



Nortel Communication Server 1000

IP Softphone 2050

User Guide



Revision history

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Contents

IP Softphone 2050 overview	11
Features	11
Components	13
IP Softphone 2050 Call Control window	15
Accessibility Interface	15
Call Control window	16
Accessibility Interface	17
Call Control window elements and functions	18
Hot keys	20
System tray icon and menu	22
IP Softphone 2050 Directories	23
Local Directory	23
CS 1000 Directory	24
Installing and setting up the IP Softphone 2050	28
System requirements	28
Installing the IP Softphone 2050	29
Managing contacts from the Local Directory	30
Adding contacts to a Local Directory	30
Editing contacts in the Local Directory	31
Deleting contacts from the Local Directory	31
Finding contacts in the Local Directory	32
Filtering a Local Directory	33
Dialing from the Local Directory	33
Managing Groups in the Shortcut Bar	34

Using the Properties dialog box	35
Linking to external directories	36
Managing contacts from the CS 1000 Directory	41
Adding contacts to the Personal Directory	41
Editing CS 1000 Directory contacts	42
Deleting CS 1000 Directory contacts	43
Finding CS 1000 Directory contacts	43
Dialing from the Personal Directory	43
Dialing from the Redial List	44
Dialing from the Callers List	44
Managing IP Softphone 2050 calls	45
Making telephone calls	45
Answering telephone calls	46
Incoming Call Notification	46
Holding and retrieving telephone calls	47
Hanging up telephone calls	47
Support for TAPI applications	48
IP Softphone 2050 Expansion Module	50
Using the Expansion Module	51
Working with Groups	51
IP Softphone 2050 Graphical External Application Server	53
Configuring the GXAS plugin	53
Starting the GXAS plugin	53
Selecting a GXAS application	53
Using the session window	54

IP Softphone 2050 USB Headset Adapter	55
Answering calls with the USB Headset Adapter	57
Hanging up calls with the USB Headset Adapter	57
Adjusting the volume with the USB Headset Adapter	57
Muting a call	58
Using the Smart Functions menu	58
Customizing the Smart Functions menu	59
Custom Functions for Smart Functions menu	59
IP Softphone 2050 macros	62
Entering a macro	62
Deleting a macro	63
Playing a macro	63
IP Softphone 2050 menu commands	64
Call Control window menu command	64
IP Softphone 2050 Settings	67
Opening the Settings window	67
Using the Settings window	68
Profiles	69
Server	73
License Servers	75
Theme	76
Features	76
Macros	77
Audio	77
Sound Devices	77
Hardware ID	79
Advanced Audio	81

Listener IP	82
Sounds	82
Hot Keys	83
Text Replacements	83
Lamp Sounds	84
Key Type	85
Language	85
Expansion Module	86
Personal Call Recording	87
Plantronics USB Bluetooth Headset	87
USB Headset	88
About	90
Accessibility Interface	91
Control groups	91
Accessibility Interface Menu	92
Navigating Control Groups and Menu Commands	92
Using hot keys	94
Setting CS1000 Directory user preferences	95
Setting your language	95
Setting the date and time	96
Enabling the Call Timer	96
Setting Call Log options	96
Using Password Administration	99
IP Softphone 2050 Diagnostics	103
Overview	103
Using the IP Softphone 2050 diagnostics	103

Troubleshooting the IP Softphone 2050	105
Connectivity problems	105
Audio problems	110
Reset conditions	113
USB Headset problems	114
TAPI problems	117
Index	121

IP Softphone 2050 overview

The IP Softphone 2050 is a business telephone application that you can use to make and take calls over your computer. Using a headset or handset connected to your PC, you control calls with a click of the mouse pointer, from your PC keyboard, or from the USB Audio Adapter.

Designed to work with IP-based phone systems, the IP Softphone 2050 provides Voice over IP (VoIP) services using a telephony server and your Local Area Network (LAN) or Wide Area Network (WAN).

The server that supports your IP Softphone 2050 determines the features you can access, such as Call Conference, Call Transfer, and Call Forward.

Features

The IP Softphone 2050 supports the following features:

- Twelve user-defined feature keys: six Programmable Line (DN)/Feature Keys (self-labeled) and six lines/features accessed by pressing the shift key
- Four soft keys that provide access to a maximum of 10 features
- Four-line display
- Directory capabilities stored locally on your PC or linked to external directories, such as Lightweight Directory Access Protocol (LDAP), Microsoft Outlook, and Windows Address Book (WAB) contact management software
- CS 1000 Directory features (Personal Directory, Redial List, Callers List, and Password Administration) stored on the application server for systems running CS 1000 Release 4.0 or 4.5 software
- One-click direct dialing from various windows and applications
- Support for TAPI (Telephony Application Programming Interface)
- Five specialized fixed keys:
 - Directory

- Inbox (Message)
- Shift (Outbox)
- Services
- Expand
- Dedicated call processing keys:
 - Hold
 - Goodbye
 - Answer
 - Volume
 - Mute
 - Navigation
 - Message Waiting
- User-selected ringer that lets the PC speakers or the headset ring for incoming calls
- Choice of the following interfaces:
 - 1100 series theme
 - Compact black and silver themes
 - Accessibility Interface for the visually impaired
- Programmable hot keys that allow single key access to user-definable features
- Supported languages include: Arabic, Chinese (Traditional and Simplified), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Korean, Japanese, Latvian, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish and Turkish.
- Two input modes: Numeric, Alphabetic
- Support for Bluetooth and standard USB headsets
- Expansion Module (EM)
- Graphical External Application Server (GXAS) capability
- Drag and drop dialing

- Macro functions available for programming long dialing patterns

Components

The IP Softphone 2050 supports six main components:

- “Call Control window” on page 13
- “Local Directory window” on page 13
- “Settings window” on page 13
- “System tray icon and menu” on page 14
- “Expansion Module” on page 14
- “i2050.exe application” on page 14

Call Control window

The IP Softphone 2050 Call Control window displays the line keys, feature buttons, and call display. Use this window to make and manage your telephone calls. You also use this window to access both your Local Directory and CS 1000 Directory features (Personal Directory, Application Server Administration, and Password Administration).

For more information about the Call Control window, see “IP Softphone 2050 Call Control window” on page 15.

Local Directory window

Use the Local Directory window to create, manage, and use a telephone directory stored on your local computer and to access external directories, such as LDAP, Outlook, and WAB.

For more information about the Local Directory, see “Local Directory” on page 23.

Settings window

Use the Settings window—a series of dialog boxes—to set up the various IP Softphone 2050 features.

For information about opening the Settings window, see “IP Softphone 2050 Settings” on page 67.

System tray icon and menu

You can right-click the IP Softphone 2050 system tray icon—located at the right side of the Windows taskbar at the bottom of your screen—to make and manage calls.

Expansion Module

Use the Expansion Module (EM) to display the status of pre-programmed lines for other IP Phones on the network.

For more information, see “IP Softphone 2050 Expansion Module” on page 50.

i2050.exe application

The i2050.exe application lets the IP Softphone 2050 communicate with the server. This process appears as long as the IP Softphone 2050 icon appears in the system tray.

IP Softphone 2050 Call Control window

The IP Softphone 2050 Call Control window supports the 1100 theme—designed to look and feel like the desktop IP Phone 1100 series—as well as an additional two compact themes, available in black and silver. The IP Softphone 2050 also supports an Accessibility Interface for visually impaired users.

To open the IP Softphone 2050 Call Control window:

1. From your desktop PC, select **Start**.
2. Select **Programs**.
3. Select **Nortel > IP Softphone 2050 > IP Softphone 2050**.

Accessibility Interface

To open the IP Softphone 2050 Accessibility Interface from the Call Control window:

1. From your desktop PC, select **Start > Programs > Nortel > IP Softphone 2050 > IP Softphone 2050**.

The Call Control window appears.

2. Click the **Menu** button.
3. Select **File > Settings > Theme**.
4. Select **Accessibility Interface**.

Note: If the IP Softphone 2050 is running, you must exit and restart for the change to the Accessibility Interface to take effect.

Call Control window

The Call Control window (see Figure 1 below and Figure 2 on page 17) includes the standard features that let you make and manage telephone calls.

For information about the elements of the Call Control window, see Table 1 on page 18.

Figure 1: Call Control Window – 1100 series theme

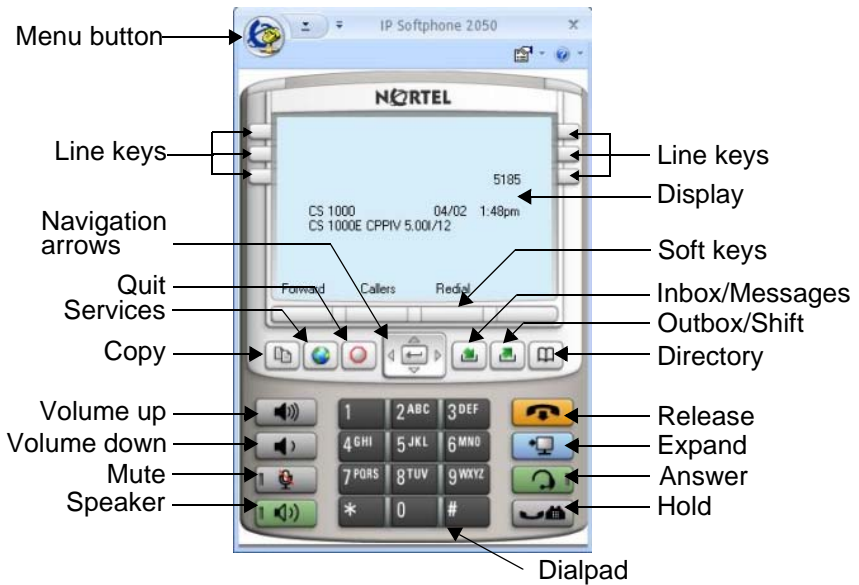
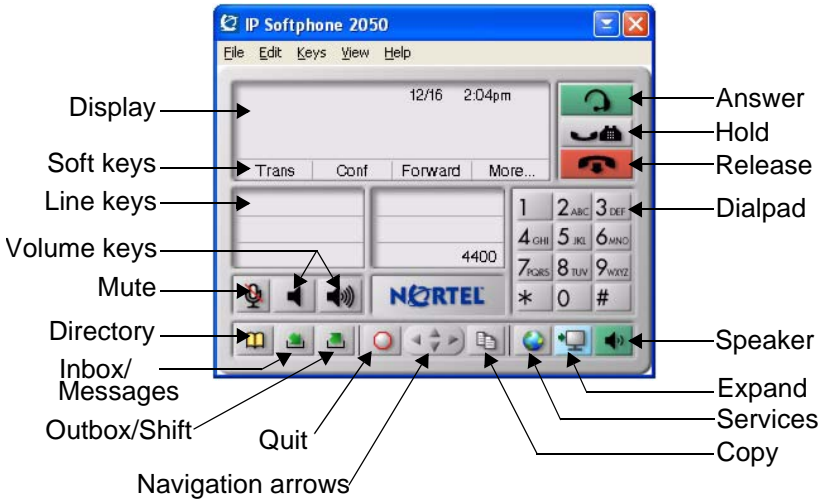


Figure 2: Call Control Window—Compact theme (silver)



Accessibility Interface

The Accessibility Interface works with JAWS® for Windows from Freedom Scientific—screen reading software that lets visually impaired users access the full range of IP Softphone 2050 features. The Accessibility Interface has been tested on JAWS® Version 5.0. The screen is divided into four groups of controls: Display, Line and Feature, Date and Time, and Indicators.

Menu Command options in the Accessibility Interface match those in the standard Call Control window.

High Contrast Mode is a Microsoft Windows feature that increases legibility for visibly impaired users by increasing screen contrast. Activate this feature by navigating to **Start > Control Panel > Accessibility Options > Display** and selecting the **High Contrast** checkbox.

For more information about navigating the Accessibility control groups and Menu Command options, see “Accessibility Interface” on page 91.

Call Control window elements and functions

Table 1 describes the elements and functions of the Call Control window.

Table 1: IP Softphone 2050 components and functions (Part 1 of 3)



Element	Function
Primary display	<p>To provide call information (such as Caller ID) and instructions for using certain soft key features.</p> <p>When idling, the telephone displays only the date and time.</p>
Soft keys	<p>To access server-definable features, such as Transfer (for connecting calls to other people), Conference (for group calls), and so on.</p> <p>To select a feature, click one of the four available soft-labelled soft keys, and then follow the instructions on the display.</p> <p>Available soft key features vary, depending on:</p> <ul style="list-style-type: none"> Your current task: the features available at any time depend on your current call activity. Server support: IP Softphone 2050 functionality depends on communication server configuration. <p>Note: To view additional features, click the More soft key.</p>
 Copy	To copy contact information from CS 1000 Directory features.
 Quit	To quit a network service or feature.

Table 1: IP Softphone 2050 components and functions (Part 2 of 3)














Element	Function
 <p>Navigation arrows</p>	<p>To scroll through menus and lists in the display area.</p> <p>Use the Send/Enter key at the center of the navigation cluster to confirm menu selection (1100 series theme only).</p>
<p>Volume</p>  decrease  increase	<p>To increase or decrease the headset volume.</p>
 Mute	<p>To listen to the receiving party without transmitting.</p> <p>To return to a two-way conversation, click the Mute button again.</p> <p>The mute button mutes the headset microphone.</p>
 Answer	<p>To answer and make calls.</p>
 Hold	<p>To place an active call on hold.</p> <p>The feature key label for the line on hold displays a flashing icon to indicate that the call is on hold.</p> <p>Return to the call by clicking the Line button of the call on hold.</p>
 Release	<p>To terminate an active call.</p>
<p>Line keys</p>	<p>To access one of six programmable Line keys. These keys can represent line appearances, DNIs, or features.</p> <p>The communication server provides the labels that appear on these keys.</p>
<p>Dialpad</p>	<p>To dial a telephone number. Use your mouse pointer to click the numbers you want to enter.</p>

Table 1: IP Softphone 2050 components and functions (Part 3 of 3)

Element	Function
 Directory	To access CS 1000 Directory features. Depending on how the system administrator sets up this service, use this button to access Personal Directory or other server-based directory services. You can use CS 1000 Directory features to place a call. The call is placed on your prime line, unless you select a different line.
 Services	To access a list of network services.
 Expand	Feature reserved for future use.
 Inbox/Messages	To access your messages or return a call.
 Outbox/Shift	To toggle between feature key displays.
 Speaker	To answer and make calls using the handsfree speaker

Hot keys

You can assign keyboard hot keys to access the full range of Call Control window functions and menu options.

