LANCOM VoIP USB Handset
LANCOM Advanced VoIP Client

Introduction

LANCOM VoIP USB Handset and LANCOM Advanced VoIP Client

The LANCOM VoIP USB Handset and the LANCOM Advanced VoIP Client from LANCOM Systems are two products that make the transition to VoIP telephony simple and convenient:

■ The LANCOM Advanced VoIP Client makes telephony functions available directly from a computer and requires the use of a microphone and loudspeakers, a headset or another audio device.

■ The LANCOM VoIP USB Handset functions as an audio device, e.g. as an alternative to a headset, and it requires VoIP client software to be able to function as a telephone.

Both can be used separately and independently of one another − by combining these two complementary components, you benefit from the traditional features of a telephone with the convenience of VoIP functions, such as direct dialing from within Windows applications.

ⓘ The LANCOM VoIP USB Handset and the license for the LANCOM Advanced VoIP Client software can be purchased separately. On the supplied CD, you will find a 30-day limited test version of the LANCOM Advanced VoIP Client. License keys can be sourced from specialist resellers as a single license (item 61110) or as bundle of 10 (item 61611).

Telephoning with VoIP

In addition to the VoIP software client and the audio device, VoIP telephony also requires a SIP gateway to handle the conversion between IP-based telephony using the SIP protocol and other telecommunications networks (e.g. the ISDN network). A SIP gateway can be provided by:

■ An SIP provider account: The SIP Gateway is located in the provider network, the VoIP client registers itself with this gateway via the Internet (public registration)

■ A LANCOM VoIP Router in your local network: The SIP gateway is then integrated into the router; the VoIP client registers itself with the LANCOM VoIP Router via the LAN (local registration)

■ A VoIP-ready PBX located in the headquarters network: The VoIP client registers itself with the PBX using a VPN connection (upstream registration)

The following **Quick Start Guide** explains how to install the LANCOM VoIP USB Handset and the LANCOM Advanced VoIP Client as well as how to configure the client for these three application scenarios.

Further documentation

In addition to these three basic application scenarios, further applications are presented in the complete LANCOM VoIP solutions documentation.

■ The **manual for the LANCOM Advanced VoIP Client** provides a full description of the extensive range of functions and parameters in the VoIP client software.

■ The **User Manual for your LANCOM VoIP router** contains all of the detailed information required for setting up your device. It also contains all of the important technical specifications.

■ The **Reference Manual** supplements the User Manual and fully addresses issues concerning the LANCOM operating system LCOS that also apply to all other models.

ⓘ The User and Reference Manual are supplied as Acrobat documents (PDF files) on the accompanying CD, depending on the model. The latest versions of documentation and software are always available from www.lancom.de/download.

Quick start into VoIP telephony

① **Connect the LANCOM VoIP USB Handset**

The LANCOM VoIP USB Handset has to be connected to a free USB interface on your computer. No drivers need to be installed and the LANCOM VoIP USB Handset is automatically recognized as an audio device by Windows 2000 or XP.

Further information can be found under 'The LANCOM VoIP USB Handset' → Page 19 and on the supplied CD in the user documentation in the section 'Terminal equipment'.

② **Installing the LANCOM Advanced VoIP Client**

ⓘ You will need administrator rights to install the LANCOM Advanced VoIP Client on PC.

These system requirements have to be met to use the LANCOM Advanced VoIP Client:

■ Intel Pentium III 700-MHz processor or higher
■ Min. 512-MB RAM
■ 25 MB available hard-disk space
■ Graphics card offering a minimum resolution of 800x600 pixels and at least a 15-bit color depth (32767 colors)
■ DirectX 8
■ Full-duplex soundcard with one of the following audio devices connected to it: Handset, headset or microphone and loudspeaker
■ Network access
■ Operating system: Windows 2000 (with Service Pack for QoS RSVP) or Windows XP Professional (with Service Pack 2); installed TCP/IP protocol for data transfer

ⓘ A Windows service is activated to control the Quality of Service. The voice data (RTP) are then prioritized in the network according to IEEE 802.1p (DiffServ marking 'EF'). If you encounter problems such as one-way communication (one party has trouble hearing another), they may be due to QoS errors in the network (e.g. switch components that do not handle 802.1p correctly). In this case, deactivate QoS for the local network.

