	Description
Headset	<i>Use auto gain control (AGC)</i>	Adjusts the microphone volume level so that the remote party does not hear any distortions that may occur when a user sets their microphone input too high or their volume too low (due to too low input level). Typically on.
	<i>Use noise reduction</i>	Attempts to remove background noise. Typically off for the headset.
Speakerphone	<i>Speaker device</i>	Change this field only to override the device that X-Lite's zero touch device configuration selected (see Table 3 on page 31). Make the appropriate choice: <ul style="list-style-type: none"> • Select the device to use for audio out (sounds heard) when the speakerphone is engaged (make sure to select a speaker device other than the headset). • Select None for no speakerphone device. The <i>Speaker Phone</i> button on the dialpad becomes disabled.
	<i>Microphone device</i>	Change this field only to override the device that X-Lite's zero touch device configuration selected (see Table 3 on page 31). Make the appropriate choice: <ul style="list-style-type: none"> • Select the device to use for audio in (voice input) upon clicking the Speaker Phone button. <p>Note: the input device can be any microphone, and need not be the microphone specified as the headset speaker device (e.g. the microphone used during speakerphone mode could be the microphone on a camera instead of the headset microphone).</p> <ul style="list-style-type: none"> • Select None for no speakerphone device. The <i>Speaker Phone</i> button on the dialpad becomes disabled.
	<i>Use acoustic echo cancellation (AEC)</i>	Reduces the echo effect that can arise if the sound from the speakerphone feeds back into the microphone. Turning this feature on may improve general audio quality; the drawback, however, is that AEC uses more processing power, which may hinder running applications. Typically on.
	<i>Use auto gain control (AGC)</i>	Adjusts the microphone volume level so that the remote party does not hear any distortions that may occur when a user sets their microphone input too high or their volume too low (due to too low input level). Typically on.
	<i>Use noise reduction</i>	Attempts to remove background noise. Typically on for the speakerphone.
Ring Device	<i>Speaker device</i>	The device to use for audible announcements of a ringing softphone; users choose one of the headset, the speakerphone or none.
	<i>Speaker volume</i>	The volume of the ringer.
Camera	<i>Camera</i>	Complete this field only after disabling zero touch device configuration (see Table 3 on page 31). Select the appropriate camera model.

Options – Advanced – Audio Codecs



This pane shows all the codecs that are available with X-Lite. Users can enable or disable codecs as desired.

With only one codec enabled, all calls made will use that codec. With more than one codec enabled, X-Lite will choose the best codec to use based on the remote party's capability, the available bandwidth, and current network conditions.

Users cannot change the properties of any audio codecs.

About Codecs

Audio codecs describe the format by which audio streams are compressed for transmission over networks. Codecs can be categorized as either narrowband or wideband:

- Narrowband codecs work with low bandwidth connections such as a dialup. These codecs have a sampling rate of 8 KHz.
- Wideband codecs work with high bandwidth connections and provide superior audio quality (but do not work with PSTN networks). These codecs have a sampling rate of 16 KHz.

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Supported Codecs

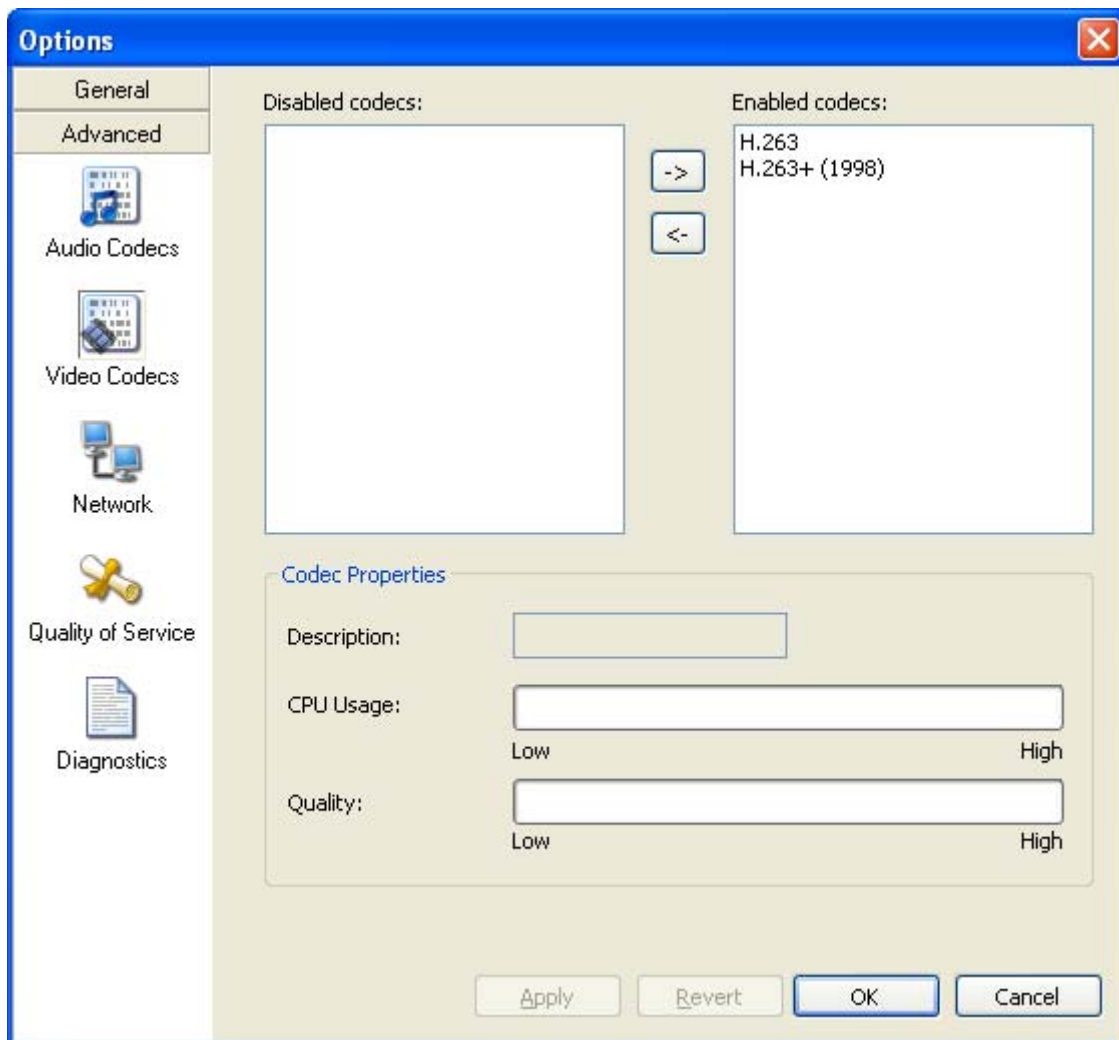
X-Lite supports a wide range of codecs. See Table 5, below.

Table 5: Audio Codecs Supported in X-Lite

Codec	Narrowband	Wideband
Broadvoice-32		✓
Broadvoice-32 FEC		✓
G.711aLaw *	✓	
G.711uLaw *	✓	
GSM	✓	
iLBC	✓	
L16 PCM Wideband	✓	

* Generally, one of these codecs must be enabled to place a PSTN (land line) call.

Options – Advanced – Video Codecs



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Video codecs describe the format by which video streams are compressed for transmission over networks. Some codecs require less bandwidth than others, but may result in lower video quality.

Users can enable or disable codecs as desired, even if a particular VoIP service provider supports the codec.

With only one codec enabled, all calls made will use that particular compression format. With more than one codec enabled, X-Lite will choose the best codec to use based on the remote party's capability, the available bandwidth, and current network conditions.

Users cannot change the properties of any video codecs.