- “Adding a hot key” on page 20
- “Removing a Hot Key” on page 21

Adding a hot key

To add a new hot key:

1. Open the **Settings** window. For information about opening the Settings window, see “Opening the Settings window” on page 67.
2. Select **Hot Keys**.

3. Choose the feature group that you want to access: Buttons, Menu, or Select Fields (Accessibility Interface only).
4. From the **Items** list, select the feature to which you want to assign a hot key.
5. Under **Press a new shortcut key**, enter the key combination—"Alt + Ctrl + V", for example—that you want as your hot key.
6. Click **Assign**.

Note: If the key combination is already taken, the previously assigned feature appears in the **Shortcut Key Currently Used By** text box.

To assign a hot key, you can enter any keyboard key combination except for the following:

- A to Z
- Shift-A to Shift-Z
- Alt-A to Alt-Z
- 0 to 9
- Alt+0 to Alt+9
- Asterisk (*)
- Number sign (#)
- Up, down, left, and right arrow keys
- Shift+Up, Shift+Down
- PageUp, PageDn
- Alt+F1 to Alt+F12
- F1, Shift+F1, Ctrl+F1, Ctrl+Alt+F1, Ctrl+Alt+Shift+F1
- Space bar

Removing a Hot Key

To remove a hot key:

1. Open the **Settings** window. For information about opening the Settings window, see "Opening the Settings window" on page 67.
2. Select **Hot Keys**.

3. Choose the feature group that you want to access: **Buttons**, **Menu**, or **Fields** (Accessibility Interface only).
4. From the **Items** list, select the feature from which you want to remove a hot key.
5. Click **Remove**.

System tray icon and menu

Use the IP Softphone 2050 system tray icon menu to manage phone calls and messages without opening the Call Control window.

To access the menu, right-click the IP Softphone 2050 icon in the Windows taskbar system tray. From this menu, you can make, answer, and manage your calls, as well as access macros and features.

IP Softphone 2050 Directories

The IP Softphone 2050 uses two directories for maintaining and accessing contacts: the Local Directory, stored on your local hard drive, and the CS 1000 Directory, stored on your server.


- “Local Directory” on page 23
- “CS 1000 Directory” on page 24

Local Directory

The IP Softphone 2050 Local Directory lets you store as many phone directories on your computer as you need. You can use the Shortcut Bar to organize your contacts into smaller groups of shortcut links.

You can use the Local Directory to:

- Link to external directories such as Outlook, Act, and LDAP.
- Dial from external directories.
- Save contacts locally to your computer.
- Filter long directories so they are easier to use.

Note: Do not confuse the IP Softphone 2050 Local Directory with the CS 1000 Directory (accessible by clicking  **Directory** on the toolbar).

The Shortcut Bar on the left side of the window lists all groups of shortcut links, including:

- Local Directory—main directory contacts
- Quick Dials—a built-in group for selecting shortcuts to contacts

Opening a Local Directory from the Call Control window

To open a Local Directory:

1. Click the **Menu** button and select **View > Local Directory**.
2. Select one of the following:
 - On the Shortcut Bar, select **Directories > Local Directory**.
 - On the menu, select **View > Local Directory**.

Note: To open a previously accessed Local Directory, select **File > Recent Local Directories**, and then select the Local Directory you want to open.

For information about managing contacts and making calls from the Local Directory, see “Managing contacts from the Local Directory” on page 30.

CS 1000 Directory

The CS 1000 Directory maintains contact information and server-supported features in a remote, central database called the Application Server. Accessible from the IP Softphone 2050 Call Control window, the CS 1000 Directory supports the following features:

- Personal Directory
- Redial List
- Callers List

Note: Redial List and Callers List are Call Log features. The system generates the content of the Redial List and the Callers List during call processing. You can delete individual entries or the entire directory in the Redial List and the Callers List, but you cannot add an entry or permanently change the content of an entry.

Personal Directory

You control your own Personal Directory. Use the Personal Directory to create and store up to 100 entries. You can edit, copy, or delete individual entries, or delete the entire list. You can also copy entries from other

applications to the Personal Directory (or from the Personal Directory to other applications).

An entry can contain any of the following:

- Last name (up to 24 characters)
- First name (up to 24 characters)
- DN at work (up to 31 characters)
- DN at home (up to 31 characters)
- Cell phone (up to 31 characters)
- Pager (up to 31 characters)

Callers List

The Callers List can contain up to 100 entries. When the list is full, the system overwrites the oldest entry.

In Directory View mode, the caller's name displays along with the Callers List entry count. Entries in the Callers List are sorted by Call Log time. The first entry you see is the first new entry. If you press the down navigation key, more new items in the Callers List display. If you press the up navigation key, older items in the list display.

The following list describes the contents of a Callers List entry:

- Last name (24 characters)
- First name (24 characters)
- DN (31 characters)
- Time/date
- Number of calls

Redial List

The Redial List can contain up to 20 entries. When the list is full, the system overwrites the oldest entry.

In Directory View mode, the number you dialed displays. Redial List content updates when you dial out. Entries in the Redial List are sorted by Call Log time. The oldest entry appears at the beginning of the list. To


access the oldest entry, click the down navigation key. To access the newest entry, click the up navigation key.

A Redial List entry can contain any of the following:

- User name (up to 24 characters)
- DN (up to 31 characters)
- Time of the last call occurrence
- Time/date

Opening CS 1000 Directory features

To open the Personal Directory, Redial List, or Callers List:

1. From the Call Control window, click  **Directory**.
2. Scroll and select an item from the following list:
 - **Personal Directory**
 - **Callers List**
 - **Redial List**
 - **Password Administration**

The Personal Directory, Redial List, and Callers List features have a one-minute time-out control period. If the application rests idle for one minute during any of the operations, the directory feature closes and your IP Softphone 2050 returns to the idle state.

For information about managing contacts or making calls from the CS1000 Directory, see “Managing contacts from the CS 1000 Directory” on page 41.

Password Administration

For information about using and setting Password Administration, see “Using Password Administration” on page 99.

Application Server Administration

Using the Application Server Administration feature, your system administrator can:

- Back up and restore the database
- Manage user profiles

For information about setting user preferences for CS 1000 Directory features, see “Setting CS1000 Directory user preferences” on page 95.

Installing and setting up the IP Softphone 2050

The following describes the requirements for installing and setting up the IP Softphone 2050.

System requirements

To use the Nortel IP Softphone 2050, you require:

- Pentium-compatible CPU (1 GHz or higher)
- 128 Mbytes RAM or higher for Microsoft Windows 2000
- 256 Mbytes RAM or higher for Windows XP
- 55 Mbytes or higher free hard drive space (all languages)
- 800X600 or higher resolution monitor (16-bit color)
- Universal Serial Bus (USB) port (version 1.1 or 2.0)

Supported operating systems

To use the IP Softphone 2050, you must have one of the following operating systems:

- Microsoft Windows Vista
- Microsoft Windows XP
- Microsoft Windows 2000

Nortel USB Audio Kit

The USB Audio Kit lets you hear and speak with your callers. To ensure proper IP Softphone 2050 functionality, use only the following Nortel-supported (or compatible) USB audio kits:

- Nortel Enhanced USB Adapter (desktop)
- Nortel Mobile USB Adapter (mobile)
- Algo Analog Terminal Adapter (compatible)

The Nortel USB Audio Kit includes:

- USB Headset Adapter (desktop or mobile)
- Installation Guide (English and French only)
- USB cord

Some kits also include a headset.

The Algo Analog Terminal Adapter (ATA) is a USB adapter that lets you use analog terminals instead of headsets. With an Algo ATA users can, for example, use a cordless handset with their IP Softphone 2050.

Note: The IP Softphone 2050 is compatible with the Algo ATA. For support, see www.algosolutions.com.

Installing the IP Softphone 2050

For information about installing the IP Softphone 2050, see *IP Phones Fundamentals* (NN43001-368) or consult your system administrator.

Client Licensing

All new and upgrade installations of the IP Softphone 2050 software require a valid license for product activation.

Note: There is a 30-day evaluation period during which you can use the software without a license. Once the 30-day evaluation period has expired, the software will no longer work until a valid license code is obtained.

Consult your system administrator for details.

Managing contacts from the Local Directory


You can use the following options to manage contacts in the Local Directory:

- “Adding contacts to a Local Directory” on page 30
- “Editing contacts in the Local Directory” on page 31
- “Deleting contacts from the Local Directory” on page 31
- “Finding contacts in the Local Directory” on page 32
- “Filtering a Local Directory” on page 33
- “Dialing from the Local Directory” on page 33
- “Managing Groups in the Shortcut Bar” on page 34
- “Using the Properties dialog box” on page 35

Adding contacts to a Local Directory

You can add contacts to a Local Directory list, or insert contacts into any group of shortcut links in the Shortcut Bar.

To add a contact to the Local Directory list:

1. Open the **Local Directory**. For details, see “Opening a Local Directory from the Call Control window” on page 24.
2. Select **Edit > New Contact**, or click  **New Contact** on the toolbar. The Properties dialog box appears.
3. Under the **General** tab (selected by default), enter the contact's name, address, telephone numbers, and other personal information.
4. Select the **Details** tab to enter any of the following contact details: Department, Office, or Assistant.
5. To enter miscellaneous information, select the **Notes** tab.
6. Select the **Settings** tab to define the default dialing number as **Business**, **Home**, or **Mobile**.

7. Click **OK**.

Note: For more information about entering information in the property fields, see “Using the Properties dialog box” on page 35.

To add a contact to a group:


1. In the Shortcut Bar, select the group of shortcut links to which you want to add a contact.
2. Select the contact you want to add, drag it to the Shortcut Bar, and then drop it under the selected group button.

Note 1: You cannot directly add contacts to an external directory from within the Local Directory.

Note 2: If the contents of an external directory change, you must first update that directory for the changes to show in the Local Directory. To update, right-click the imported directory and click **Refresh**.

Editing contacts in the Local Directory


To edit contacts in the Local Directory:

1. Open the **Local Directory**. For details, see “Opening a Local Directory from the Call Control window” on page 24.
2. Using your mouse pointer, highlight the contact you want to edit.
3. Open **Properties** using one of the following methods:
 - Select **File > Properties**.
 - Click  **Properties** on the toolbar.
 - Right-click the selection and choose **Properties** from the menu.
4. Select the tab you need and edit the information.
5. Click **OK**.

Deleting contacts from the Local Directory

You can delete contacts from the Local Directory or remove contacts from a group of shortcut links.

To delete a contact from the Local Directory:

1. Open the **Local Directory**. For details, see “Opening a Local Directory from the Call Control window” on page 24.
2. Using your mouse pointer, select the contact you want to delete.
Note: To delete a range of contacts, click the first contact in the range, and then shift-click the last contact in the range. The entire range highlights. You can also CTRL-click to select a number of contacts in different places.
3. Delete the contact by doing one of the following:
 - Select **Edit > Delete**.
 - Click  **Delete** on the toolbar.
 - Right-click your selection and choose **Delete** from the menu.
4. To confirm the deletion, click **Yes**.


To remove a contact from a group of shortcut links:

1. On the **Shortcut Bar**, select the group of shortcut links from which you want to delete a contact.
2. Right-click the contact, and choose **Remove Item** from the menu.

Finding contacts in the Local Directory

You can search for contacts in a Local Directory by name.

To find a contact in one of your directories:

1. Open the **Local Directory**. For details, see “Opening a Local Directory from the Call Control window” on page 24.
2. Select or click either of the following:
 - Select **Edit > Find Contact**.
 - Click  **Find Contact** on the toolbar.The Find Contact window appears.
3. Enter the name of the contact you want to find.

Note: Names in the directory are formatted as *last name, first name*. Use this format when searching for a contact.

4. Click **Find Now**.


Search results display in the Find Contact window.

5. To stop a search, click **Stop**.

Filtering a Local Directory

The IP Softphone 2050 lets you filter a Local Directory, making it smaller and easier to manage. This feature is useful for dealing with large directories. By filtering a directory, you can reduce the number of names through which you must search.


To filter a directory:

1. Click  **Filter** on the toolbar, or **Directory > Filter** from the menu. The **Filter** dialog box appears.
2. From the **Field** and **Condition** lists, choose your filter criteria.
3. Enter the values you want included in the filtered list. For example, if under the filter criteria **Field: Last Name**, **Condition: Starts With**, you enter **Value: C**, only contacts with a last name starting with C appear in the Local Directory.
4. To apply the filter, click **Add**.

Dialing from the Local Directory

To call a contact stored in the Local Directory:

1. Open the **Local Directory**. For details, see “Opening a Local Directory from the Call Control window” on page 24.
2. Find the contact you want to call. You can dial using any of the following options:
 - Double-click the phone number you want to dial.
 - Double-click the contact's name.

- Right-click the contact's entry, and then click the desired telephone number in the menu.
- To dial the default telephone number, click  **Dial** on the toolbar.
- Click the arrow beside the **Dial** toolbar button, and then click the desired telephone number from the list.