① Close Microsoft Outlook or Lotus Notes prior to the installation. If these programs are not closed, some of the components may not be installed correctly.

② Insert the supplied CD into you CD drive and select the option **Install LANCOM Advanced VoIP Client** on the start screen.

> ⓘ Older versions of the software will be replaced automatically during installation; no deinstallation is necessary.

③ Select the type of installation. This includes the selection of components to be installed:

☐ With the 'Normal installation', only the 'MS Outlook AddIn' is installed. This component enables you to make telephone calls from Outlook.

☐ The 'User-defined installation' allows the installation of the 'MS Outlook AddIn', the 'Lotus Notes AddIn' to make telephone calls from Lotus Notes, and the 'TAPI service provider' which allows telephone calls to be conducted over third-party applications.

④ The Setup Wizard will guide you through the rest of the installation.

③ **Configuring the LANCOM Advanced VoIP Client**

Defining the SIP account with a public SIP provider

After installation, create a SIP account in your LANCOM Advanced VoIP Client so that you are able to receive calls at the intended telephone number, and to make calls yourself. After starting, the unconfigured LANCOM Advanced VoIP Client displays the dialog for defining a SIP account.
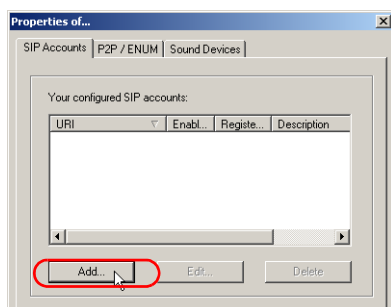
① If you wish to use a SIP account with a public SIP provider for telephony, you must create a corresponding account in the LANCOM Advanced VoIP Client. On the ' SIP accounts' tab, use the **Add** button to create a new SIP account.

② Select the required SIP provider from the list and activate the account.
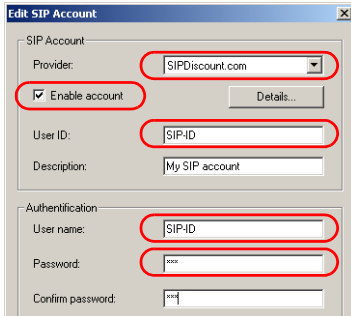
③ Enter the SIP account information that you received from your provider:

 ☐ The 'User ID' is the SIP ID of your SIP account

 ☐ The 'User name' is also the SIP ID of your SIP account

 ☐ Your SIP-account password

 No further settings are necessary as these are defined according to the provider you selected.

④ You can check if the registration was successful by looking at the list of recent messages (via button or menu).

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Defining the SIP account to register at the LANCOM VoIP Router or at a PBX

A LANCOM VoIP Router located in your local network can function as a SIP proxy for the VoIP terminal equipment in the network. Terminal devices such as a LANCOM Advanced VoIP Client can then register locally at the LANCOM VoIP Router. The SIP proxy handles the switching of calls to a public SIP provider or to a VoIP PBX at a different site. Alternatively, the LANCOM VoIP Router as a SIP gateway can perform the conversion to other telephone networks (e.g. ISDN) itself.

① To use a LANCOM VoIP Router for telephony, a corresponding account has to be set up in the LANCOM Advanced VoIP Client. On the ' SIP accounts' tab, use the **Add** button to create a new SIP account.

② For the provider setting, leave the entry as 'Custom' and activate the new account.
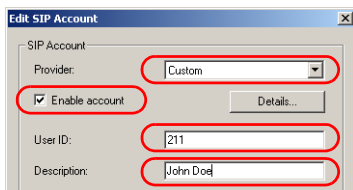
③ For the 'User ID' enter the internal telephone number to be used by LANCOM Advanced VoIP Client for taking calls and, optionally, enter a name for your phone under 'Description'; this name will be displayed on the other phone at the other end of the connection.

