KalliopeCTI 4.5.23

Revised user manual

Revision: 27/04/2022

Technical support: **http://ticket.netresults.it**

Indice

Definitions

KCTI 4= Kalliope CTI 4

Local user= the KCTI 4 user, whose credentials must be entered in the application settings screen

Interlocutor= the telephone user (internal or external) in communication with the local user

Changelog

KCTI DESKTOP 4.5.23 (for WIN, MAC, LINUX Ubuntu 18.04 -20.04 64bit operating systems)

Improved Echo Cancellation process introduced in 4.5.21.

From 4.5.23, it's possible to enable and disable it in the KCTI settings (now the configurable parameters via KCTI.ini).

A simplified popup has been introduced to change credentials when KCTI is disconnected from the PBX due to an authentication error (it now works even when KCTI is minimized).

KCTI DESKTOP 4.5.21 (for WIN, MAC, LINUX Ubuntu 18.04 -20.04 64bit operating systems)

Introduces a simplified popup to change credentials when disconnected from the PBX due to an authentication error.

Introduces a new echo cancellation algorithm.

Fixes minor bugs present in previous versions and introduces improvements.

Added support for Ubuntu 20.04.

SIP packet recording has been added.

Resolves random crashes while putting a call on hold and disconnecting a call.

Fixes a bug leading to Plantronics headsets being detected as Jabra.

Fixes a regression affecting TLS registration

The Windows package is now correctly digitally signed

KCTI DESKTOP 4.5.19 (for WIN, MAC, LINUX Ubuntu 18.04 64bit operating systems)

Fixes bugs present in previous versions

KCTI DESKTOP 4.5.18 (for WIN, MAC, LINUX Ubuntu 18.04 64bit operating systems)

Adds the possibility to modify the timer to update recent calls (from the configuration file) and the timers of CTI periodic actions (update phonebook/voicemail, statistics queues, etc.)

Reworking:

Eliminates display of accounts not associated with any queue (with queue filtering enabled on Supervisor Panel).

Improved operator account display on supervisor panel (added tooltip)

Eliminates memory leaks causing constant memory increase usage by the application.

Debugging:

Fixes bug causing recent calls not to be updated

Fixes bug causing the application to crash when importing Outlook contacts (and Outlook lock)

Fixes bug causing the application to crash when editing an Outlook contact

Fixes bug causing the application to crash when enabling queue filtering on the Supervisor Panel

KCTI DESKTOP 4.5.15 (for WIN, MAC, LINUX Ubuntu 18.04 64bit operating systems)

The option of filtering queues displayed by the supervisor panel via configuration file has been introduced (Note: temporarily, the excel report shows the filtered data only in the Windows client).

Debug: fixes an issue leading to the display of two call popups when using the KCTI Free version.

Fixes an issue preventing the correct functioning of shortcuts in specific situations.

KCTI DESKTOP 4.5.13 (for Windows operating systems only)

Introduces a new algorithm to improve audio quality in case of limited packet loss (2-5%).

Debugging: fixes random crash on application startup or mode/user change.

KCTI DESKTOP 4.5.12 (for Windows operating systems only)

Version 4.5.12 is the same as 4.5.11; the only change is in the windows installer that removes (if present) and does not install the "bearer" subfolder.

This component caused a block in wi-fi connectivity every 10 seconds on specific computers for about 2 seconds, causing problems with the audio and blocked connectivity to the Wi-Fi.

KCTI DESKTOP 4.5.11

Debugging:

- fixes some minor memory leaks

- fixes the display of two popups at the arrival of click-2-calls

KCTI DESKTOP 4.5.10

New feature: from the settings, it is now possible to determine the CDR period to download from Kalliope, solving a client slowness problem in displaying the calls for a month (previous default value) in case of a high number of calls.

KCTI DESKTOP 4.5.9 (for WIN, MAC, LINUX operating systems)

This release introduces essential news for the macOS version:

- It is now possible to minimize the application, close it using the traditional key combination cmd-q, move it to another screen (e.g., iPad)

This release fixes bugs present in the previous version:

- Fixes an issue displaying duplicate CDR entries multiple times.
- Fixes an issue preventing call reservations in KCTI pro mode
- Fixes an intermittent issue where the CTI could not connect to the chat server

KCTI DESKTOP 4.5.8

This release solves some bugs present in the previous version:

- The client now uses the 5080 port instead of a random port to receive SIP messages. In the case of permissive firewall configuration, this no longer permits direct attacks from the reception of calls not coming from the central office.
- The client now checks an inbound call is directed to one of the accounts used by KCTI.
- If the custom placeholder KPHONE_SIP_REGISTRAR_IP was set, then deleted, the value was still kept on the KCTI, trying to use it as registrar instead of pointing to it the address used for login.

KalliopeCTI 4.5.7. (release date 05/03/2020)

This release introduces significant new features:

- In the case of an anonymous call, the call alert popup will not be shown.
- Introduction of history in chats.
- Jabra headset integration section: support for Jabra Evolve 75 headset has been added.