Options – Advanced – Network

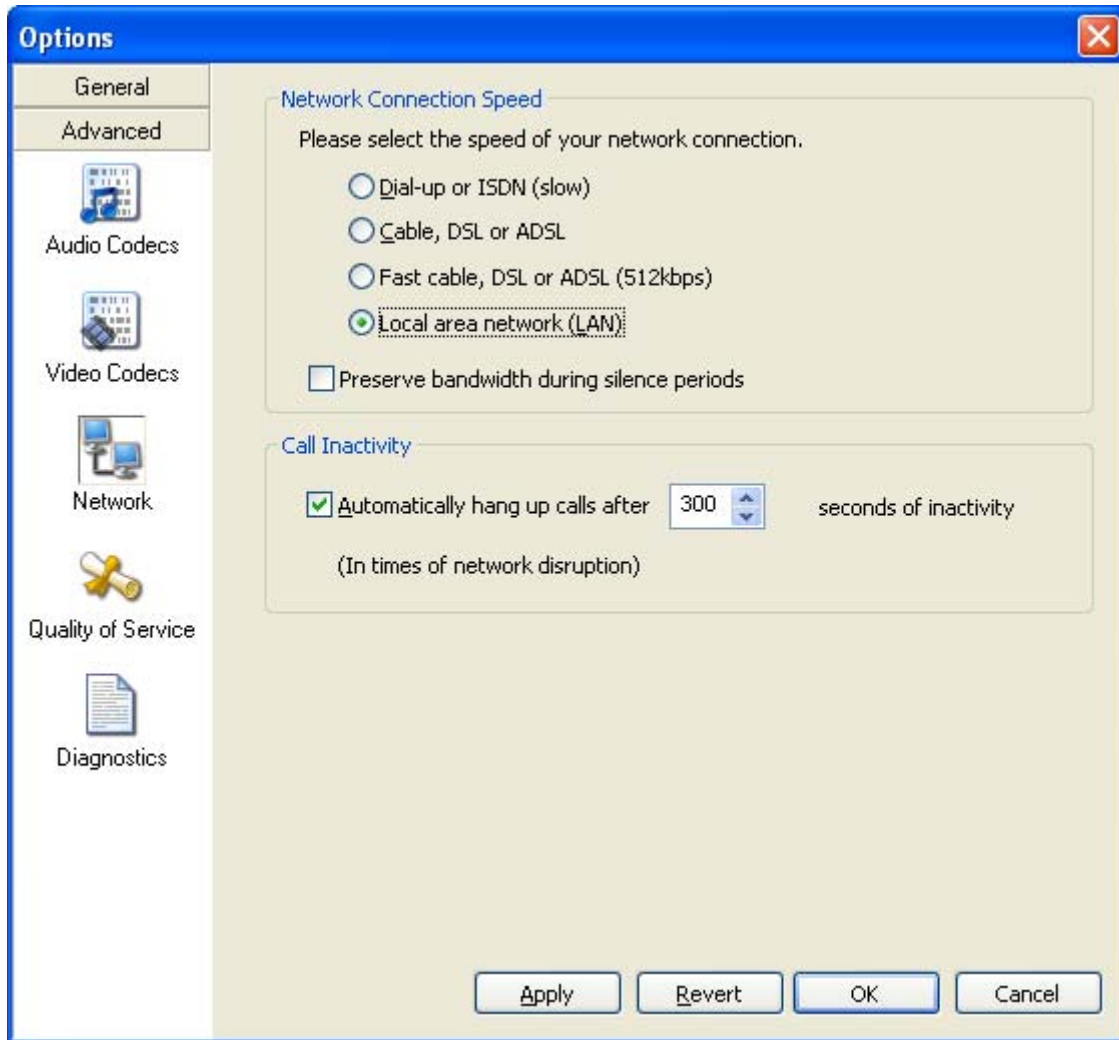
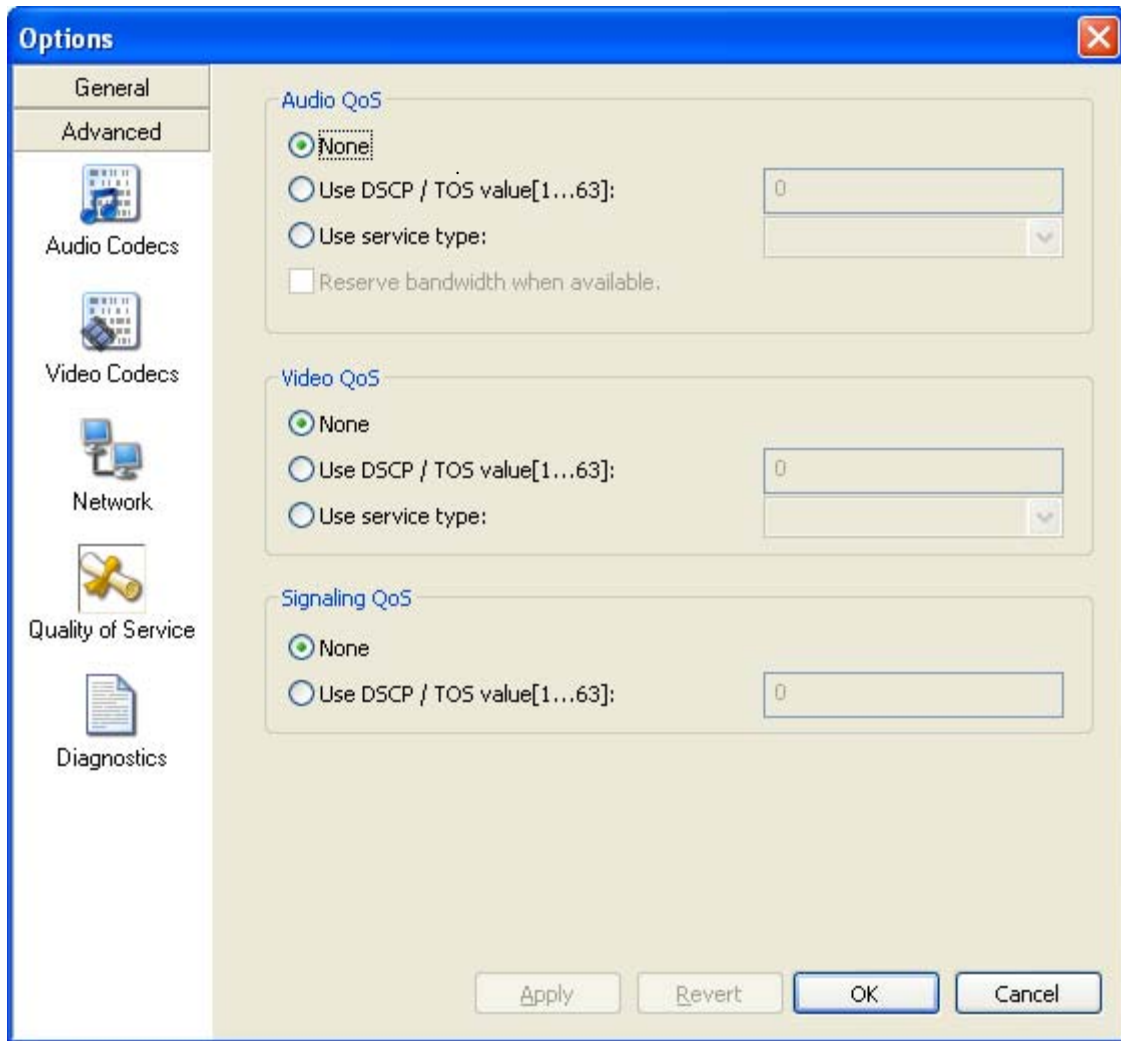


Table 6: Options – Advanced – Network

Field	Description
<i>Network Connection Speed</i>	<p>Complete this field only after disabling zero touch bandwidth detection (see Table 3 on page 31).</p> <p>Select the network connection type for the computer on which X-Lite is running.</p>
<i>Preserve bandwidth during silence periods</i>	<p>When this feature is enabled, X-Lite stops transmitting audio whenever the user stops talking.</p> <p>When this feature is disabled, X-Lite always transmits audio, which uses more bandwidth but may result in better call quality.</p> <p>Typically disabled (enable if using a slow connection).</p>
<i>Call Inactivity</i>	<p>When this feature is enabled, X-Lite automatically hangs up a call when it detects a specified period of inactivity. If a user is on a call that gets disconnected because of network problems (rather than because of one of the parties hanging up), X-Lite will end the call after the specified period of time.</p> <p>Typically on. This feature may be turned off if, for example, a PBX server already handles inactivity issues.</p>

Options – Advanced – Quality of Service



The Quality of Service pane lets users request a specific transport service for audio, video and signaling traffic. There are two types of services: the proper service depends on what a user’s VoIP service provider supports:

- GQoS, which is available for audio and video.
- DSCP (also known as ToS), which is available for audio, video and signaling.

In addition, when running X-Lite within Windows® on an Intel® Centrino® Duo mobile-technology-based laptop, users can request reserved bandwidth for audio traffic on 802.11e wireless networks. If available when the user places a call, X-Lite will reserve bandwidth for the call (which may lead to improved audio quality).