④ With the button **Details**, open the dialog for the advanced settings and enter the following data:
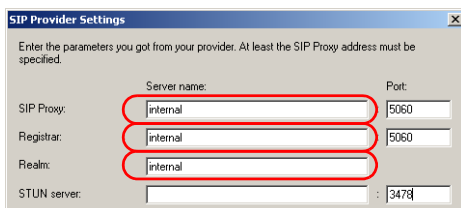
☐ As the 'SIP proxy' and 'Registrar', the internal VoIP domain for your LANCOM VoIP Router (default: 'internal') if this also acts as the DNS server for the client, otherwise, the LAN IP address.

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☐ 'Realm' is always the internal VoIP domain.

ⓘ With this information, the LANCOM Advanced VoIP Client can register locally at a LANCOM VoIP Router and use the telephone lines defined there.

⑤ If the LANCOM Advanced VoIP Client is to registering not only with the LANCOM VoIP Router locally, but an upstream SIP PBX (e.g. at Headquarters) as well, then enter under 'SIP proxy', 'Registrar' and, under 'Realm', enter the VoIP domain of the SIP PBX at Headquarters. The LANCOM VoIP Router needs to be configured with an appropriate SIP-PBX line with the same domain, and the router has to be the DNS server for the LANCOM Advanced VoIP Client.
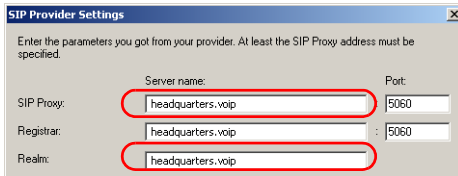
⑥ Enter the SIP account user name and password for logging in to the SIP PBX.
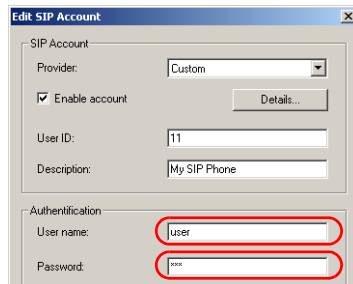

⑦ You can check if the registration was successful by looking at the list of recent messages (via button or menu).
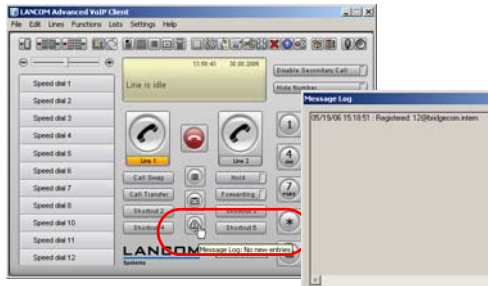
(i) On the tab 'Location' enter your international country code and local code, each without their leading zero(s), and enter the national and international prefixes (e.g. '0' and '00'). The field 'Public line access prefix' is for the character your PBX or LANCOM VoIP Router uses to access an outside line (e.g. '0' or '*').

Select the LANCOM VoIP USB Handset as an audio device

After selecting your SIP provider, the hardware now has be set up accordingly. This is done with the help of the LANCOM Sound Wizard which starts automatically after defining the SIP profile. This Wizard will guide you through the setup. First of all, select the hardware for audio output.