Managing Groups in the Shortcut Bar

You can add, remove, or rename groups in the Shortcut Bar of your Local Directory.

To open a group of shortcut links and view its list of contacts, click the desired group from the Shortcut Bar.

To add a group to a Local Directory:

1. Right-click a blank area on the **Shortcut Bar**.
2. Select **Add New Group**.

A blank group button with a blinking cursor appears at the bottom of the Shortcut Bar.

3. Enter the name you want for the group and press **Enter**.

To remove a group in a Local Directory:

1. Click open the group you want.
2. Right-click anywhere on or under the **Group** button and its list of contacts.
3. Select **Remove Group**.
4. At the "Delete? Are you sure?" prompt, click **Yes**.

To rename a group in a Local Directory:

1. Click open the group you want.
2. Right-click anywhere on or under the **Group** button and list of contacts.
3. Select **Rename Group**.

A cursor appears in the Group button.


4. Enter the new name you want the group to be called.
5. Press **Enter**.

Note: To view the list of contacts within a group, click the desired group in the Shortcut Bar.

Using the Properties dialog box

Use the Properties dialog box to enter or change contact information.

To open the Properties dialog box:

1. Open the **Local Directory**. For details, see “Opening a Local Directory from the Call Control window” on page 24.
2. Do one of the following:
 - Select **Edit > New Contact**.
 - Click  **New Contact** on the toolbar.
 - Select a contact.
 - Select **File > Properties**.
 - Click **Properties**.

The Properties dialog box contains four tabs:

- “Properties — General tab” on page 36
- “Properties — Details tab” on page 36
- “Properties — Notes tab” on page 36
- “Properties — Settings tab” on page 36

All four tabs offer an **Export** button. Use this button to export contact information to a ***.vcf** file. You can import this file into e-mail or contact manager applications, or any other software applications that use the *.vcf file format.

Properties – General tab

Use this tab to store a contact's name, address, e-mail address, company information, and telephone numbers. To create a contact record, enter the contact's name and at least one telephone number. All other information is optional.

Note: To add a half-second delay in the dialing pattern, insert a comma in the telephone number, wherever you want the pause to occur. You can add as many pauses as required by inserting an equal number of commas.

Properties – Details tab

Use the Details tab to enter any of the following contact details:

- Department
- Office
- Assistant

Properties – Notes tab

Use this tab to record miscellaneous information about a contact. You can enter significant dates, recent orders, meeting locations, or any information you require when you call the contact.

Properties – Settings tab

Use this tab to set the default dialling number for the contact.

To set the **Default Dial**, click the desired option button: **Business**, **Home**, or **Mobile**.

To dial a contact's non-default telephone number, right-click the contact and select any other telephone number that appears in the menu.

Linking to external directories

You can access the following external directories from the Local Directory window:

- Lightweight Directory Access Protocol (LDAP) directory

- Outlook directory
- Windows Address Book directory (WAB)

To access these external directories, you must create a link to the desired directory in the Shortcut Bar. After you add the directory, an icon appears in the Shortcut Bar. You can then click the icon to view or dial contacts in that directory.

Linking to the LDAP directory

To add a link to the LDAP directory in the Shortcut Bar:

1. From the Local Directory menu, select **Directory > Add Link To > LDAP Directory**.

A Properties dialog box appears. From the Properties dialog box, you can access the following three tabs: General, Security, and Schema.

2. In the **General** tab, enter the following required information into the corresponding field:
 - **Directory Name**: the name of the directory as you want it to appear in the Shortcut Bar.
 - **LDAP Path**: the path to the LDAP directory stored on your hard drive.
 - **User Name** and **Password**: if applicable, enter your LDAP user name and password.
3. In the **Security** tab, select from the following security protocols:
 - **Use Secure Authentication**
 - **Use Encryption**
 - **Use SSL Encryption**
 - **Use Signing**
 - **Use Sealing**
4. In the **Schema** tab, select the desired LDAP schema from the **Schema** list. You can use this tab to add, remove, or modify an LDAP.

To add a new schema to the list:

1. From the **Schema** tab, click **Add**.

A Dialog box opens. The Dialog box lists all current names and fields used by the LDAP directory.

2. In the **Schema Name** field, enter the name you want to use for your new LDAP schema.
3. Click **OK**.

To remove a schema from the list:

1. In the **Schema** tab, select the schema you want to remove from the list.

2. Click **Remove**.

The LDAP Directory dialog box appears with the message “Remove the schema? Are you sure?”

3. Click **Yes**.

To modify an existing schema:

1. In the **Schema** tab, select the schema you want to modify from the list.

A Dialog box opens. The Dialog box lists all current names and fields used by the LDAP directory.

2. Modify the **Schema Name**.
3. Click **OK**.

Linking to Outlook

To add a link to your Outlook directory in the Shortcut Bar:

1. From the menu, select **Directory > Add Link To > Outlook Directory**.

A Properties dialog box appears.

2. In the **Directory Name** field, enter the name of your Outlook directory, as you want it to appear in the Shortcut Bar.
3. Click **OK**.

Linking to Windows Address Book directory

To add a link to a WAB directory in the Shortcut Bar:

1. From the menu, select **Directory > Add Link To > Windows Address Book**.

A Properties dialog box appears.

2. In the **Directory Name** field, enter the name of your Windows Address Book directory, as you want it to appear in the Shortcut Bar.
3. In the **WAB Name** field, enter the name of the WAB file you want to link to from the Shortcut Bar.

Note: If you do not know the name of the WAB file, click the browse button to the right of the WAB Name field. A Windows Open dialog box appears. Use this dialog box to navigate and select the file you need from your file system.

4. From the **Properties** dialog box, click **OK**.

Adding external contacts to the Local Directory

You can add contacts from any of the external directories to your Local Directory.

To add an external contact to the Local Directory:

1. From the Shortcut Bar, click the external directory icon you want to access.

A list of contacts from the selected external directory appears.

2. Right-click the contact that you want to add to the Local Directory.
3. From the menu, select **Add to Local Directory**.

The Properties dialog box appears.

4. If no phone numbers appear in the **Phone Numbers** field, you must input at least one valid phone number. If the telephone numbers in the **Phone Numbers** field look correct, then click **OK**.

The contact is added to the Local Directory.

5. To access the added contact, click the Local Directory icon in the Shortcut Bar.

Note 1: You cannot directly add contacts to an external directory from within the Local Directory.

Note 2: If the contents of an external directory change, you must first update that directory for the changes to show in the Local Directory. To update, right-click the imported directory and click **Refresh**.

Managing contacts from the CS 1000 Directory


Your server supports the following CS 1000 Directory features: Personal Directory, Redial List, and Callers List.

You can use the following options to manage contacts in CS 1000 Directory features:

- “Adding contacts to the Personal Directory” on page 41
- “Editing CS 1000 Directory contacts” on page 42
- “Deleting CS 1000 Directory contacts” on page 43
- “Finding CS 1000 Directory contacts” on page 43
- “Dialing from the Personal Directory” on page 43
- “Dialing from the Redial List” on page 44
- “Dialing from the Callers List” on page 44

Adding contacts to the Personal Directory

To add contacts to the Personal Directory:

1. On the Call Control window, click  **Directory**.
2. Select **Personal Directory > Add**.

A text editor starts.

3. Enter the contact information.

Note: To add a pause in the number, click **Pause** at any time during data entry.


4. To submit the entry, click **Done**.

Note 1: Unlike the Local Directory, CS 1000 Directory features (Personal Directory, Redial List, Callers List) are stored on the Application Server.

Note 2: You can also add contacts to the Personal Directory by copying entries from the Corporate Directory, the Redial List, the Callers List, or other available directory applications. If you are creating multiple entries in the Personal Directory, you can make and edit multiple copies in an existing entry.

Editing CS 1000 Directory contacts


To edit contacts in the Personal Directory:

1. On the Call Control window, click  **Directory**.
2. From the Directory list, select **Personal Directory**.
3. Search for the desired entry.
4. Highlight the entry.
5. Click **Edit** and make the changes.
6. Click **Done**.

Making temporary edits to contacts


Use this option to temporarily edit contacts in the Redial List and the Callers List, and then dial the edited entry. The changes are not retained.

To make temporary edits to contacts:


1. On the Call Control window, click  **Directory**.
2. Select **Redial List** or **Callers List** from the Directory list.
3. Search for the desired entry.
4. Highlight the entry.
5. Click **Edit** and make the changes.
6. To dial the edited entry, click **Dial**.

Deleting CS 1000 Directory contacts

To delete a contact from the Personal Directory, Redial List, or Callers List:


1. On the Call Control window, click  **Directory**.
2. Select the **Personal Directory**, **Redial List**, or **Callers List**.
3. Search for the entry.
4. Highlight the entry.
5. Click **Delete**.
6. Click **Confirm** or **Cancel**.

To delete the entire Redial List or Callers List:

1. Click  **Directory**.
2. Select **Redial List** or **Callers List**.
3. Click **Del**.
4. Click **Yes**.


Finding CS 1000 Directory contacts

To find contacts in Personal Directory, Redial List, or Callers List:

1. On the Call Control window, click  **Directory**.
2. Click the desired directory and do one of the following:
 - Scroll through the directory to the desired entry.
 - To go directly to the desired entry, enter the entry.
 - Search by first name, last name, or number.

Dialing from the Personal Directory


To dial from the Personal Directory:

1. On the Call Control window, click  **Directory**.
2. Select the **Personal Directory**.

3. Find the contact using one of the following:
 - Scroll to the desired contact.
 - Search for the contact by name or number.
 - Enter the number of the contact to find it.
4. To dial the selected entry, double-click the contact.


Dialing from the Redial List

To dial from the Redial List in the CS 1000 Directory:

1. On the Call Control window, click  **Directory**.
2. Select **Redial List**.
3. Find the contact using one of the following:
 - Scroll to the desired contact.
 - Search for the contact by name or number.
 - Enter the number of the contact to find it.
4. To dial the selected entry, double-click the contact.

Dialing from the Callers List

To dial from the Callers List in the CS 1000 Directory:

1. On the Call Control window, click  **Directory**.
2. Select **Callers List**.
3. Find the contact using one of the following:
 - Scroll to the desired contact.
 - Search for the contact by name or number.
 - Enter the number of the contact to find it.
4. To dial the selected entry, double-click the contact.

Managing IP Softphone 2050 calls


The following sections describe options for managing IP Softphone 2050 calls:


- “Making telephone calls” on page 45
- “Answering telephone calls” on page 46
- “Incoming Call Notification” on page 46
- “Holding and retrieving telephone calls” on page 47
- “Hanging up telephone calls” on page 47
- “Support for TAPI applications” on page 48

Making telephone calls

Before making a call, ensure that you are wearing your headset.

To make a call:

1. Open a **Line** using one of the following methods:
 - On the Call Control window, click  **Answer/Headset**.
Your main telephone line appears.
 - Select **Keys > Answer**.
 - From the Call Control window, select a **Line** key .
2. Enter the phone number using one of the following methods:
 - Dial from the number pad of your computer keyboard.
 - Dial from the Call Control window Dialpad, using the mouse pointer.
 - Drag and drop (or copy and paste) a telephone number from Microsoft Outlook or an open Microsoft Word or Excel file onto the Call Control window.
 - Select a contact from a Microsoft application such as Outlook (if the IP Softphone 2050 has been selected as a line source in the application dialing properties).


- Select **Keys > Macros**, and then choose the desired macro.
- Click  **Directory**, and then:
 - a. Open a CS 1000 Directory feature: Personal Directory, Redials List, or Callers List.
 - b. Scroll through the directory to find the contact you want.
 - c. Select **Dial**.

Answering telephone calls

Before answering a call, ensure that you are wearing your headset. When you receive a call, the speaker to which you set your phone rings, and Caller ID (if available) shows in the display area.

Note: To select the speaker you want to ring, click **File > Settings > Sound Devices > Handsfree/Ringing/Paging device > Speaker**. Choose the desired speaker from the list.

You can answer a call using one of the following methods:

- On the Call Control window, click  **Answer/Headset** .
- Click the **Line** key of whichever line is ringing.

Note: Answering a new call automatically puts any active calls on hold. To switch between active callers, click the appropriate **Line** key to resume your call.

Incoming Call Notification

A notification window appears above the system tray when incoming calls are received. This window displays the ringing line (DN) and the incoming caller's name and number, as shown in Figure 3.

Figure 3: Incoming call notification window

When this notification appears you can do one of the following:


- Click **Answer** to answer the call.
- Click **Open** to activate the IP Softphone 2050 Call Control window and select a call handling feature, such as forwarding the incoming call to another line or to voicemail.
- Click **Close** to close the notification window. This does not disconnect the incoming call, it only removes the message from your screen. You can also close the notification box by clicking the close button in the top right corner.

When the call is disconnected, a “call disconnected” notification appears. The incoming call notification window closes automatically when the call is disconnected.

Holding and retrieving telephone calls

Before using the phone, ensure that you are wearing your headset.


To put a call on Hold or retrieve a call from Hold:

1. Click the **Line** key for the active call.
2. From the Call Control window, click  **Hold**.

Hanging up telephone calls

When your call ends, you must manually terminate the active line.

To terminate a telephone call:

1. Click the appropriate **Line** key to ensure it is selected.
2. From the Call Control window, click  **Goodbye/Release**.

Support for TAPI applications

The IP Softphone 2050 has the ability to handle calls placed using TAPI (Telephony Application Programming Interface) compliant applications, such as Microsoft Outlook. This enables you to make calls from your Outlook Contacts list if the IP Softphone 2050 TAPI Service Provider has been selected as an available line source in your Phone and Modem Options.