Some versions of Windows® restrict the services that users can access:

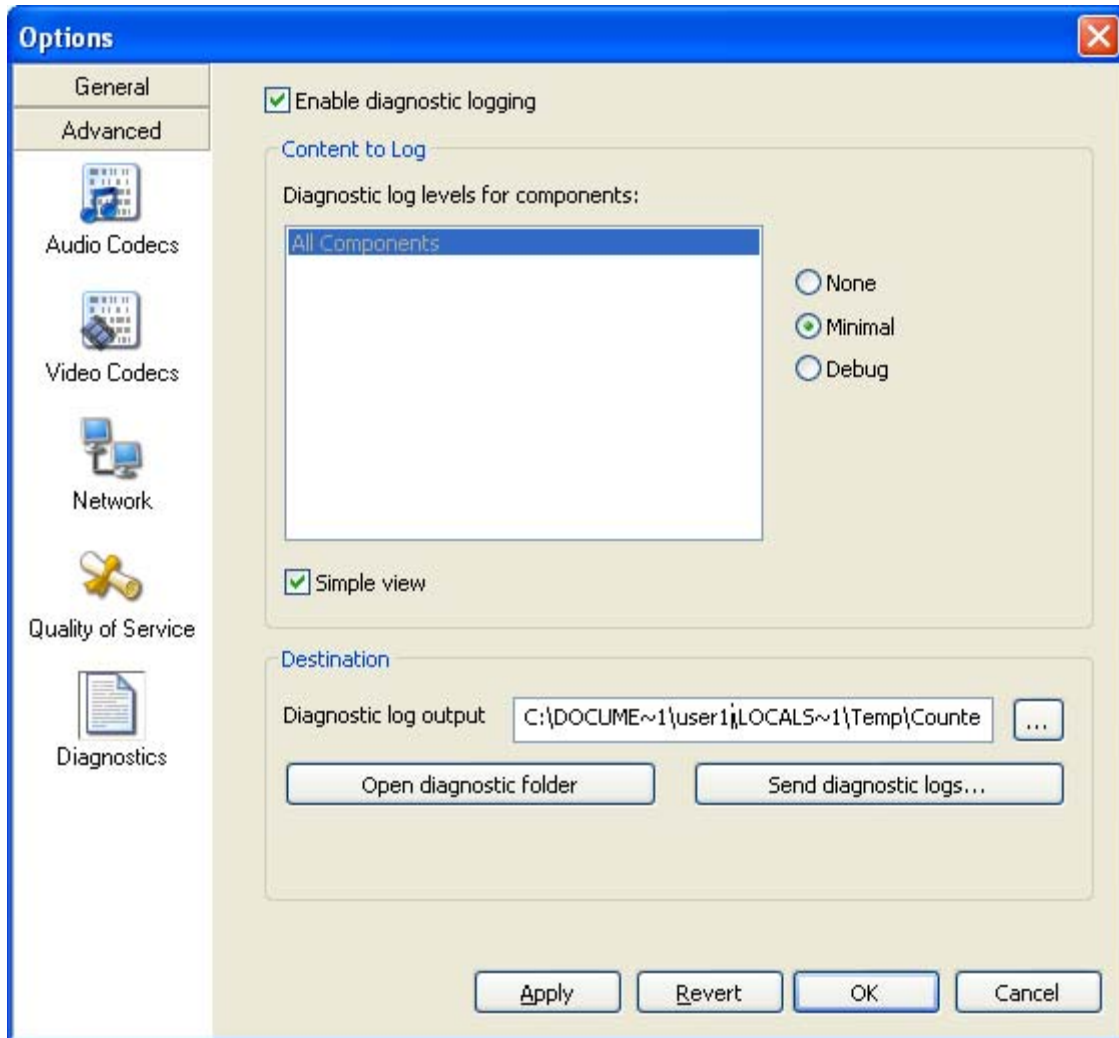
Table 7: Windows Support for QoS

Quality of Service Type	Windows 98 Second Edition	Windows NT	Windows 2000	Windows XP
GQoS	Yes	Yes	Yes	Yes
DSCP	No	No	Yes	Yes

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X-Lite supports 802.1p QoS packet tagging. If users set up X-Lite for QoS, the client will include the specified information within packets that it sends to the network provider. Whether the packet is delivered using the specified service depends on whether or not the user's broadband router and the network provider between the local and remote parties support multiple transport services (i.e. whether or not each network provider reads the QoS information and prioritizes packet delivery based on the requested service).

Options – Advanced – Diagnostics



This screen lets users enable logging to files. Logging consumes computer resources, so users should enable logging only when a VoIP service provider's customer support representative instructs them to do so.

To set up logging:

1. Check **Enable diagnostic logging** within **Options** → **Advanced** → **Diagnostics**.
2. Set the logging level.
3. Specify the folder where X-Lite will save logs.
4. Click **Apply**.

X-Lite will log application activity to .csv files in the specified folder, starting a new set of files each time the user logs in. In order not to create large files when logging (which may cause computer problems), users must

CounterPath X-Lite 3.0


not remain logged in indefinitely while logging is enabled. Users should occasionally exit and restart X-Lite when logging application activity.

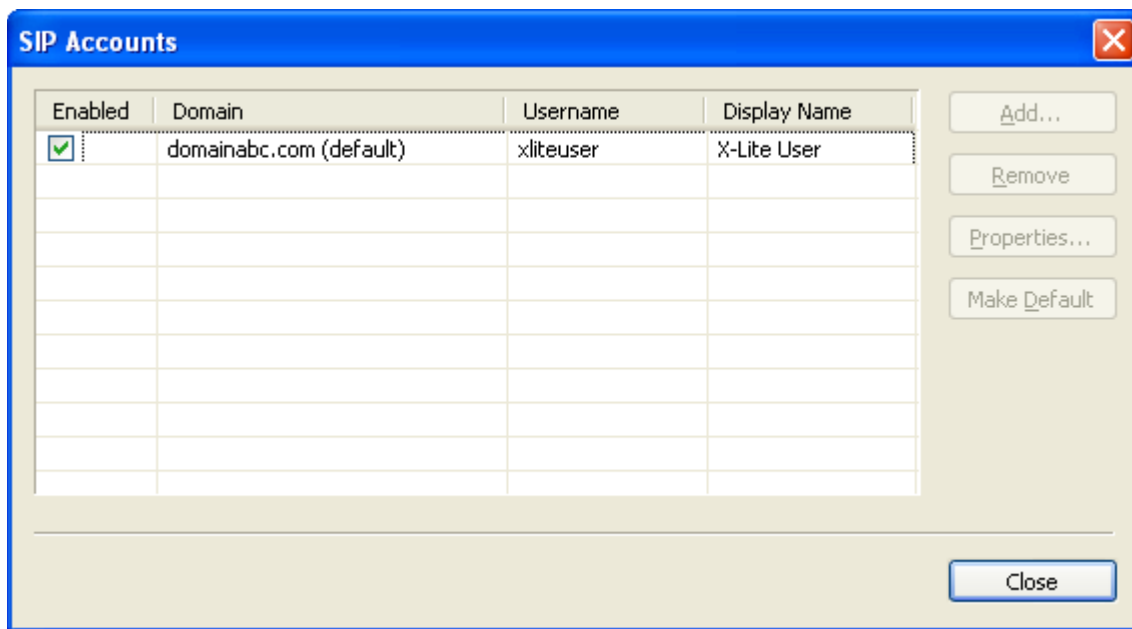
If requested by a customer support representative, users can:

- Open the logging folder and then open a log file using a standard text editor (e.g. Notepad).
- E-mail the logs in the specified folder to customer support by clicking **Send diagnostic logs**. A dialog box appears showing all logs. Select appropriate, click **Open**, and X-Lite sends the selected files.

6.2 SIP Account Settings

SIP Accounts

To manage SIP accounts, click  at the top of the phone and select **SIP Account Settings**. The SIP Account window appears, showing the account that the user has set up.



Users can:

- Resize the columns in the window
- Add an account
- Remove an account
- Enable an account (see below for details)
- Set or change the properties of an account (see below for details).

Enabling Accounts

Users must enable an account to make and receive calls on that account. Any account can be enabled or disabled at any time. To enable an account, check the **Enable** box beside the account.

Setting the Default Account

When users start X-Lite or change whether or not an account is enabled, X-Lite logs in to an enabled account only.

Rules for Enabled Accounts and Default Account

The following rules apply for enabled and default accounts:

- With only one account enabled, that account becomes the default, by default. Users will be able to place and receive calls only on that account.
- Users can never place calls on a disabled account. Placing a call that is only reachable through the service provider of a disabled account will fail with a “Not found” message.
- Users can never receive calls on a disabled account. If a remote party phones a user’s number that is only reachable through a disabled account, the call will fail.