Under 'Select device' simply choose the hardware you will be using. (Standard: Handset P250 (Direct Sound)). The audio volume can also be set here. You can optionally carry out a function test under 'Play/Stop'.
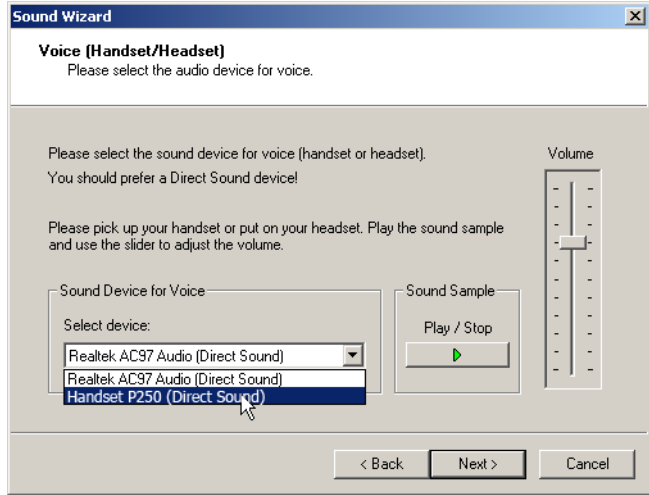
In the following window, select the handset by dragging the selector to 'USB' and confirm this by clicking on **Next**.
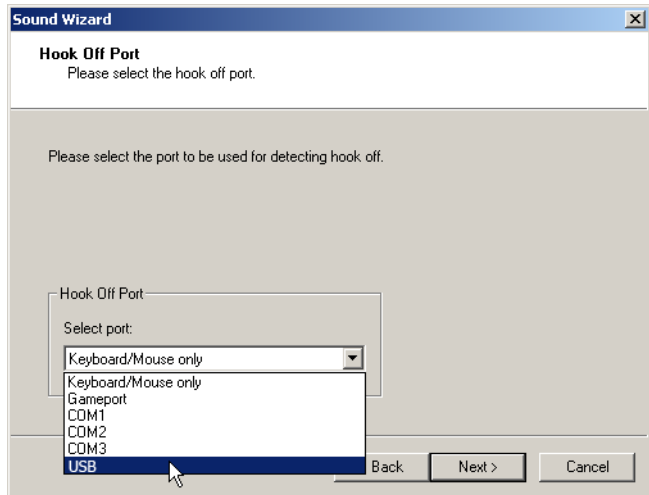
The microphone adjustment starts now, which the Sound Wizard will guide you through.

To use the connected LANCOM VoIP USB Handset as an audio device, the following should be selected from each of the tabs that follow; 'Handset P250 (Direct Sound)'.

ⓘ Basically, the LANCOM Advanced VoIP Client manages an unknown audio device which is configured using the Sound Wizard. Without manual selection, known audio devices such as the LANCOM VoIP USB Handset are always given preference over others. Whenever new, unknown audio devices are connected, the Sound Wizard starts automatically and the profile is changed. You can switch between recognized audio devices without resetting.

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Making telephone calls with the LANCOM Advanced VoIP Client

You will find all LANCOM Advanced VoIP Client functions in the menubar or via the context menu on the interface. To open the context menu of a button, for example, simply **right** click on the menu button.

Detailed online help is available (**F1** key) as well.

Initiating and terminating calls

① Enter the number you would like to call. Use the keypad on the LANCOM Advanced VoIP Client or the computer keyboard to dial. The phone number can be edited if need be.

② Then pick up the handset.

ⓘ When using the headset, activate the line by clicking on the handset or the line button.

③ After you have completed your call, simply return the handset to the hook or click on the handset or the line button.

Accepting calls

A call is signaled by a ringing sound and the corresponding animated line button as well as a balloon tip.

Answer the call as you normally would by lifting the handset.

> **ⓘ** When using the headset, activate the line by clicking on the handset or the animated line button.

Initiating a second call simultaneously

During an active call, you can also initiate another call.

① Click on a free **Line** and dial the number as usual. The first caller is put on "hold".

② Switch between callers by clicking on the corresponding **Line** or on the **Call swap** button.

Connecting participants

If you have two active calls, you can connect the participants with each other by clicking on the **Transfer** button.

> **ⓘ** If the line you initiated the call on is active, you can simply hang up your handset without clicking the **Transfer** button.