The IP Softphone TAPI Service Provider supports the following features:

- Making calls
- Answering calls
- Ending active calls

To enable the IP 2050 Softphone TAPI Service Provider:

1. Select **Start > Control Panel > Phone and Modem Options**.
The Phone and Modems Options window opens.
2. Click **Advanced**.
3. From the list of available Telephony Providers, select **IP Softphone 2050 TAPI Service Provider**.
4. Click **OK**.

To make a call using Microsoft Outlook:

Note: The IP Softphone 2050 must be active before making a call.

1. On the Contacts list, right-click on the name of the contact you want to call and select **Call Contact**.
The New Call dialog box displays.
2. Click the **Dialing Options** button.

3. From the **Connect using line** menu, select **Nortel IP Softphone 2050 Line**.
4. Click **OK**.
5. From the New Call dialog box, select **Start Call**.

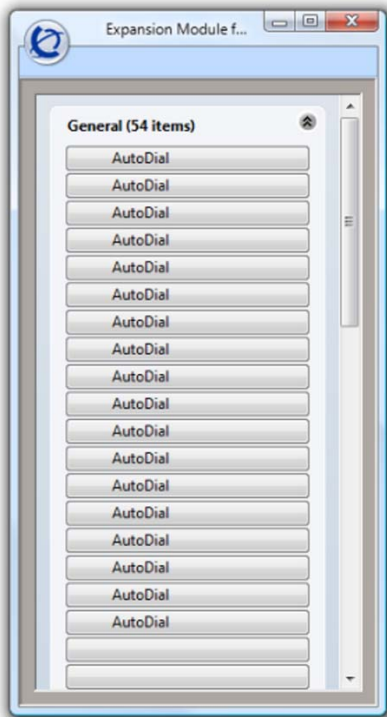
For errors encountered when using the IP Softphone 2050 TAPI Service Provider, see “TAPI problems” on page 117.

IP Softphone 2050 Expansion Module

The Expansion Module (EM) provides status information about other IP Softphone 2050 or physical IP Phone clients connected to the network, such as whether a client is on-line, off-line, and so on. The EM is similar to the Key Expansion Module (KEM) device available for hardware IP Phones.

Figure 4 shows the Expansion Module window.

Figure 4: IP Softphone 2050 Expansion Module



Up to three EMs can be added to the IP 2050 Call Control Window, with the additional EMs cascading vertically beneath the original window. A scrollbar allows access to additional keys.

Each key has a label and an icon indicating the state of the assigned client. The labels are set automatically by the system administrator; however, users can edit these labels using the Settings menu. The icons have cadences identical to those of external lamp controls. For more information on lamp control cadences, see “Setting external lamp controls” on page 88.

Note: Key assignment for the EM is performed by the system administrator.

Settings for the EM are configured using the IP Softphone 2050 Settings menu. See “Expansion Module” on page 86.

Using the Expansion Module

To launch the Expansion Module:

1. Click the **Menu** button.
2. Select **View > Expansion Module**.

The EM window opens.

You can move the EM window so that it docks to the left or right side of the Call Control window or leave it open as a separate window. Calls are retrieved by pressing the appropriate line key.

Working with Groups

Keys are organized into groups of 18, with a maximum of three groups or 54 keys per EM. Individual keys can be moved and organized into groups by dragging and dropping them (Group view only).

To create a new group:

1. Right-click on an existing group (such as the General group).
2. Select **Add Group**.

3. Enter a name for the new group.
4. Click **OK**.

To remove a group:

1. Right-click on an existing group.

Note: The General group is the default group and cannot be removed.

2. Select **Remove Group**.

A confirmation message appears asking if you want to remove the selected group.

3. Click **Yes** to confirm.

The group is removed and all items belonging to it are moved to the General group.

IP Softphone 2050 Graphical External Application Server

The Graphical External Application Server (GXAS) is a plugin for the IP Softphone 2050 that enables you to launch and interact with applications that are available on a GXAS server from within the IP Softphone 2050 application.

After selecting an application, you can interact with the application in a separate session window as though it was running locally on your own machine.

The GXAS plugin is automatically installed with the IP Softphone 2050 application.

Configuring the GXAS plugin

Before the GXAS plugin can be used, the GXAS server must be specified in the Settings menu. For more information, see “Server” on page 73.

Starting the GXAS plugin

You can start the GXAS plugin by double-clicking the **Expand to PC** button or by selecting **View > Graphical External Application Server**.

The available applications are shown in the GXAS Applications window.

If a default GXAS application has been previously selected, click the **Expand to PC** button once to launch the default application in the session window.

Selecting a GXAS application

To launch an application, you can double-click the appropriate icon in the GXAS Applications window or select an application icon by highlighting it and clicking **OK**.

To exit without selecting an application, close the window or click **Cancel**.

GXAS applications launch in a separate session window.

Using the session window

The active GXAS application is shown in the session window. The title bar at the top of the session window indicates the name of the active application and the bottom of the session window features a status bar that displays the following information:

- If the audio stream for a GXAS application is open (ON) or closed (OFF)
- If the microphone for a GXAS application is open (ON) or closed (OFF)

The status bar background turns red when one or both streams are ON. The session window can be docked to the main interface of the IP Softphone 2050 or moved to the desired screen location.

Click and type within the session window as if the application was active on your local machine.

IP Softphone 2050 USB Headset Adapter

You must install a Nortel USB Audio kit before using the IP Softphone 2050.

The features of the USB Headset Adapter are described in Table 2.

Table 2: USB Headset Adapter elements and functions (Part 1 of 2)

Element	Function
Message Waiting light	<p>The red Message Waiting light is located at the top of the USB Headset Adapter.</p> <p>The light illuminates when you have voicemail messages waiting.</p> <p>The light flashes when a call is ringing on the IP Softphone 2050.</p>
Maximize button	<p>Press the Maximize button to maximize or minimize the IP Softphone 2050.</p> <p>If the IP Softphone 2050 is minimized, press this button to maximize the IP Softphone 2050 window.</p> <p>If the IP Softphone 2050 is maximized but behind another window, press this button to bring the IP Softphone 2050 to the foreground.</p> <p>If the IP Softphone 2050 is maximized, press this button to minimize the IP Softphone 2050.</p>
Smart Functions button	<p>Available on the desktop adapter only. Press this button to access the Smart Functions menu. For more information, see “Using the Smart Functions menu” on page 58.</p>

Table 2: USB Headset Adapter elements and functions (Part 2 of 2)

Element	Function
Answer button	<p>To answer an incoming call, press Answer.</p> <p>If you have no incoming call when you press this button, the IP Softphone 2050 selects a line and you hear a dial tone.</p>
Release button	<p>Press the Release button to terminate the current call.</p>
Mute button	<p>Press the Mute button to mute a call. When you mute a call, you can still hear your caller, but your caller cannot hear you. Press the Mute button a second time to resume your conversation.</p>
Mute light	<p>You can find the Mute light beside the Mute button. With a call on mute, the Mute light illuminates. With a call off mute, the Mute light remains off.</p>
Volume button	<p>Use the Volume button to control the volume of the headset.</p> <p>When the Smart Functions Menu appears, use these buttons to move up and down in the menu.</p>
Backlight	<p>The backlight illuminates when your headset is connected to the IP Softphone 2050 application. To activate or deactivate the backlight feature, click on File > Settings > USB Headset, and select or clear the Use backlight check box.</p>

Answering calls with the USB Headset Adapter

You can use the USB Headset Adapter to answer calls whenever the IP Softphone 2050 is running—even if minimized or running in the background.

To answer a call using the USB Headset Adapter:

1. Ensure that you are wearing your headset.
2. Press **Answer**.

Note: If you want to view Caller ID before answering while the IP Softphone 2050 is minimized or running in the background, press the **Maximize** button. This brings up the IP Softphone Call Control window.

Hanging up calls with the USB Headset Adapter

You can use the USB Headset Adapter to hang up calls whenever the IP Softphone 2050 is running—even if minimized or running in the background.

To hang up a telephone call using the USB Headset Adapter, press the **Release** button.

Adjusting the volume with the USB Headset Adapter

You can adjust the volume of your telephone calls using the USB Headset Adapter. Ensure that you are wearing your headset so you can hear the changes as you make them.

To increase the volume, press the right **up** arrow on the **Volume** button.

To decrease the volume, press the left **down** arrow on the **Volume** button.

Muting a call

When you mute a call, you can still hear your caller, but your caller cannot hear you.

To mute a call using the Headset adapter, press the **Mute** button.

Using the Smart Functions menu

The Smart Functions menu provides quick access to IP Softphone 2050 features. You can customize what appears on this menu using the Configuration Utility.

To access the Smart Functions menu:

1. Press the **Smart Functions** button on the USB Headset Adapter.
2. Highlight the feature you want using one of the following:
 - Mouse pointer
 - Keyboard arrow keys
 - **Volume** button on the USB Headset Adapter
3. To select the feature, click **OK**.

Note 1: If only one feature shows up in the menu, the **Don't display this dialog again** check box appears. Select this check box to map the Smart Function button directly to that one available feature. You can then press the Smart Function button to execute the feature directly, bypassing the menu.

Note 2: The **Smart Functions** button is available only on the desktop version of the USB Headset Adapter.

Customizing the Smart Functions menu

You can customize the features that appear on the Smart Functions menu using the Configuration Utility.

To customize the Smart Functions menu:

1. From the **Call Control** window, select **File > Settings > USB Headset**.
The USB Headset Settings window opens.
2. Click **Configure Smart Functions**.
The Configure Smart Functions dialog box opens.
3. From the dialog box, you can **Add**, **Remove**, or **Rearrange** functions from the Smart Function menu.
 - To add a function, select the function you want from the **Available functions** list, and then click **Add**.
 - To remove a function, select the function you want to remove from the list, and then click **Remove**.
 - To rearrange a function, click the function you want to move either up or down in the menu, and then click the appropriate button: **Move Up** or **Move down**.
4. To close the **Configure Smart Functions** dialog box, click **OK**.
5. To close the **USB Headset** dialog box, click **OK**.

You can also add special functions to the Smart Functions menu.

Custom Functions for Smart Functions menu

From the Configure Smart Functions dialog box, you can add, delete, and modify custom functions on the Smart Functions menu.

To add a custom function:

1. Click **New**.
2. In the **Name** box, enter the name you want to appear on the Smart Functions menu.

3. In the **Command** box, enter the pathname and file name of the function you want to add.

Note: If you do not know the pathname or file name of the function, click **Browse** beside the **Command** box. You can then navigate to the correct file, select it, and click **Open**.

4. In the **Arguments** box, enter any arguments that are required for this function.

Note: If you want the IP Softphone 2050 to prompt you for the argument when you select this special function, select **Prompt for arguments**.

5. In the **Initial directory** box, enter the pathname of the directory you want this function to use.

Note: As with the **Command** box in step 3, if you are unsure of the pathname or filename, click **Browse** next to the Initial directory box. You can then navigate to the correct directory, make your selection, and click **OK** to finish.

6. To change the icon that appears beside this function on the Smart Functions menu, click **Change**, then go through steps 7 to 9. If you do not want to change the icon, go to step 10.
7. Click **Browse**.
8. Navigate to the file you entered in the **Command** box and select it.
9. Click **Open**.
10. Select one of the icons that appears.
11. Click **OK**.
12. To add the new function to the Smart Functions menu, click **OK**.

To modify a custom function:

1. Select the custom function you want to modify.
2. Click **Modify**.
3. Make the required changes.
4. Click **OK**.

To remove a custom function:

1. Select the custom function you want to remove.
2. Click **Delete**.
3. To confirm the deletion, click **Yes**.

IP Softphone 2050 macros

Use the IP Softphone 2050 to enter macros. A macro is a sequence of keystrokes that you can use to automate repetitive actions. For example, you can program a macro that selects a particular telephone line and then dials a telephone number automatically, or a macro that ensures a certain number is always dialed out on a particular telephone line.

To access the IP Softphone 2050 Macro Settings menu from the Call Control window, click **File > Settings > Macros**.

All macros are listed in the Macros Settings window. You can also access macros by selecting **Keys > Macros**.


The following sections describe how to work with macros:

- “Entering a macro” on page 62
- “Deleting a macro” on page 63
- “Playing a macro” on page 63

Entering a macro

You can enter a macro to automate a procedure or repetitive action.

To enter a macro:

1. Open the **Settings** window. For details, see “Opening the Settings window” on page 67.
2. Select **Macros**.
The Macros settings dialog box opens.
3. Click  **New Macro**.
The New Macros dialog box opens.
4. Enter the name of your new macro.
5. Create the macro using a combination of the following:
 - To enter numbers, click the dialpad.

- Select the actions you want from the **Keys** menu, and then click **Add**.
- 6. To add the new macro to the list, click **Apply**.
- 7. To exit the Macros dialog box, click **OK**.


Note 1: Use the **Pause** action to introduce a half-second delay in the macro—a requirement for some Interactive Voice Response applications and voicemail systems.

Note 2: You can move macro items up and down the macro list. Select the macro item you want to move, and then use the **up** and **down** arrow keys to move the item in the direction you need.

Note 3: For a list of macro values, refer to Table 1 on page 18.

Deleting a macro

To delete a macro:

1. From the **Macro** menu, select the macro you want to delete.
2. Click  **Delete Macro**. This clears the macro.
3. To finalize the change, press **Apply**.

Playing a macro

You can play macros to dial telephone numbers or access your voicemail.

To play a macro:

1. From the **Call Control** window, select **Keys > Macros**.
2. Select the desired **Macro** by name.

IP Softphone 2050 menu commands

The following sections describes the IP Softphone 2050 menu commands:

- “Call Control window menu command” on page 64

Call Control window menu command

The IP Softphone 2050 supports a Windows-style menu command system, with File, Edit, Keys, View, and Help menus available by clicking the Menu button at the top left corner of the Call Control window.