Account Properties – Account

Properties of Account1

Account | Voicemail | Topology | Presence | Storage | Advanced

User Details

Display Name: X-Lite User

User name: xliteuser

Password: ●●●●●●●●

Authorization user name:

Domain: mysipaccounts.com

Domain Proxy

Register with domain and receive incoming calls

Send outbound via:

domain

proxy Address:

target domain

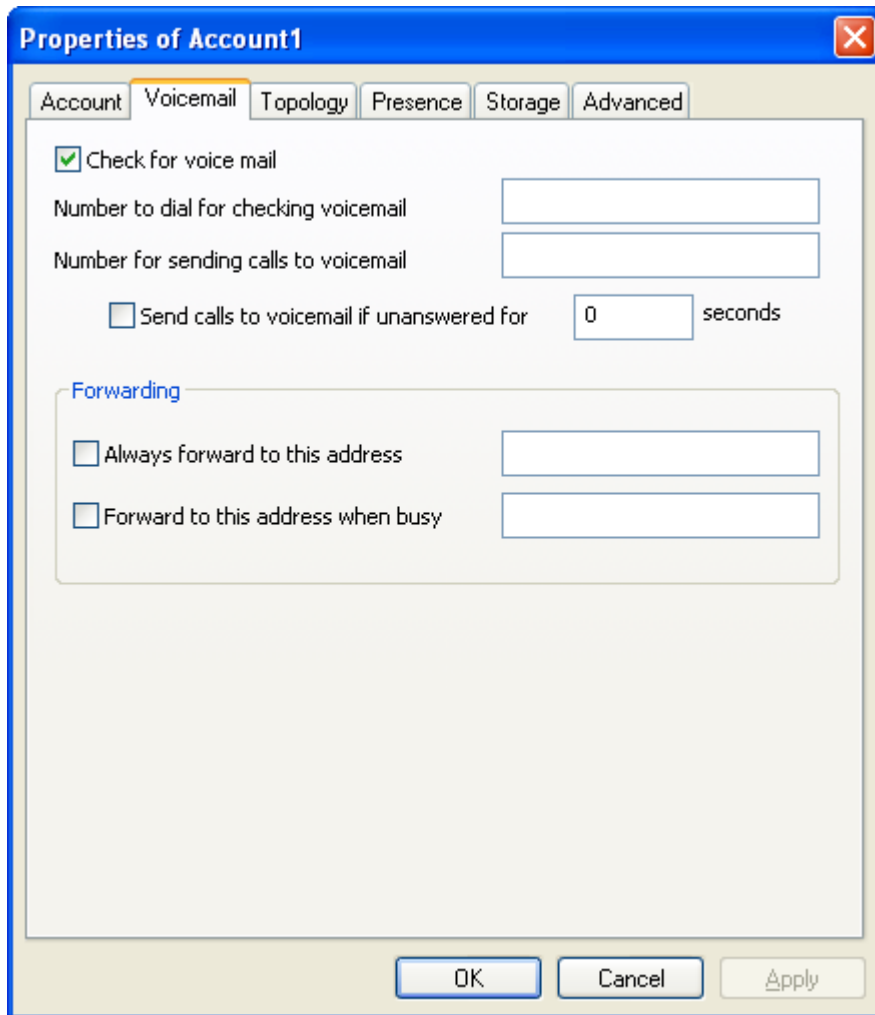
Dialing plan: #1\a\a.T;match=1;prestrip=2;

OK Cancel Apply

Table 8: Account Properties – Account

	Field	Description
User Details	<i>Display name</i>	This name shown in the X-Lite Call display. Remote parties in a call see this name in their phone's display.
	<i>User name</i>	Typically, this is the account number for the user's SIP account (e.g. for kpereira@domainabc.com the user name is "kpereira"). VoIP service providers disclose this information to their customers.
	<i>Password</i>	VoIP service providers disclose this information to their customers; in most cases, users can change their password after logging in for the first time.
	<i>Authorization user name</i>	May not be required. VoIP service providers disclose this information to their customers if required.
	<i>Domain</i>	Typically, this is the account number for the user's SIP account (e.g. for kpereira@domainabc.com the domain is "domainabc.com"). VoIP service providers disclose this information to their customers.
Domain Proxy	<i>Register with domain and receive incoming calls</i>	Check this box to register with the appropriate VoIP service provider for receiving incoming calls. Typically, this field is checked. This field may be unchecked if, for example, the user's VoIP service does not include the ability to receive incoming calls. In such a case, enabling this feature may cause registration to fail when the user closes the Account Properties window (i.e. X-Lite will fail to register with the VoIP service provider).
	<i>Send outbound via</i>	Choose the setting that the applicable VoIP service provider specified: <ul style="list-style-type: none"> <i>domain</i>: the service provider requires traffic to be directed to proxies that clients discover via the domain. <i>proxy</i>: the service provider has an outbound proxy address and requires users to provide that address to X-Lite. For the address enter a domain name (e.g. domainabc.com) or an IP address (e.g. 123.456.789.12). <i>target domain</i>: sends outbound data directly to the remote party's domain.
	<i>Dialing Plan</i>	Information about the syntax of numbers the VoIP service provider supports. X-Lite's default plan is: <code>#1\a\a.T;match=1;prestrip=2;</code> It is possible that this plan will work for as-is (the dialing plan is valid if calls succeed). If calls fail or if to set up a custom dialing plan (see "Dialing Plans" on page 55).

Account Properties – Voicemail





These settings let users set up X-Lite to forward incoming calls.

Service providers may offer voicemail support (e.g. they may offer customers a special number to dial or website to visit for retrieving voicemail messages).

Check with the appropriate service provider to determine if they employ a different mechanism for forwarding incoming calls to voicemail. If so, check what their settings are and enter compatible information in X-Lite. In particular, if a service provider has a mechanism for call forwarding, determine whether or not to leave the *Forwarding* settings under the Voicemail tab blank.

To send all calls to voicemail while running X-Lite, use the *DND* button on the dial pad.

Table 9: Account Properties – Voicemail

Field	Description
<i>Check for voicemail</i>	<p>If a VoIP service offers voicemail, choose the setting they specify:</p> <ul style="list-style-type: none"> • Checked: X-Lite will subscribe to be notified when there is voicemail. • Unchecked: the service provider may be set up to advise X-Lite when there is voicemail; check with the service provider for details. <p>If a particular VoIP account does not include voicemail, uncheck this option.</p> <p>VoIP service providers control voicemail services (not X-Lite).</p>
<i>Number to dial for checking voicemail</i>	<p>Complete only if a particular account includes voicemail service.</p> <p>This is the number that X-Lite will call to connect to voicemail when a user clicks the  icon within the Call display.</p> <p>If left empty, the icon will not function and users will have to dial the appropriate number to connect to voicemail.</p> <p>VoIP service providers disclose this information to their customers.</p>
<i>Number for sending calls to voicemail</i>	<p>Complete only if a particular account includes voicemail service.</p> <p>This is the number that incoming calls will be forwarded to if they are unanswered after the specified interval (below), or when a user clicks the  icon within the Call display.</p> <p>If left empty, X-Lite will not display the icon. (leaving this field empty does not imply that voicemail will not work—only that the icon cannot be used to send incoming calls to voicemail.)</p> <p>VoIP service providers disclose this information to their customers.</p>
<i>Send calls to voicemail if unanswered</i>	<p>Complete only if a particular account includes voicemail service.</p> <p>Sends incoming calls to voicemail after the specified number of seconds.</p> <p>Service providers may also provide similar functionality outside of X-Lite. If so, be sure not to enter incompatible information in X-Lite and the service provider's customer interface. If this field is left unchecked, ensure that the corresponding service provider feature is also disabled—otherwise, X-Lite will continue to forward all calls.</p>
<i>Always forward to this address</i>	<p>Users can take advantage of this feature even if their account does not include voicemail service.</p> <p>Forwards calls to another number instead of sending them to voicemail. (e.g. to forward calls to a co-worker while on vacation).</p> <ul style="list-style-type: none"> • To enable forwarding, check the box and enter the number to which X-Lite should forward incoming calls. • To disable forwarding, clear the checkbox.
<i>Forward to this address when busy</i>	<p>Users can take advantage of this feature even if their account does not include voicemail service.</p> <p>Forwards incoming calls to another number only when the user is busy with a call on another line.</p> <ul style="list-style-type: none"> • To enable forwarding, check the box and enter the number to which X-Lite should forward incoming calls. If a given VoIP account includes voicemail service, users can enter their voicemail number in this field. • To disable forwarding, clear the checkbox. <p>Service providers may also provide similar functionality outside of X-Lite. If so, be sure not to enter incompatible information in X-Lite and the service provider's customer interface. If this field is left unchecked, ensure that the corresponding service provider feature is also disabled—otherwise, X-Lite will continue to forward all calls.</p>

Account Properties – Topology

The screenshot shows the 'Properties of Account1' dialog box with the 'Topology' tab selected. The dialog has a blue title bar and a close button in the top right corner. Below the title bar are five tabs: 'Account', 'Voicemail', 'Topology', 'Presence', and 'Advanced'. The 'Topology' tab is active and contains three sections: 'Firewall Traversal', 'Port used on local computer', and 'XTunnels'. The 'Firewall Traversal' section has radio buttons for 'Discover global address' (selected), 'Use local IP address', and 'Discover server' (selected), with a text box for 'Use specified server:'. There is also a checked checkbox for 'Enable ICE'. The 'Port used on local computer' section has a checked checkbox for 'Manually specify range:' followed by two text boxes containing '0' and '0'. The 'XTunnels' section has a dropdown menu for 'Use XTunnels' set to 'Never', a text box for 'Server address', a checked checkbox for 'Use SIP user name and password', and text boxes for 'Username' and 'Password'. At the bottom of the dialog are 'OK', 'Cancel', and 'Apply' buttons.