> **!** Please be advised that call transfer is a complex procedure in the SIP world: All of the terminal equipment involved must offer full support for this process. For active call transfer (you press the **Transfer** button or hang up the handset when two calls are still active), the LANCOM Advanced VoIP Client uses REFER in order to inform the respective parties that they are connected directly with one another.

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Activating call forwarding

The LANCOM Advanced VoIP Client can forward incoming calls to another telephone number depending on the configuration.

In order to activate call forwarding, click on the **Forwarding** button.

> **Call forwarding** ◯

(i) All calls will be forwarded immediately according to your personal profile under **Settings ▶ Configure call forwarding**.

(!) Please note that call forwarding for SIP is performed by the client exchange, unlike traditional telephony. Call forwarding is only active as long as the LANCOM Advanced VoIP Client is running as an active application on the PC. Once the user exits the client application, call forwarding ceases to be active.

Dialing a number from the phonebook.

① Click on the **Phonebook** button.

② Highlight the entry you want to call.

③ Click on **Dial** in order to call the highlighted number.

Editing the phonebook.

① Click on the **Phonebook** button or under **Lists ▶ Phonebook**.

② Click on **Add**, **Change** or **Delete** in order to edit the entries.

You can also export and import the phonebook to make it available to others or to edit entries with a different application, for instance.

③ To do this, select **File ▶ Personal phonebook ▶ Import** or **Export** from the menu.

④ Then follow the instructions provided by the Wizard.

Using speed dials

Speed dials enable quick access to the most frequently used numbers.

① Select **Properties** in the shortcut menu for the speed dial.

② Assign a name, number and, if desired, a picture to the speed dial.

③ Define whether the display should first be deleted, whether the number should be dialed immediately.

④ If you would like to call the selected participant, just click on the corresponding **Speed dial**.

Customizing the interface and ringtones

Skin (interface)

You have the option of changing the function and design (skin) of your LANCOM Advanced VoIP Client.

⑤ Under **Settings ▶ User profile**, select the **Skin** tab.

⑥ Load one of the skins listed here.

LANCOM Advanced VoIP Client also allows you to freely design the interface. For further information, please refer to the "LANCOM Advanced VoIP Client Skin Editor" documentation.

Ringtones

You can assign different ringtones depending on the number of the caller or on the number called.

⑦ Under **Settings ▶ User profile**, select the **Ringtones** tab.

⑧ You can define various ringtones by pressing **Add**.

ⓘ If you select **no sound** for all calls, a call will only be signaled on the interface or in an information bubble (silent ringing).

Telephony with Microsoft Outlook

Dialing from contacts

Select a contact in Outlook and click on the LANCOM Advanced VoIP Client symbol in the menu bar.

(i) When entering a contact, even for numbers from your local public network, always enter the number in canonical format (e.g. +49 231 12345-6789).

Caller ID

In Outlook, under **Tools ▶ Options ▶ LANCOM Advanced VoIP Client**, you can define whether a contact should be opened when a call is received or whether a journal entry should be created.

LANCOM Advanced VoIP Client always attempts to resolve and display the number of the caller using the phonebook or your Outlook contacts.

Setting the voice quality effectively

The Sound Wizard optimizes the interaction between LANCOM Advanced VoIP Client and the respective terminal device (handset or headset).

To improve the voice quality, please start the Sound Wizard in the menu bar **Settings ▶ Sound Wizard** and follow the Wizard instructions.

(i) If you have problems hearing the other party during a call, you can adjust the volume during a call under **Settings ▶ Adjust volume** or simply by using the slider on the user interface.

Tips & Tricks

Online Help

The LANCOM Advanced VoIP Client offers extensive Online Help for every function. You can access the Online Help using the shortcut menu of a button, for example, or by pressing the **F1** key.

Manual and automatic redial

① Click on the **Redial** button. The last number dialed is dialed again.

② The **Redial button** shortcut menu contains the redial list. Click on an entry in order to dial it.

③ Here you will also find **Automatic Redial.** This function allows you to keep redialing the busy number until it is available again.