The following sections describe the Menu options:

- “Using the File menu” on page 64
- “Using the Edit menu” on page 65
- “Using the Keys menu” on page 65
- “Using the View menu” on page 66
- “Using the Help menu” on page 66

Using the File menu

From the File menu, you can choose from any of the following:

- **Run in background**—Sends the Call Control window to the background, but leaves the application running to receive calls.
- **Record this call**—Begins recording all incoming or outgoing calls.
Note: Call Recording (controlled by either a third party (server) or first party (client)) requires either server support or a separate recording application. Contact your system administrator for more information about the Call Recording function.
- **Settings**—Opens the Settings window and the various tabs.

Using the Edit menu

From the Edit menu, you can choose from any of the following:

- **Copy**—Copies the contents in the display window for use in other applications.
- **Paste**—Pastes phone numbers or other dialable strings copied from other applications.
- **Input Mode**—Selects method that the application uses to interpret input from the keyboard. The two methods are:
 - **Numeric**—Select **Numeric** and the IP Softphone 2050 interprets keyboard characters (a 1-800 number, for example) as single numbers for dialing.
 - **Alphabetic**—Select **Alphabetic** and the IP Softphone 2050 interprets each keyboard character as a multiple number. For example, pressing 1 will result in two 1's. Pressing 2 will result in four 2's.

Using the Keys menu

From the Keys menu, you can choose from any of the following:

- **Headset/Handset**—Select to answer an incoming call, or obtain a dial tone to make a call.
- **Handsfree**—Select to answer or make a call using the handsfree speaker. To set the desired speaker, select **File > Settings > Sound Devices**. From Handsfree/Ringing/Paging device, select your **Speaker** from the speakers list.
- **Answer**—Select to answer an incoming call or obtain a dial tone.
- **Goodbye**—Select to end a call.
- **Hold**—Select to put an active call on hold.
- **Mute**—Select to place your call on mute. You can hear the caller, but the caller cannot hear you.
- **Send**—Select to confirm menu selections and terminate input sequences.
- **Features**—Select to view a list of available, server-supported features.

- **Macros**—From the macros menu, select the macro you want to dial.

Using the View menu

From the View menu, you can choose from any of the following:

- **Local Directory**—Select to access the Local Directory window, including links to contacts in Outlook and other applications. See “Local Directory” on page 23 for details.
- **Expansion Module**—Select to show or hide the Expansion Module. See “IP Softphone 2050 Expansion Module” on page 50 for details.
- **Graphical External Application Server (GXAS)**—Select to launch the GXAS interface. See [link] for details.

Using the Help menu

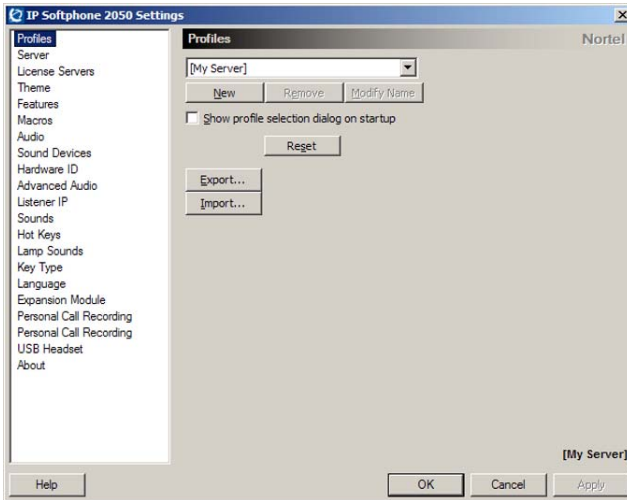
From the Help menu, you can choose from any of the following:

- **Quickstart**—Select to view basic information about operating the Call Control window and the USB headset.
- **Hot Keys**—Select to view a list of both **Buttons** and **Menus** hot keys.
- **License Agreement**—Select to view the current licensing agreement.
- **Contents**—Select to open the contents section of the IP Softphone 2050 Help system.
- **Search**—Select to search for a specific item in the IP Softphone 2050 Help system.
- **Index**—Select to open the index section of the IP Softphone 2050 Help system.
- **Diagnostics**—Select to view diagnostic information about specific IP Softphone 2050 components. See “IP Softphone 2050 Diagnostics” on page 103.
- **About IP Softphone 2050**—Select to view information about the IP Softphone 2050, such as the version number, copyright information, and so on.

IP Softphone 2050 Settings

Use the Settings window (shown in Figure 5) to access and configure the many IP Softphone 2050 features and functions. You can open the Settings window from the Windows Start Menu or from the IP Softphone 2050 Call Control window.

Figure 5: The Settings Window



Opening the Settings window

Use one of the following options to open the Settings window:

- From the Windows operating system:
 - Select **Start > Programs > Nortel > IP Softphone 2050 > IP Softphone 2050 Settings**.
 - Select **Start > Control Panel > IP Softphone 2050**. (In Windows XP, select **Switch to Classic View** to view the list of settings.)
- From the IP Softphone 2050 Call Control window:
 - Click the **Menu** button and select **File > Settings**.

Using the Settings window

The following sections describe how to configure the various IP Softphone 2050 features and functions:

- “Profiles” on page 69
- “Server” on page 73
- “License Servers” on page 75
- “Theme” on page 76
- “Features” on page 76
- “Macros” on page 77
- “Audio” on page 77
- “Sound Devices” on page 77
- “Hardware ID” on page 79
- “Advanced Audio” on page 81
- “Listener IP” on page 82
- “Sounds” on page 82
- “Hot Keys” on page 83
- “Text Replacements” on page 83
- “Lamp Sounds” on page 84
- “Key Type” on page 85
- “Language” on page 85
- “Expansion Module” on page 86
- “Personal Call Recording” on page 87
- “Plantronics USB Bluetooth Headset” on page 87
- “USB Headset” on page 88
- “About” on page 90

Features and functions are listed in the left pane of the IP Softphone 2050 Settings window (see Figure 5 on page 67). Select the desired feature to open the corresponding dialog box.

Profiles

Use profiles to configure the IP Softphone 2050. Using profiles, you can keep multiple IP Softphone 2050 configurations on the same computer. When you make changes to any feature or function, the changes affect only the current profile.

Note: The name of the current profile appears at the lower right corner of all IP Softphone 2050 Settings dialog boxes, above the Apply button (see Figure 5 on page 67).

If more than one profile has been created, you are prompted to select a profile to use when starting the IP Softphone 2050 application.

To open the **Profiles** dialog box, select **Profiles** from the list in the left pane of the Settings window.

The following sections describe how to work with Profiles:

- “Creating new profiles” on page 70
- “Removing profiles” on page 70
- “Modifying profile names” on page 70
- “Selecting profiles” on page 71
- “Exporting profiles” on page 71
- “Importing profiles” on page 72

Reset button

When you select the **Reset** button in the following procedures, the phone resets immediately without any warning.

However, if you make a change to the settings and select **Apply** or **OK**, the phone indicates that a reset needs to take place. A warning message appears—“IP softphone 2050 must reset for the configuration changes to be complete. Select Yes to reset now or select No if you plan on resetting later”. You can select **Yes** to reset now, or **No**, to defer it until later.

Creating new profiles

A text box at the top of the Profiles dialog box displays the current profile.

To create a new profile:

1. Click **New**.
An empty text box called Profile Name opens.
2. Enter the name of the new profile.
3. Click **OK**.

Removing profiles

To remove a profile:

1. From the list of profiles, select the profile that you want to remove.
2. Click **Remove**.
A “Remove profile? Are you sure?” message appears.
3. Click **Yes**.
The profile is deleted from the list.

Note: My Server is a built-in profile name and cannot be deleted.

Modifying profile names

To modify a profile name:

1. From the list of profiles, select the profile that you want to modify.
2. Click **Modify Name**.
The Profile Name text box opens, with the name of the profile highlighted.
3. Enter the new profile name.
4. Click **OK**.
The new name shows in the list.

Selecting profiles

To choose which profile the IP Softphone 2050 uses for your current session:

1. From the list of profiles, select the desired profile.
2. Click **Reset**.

If the IP Softphone 2050 is currently running, it tries to reestablish communication with the server (as defined by the profile). The Main Application screen opens.

If the IP Softphone 2050 is not currently running, the Settings window closes. The next time you start the IP Softphone 2050, it attempts to connect to the server (as defined by the profile).

Note: Check the server dialog box in IP Softphone 2050 Settings to see which server your current profile uses.

Exporting profiles

To back up your personal settings or to use your profiles with other applications, export your IP Softphone 2050 profiles to your computer hard drive.

To export your profiles:

1. Click **Export**.
A Save As dialog box opens.
2. Save your profiles using the file name and directory of your choice.

Note: The export and import of profiles is for the backup and retrieval of individual settings only. Profiles are not intended to be shared with other users.

Your current IP Softphone 2050 profiles are now saved as “Config Backup Files” (*.cfx).

Importing profiles

Use import to restore the backed-up configuration files of your personal settings for current use.

To import saved profiles:

1. Click **Import**.
An Open dialog box opens.
2. Locate and select the profile you want to use.
The Import Profiles text box opens.
3. Select the profile or profiles that you want to import.
4. Click **OK**.

Server

Use the Server dialog box to configure the connection between the IP Softphone 2050 and your communications server and, if applicable, the GXAS server. You can either use the default method (DHCP) or manually specify an IP address.

To open the **Server** dialog box, select **Server** from the list in the left pane of the Settings window.

The following sections describe the Server settings:

- “Reset button” on page 73
- “Using IP addresses and DNS names” on page 74
- “Restoring defaults” on page 74
- “Resetting the connection” on page 75

Reset button

When you select the **Reset** button in the following procedures, the phone resets immediately without any warning.

However, if you make a change to the settings and select **Apply** or **OK**, the phone indicates that a reset needs to take place. A warning message appears—“IP softphone 2050 must reset for the configuration changes to be complete. Select Yes to reset now or select No if you plan on resetting later”. You can select **Yes** to reset now, or **No**, to defer it until later.

Using DHCP

With **Automatic (DHCP)** enabled, the IP Softphone 2050 reads server addresses from a Dynamic Host Configuration Protocol (DHCP) server.

Note: To use DHCP, your Local Area Network (LAN) must include a DHCP server. Contact your System Administrator to configure the server with the correct IP address values.

To use the Automatic (DHCP) method:

1. Select the **Automatic (DHCP)** check box.
2. From the **Server** list, select your server. You can choose from the Primary, Secondary, or Application (GXAS) servers.

Note 1: Primary and Secondary servers are assigned by DHCP.

Using IP addresses and DNS names

If your communications server does not support DHCP, then you must assign an IP address or DNS name manually.

To assign a manual IP address or DNS name, you must have the following information about your communications server:

- IP address or DNS name
- Port number
- Server type

To assign an IP address or DNS name:

1. From the **Server** list, select the server you want to configure: **Primary**, **Secondary** or **Application**.
2. Select **IP** and enter the IP address, or select **Name** and enter the DNS name.
3. If the server is an Application server, select the **Graphical** check box.
The default port number shows in the Port text box.
4. If your server port number is different from the default number, enter the correct number in the **Port** text box.

Note: Symposium call center agents must select the **Symposium** check box.

Restoring defaults

To restore the settings dialog to its default settings, click **Restore Defaults**.

Resetting the connection

To reset the server connection while the IP Softphone 2050 is running, click **Reset**.

License Servers

Use the License Servers dialog box to add new license servers to the Server Address list and to specify the order in which they are contacted by the IP Softphone 2050 client. The server at the top of the list is contacted first, followed by the second, and so on.

To add a new License Server:

1. Enter the new server IP address (or DNS name) in the **New server** field.
2. Click **Add**.

The new server is added to the **Server Address** list.

3. Click **OK**.

To change the License Server priority:

1. Select the server from the **Server Address** list.
2. Use the **Increase Priority** and **Decrease Priority** buttons to move the server up or down in the list.
3. Click **Apply**.

For more information about License Servers, see *IP Phones Fundamentals* (NN43001-368).

Theme

Use the Theme dialog box to select the 1100 theme or one of two available compact theme colors (black or silver). You can also use this dialog box to switch to the Accessibility Interface.

To choose the theme:

1. From the **Theme** menu, select **1100**, **black**, or **silver**.
2. Click **OK**.

If the default path was overwritten during installation, then you must designate the correct path to the IP Softphone 2050 file.

To select the path to the IP Softphone file:

1. Click **Browse**.
A Browse for folders dialog box opens.
2. Locate and select the IP Softphone 2050 folder in your file system.
3. Click **OK**.

Note: You can also use the theme dialog box to set the IP Softphone 2050 to the Accessibility Interface. For information about opening or using the Accessibility Interface, see “Accessibility Interface” on page 91.

Features

Use the Features dialog box to rearrange the features found under **Keys > Features** on the Call Control window.

The Feature Menu lists all available server-supported features. Use the arrow keys to move individual items up and down in the list. The list includes:

- Message
- Directory
- Shift
- Services

- Expand
- Copy
- Quit
- Redial List
- Caller List

Note: In CS 1000 systems, the Available Features list remains empty.

You can access any item on the Available Features list from the [Keys > Features](#) list.

Macros

For information about setting macros, see “IP Softphone 2050 macros” on page 62.

Audio

Use the Audio dialog box to adjust the level of buffering between your audio hardware and the IP Softphone 2050.

Use the Quality slider to increase or decrease the amount of delay. **Less delay** speeds up buffering, but reduces audio quality. **Higher quality** improves audio quality, but slows down buffering.

Note: If your IP Softphone 2050 audio sounds choppy or broken, move the slider toward Higher Quality.

Use the Ringer Attenuation slider to increase or decrease the ringer volume.

Sound Devices

Use the Sound Devices dialog box to select and set the various IP Softphone sound devices.