Properties of Account1

Account Voicemail **Topology** Presence Storage Advanced

Firewall Traversal

IP address

Discover global address

Use local IP address

STUN server

Discover server

Use specified server:

Enable ICE

Port used on local computer

Manually specify range: -

XTunnels

Use XTunnels: ▼

Server address:

Use SIP user name and password

Username:

Password:

OK Cancel Apply

Table 10: Account Properties – Topology

	Field	Description
Firewall Traversal	<i>IP Address</i>	This setting controls how X-Lite presents IP addresses. <ul style="list-style-type: none"> • <i>Discover global address</i>: lets X-Lite determine the user’s public IP address. This is the recommended setting unless a VoIP service provider advises otherwise. • <i>Use local IP address</i>: uses the internal IP address of the computer running X-Lite.
	<i>STUN Discovery</i>	This setting specifies the STUN server that X-Lite should use. <ul style="list-style-type: none"> • <i>Discover the server</i>: select this option to let X-Lite find the address of an appropriate STUN server. This is the recommended setting. • <i>Use specified server</i>: compels X-Lite to use a different STUN server (enter a domain name or IP address in the text field).
	<i>Enable ICE</i>	ICE optimizes traffic and may help with firewall traversal. Typically, ICE is enabled, but may need to be disabled if a VoIP service provider has implemented a firewall traversal solution that is not compatible with ICE. For firewall-related problems with calls, contact the appropriate service provider for information about their firewall traversal solution.
X-Lite Host: Ports Used	<i>Manually specify port range</i>	Appropriate settings depend on the user’s computer setup: <ul style="list-style-type: none"> • Checked: the computer running X-Lite is located behind a restrictive firewall that only allows specific port ranges to be used for communication. Enter the range of ports to use for the SIP account (open those ports on any firewall device as well). Refer to applicable firewall documentation for details. • Unchecked: the computer running X-Lite is not located behind a restrictive firewall.
XTunnels	<i>Use XTunnels</i>	Appropriate settings for XTunnels depend on whether the account’s VoIP service provider uses an XTunnels server. <ul style="list-style-type: none"> • Automatic: uses XTunnels when X-Lite detects a firewall that prohibits communication. This is the recommended setting if the account’s service provider uses an XTunnels server. • Always: compels X-Lite to always use XTunnels. • Never: compels X-Lite to never use XTunnels. This is the correct setting for accounts whose service provider does not use an XTunnels server.
	<i>Use user login and password</i>	Check this box to use the username and password from the SIP account to log in to the XTunnels server. Leaving this box unchecked forces users to enter appropriate information in the Username and Password fields each time an XTunnels server prompts for such information.

Account Properties – Presence

Presence allows remote parties to view a local user’s online status (availability), and allows the local user to see the online status of others. Once users have configured presence settings under this tab, they can set up various privacy rules to customize their published availability (see “Availability” on [page 22](#) and “Privacy Rules” on [page 25](#)).

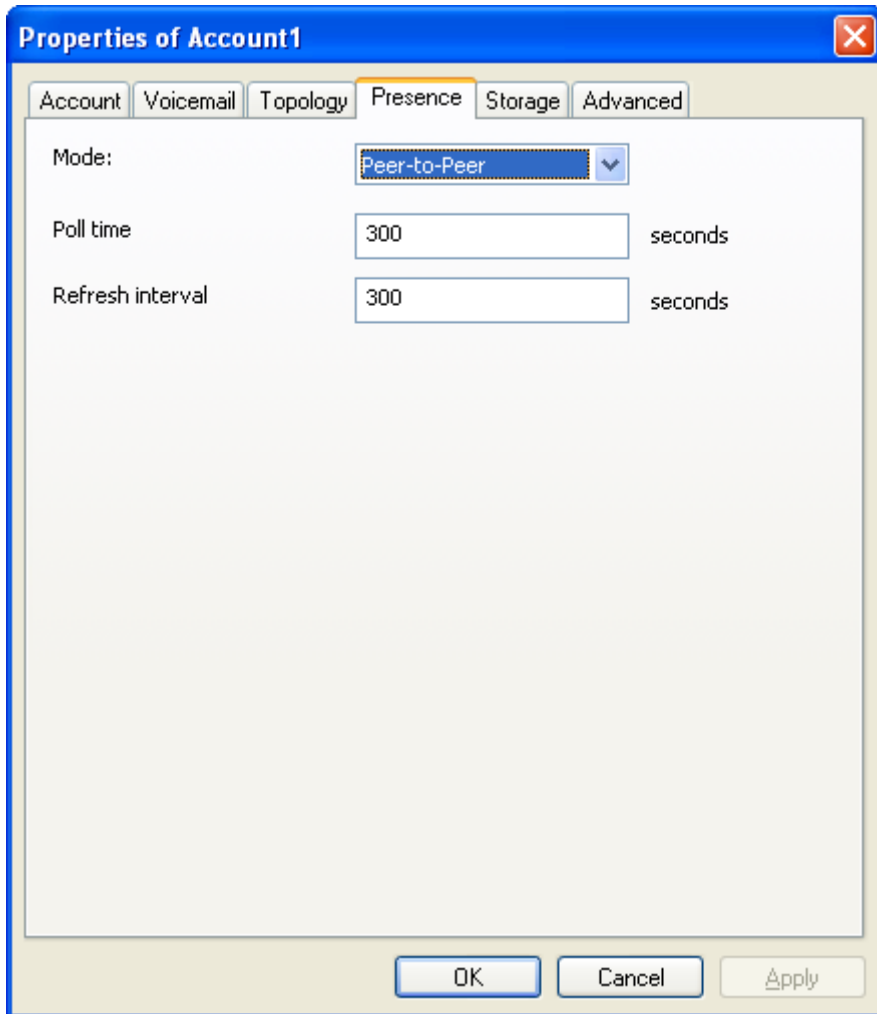


Table 11: Account Properties – Presence

Field	Description
<i>Presence Mode</i>	Select the setting that the account’s service provider specified: <ul style="list-style-type: none"> • <i>Disabled:</i> Presence is not supported • <i>Presence Agent</i> • <i>Peer-to-Peer.</i> When selecting Presence Agent , users must also set the <i>Storage method</i> field (under the Storage tab) to XCAP .
<i>Poll Time</i>	Enter the value that the account’s service provider specified. The factory setting is 300.
<i>Refresh Interval</i>	Enter the value that the account’s service provider specified. The factory setting is 3600.

Account Properties – Storage

The screenshot shows a Windows-style dialog box titled "Properties of Account1" with a close button (X) in the top right corner. The dialog has five tabs: "Account", "Voicemail", "Topology", "Presence", "Storage", and "Advanced". The "Storage" tab is currently selected and highlighted. Below the tabs, the "Storage method" is set to "Local" in a dropdown menu. A section titled "Server Settings" contains a checked checkbox for "Use SIP credentials". Below this are four input fields: "Username" (empty), "Password" (empty), "Root URL" (containing the text "https://webdav.\$domain\$/webdav/\$username"), and "WebDAV poll time" (containing the number "600"). To the right of the "WebDAV poll time" field is the text "seconds". At the bottom of the dialog are three buttons: "OK", "Cancel", and "Apply".