Dial from every application

With **F11** you can dial the highlighted number from any Microsoft application.

Caller list

The caller list contains the most recent calls. Here you will find details (e.g. time and date) concerning these calls.

Shortcuts

The shortcut buttons allow you to start frequently used applications or websites (e.g. a telephone directory) with a single click. You can define the label and link under **Properties** in the shortcut menu of the respective shortcut button.

Wrap up time

In the shortcut menu of the line button under **Properties**, you can define whether and for how long a line should be blocked for further calls after a call has been completed.

Conversation recording

You are having a telephone conversation and would like to record it.

① Click on the **Record** button.

② You will hear a sound signaling that the rest of the call will be recorded. Clicking on the **Record** button once again will stop recording.

In the shortcut menu of the Record button you will find the list of recorded calls. Here you can listen to and delete recordings.

Slider

A slider on the user interface is provided for simple volume control. In general, it adjusts the output that you are currently listening to. So, for example, if you receive an incoming call, you can adjust the ring volume; if you are engaged in a telephone conversation using the handset, the volume of the conversation will be adjusted.

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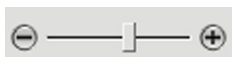
Settings

Block call waiting

You can disable further calls. On the interface, switch this function on or off by clicking on **Block secondary call**.

You will no longer hear a call waiting tone and the second caller will be forwarded according to your forwarding settings if the line is busy.

Hide number

On the interface, switch this function on or off by clicking on **Hide number**.

Configuring call forwarding

You can define different types of call forwarding (unconditional, if busy, no reply) in the LANCOM Advanced VoIP Client.

① In the shortcut menu of the **Forwarding button**, click on **Properties**.

② Here, you can define the different types of call forwarding.

> ⓘ Call forwarding is only in effect as long as the LANCOM Advanced VoIP Client is running on the PC.

Lines

You can define which of your calls should be received on which line.

① In the shortcut menu of the **Line button** select **Properties**.

② Define which calls should be received on this line, whether a number should be transmitted for outgoing calls and whether this line should be blocked after a call to make time for wrap-up work.

> ⓘ The line buttons make it possible to signal incoming calls for different departments or companies, for example. Make use of this function by creating various SIP users with different internal numbers on the LANCOM VoIP Router.
>
> Then assign the respective internal number for the exchange to various lines as a standard number or use rules within the call router to decide which internal telephone number a call should be switched to.
>
> In the LANCOM Advanced VoIP Client create a separate SIP account for each of the internal telephone numbers to be switched with the

corresponding user data so that the client registers itself for different telephone numbers.

Now you can assign the lines in the properties to exactly one of these SIP accounts.

Incoming calls from certain outside lines, SIP accounts or public telephone numbers are then signaled on the relevant line and the operator can immediately determine the associated department or company.

In addition, it is also possible to precisely control outgoing calls; this may require corresponding rules in the call router on the LANCOM VoIP Router.

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The LANCOM VoIP USB Handset

Headset connection

Headset

Volume

Mute

LED

In addition to the handset, a LANCOM VoIP USB Handset also has

- ■ a speakerphone integrated into the desk stand
- ■ a headset connector on the left side of the handset
- ■ four buttons on the right side of the handset
- ■ and a red light-emitting diode.

The button functions:

- ■ The 'Headset' button switches between the handset, the integrated speaker on the handset and any headset connected to it.
- ■ You can adjust the volume using the two middle buttons. The volume control affects the speech output (headset, handset, speaker) currently being heard.
- ■ The 'Mute' button turns the microphone currently in use (handset, headset) on or off.

What the LEDs signal:

- ■ The red LED is on whenever a line in the LANCOM Advanced VoIP Client is active.
- ■ The red LED blinks when the speakerphone is active.
- ■ The 'headset' button is on whenever the headset speaker is activated.

Further information can be found on the supplied CD in the corresponding user documentation in the section 'Terminal equipment'.