The dialog box is separated into two areas:

- “Headset or handset device” on page 78
- “Handsfree/Ringing/Paging Device” on page 78

Headset or handset device

When using a headset or handset, use this area to:

- Select the microphone and speaker
- Adjust volume
- Select or clear mute status

The Microphone text box displays the currently selected microphone. To change the microphone, select the microphone you want to use from the microphone list.

The Speaker text box displays the currently selected speaker. To change the speaker, select the speaker you want to use from the speaker list.

To adjust the volume of the microphone and speaker, use the volume slider bar.

To mute both devices, select **Mute**.

Handsfree/Ringing/Paging Device

When using a handsfree/ringing/paging device, use this area to:

- Select the microphone and speaker
- Adjust volume
- Select or clear mute status

The Microphone text box displays the currently selected microphone. To change the microphone, select the microphone you want to use from the microphone list.

The Speaker text box displays the currently selected speaker. To change the speaker, select the speaker you want to use from the speaker list.

To adjust the volume of the microphone and speaker, use the volume slider bar.

To mute both devices, select **Mute**.

To return the settings to installation defaults, click **Restore Original Values**.

Hardware ID

Note: This dialog box is intended for expert users only.

Use the Hardware ID dialog box to select the hardware address reported to your communications server. The Hardware ID text box displays the current hardware address.

The following sections describe the Hardware ID settings:

- “MAC addresses” on page 79
- “Reset button” on page 80

MAC addresses

The IP Softphone 2050 default IP address comes from your Ethernet hardware, as a Medium Access Control (MAC) address. If several Ethernet interfaces are installed, then the IP Softphone 2050 chooses the first MAC address it detects and uses that address in all subsequent re-connections.

Note: Some Virtual Private Network (VPN) clients hide their MAC addresses. In this case, you must override the default value to prevent problems communicating with the server.

Reset button

When you select the **Reset** button in the following procedures, the phone resets immediately without any warning.

However, if you make a change to the settings and select **Apply** or **OK**, the phone indicates that a reset needs to take place. A warning message appears—"IP softphone 2050 must reset for the configuration changes to be complete. Select Yes to reset now or select No if you plan on resetting later". You can select **Yes** to reset now, or **No**, to defer it until later.

Selecting MAC addresses

To select a MAC address:

1. Click **Auto-Create**. The Hardware ID text box displays the next address in a range of addresses.
2. Continue clicking **Auto-Create** to move through the range of available addresses, until you find the one you need.

After you click through all available MAC addresses, Auto-Create generates random hardware ID numbers. Select one of these numbers if your Ethernet hardware address is not unique to the server.

To return the settings to their installation defaults, click **Restore Defaults**.

To reset the Hardware ID while the IP Softphone 2050 is running, click **Reset**.

Note: The Firmware Version field displays the latest IP Softphone 2050 firmware version reported by the server.

Advanced Audio

Note: This dialog box is intended for expert users only.

Use the Advanced Audio dialog box to adjust settings for advanced audio controls.

The following sections describe the Advanced Audio settings:

- “Microphone Automatic Gain Control” on page 81
- “Echo Cancellation” on page 81
- “Noise Reduction” on page 81

Microphone Automatic Gain Control

Selecting the Microphone Automatic Gain Control box allows the system to automatically determine the appropriate level of gain for your microphone. This ensures a comfortable speech level for both parties.

Echo Cancellation

Use the Echo Cancellation sidebar control if echo is detected on the line during a call. Certain types of headsets or PC audio speakers can cause echo to appear on the line.

The slider has three settings:

- **Off** disables the echo cancellation controls.
- **Always On** enables echo cancellation for all calls.
- **Auto** allows the system to enable and disable echo cancellation as required.

Noise Reduction

Use the Noise Reduction sidebar to increase or reduce any unwanted sounds from your environment. Move the sidebar between **Off** and **Max** to find the desired level of noise reduction.

To restore the Advanced Audio settings to the default settings, click **Restore Defaults**.

Listener IP

Note: This dialog box is intended for expert users only.

Use the Listener IP dialog box to override port assignments when the IP Softphone 2050 application conflicts with another application on your computer.

Under normal operation, the IP Softphone 2050 listens for UNISim traffic on all IP addresses and IP ports. You can set the IP Softphone 2050 to listen to only one specific IP address or port.

To use a specific address:

1. Select **Use a specific address**.
The dimmed text box activates.
2. Enter the address to which you want the IP Softphone 2050 to listen. The format of the IP address is 99.99.99.99.

To use a specific port:

1. Select **Use a specific port**.
The dimmed text box activates.
2. Enter the port to which you want the IP Softphone 2050 to listen.

To return the settings to their installation defaults, click **Restore Defaults**.

Sounds

Use the Sounds dialog box to select sound effects for when the IP Softphone 2050 connects to, or disconnects from, a call server.

You can assign a sound to any of the following three events:

- Server connected
- Server unreachable
- Server unresponsive

To assign a sound to an event:

1. From the **Select an event** list, select the event to which you want to assign a sound.
2. Select **Play sound**.
3. Enter the path and file name of the audio file you want to use. You can also search for the file by clicking browse.

The selected file name appears in the text box.

Note: The IP Softphone 2050 currently supports only .wav files

To test the selected sound, press the **play** arrow button. To stop the sound while playing, click the square **stop** button.

Hot Keys

You can assign keyboard hot keys to access the full range of Call Control window functions and menu options.

For information about available hot keys, and for adding or removing hot keys, see “Hot keys” on page 20.

Text Replacements

Note: This dialog box is available from the Accessibility Interface only.

Use the Text Replacements dialog box to modify the server-supplied text in the Accessibility Interface. Modification lets you shorten or eliminate superfluous language picked up by the screen-reading software.

The text replacement table lists all the text replacement rules that are currently assigned. Both the original text and the replaced text appear in the list.

To add a new text replacement rule, or to modify an existing rule:

1. Click **New** or **Modify**.

A Find and Replace dialog box opens.

2. Enter the text that you want to change in the **Find what** text box. You can assign parameters to the search by selecting any of the following:
 - **Whole word** searches for the entire word.
 - **Display** searches the display area.
 - **Context** searches the context area.
 - **Softkeys** searches the softkeys area.
 - **Line/Feature Key text** searches the Line/Features area.
 - **Date and Time** searches the date and time area.
3. Enter the new text in the **Replace with** text box.
4. Click **OK**.

The **Find what** dialog box closes.
5. Click **Apply**.

To remove an existing text replacement rule:

1. Select the rule you want to remove from the list.
2. Click **Remove**.

The text rule disappears. The affected text returns to its original form.

Lamp Sounds

Use the Lamp Sounds dialog box to select sound effects that let you know when the message lamp or mute lamp is on.

To assign a sound for either the message or mute lamp:

1. From the **Select a condition** list, select **Message Lamp On** or **Mute Lamp On**.
2. Select **Play sound**.
3. Enter the path and file name of the audio file you want to use. You can also search for the file by clicking the browse button.

When selected, the file name appears in the text box.
4. Enter how often you want the sound repeated in the **minutes** and **seconds** fields (found in the **Repeat every** area).

Note: The IP Softphone 2050 currently supports only .wav files.

Key Type

The IP Softphone Call Control window supports six line/feature keys (see Figure 2 on page 17). Use the Key Type dialog box to select which keys the IP Softphone 2050 uses to place calls (line keys). The selected keys will display as available line keys when making a call.

To assign a line key:

1. Select the check box next to the key or keys that you want to use. Key layout corresponds to the layout on the Call Control window.
2. Click **Apply**.

To return the settings to their installation defaults, click **Restore Defaults**.

Phone number dialog box

When you make a call from the Local Directory, or select **Make Call** from the system tray menu, a **Phone number** dialog box opens. A **Select a line key** menu in the dialog box lists all selected lines. Use the **Key Type** dialog box to add or remove items from this list.

Accessibility Interface

In the Accessibility Interface, selected keys show as Idle or Active. Keys not selected (feature keys) show as Feature Inactive or Feature Active.

Language

Use the Language dialog box to select the language for the IP Softphone 2050 Settings window, Local Directory, and all menus and dialogs associated with the main application.

Note: Some language that you encounter in operating the IP Softphone 2050 comes from your communications server, or from your computer operating system (OS). Setting the language from the Language dialog box does *not* affect either server-supplied or OS-

supplied language. To change server-supplied language, see the “Setting your language” section on page 95.

To change the currently set language:

1. From the language list, select the language you want.
2. Click **OK**.

Supported languages include: Arabic, Chinese (Traditional and Simplified), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Korean, Japanese, Latvian, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish and Turkish.

Expansion Module

Use the Expansion Module dialog box to configure options for the Expansion Module. Use the Expansion Module dialog box to:

- Change the View Style.
 - “Group” features one column of 18 keys. Users can move buttons when using this view.
 - “Default” features three columns of 18 keys. Users cannot move buttons when using this view.
- Add annotations to keys.
 - By default, keys display the number assigned by the Terminal Proxy Server and cannot be changed.
 - Keys can be annotated to show user-defined information, such as a particular name or department.
- Restore settings back to defaults.

For information on using the Expansion Module, see “IP Softphone 2050 Expansion Module” on page 50.

Personal Call Recording

To use Personal Call Recording, a call-recording application provided by Algo Solutions must be installed. Use the Personal Call Recording dialog box to:

- Let the IP Softphone 2050 record calls.
- Launch the Personal Call Recording application.
- Display a warning message when call recording is enabled.

Information about the third party application shows in the following fields:

- **Application** displays the name of the third party application.
- **Version** displays the current version number of the application.
- **Vendor** displays the vendor name of the application.
- **Path** displays the directory and file name where the third party application resides on your computer.

To allow the IP Softphone 2050 to record calls:

1. Select **Allow this application to record calls**.
2. Click **OK** or **Apply**.

To launch the call recording application on startup:

1. Select **Launch the Personal Call Recorder application**.
2. Click **OK** or **Apply**.

To display warning messages when call recording is enabled:

1. Select **Display a warning message when call recording is enabled**.
2. Click **OK** or **Apply**.

Plantronics USB Bluetooth Headset

Use the Plantronics USB Headset to configure settings for Plantronics USB Bluetooth headsets.

USB Headset

Use the USB Headset dialog box to do the following:

- “Selecting the headset” on page 88
- “Setting external lamp controls” on page 88
- “Using the backlight” on page 90
- “Configuring Smart Functions” on page 90

Selecting the headset

For optimal performance, select the headset from the list that matches the headset currently connected to your USB Headset Adapter.

To choose a headset:

1. From the list, select the headset you are using.
2. Click **Apply**.

Setting external lamp controls

Note: The external lamp is available on the desktop adapter only.

The IP Softphone 2050 supports an optional external LED lamp (also known as an in-use lamp). The lamp provides visual indication of call status, headset connection, and messages waiting.

You can set the lamp to illuminate under the following conditions:

- Manual Override
- Headset Disconnect
- Active Call
- Message Waiting

Select the cadence (how the lamp illuminates) that you want to use for each of the above conditions. Available cadences include:

- None
- On

- Flash
- Flicker
- Blink

Manual Override

With Manual Override enabled, you can turn on the external lamp by pressing the Smart Functions button on your USB Headset Adapter.

To enable Manual Override, select the cadence you want from the list. To disable Manual Override, select **None**.

Headset Disconnect

With Headset Disconnect enabled, the external lamp activates when the headset registers as disconnected from the USB Headset Adapter.

To enable Headset Disconnect, select the cadence you want from the list. To disable Headset Disconnect, select **None**.

Active Call

With Active Call enabled, the external lamp activates when the IP Softphone 2050 registers an active call.

To enable Active Call, select the cadence you want from the list. To disable Active Call, select **None**.

If you enable Active Call when the USB Headset Adapter is selected as the Ringing Speaker, then the external lamp also activates on incoming calls.

Note: Any other application using the same audio channel as the USB Headset Adapter also activates the external lamp.

Message Waiting

With Message Waiting enabled, the external lamp activates when the IP Softphone 2050 registers a message waiting.

To enable Message Waiting, select the cadence you want from the list. To disable Message Waiting, select **None**.

Priority

If more than one condition is enabled, then the external lamp activates according to the condition with the highest priority. The priority of the conditions, from highest to lowest, is as follows:

- Manual Override
- Headset Disconnect
- Active Call
- Message Waiting

Using the backlight

The USB Headset Adapter uses a backlight to illuminate the buttons, letting you know when the IP Softphone 2050 is running.

To enable the backlight, select **Use backlight**.

Configuring Smart Functions

The Smart Functions button on the desktop USB Headset Adapter provides quick access to IP Softphone 2050 features.

For information about configuring the Smart Functions button, see “Customizing the Smart Functions menu” on page 59.

Note: The Smart Functions button is available on the desktop version of the USB Headset Adapter only.

About

The About dialog box displays current information about the IP Softphone 2050, including the following:

- Current version number
- Copyright information
- Nortel logo
- Global IP Sound logo

Accessibility Interface

The Accessibility Interface works with screen reading software—such as JAWS® for Windows from Freedom Scientific—that lets visually-impaired users access the full range of IP Softphone 2050 features.

To open the IP Softphone 2050 Accessibility Interface from the Call Control window:

1. Select **File > Settings > Theme**.
2. Select **Accessibility Interface**.

Note: You must exit and restart the IP Softphone 2050 for the change to Accessibility Interface to take effect.

Control groups

The Accessibility Interface lets you move through the following four groups of controls:

- “Display” on page 91
- “Line and Feature” on page 92
- “Date and Time” on page 92
- “Indicators” on page 92

Display

Use the Display group to check the current operating conditions of the IP Softphone 2050.

When on a call, you can navigate the Display group to:

- Check the calling line ID.
- Check the status of different call-handling options, such as Conference and Transfer.

When not on a call, you can navigate the Display group to:

- Program the IP Softphone 2050.