Account Properties – Advanced

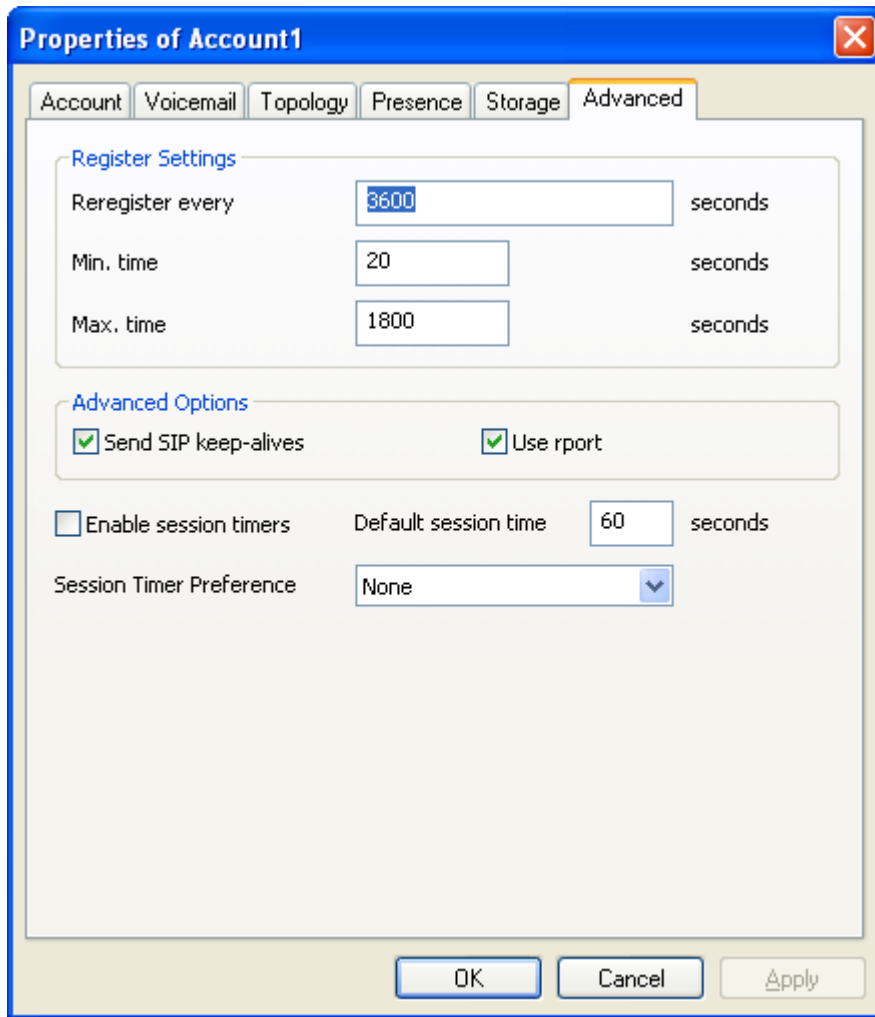


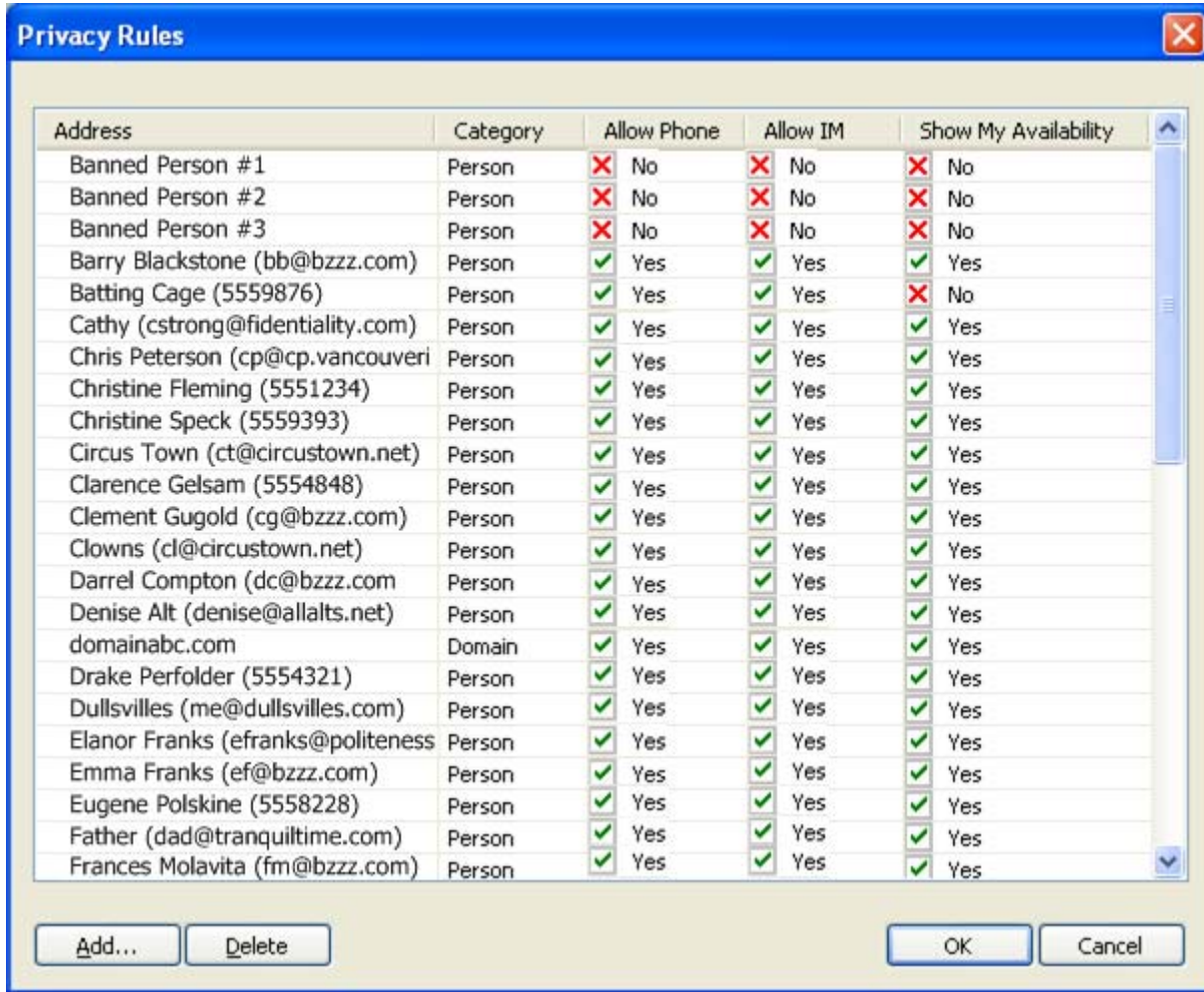
Table 12: Account Properties – Advanced

Field	Description
<i>Reregister every</i>	The time interval between X-Lite’s attempts to reregister (i.e. attempts to refresh the account registration with the VoIP service provider for the account). A value of zero means X-Lite should not attempt to reregister after the initial registration. This value is inserted into the “Expires” header field of X-Lite’s REGISTER message to the server. The factory setting is 3600.
<i>Min. time</i>	If a registration fails, X-Lite will wait this amount of time before attempting to reregister. If the second attempt also fails, X-Lite will wait twice this specified time before trying again, then four times this specified time, and so on until reregistration succeeds. The factory setting is 20.

Table 12: Account Properties – Advanced

Field	Description
<i>Max. time</i>	<p>This is the maximum wait time between attempts to reregister. Once this maximum is reached, X-Lite will wait this specified time before all subsequent attempts.</p> <p>For example, if the minimum time is 20 seconds and the maximum time is 120 seconds, X-Lite will attempt to reregister as follows:</p> <ul style="list-style-type: none"> • Wait 20 seconds • Attempt to connect • If attempt fails, wait 40 seconds • Attempt to connect • If attempt fails, wait 80 seconds • Attempt to connect • If attempt fails, wait 120 seconds (the maximum) • Attempt to connect • If attempt fails, wait 120 seconds • etc. <p>The factory setting is 1800.</p>
<i>Send SIP keep-alives</i>	Typically checked, to instruct X-Lite to send SIP keep-alive messages for maintaining a “pinhole” in the user’s firewall through which SIP messages can pass.
<i>Use rport</i>	Typically checked.
<i>Enable session timers</i>	<p>A session timer is a mechanism to detect—from a signalling perspective—whether a call session is still active. When the timer expires, one party in the call sends a refresh to the other party and the clients reset the timer.</p> <ul style="list-style-type: none"> • Check to enable session timers. If desired, enter a value in <i>Default session time</i> (the factory setting is 60). • Uncheck to disable session timers; X-Lite will not send refreshes.
<i>Session timer preference</i>	<p>This field specifies which party should send session timer refreshes during communication. The preference is not a guarantee that the specified party will perform the refresh. Choices are:</p> <ul style="list-style-type: none"> • <i>None</i>: No preference • <i>Local refreshes</i>: The local computer sends refreshes • <i>Remote refreshes</i>: The remote party sends refreshes • <i>UAC refreshes</i>: The user agent client sends refreshes (i.e. the party that initiated establishment of the current communication) • <i>UAS refreshes</i>: The user agent server sends refreshes (i.e. the party that received the initial request for the current communication).

6.3 Privacy Rules



For information about privacy rules, see [page 25](#).

6.4 Open Diagnostic Log and Folder

For information about these menu items, see “Options – Advanced – Diagnostics” on [page 41](#).

Appendix A: Application Hot Keys

Table 13: Application Hot Keys

Function	Keyboard Shortcut
Select Line 1	F1 or Ctrl-1
Select Line 2	F2 or Ctrl-2
Options window	F8 or Ctrl-8
View Diagnostic File	F9 or Ctrl-9
Toggle Letters-to-Digits	Spacebar (Windows only)
Clear	Backspace
Dial	Enter
Display Help	Ctrl-F1
Toggle Auto-Answer on/off	Ctrl-a
Open Calls & Contacts drawer	Ctrl-b
Toggle Do Not Disturb (DND) on/off	Ctrl-d
Toggle Auto-Conference on/off	Ctrl-f
Hang up	Ctrl-h or Esc
Call Ignore	Ctrl-i
Mute	Ctrl-m
Hold	Ctrl-o
Display SIP Account Status window	Ctrl-p
Exit	Ctrl-q
Redial	Ctrl-r
Send to voicemail (if supported)	Ctrl-s
Paste	Ctrl-v
Display voice statistics notification balloon	Ctrl-F9
Increase/Decrease Speaker Volume	Up/Down Arrows
Increase/Decrease Microphone Volume	Right/Left Arrows

Appendix B: Dialing Plans

When a user places a call, X-Lite processes the input—what the user types, selects or drags onto the Call display—to modify the input as required for ensuring that the call succeeds. This ability to modify user input depends on the existence of a valid dialing plan for the account.