- Access voice mail.
- Use CS 1000 Directory features (Personal Directory, Redial List, Callers List).

Line and Feature

Choose from six available Line and Feature group keys to place or receive calls, or to access a range of server-supported IP Softphone 2050 features.

Note: Only your system administrator can assign Line keys. Contact your system administrator for more information about the available features that your server provides.

Date and Time

Use the Date and Time group to check the current date and time. When on a call, you can check the duration of your connection in the top field of the group.

Indicators

Use the Indicators group to check if you have a message waiting or to determine if the mute function is off or on.

Accessibility Interface Menu

The Accessibility Interface offers a Menu Command system identical to the standard Call Control window. File, Edit, Keys, View, and Help are all supported. For further details, see “IP Softphone 2050 menu commands” on page 64.

Navigating Control Groups and Menu Commands

You can navigate through the four Control Group fields, as well as the Menu Command system, using your keyboard instead of the mouse pointer.

This section describes the following:

- “Navigating Control groups” on page 93
- “Navigating Menu Commands” on page 93

Navigating Control groups

Use the following keystrokes to move through the four Control Group fields:

- To move to the next field, press **Tab**.
- To move to the previous field, press **Shift + Tab**.
- To move to the next control group, press **Page down**.
- To move to the previous control group, press **Page up**.
- To skip to the first control group, press **Home**.
- To skip to the last control group, press **End**.
- To read the field at the current cursor location, press **F1**.
- To read the contents of the control group at the current cursor location, press **Shift + F1**.
- To execute a command from the current cursor location (when over an executable field), press **Shift + Enter**.

Navigating Menu Commands

To access the Menu Command system from the keyboard, press **Alt +** the first letter of the menu you want to access. For example, press **Alt + F** to access the **File** menu.

From within the Menu Command system, you can:

- Use the arrow keys to move left and right among the five menus.
- Use the arrow keys to move up and down the menu, highlighting options as you go.
- To make your selection, press **Enter**. Or press the first letter of the selection you want.


Using hot keys

You can assign keyboard hot keys to access the full range of Call Control window functions and menu options—necessary for using all of the IP Softphone 2050 features from the Accessibility Interface.

For information about available hot keys, and for adding or removing hot keys, see “Hot keys” on page 20.

Setting CS1000 Directory user preferences

Your server supports the following CS 1000 Directory features: Personal Directory, Redial List, and Callers List.


To access these features, click  **Directory** on the Call Control window. For general information about CS 1000 Directory features, see “CS 1000 Directory” on page 24. For information about managing contacts or making calls from the CS 1000 Directory features, see “Managing contacts from the CS 1000 Directory” on page 41.

The following sections describe how to set user preferences for the various CS 1000 Directory features:

- “Setting your language” on page 95
- “Setting the date and time” on page 96
- “Enabling the Call Timer” on page 96
- “Setting Call Log options” on page 96
- “Using Password Administration” on page 99

Setting your language

To set the language used by CS 1000 Directory features:


1. Click  **Services**.
A list of options appears in the display area.
2. Use the up and down arrows (on either the navigation cluster or on your PC keyboard) to select **Telephone Options > Language**.
3. From the **Language** list, select the language that you want to use (for example, **German [Deutsch]**).

Note: This procedure affects only the language used by CS 1000 Directory features. To change the language used by the Call Control window, see “Language” on page 85.

Setting the date and time

CS 1000 systems support several date and time formats, based on the 12-hour and the 24-hour clocks.


To select a date and time format:

1. Click  **Services**.
A list of options appears in the display area.
2. Use the up and down arrows (on either the navigation cluster or on your PC keyboard) to select **Telephone Options > Date/Time**.
3. From the **Date/Time** list, highlight the format that you want to use.
A sample of the highlighted date and time format appears in the display area of the Call Control window.
4. Select the desired format.

Enabling the Call Timer

With the Call Timer telephone option enabled, the IP Softphone 2050 automatically measures and displays the length of each call.

To enable Call Timer:

1. Click  **Services**.
A list of options appears in the display area.
2. Use the up and down arrows (on either the navigation cluster or on your PC keyboard) to select **Telephone Options > Call Timer**.
3. Select **Call Timer: On**.

Setting Call Log options

Use the Call Log telephone option to configure the following preferences:


- “Logging all/unanswered incoming calls” on page 97
- “New call indication” on page 97
- “Preferred name match” on page 98

- “Area code setup” on page 98
- “Name display format” on page 99

Logging all/unanswered incoming calls

You can set the Callers List to log either all incoming calls or unanswered incoming calls only.

To log all calls or only incoming calls:


1. Click  **Services**.
A list of options appears in the display area.
2. Use the up and down arrows (on either the navigation cluster or on your PC keyboard) to select **Telephone Options > Call Log Options**.
3. Select **Incoming calls**.
4. Select **Log Mode**.
5. Select either of the following:
 - To log all calls, select **Log All Calls**.
 - To log only unanswered calls, select **Log unanswered calls**.

The default setting for Log Mode is: Log All Calls.

New call indication

With the new call indication option enabled, the IP Softphone 2050 displays an indication message when it receives new incoming calls.

To enable or disable new call indication:

1. Click  **Services**.
A list of options appears in the display area.
2. Use the up and down arrows (on either the navigation cluster or on your PC keyboard) to select **Telephone Options > Call Log Options**.
3. Select **Incoming calls**.
4. Select **New call indication**.


5. Select either of the following:
 - To enable the feature, select **New call indication: On**.
 - To disable the feature, select **New call indication: Off**.

The default setting for new call indication is: On.

Preferred name match

Use preferred name match to set the way names appear in Call Party Name Display (CPND). If set to Off, CPND displays according to your server settings. If set to On, CPND displays according to the matching name found in your CS 1000 Directory (if a match is found).

To enable or disable preferred name match:

1. Click  **Services**.
 - A list of options appears in the display area.
2. Use the up and down arrows (on either the navigation cluster or on your PC keyboard) to select **Telephone Options > Call Log Options**.
3. Select **New call indication**.
4. Select either of the following:
 - To enable the feature, select **Pref Name Match: On**.
 - To disable the feature, select **Pref Name Match: Off**.


The default setting for preferred name match is: Off.

Area code setup

Use area code setup to organize the display of incoming telephone numbers. When an incoming call arrives with an area code that matches one of the three stored area codes, the IP Softphone 2050 reorders the incoming call number to display the telephone number followed by the area code (as opposed to the area code followed by the telephone number).

This reordering also applies to the order of telephone numbers found in the Callers List.

To configure up to three saved area codes:

1. Click  **Services**.
A list of options appears in the display area.
2. Use the up and down arrows (on either the navigation cluster or on your PC keyboard) to select **Telephone Options > Call Log Options**.
3. Select **Area Code Setup**.
4. Select **1st Code**, **2nd Code**, or **3rd Code**.
5. Enter the area code you want to use, or edit the existing area code.


The default for area code setup is: no area code specified.

Name display format

You can set the IP Softphone 2050 to display the name of the incoming calling party in either of the following formats:

- first name, last name
- last name, first name

To set the name display format:

1. Click  **Services**.
A list of options appears in the display area.
2. Use the up and down arrows (on either the navigation cluster or on your PC keyboard) to select **Telephone Options > Name Display format**.
3. Select **last name, first name** or **first name, last name**.

The default setting for name display format is: first name, last name.

Using Password Administration

You can access Password Administration from the CS 1000 Directory features list. When the system administrator defines your Station Control

Password (SCPW) on the server, you can then set Password Administration functions, such as:


- “Enabling Password Protection” on page 100
- “Changing your personal password” on page 101

With password protection enabled, the IP Softphone 2050 requires authentication before allowing you to access the Personal Directory, Redial List, or Callers List. When you attempt to access any of these password-protected features, a prompt asking you to enter your password appears.

Note: The default setting for Password Protection is: Off.

Enabling Password Protection

To turn Password Protection On/Off:

1. From the Call Control window, click  **Directory**.

2. Select **Change Protection** mode.

If Password Protection is enabled, a prompt asks you to enter your password.

3. Click one of the following:

- To confirm, click **Ent**.
- To delete your password, click **Del**.
- To clear your password, click **Clr**.
- To cancel and return to the Directory list, click **Can**.

4. If you clicked **Ent**, select one of the following:

- **Enable Pwd Protection**
- **Disable Pwd Protection**


5. Click one of the following:

- To accept your selection, click **Yes**.
- To return to the Directory list, click **No**.

6. If you selected **Yes**, click **Done** to enable or disable Password Protection.

Changing your personal password

To change your password:

1. Click  **Services**.
 - A list of options appears in the display area.
2. Use the up and down arrows (on either the navigation cluster or on your PC keyboard) to select **Telephone Options**.
 - A prompt asks you for your password.
3. Enter your password.
4. Select **New Password**.
5. Click one of the following:
 - To select New Password, click **Sel**.
 - To return to the previous menu, click **Del**.
 - To clear your password, click **Clr**.
 - To end, click **Can**.

Note: If you click **Sel**, a prompt asks you to enter a new password.
6. Enter your new password and click **Sel**.
 - A prompt asks you to confirm your new password.
7. Click one of the following:
 - To select New Password, click **Sel**.
 - To return to the previous menu, click **Del**.
 - To clear your password, click **Clr**.
 - To end, click **Can**.

Note: If you click **Sel**, your password changes.

If you make three consecutive incorrect password attempts within an hour, the application locks you out of all password-protected features for one hour. “Locked access” displays on your telephone.

The application also locks you out of Virtual Office (if enabled). If you fail to access Virtual Office due to incorrect password attempts, then the application also locks your access to other password-protected features.

If you forget your password or the system locks you out, then your system administrator can reset and unlock your access at any time.

IP Softphone 2050 Diagnostics

Overview

IP Softphone 2050 diagnostics are accessible from the Help menu and provide information about specific IP Softphone 2050 software, hardware, and networking components. This information is useful to advanced users or support personnel when investigating problems with the application.

Using the IP Softphone 2050 diagnostics

To view the IP Softphone 2050 diagnostics page:

1. Click the **Menu** button.
2. Select **Help > IP Softphone 2050 Diagnostics**.

The diagnostics page appears.

When the diagnostics page is open, the Nortel logo button provides basic menu functions such as Open, Save as, Print, View, and Zip and Email Diagnostic Files.

There is also a Quick Access Control toolbar with icons representing the Open, Save, Print, Refresh, and Auto-Refresh functions.

To save the current diagnostic page:

1. Click the **Menu** button in the top left corner of the diagnostics page window.
2. Select **Save as**.
3. Browse to the location where the file is to be saved.
4. Enter a name for the file.
5. Click **Save**.

The file is saved as type HTM.

To open a previously saved diagnostics page:

1. Click the **Menu** button in the top left corner of the diagnostics page window.
2. Select **Open**.
3. Browse to the location of the file you want to open.
4. Select the file.
5. Click **Open**.

Using the Diagnostics View menu

From the View menu, you can choose from the following:

- **Refresh**—Select to refresh the current diagnostics page.
- **Auto-Refresh**—Select to have the diagnostics page refresh automatically after a specified interval.
- **Set Auto-Refresh Interval**—Select to change the auto-refresh interval. The default is 15 seconds. You can set the interval from a minimum of 1 second to a maximum of 600 seconds.
- **System Information**—Select to view system information.

For more information about diagnostics for the IP Softphone 2050, see *IP Phones Fundamentals* (NN43001-368).

Troubleshooting the IP Softphone 2050

The following sections describe various troubleshooting issues and suggested remedy actions:

- “Connectivity problems” on page 105
- “Audio problems” on page 110
- “Reset conditions” on page 113
- “USB Headset problems” on page 114
- “TAPI problems” on page 117

Connectivity problems

The following sections describes various connectivity problems and suggested remedy actions:

- “Communication server is unreachable” on page 105
- “Unable to obtain valid license” on page 106
- “Connection is reinitializing” on page 107
- “Authorization failed” on page 108
- “Unable to retrieve communication server parameters from DHCP server” on page 109
- “Unable to connect to GXAS server” on page 109

Communication server is unreachable

Symptom:

One of the following messages appears:

- Connecting...
- Server unreachable. Reconnecting in xx seconds.
- 802.1 QoS is not supported on your network.

Description:

These messages indicate that the connection with the communication server cannot be established. The IP Softphone 2050 sets a random retry time, after which it attempts to reconnect. This process repeats until the IP Softphone 2050 successfully connects.

The “Connecting...” message appears briefly (or not at all) under the following conditions:

- The communication server is running and reachable.
- The IP Softphone 2050 is directed to the correct IP address.

The “Server unreachable” message appears when the IP Softphone 2050 encounters a problem contacting the communication server.

Potential causes:

- Network down
- Computer not connected to the network
- Invalid communication server settings in the Configuration Utility
- Invalid communication server settings in DHCP configuration
- Communication server down

Action:

- Ping another station on the network.
- Ping the communication server.
- Use the Server dialog box in the Settings window to verify the communication server IP address and port number (for more information, see “Server” on page 73).
- Verify correct configuration of the communication server. Check for the following: an available port, an available license, and for correct security.

Unable to obtain valid license

Symptom:

An error message appears that the license cannot be obtained, is invalid or has expired.

Description:

When the IP 2050 Softphone is launched, an error message appears in the display area indicating that the license server is unreachable or that the existing license code is invalid or has expired.

Potential Causes:

- Possible network connectivity error between the IP Softphone 2050 client and the Licensing Server.
- An invalid license has been entered.
- The license has expired. Upon installation, there is a 30-day evaluation period during which users can evaluate the software. After the 30 day period, a valid license code must be entered or the software will fail to work.

Action:

Network connectivity issues can interfere with access to the License Server. If connectivity is not restored within a reasonable time, report this to your system administrator. If the license code is invalid or has expired, obtain a valid license code from your system administrator.