X-Lite processes user input as follows:

- **Cleanup** — X-Lite cleans up user input by removing spaces, dashes, and brackets. Cleanup allows X-Lite to support calls placed using contacts from a contact list (including Microsoft® Outlook®).
- **Matching** — X-Lite compares user input to patterns defined by the dialing plan for the enabled account. Each account has one dialing plan, and each dialing plan consists of one or more patterns. After finding a match between the input and a pattern, X-Lite will perform specified transformations on input based on the matched pattern. After finding no matches from a user's account, X-Lite will perform no transformations on the input for the outgoing call. For details on matching see “How X-Lite Processes Input” on [page 57](#).
- **Transformation** — X-Lite performs the specified transformation.

After processing user input, X-Lite places the call using the transformed input.

Transformation Keywords

Keyword	Transformation Action
prestrip	Strip the first n characters from the input before placing the call.
poststrip	Strip the last n characters from the end of the input before placing the call.
pre	Add the specified prefix to the input before placing the call.
post	Attach the specified postfix to the input before placing the call.
replace	Replace the input with the specified string before placing the call.

Order of Transformations

X-Lite always performs transformations in the following order (the order in which dialing plan composers enter transformations is not significant):

prestrip > poststrip > pre > post > replace

B.1 Dialing Plan Syntax

In X-Lite, the dialing plan establishes the expected patterns of characters for a telephone number or SIP address, and allows for modification (transformation) of input based on matches to a pattern.

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The dialing plan has the following syntax:

```
pattern[ |pattern];match=1;<transformation>=<value>;[match=2;  
<transformation>=<value>;]
```

...where:

- Items contained within [] brackets are optional.
- `pattern` — represents the pattern that X-Lite will match to user input. A dialing plan can have one or more patterns, with each pattern separated by a “|” (pipe character). The pipe is optional after the last pattern. Patterns form an ordinal sequence, starting with 1 (“match” elements identify individual patterns—see below).
- `match; transformation` — represents a pair that identifies the pattern (within the ordinal sequence of patterns) to compare with the input, and the optional transformation (or transformations) to perform on the input once X-Lite finds a match. A dialing plan can have one or more match/transformation pairs. “match=” is a literal, with the number identifying the corresponding pattern. Specific keywords replace “transformation=” (see above). Appropriate values replace “value.” Spaces are allowed only within <value> elements.

Pattern

Valid Content

The content for a pattern follows digit map rules from RFC 2705, supplemented by the rules for regular expressions. Where there is an overlap between digit map rules and regular expression rules, digit map rules take precedent. For this reason there are some special cases, included in the table below.

The following table describes the most common dialing plan pattern elements. As mentioned, all regular expression elements are supported.

To Specify a...	Enter the following...	Comment
Digit	One of 0-9	Represents a specific numeric digit.
Digit	[<i>digit-digit</i>]	Represents a specific digit within a given range.
Digit	[<i>digit-digit, digit, digit-digit</i>]	Represents a specific digit within a comma-separated range of digits that may be discontinuous.
Character	# * + a-z	Represents a specific non-numeric character. <ul style="list-style-type: none">• Use “\x” to represent “x”• Use “\t” to represent “t” Note that “\a” indicates a special kind of wildcard character and should not be confused with representing a specific “a” character (see below).
Character	[<i>character-character</i>]	Represents a specific character within a given range.
Wildcard	x	Represents any numeric digit from zero to nine.
Wildcard	\a	Represents any non-numeric character from among the allowed non-numeric characters (see above).
Wildcard	.	Represents an arbitrary repetition of the last digit zero or more times. A pattern of “xxxx.” would indicate that matched user input would comprise three or more numeric digits between zero and nine (the “.” indicates that the final “x” can be repeated zero or more times).

To Specify a...	Enter the following...	Comment
Timer	T	<p>Indicates that a pause should take place before any further automatic dialing starts.</p> <p>Typical timer values are four seconds (4000 milliseconds).</p> <p>Dialing plan composers should use timers in at least the following situations:</p> <p>Any pattern that uses the “.” wildcard. For a pattern of “xxxx.T” the added timer element allows users to type three or more digits; a similar pattern without a timer element might assume that a user has made a valid pattern match after entering just the first three digits.</p> <p>Any dialing plan that has two patterns with similar elements but different lengths. For two patterns “xxxT” and “xxxxxx” the added timer element allows users to continue typing past the first three digits (add the timer element to the pattern of shorter length).</p> <p>See below for more information about timers.</p>

Timers

There are two timers:

- T — described in the table above; default value is four seconds (4000 milliseconds).
- The long timer — default value is twenty seconds (20000 milliseconds).

These timers are used during input comparison, as described in “How X-Lite Processes Input” on page 58.

Example

```
\a\a.T|xxxxxxxxxxx;match=1;prestrip=2;match=2;pre=8;
```

...where:

- \a\a.T is the first pattern.
- xxxxxxxxxxxx; is the second pattern.
- match=1;prestrip=2; is the first match-transformation pair.
- match=2;pre=8; is the second match-transformation pair.

B.2 How X-Lite Processes Input

Comparing Input to Dialing Plan Patterns




X-Lite compares user input to the account’s dialing plan. The process is slightly different depending on how the user places the call:

- If the user drags or selects the input, X-Lite compares the entire input to each dialing plan. After finding a match, X-Lite performs associated transformations before placing the call. Upon finding no match from a user’s accounts, X-Lite performs no transformations before placing the call.
- If the user types the input, X-Lite compares each digit one by one to account dialing plans. Such comparisons will result in one of the types of matches described in the table below.

It is possible for the same input to get matched to different dialing plans, depending on whether the user enters the input by typing or dragging/selecting. This is important to keep in mind while composing dialing plan patterns.

Results of the Comparison

Table 14: Comparing User Input With Dialing Plan Patterns

Type of Match	Conditions	Result
Partial match	Digits and characters typed so far match a pattern but there are not yet enough of them to verify a pending or complete match.	If the user clicks  or presses Enter , X-Lite performs no transformation. If the user stops typing for the long timer length (twenty seconds), X-Lite performs no transformation on the characters typed so far.
Pending match	The pattern contains no “.” but does contain the T timer. There is a perfect match. The pattern contains a “.” and the T timer. The match meets minimum requirements.	If the user clicks  or presses Enter , X-Lite performs the associated transformation. If the T timer expires, X-Lite performs the associated transformation.
Complete match	The pattern contains no “.” and no T timer. There is a perfect match. The pattern contains a “.” but does not contain the T timer. The match meets minimum requirements.	X-Lite performs the associated transformation.
No match	The characters typed do not match the patterns for any dialing plan.	If the user stops typing, nothing happens even after the T timer and long timer have both expired. If the user clicks  or presses Enter , X-Lite performs no transformation.

B.3 Examples

Example 1

```
\a\a.T|xxxxxxx.T;match=2;pre="9"
```

This simple example shows how to differentiate between a PSTN number and a SIP address, plus how to add a “9” dialing prefix to PSTN numbers only.

Example 2

```
3xxT|1xxxxxxxxxx|[2-9]xxxxxxxxxx|+x.T;match=2;pre="9";match=3;pre="91";  
match=4;prestrip=1;pre="9011"
```

3xxT

The first pattern represents any three-digit number beginning with a “3.” There is no corresponding transformation (the assumption is that this is an internal extension within an enterprise network). The timer forces X-Lite to wait after detecting a three-digit number beginning with “3,” in case the user is actually placing a local call that also starts with a “3.”

1xxxxxxxxxx

The second pattern represents any eleven-digit number beginning with a “1” (the assumption is that this is a long-distance PSTN call within North America that also needs access to an outside line from within an enterprise network).

[2-9]xxxxxxxxxx

The third pattern is any ten-digit number beginning with a number other than “1” (the assumption is that this is a long-distance PSTN call for which the user needs to access an outside line).

+x.T;

The fourth pattern is a number of any length that begins with “+” to indicate an international PSTN call initiated from North America.

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<code>match=2;pre="9";</code>	This portion of the dialing plan pattern specifies that X-Lite should prefix "9" to the user input whenever the input matches the second pattern (see above).
<code>match=3;pre="91";</code>	This portion of the dialing plan pattern specifies that X-Lite should prefix a "9" and a "1" to the user input whenever the input matches the third pattern (see above).
<code>match=4;prestrip=1;pre="9011"</code>	This portion of the dialing plan pattern specifies that X-Lite should strip the "+" from and prefix a "9011" to the user input whenever the input matches the fourth pattern (see above).

Example 3

```
#1xxxxxxxT | #19xxxxxxx | xxxxxxT | 9xxxxxxx | ;match=1;prestrip=2;pre=9;match=2;prestrip=2;match=3;pre=9;
```

<code>#1xxxxxxxT</code>	The first pattern represents a "#" character followed by seven additional digits. The timer forces X-Lite to wait for the user to enter more digits/characters that may match a different pattern; after the timer elapses, X-Lite assumes a match with this pattern and will strip the "#1" and add a "9" prefix to the user input before placing the call.
<code>#19xxxxxxx</code>	The second pattern represents a "#" character followed by a "19" and seven additional digits. After detecting a match between this pattern and user input, X-Lite will strip the "#1" from the input before placing the call.
<code>xxxxxxxT</code>	The third pattern represents seven digits. The timer forces X-Lite to wait for the user to enter more digits/characters that may match a different pattern; after the timer elapses, X-Lite assumes a match with this pattern and will add a "9" prefix to the user input before placing the call.
<code>9xxxxxxx</code>	The fourth pattern represents a "9" followed by seven additional digits. After detecting a match between this pattern and user input, X-Lite will place the call without performing any transformations.

This example does not cover all situations for which a dialing plan should be designed for a particular locale (e.g. local calls, long-distance calls, international calls, etc.).

The example does illustrate two ideas:

- Automatic handling of the appropriate account prefix (e.g. "#1"), an important feature for users who are upgrading from X-Lite 2.0 and are accustomed to entering the account number themselves. Use of "#" to identify an account is now deprecated. The dialing plan should be capable of determining the appropriate account to use. Since users may still be in the habit of entering the prefix, they may want to include this particular pattern to deal with such possibilities.
- Distinguishing between a local seven-digit call for which the user does not dial "9" to access an outside line and one for which the user does dial "9" to access an outside line.

Appendix C: Contact List Headings

Following is a list of all the headings that are used in the X-Lite contacts list. This list can be useful when formatting a contacts list for import into X-Lite. For details, see “Importing Contacts” on [page 19](#)

uri	business_number	sms_address5
display-name	business_number2	ms_address2
entry_id	business_number3	sms_address3
given_name	business_number4	sms_address4
surname	business_number5	sms_address5
email_address	business_number6	sms_address6
email_address2	mobile_number	custom_fields
email_address3	mobile_number2	custom_fields2
email_address4	mobile_number3	custom_fields3
email_address5	mobile_number4	custom_fields4
email_address6	mobile_number5	pres_subscription
sip_address	mobile_number6	
sip_address2	fax_number	
sip_address3	fax_number2	
sip_address4	fax_number3	
sip_address5	fax_number4	
sip_address6	fax_number5	
home_number	fax_number6	
home_number2	groups	
home_number3	comment	
home_number4	postal_address	
home_number5	default_address	
home_number6	default_address_type	

Appendix D: Location of Files

System files get copied to the installation directory specified when installing X-Lite. The default installation directory is:

```
C:\Program Files\CounterPath\X-Lite 3.0\
```

The installation directory contains:

- the executable (`x-lite.exe`)
- the folder `emoticons*.*`
- `dll` files, including those for supported codecs and devices.
- `unins000.exe` for uninstalling X-Lite.
- `unins000.dat`, which contains information about uninstalls of X-Lite.
- `uninstall.ico`
- `ugstgs.exe`

X-Lite saves data files to the `Counterpath` folder in the standard location for application data, as defined in Windows®. Typically, this location is:

```
C:\Documents and Settings\\Local Settings\  
ApplicationData\CounterPath\X-Lite n.n\\
```

Appendix E: Alternative Ways to Run X-Lite

From a Hyperlink

People can create hyperlinks that reference a phone number or SIP address which, when an X-Lite user clicks the link, will start the softphone client and dial the number. Format such hyperlinks as follows:

```
<a href="sip:address or number">Click here to dial address or number</a>
```

For example:

```
<a href="sip:mgr@domainabc.com">Click here to dial mgr@domainabc.com</a>
```

From the Command Line

Users can start X-Lite from a prompt within the MS-DOS command line (users may need to add `x-lite.exe` to their PATH). To launch from the command line, type:

```
x-lite.exe → Enter
```

To start X-Lite from a DOS prompt and dial a number immediately, type:

```
x-lite.exe -dial=sip:<number> → Enter
```


Appendix F: Glossary

AEC	Acoustic echo cancellation. Processing of audio data to reduce the echo effect that can arise if the sound from a speakerphone or headphone leaks into the microphone input device.
AGC	Automatic gain control. Processing of audio data to adjust the microphone volume level so that a remote party does not hear distortions that may be caused by a microphone input level that is too high or a volume that is too low (due to a low input level).
AVI	Audio Video Interleave. A multimedia container format. AVI files contain both audio and video data in a standard container that allows simultaneous playback.
Broadband	Broad or wide bandwidth. In data transmission, the wider the band, the more data can transmit during a given time span. A cable or xDSL connection to the network provides broadband for data transmission. A dialup or ISDN connection provides a narrow bandwidth for data transmission.
Codec	The format by which audio or video streams are compressed for transmission over networks.
Dialing plan	The rules that X-Lite follows to interpret user input and to modify the number or address, as required, to ensure that the call will be placed successfully.
DTMF	Dual-tone multifrequency. DTMF is the system that is used in interactive voice-response menu systems such as the menu system for accessing voicemail messages. The DTMF system allows the user to interact with the menu by clicking keys on the dialpad or pressing keys on the keyboard.
IM	Instant Messaging. A technology that lets users send text message and files for near instantaneous delivery and display on another computer.
IP	Internet Protocol. A data-oriented protocol used for communicating across a network. IP is the most common protocol used on the internet.
IP address	A unique number that devices use to identify each other on an IP-based computer network.
Media	In a VoIP phone call, the audio and video portion of the call information. Compare to “Signaling.”
MWI	Message Waiting Indicator. An indicator notification of voicemail messages waiting for the owner of a given SIP account.
Narrowband	Narrow bandwidth. In data transmission, the wider the band, the more data can transmit during a given time span. A cable or xDSL connection to the network provides broadband for data transmission. A dialup or ISDN connection provides a narrow bandwidth for data transmission.
Presence	A communication feature that allows users to share real-time information about their availability, mood, location, etc.
Proxy	See SIP account.
PSTN	Public Switched Telephone Network. The traditional land-line phone network.

RFC	Request for Comment. A document that describes a particular internet technology. RFCs may be a proposals, drafts or full internet standards (IETF standards).
RTP	Real-time Transport Protocol. A protocol for delivering the media portion of a data transmission over an IP network. SRTP is another media protocol.
Signaling	The information in a VoIP call that establishes and controls the connection as well as managing the network. The non-signaling portion of the call is the Media.
SIMPLE protocol	SIP for Instant Messaging and Presence Leveraging Extensions. The instant messaging (IM) protocol to which X-Lite adheres. SIMPLE encapsulates the rules for exchanging instant messages. See SIP.
SIP	Session Initiation Protocol. The signaling protocol that X-Lite follows for phone calls.
SIP account	An account that provides users with the ability to make VoIP phone calls. The account encapsulates the rules users must follow and the telephony functions users can access.
SIP address	The address used to connect to a SIP endpoint (i.e. the “phone number” used in a VoIP phone call). An example would be: sip:josephq@domainabc.com.
TCP	Transmission Control Protocol. A transport protocol for delivering data over an IP network. Other transport protocols include TLS and UDP.
UDP	User Datagram Protocol. A transport protocol for delivering data over an IP network. Other transport protocols include TCP and TLS.
URI	Uniform Resource Identifier. A name or address that identifies a location on a network. A SIP address is a type of URI.
URL	Uniform Resource Locator. A URI that both identifies a name or address and indicates the network mechanism used to access the resource.
USB device	Universal Serial Bus device. A device that follows a specific communications standard. A headset may be a “USB type” of headset.
VAD	Voice Activity Detection. A technology that detects whether audio is a human voice or background noise. X-Lite includes a feature (<i>Preserve bandwidth during silence periods</i> under Options → Advanced → Network) that controls whether or not audio gets transmitted when VAD determines that no one is speaking.
vCard	An electronic business card that people can attach to an email. vCards often appear as a “signature” block that identifies the person, their title, and their business.
VoIP	Voice over Internet Protocol. A variation of IP used for sending voice data over the internet (i.e. for making phone calls over the internet).
VoIP service provider	A business that provides a VoIP service, allowing users to connect to the internet for making VoIP phone calls using X-Lite. VoIP service providers set up a separate SIP account for each user.
WAV	Pronounced “wave.” A file format standard for storing audio on PCs.