Connection is reinitializing

Symptom:

The following message appears: "Connection Established. Reinitializing..."

Description:

This message appears after the IP Softphone 2050 establishes a connection and sends a request to the communication server to resume connection. The communication server is expected to reply to this request. Some communication servers direct the IP Softphone 2050 to various subcomponents, causing this message to appear two or three times in rapid succession during a normal startup.

Note: Under normal setup, the “Connection Established. Reinitializing...” message appears briefly, then disappears after successful connection.

Potential causes:

- A “Connection Established. Reinitializing...” message indicates a programming error in the communication server.

Action:

Wait a moment. Under normal operation, the message disappears after successful connection. If the message continues, check for correct communication server programming.

Authorization failed

Symptom:

The following message appears: “Authorization failed”.

Description:

The IP Softphone 2050 has no authorization to use the communication server.

Potential causes:

- Your system administrator has not authorized the IP Softphone 2050.
- The HardwareID found in the Settings window (under the Hardware ID dialog box) does not match the HardwareID provisioned for the communication server.

Action:

Contact your system administrator.

Unable to retrieve communication server parameters from DHCP server

Symptom:

The following message appears: "DHCP server is not available".

Description:

A connection with the DHCP server cannot be established.

Potential causes:

- Network down
- DHCP server configuration error

Action:

Contact your system administrator.

Unable to connect to GXAS server

Symptom:

A message appears that connection to the GXAS server has failed.

Description:

A connection to the GXAS server cannot be established.

Potential causes:

- Network down
- GXAS server configuration error
- DHCP server configuration error

Action:

Contact your system administrator.

Service denied

Symptom:

The following message appears: "Service Denied. Reason XXXX ".

Description:

You are not authorized to use the communication server.

Potential causes:

- Invalid HardwareID in the Hardware ID dialog box (see "Hardware ID" on page 79)
- Invalid communication server configuration

Action:

- Ensure that your communication server programming is correct.
- Contact your system administrator.

Audio problems

This following sections describe Audio problems:

- "Basic audio operation" on page 110
- "One-way audio" on page 111
- "Broken or choppy speech" on page 111
- "Windows sound plays from the headset" on page 112
- "Advanced audio problems due to network performance" on page 113

Basic audio operation

To verify the physical connection of the USB adapter and headset, as well as proper Windows audio configuration:

1. Record an audio message.
2. Play the message back using the USB headset.

One-way audio

If you experience problems with one-way only audio:

- Check that your system administrator has programmed the handsfree option on the communication server.
- Check that the mute button is disabled. If mute is enabled, the mute button on the Call Control window appears red.
- If your server uses a Network Address Translation (NAT) device, check for proper NAT configuration. One-way only audio problems can occur when incorrect NAT configuration causes the IP Softphone 2050 to attempt to connect to the wrong IP address.

Broken or choppy speech

Broken or choppy speech can occur due to any of the following:

- Low level of audio buffering
- Windows transition effects
- Other running applications

Audio buffering

Use the Audio dialog box to adjust the level of buffering between your audio hardware and the IP Softphone 2050. For details, see “Audio” on page 77.

Use the audio Quality slider to increase or decrease the amount of delay. **Less delay** speeds up buffering, but reduces audio quality. **Higher quality** improves audio quality, but slows down buffering.

When experiencing choppy or broken speech, move the **Audio Quality** slider toward **Higher Quality**.

Windows transition effects

The Windows operating system uses very high process and thread priorities when performing low-level Windows operations, such as minimizing and maximizing applications. This can cause brief breaks in the IP Softphone 2050 audio streams.

To reduce the severity of these breaks, turn off the Windows transition effects for menus and tool tips.

To turn off the Windows transition effects:

1. Select **Start > Control Panel > Display**.
2. Select the **Effects** tab, (or, in Windows XP, the **Effects** button on the **Appearance** tab).
3. Clear **Use transition effects for menus and tool tips**.

Other applications

Other applications running on your computer, especially CPU-intensive applications or applications that intercept or delay packets (such as firewalls), can cause broken audio.

Multiple Ethernet interfaces on a single PC can sometimes conflict with each other. For example, the IP Softphone 2050 sometimes exhibits intermittent breaks in audio when using docked notebooks that have a Xircom RealPort Cardbus Ethernet 10/100+Modem 56 PC Card (PCMCIA) inserted. In the specific case of this PC card, the problem relates to a version of the Xircom driver. This driver takes CPU cycles even when it is not active and this, in turn, causes IP Softphone 2050 audio to become choppy.

Solutions for this example are:

- Upgrade your Xircom driver.
- Remove the PC card when the notebook is docked.

To upgrade your Xircom driver:

1. Download and install a new PC card driver from the Xircom web site.
2. Follow the installation instructions provided by Xircom.

Note: You require administrator privileges on Windows 2000.

Windows sound plays from the headset

Description:

Windows sounds play from your headset instead of your computer speakers, interfering with IP Softphone 2050 audio.

Action:

In some cases, the Windows operating system defaults all the sounds to the new sound device.

To set Windows sounds to play from your computer speakers:

1. Select **Start > Control Panel > Sounds, Speech, and Audio Devices**.
2. Select **Sounds and Audio Device**.
3. Select **Audio**.
4. From the **Sound Playback > Default device** list, select your computer sound card.

Note: If you do not want to use the Headset Adapter for playback, select another device from the **Sound playback > Default device** list.

Advanced audio problems due to network performance

If network performance causes audio problems, use the Advanced Audio dialog box in the IP Softphone 2050 Settings window to override your communication server audio values.

For more information about Advanced Audio, see “Advanced Audio” on page 81.

Reset conditions

The IP Softphone 2050 resets when:

- The communication server causes the IP Softphone 2050 to perform a hard reset.
- You change the IP Softphone 2050 theme.

- Firewall applications intercept or delay packets, causing the IP Softphone 2050 to reset due to the expiration of the Watchdog timer.

Note: Use care when using firewall applications on the same computer as the IP Softphone 2050.

- Excess delay or loss of communication with the server occurs.

USB Headset problems

The following sections describes various USB headset problems and suggested remedy actions:

- “Headset not functioning” on page 114
- “USB Headset Adapter features appear dimmed” on page 115
- “Cannot hear audio through headset” on page 117
- “Sound still comes out of my computer speakers” on page 117

Headset not functioning

If you experience any headset problems, try the following actions in the order presented:

1. Verify that you are using a supported operating system. For a list of supported operating systems, see “System requirements” on page 28. To check your operating system:
 - a. Select **Start**.
 - b. Right-click **My Computer**.
 - c. Select **Properties**.
A System Properties window appears.
 - d. Select **General**.
The General tab lists system, registration, and computer information.
2. Verify that *Universal Serial Bus controllers* appears in the Windows Device Manager. To open the Device Manager:

- a. Select **Start**.
 - b. Right-click **My Computer**.
 - c. Select **Properties**.
The System Properties window appears.
 - d. Select **Hardware**.
The Hardware dialog tab appears.
 - e. Click **Device Manager**.
3. If *Universal Serial Bus controllers* does not appear in the Device Manager:
 - Ensure that USB is enabled in your computer setup menu.
 - Check for a BIOS upgrade.
 - Contact your computer supplier.
 4. Verify that *USB Audio Device* appears under *Sound, video and game controllers* in the Windows Device Manager. To open the Device Manager, see step 2.
 5. Verify that *HID-compliant device* and *USB Human Interface Device* appear under *Human Interface Devices* in the Windows Device Manager. To open the Device Manager, see step 2.
 6. If none of the devices in steps 4 and 5 appear in the Windows Device Manager (and the conditions in steps 1 and 2 are correct), then consult the USB Troubleshooting section in Windows Help.
 7. Verify that you have selected *USB Audio Device* as the microphone and speaker for the Softphone.

USB Headset Adapter features appear dimmed

Symptom:

In the USB Headset dialog box of the IP Softphone 2050 Settings window, all the features appear dimmed.

Description:

Either the IP Softphone 2050 does not recognize the adapter as a supported Nortel adapter, or the adapter is earlier than 2.0. Supported adapters include:

- Enhanced USB Adapter (desktop)
- Nortel Mobile USB Adapter (mobile)
- GN Netcom DuraPlus Binaural Headset
- GN Netcom DuraPlus Monaural Headset
- GN Netcom GN2020 NC Monaural Headset
- GN Netcom GN2100 Monaural Headset
- GN Netcom GN2115 ST Binaural Headset
- GN Netcom GN2117 ST Monaural Headset
- GN Netcom GN2125 NC Binaural Headset
- GN Netcom GN2220 NC Monaural Headset
- GN Netcom GN2225 NC Binaural Headset
- Nortel Networks Handset
- Nortel Networks Mobility Kit
- Plantronics Audio 910 Headset
- Plantronics Voyager 510 Headset
- Plantronics CS55 Headset
- Plantronics CS50 USB Headset (not available in Europe)
- Plantronics CS60 USB Headset

Potential causes:

- Your USB Headset Adapter does not support the functions listed on the USB Headset dialog box.
- The USB Headset Adapter has failed to enumerate properly.

Action:

If you suspect faulty enumeration, do the following:

1. Unplug the USB cable from the USB Headset Adapter.
2. Wait one minute.
3. Plug the USB cable into the USB Headset Adapter. This forces the USB Headset Adapter to re-enumerate.

Cannot hear audio through headset

Ensure that your headset manufacturer matches that of the USB adapter.

Check all jacks and plugs for a loose connection.

Sound still comes out of my computer speakers

Description:

The IP Softphone 2050 configuration does not direct all call audio to the headset.

Action:

To direct all call audio to your headset, select **USB Audio Device** as both headset microphone and headset speaker in the **Sound Devices** dialog box (see “Sound Devices” on page 77).

TAPI problems

As the TAPI feature is intended for use with third-party applications, most errors related to TAPI are resolved by consulting the documentation for the application that is generating the errors.

The following sections describe some common errors related to the TAPI feature:

- “Attempting to use TAPI feature when IP Softphone 2050 is not active” on page 118
- “TAPI service provider is missing” on page 118

Attempting to use TAPI feature when IP Softphone 2050 is not active

Description:

An error message appears when trying to place a call from a TAPI application indicating that a resource needed is not available.

Potential causes:

- This is caused when the IP Softphone 2050 is not active when trying to make the call.

Action:

Make sure the IP Softphone 2050 is active before using the feature. If it is running, close the application and restart it. Try your call again. If the error is still not resolved, contact your administrator.

TAPI service provider is missing

Description:

An error message appears when placing a call from a TAPI application indicating that a required line is not installed or is unavailable.

Potential causes:

- The file needed for TAPI service has been removed from the system or is corrupt.

Action:

Verify that the IP Softphone 2050 TAPI Service Provider is in the list of available telephony service providers by doing the following:

1. Select **Start > Control Panel > Phone and Modem Options > Advanced**.
2. Check the list of available telephony providers for the IP Softphone 2050 TAPI Service Provider. If it is not listed, click the **Add** button to try and add it.

If you are unable to add the IP Softphone 2050 TAPI Service Provider to the list, contact your administrator.

Index

A

Accessibility Interface, 91
Active Call, 89
Answer button, 56
Answer, 19
Application Server Administration, 27

B

Backlight, 56, 90

C

Call Control Window
 1140 skin, 16
 compact skin, 17
Caller ID, 57
Callers List, 25
Copy, 18
CS 1000 Directory 24, 41
 area code setup, 98
 call log, 96
 call timer 96
 date and time 96
 language, 95
 name display, 99
 new call indication, 97
 password administration, 99
 preferred name match, 98

D

Date and Time, 92
Dialpad, 19
Directory, 20
Display, 91

E

Early Packet and Late Packet Re-sync, 82
Edit menu, 65
Expand, 20
External directories, 36
External LED lamp, 88

F

File menu, 64

H

Headset Disconnect, 89
Help menu, 66
Highwater Mark, 82
Hold, 19
Hot key, 20

I

i2050.exe application, 14
Inbox/Messages, 20
Incoming call notification window 46
Indicators, 92
IP Softphone TAPI Service Provider, 48

J

Jitter, 82

K

Keys menu, 65

L

Lightweight Directory Access Protocol (LDAP), 36
Line and Feature, 92
Line keys, 19
Line, 45
Local Area Network (LAN), 11
Local Directory, 23, 30

M

MAC addresses, 79
Macros, 62
Manual Override, 89
Maximize button, 55
Menu command, 64
Message Waiting light, 55
Message Waiting, 89
Mute button, 56
Mute light, 56

N

Navigation arrows, 19
Nortel USB Audio Kit, 28
Nortel USB Audio kit, 55

O

Outbox/Shift, 20
Outlook directory, 37

P

Password Administration, 99
Personal Directory, 24, 43
Primary display, 18
Priority, 90

Q

Quit, 18

R

Redial List, 25, 44
Release button, 56
Release, 19

S

Services, 20
Settings 67, 68
 About, 90
 Advanced Audio, 81
 Audio, 77
 Features, 76
 Hardware ID, 79
 hot keys, 83
 Key Type, 85
 Lamp Sounds, 84
 Language, 85
 License Servers, 75
 Listener IP, 82
 macros, 77
 Personal Call Recording, 87
 Profiles, 69
 Server, 73
 Skin, 76
 Sound Devices, 77
 Sounds, 82
 Text Replacements, 83
 USB Headset, 88
Smart Functions button, 55
Smart Functions, 58
Soft keys, 18
Speaker, 20
Supported operating systems, 28
System requirements, 28
System tray, 22

T

TAPI, 48
Telephony Application Programming Interface (TAPI), 48

U

USB Headset Adapter, 57

V

View menu, 66

Voice over IP (VoIP), 11

Volume button, 56

Volume, 19

W

Wide Area Network (WAN), 11

Windows Address Book directory,
37

Nortel Communication Server 1000

IP Softphone 2050

User Guide

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