KalliopeCTI 4.5.6. (release date 26/11/2019)

This release fixes bugs present in the previous version:

- Fixes bug causing occasional de-registration of KCTI Phone in the presence of SBC (or other intermediate SIP components between KCTI PHONE and KPBX)
- Fixes crash on call reception while performing a transfer with consultation

KalliopeCTI 4.5.5. (release date 31/10/2019)

This release introduces significant new features:

- Presents better readability of the Voicemail panel.
- Allows, through the new "Add contact" button on the "Phonebook" screen, to save a contact in the personal phonebook (see page 32)
- Introduces new features for KPHONE mode with Jabra Headset integration (Windows only) (p. 44).

This release fixes minor bugs present in previous versions.

Introduction

KalliopeCTI 4 (now called KCTI 4) is an accessory application of the KalliopePBX V4 VoIP, helping you use its services and access information.

KCTI 4 (in the "Free," "Pro," and "Phone" versions) is available for Windows, MAC, and Linux. A KCTI 4 Pro or Phone license includes a license for the KCTI Mobile app for Android and iOS.

The following table lists the main features of the different versions:

	KCTI Free	KCTI Pro	KCTI Phone	KCTI Mobile
Extension phonebook	✓	✓	✓	✓
Shared phonebook	✓	✓	✓	✓
CDR	✓	✓	✓	✓
Click-to-call	✓	✓	✓	✓
Inbound call notification	✓	✓	✓	✓
Instant Messaging	✓	✓	✓	✓
Presence	✓	✓	✓	✓
Opening custom URLs	✓	✓	✓	
Voicemail access	✓	✓	✓	✓
Copy-to-call	✓	✓	✓	
Synchronization with Outlook contacts		✓	✓	
BLF		✓	✓	✓
Number dialing	✓	✓	✓	✓
Blind transfer		✓ 📞	✓	✓
Attended transfer		✓ 📞	✓	
Do Not Disturb		✓ 📞	✓	
Call recording		✓ 📞	✓	
Unconditional forward		✓	✓	
Call parking		✓ 📞	✓	
Call pickup		✓ 📞	✓	

Forking to Mobile		K	K	K
Queue statistics	K KCC	K KCC	K KCC	
Supervisor mode	K KCC	K KCC	K KCC	
Selective pause	K KCC	K KCC	K KCC	
Touchscreen support				K
Mobile phonebook integration				K

K Available function

📞 Available in combination with Snom and Yealink phones

KCC Available in combination with the Kalliope Call Center module

The user manual for the KalliopeCTI mobile app is available on the KalliopePBX wiki (https://www.kalliope.com/wiki/Kalliope_CTI_Mobile/en).

Chapter 1 - Installation and Configuration

KCTI 4 can be freely downloaded from KalliopePBX's official website (www.kalliope.com) via the *Download* section.

Through the Configuration Panel, the user selects which mode to activate each time after checking the availability of the related license on KalliopePBX V4 PBX. For this reason, KCTI 4 Free, Pro, and Phone are three application modes of the same software.

> **Note: The installation does not require the insertion of any activation code. The application automatically verifies the presence on KalliopePBX V4 of the correct user license at each startup.**

KCTI 4 Pro and Phone, except KCTI 4 Free application mode, require a specific license for each location installed on KalliopePBX V4. The license for KCTI 4 Phone also allows you to use the KCTI 4 Pro application mode. The user can select the desired operating mode from the application's *Settings panel* in the *Operating Mode* section.

For the configuration procedure of KCTI 4 Pro or KCTI 4 Phone licenses on KalliopePBX V4 PBX, please refer to the KalliopePBX wiki.

1.1 Installation

System Requirements:
- Windows 7 or later
- Sound card (for KCTI Phone mode)
- 2 GB RAM
- 100 MB of installation space

Launch the executable and follow the instructions to install the application in Windows.

1.2 Changing application settings

The first time the application is run, the message shown in **Figure 1**, will appear, indicating configuration parameters need to be entered.
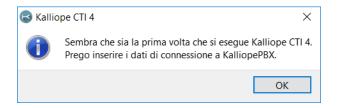

Figure 1 - Notification message of the first access to KCTI 4

Next, the configuration screen, shown in **Figure 2,** will automatically open. The configuration menu is grouped by functional categories, each with one or more configurable parameters.
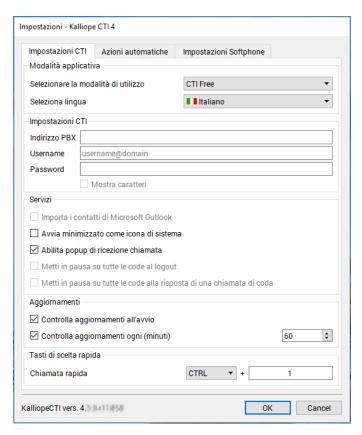

Figure 2 - Settings Panel

After setting all the fields necessary to connect with the PBX, the user will be asked to select which account, among those configured, to associate with the CTI application.
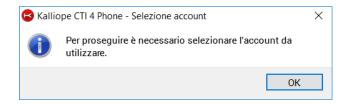
Figure 3 - Account selection message

The screen shown in **Figure 4** will appear for the selection of the account to be used.
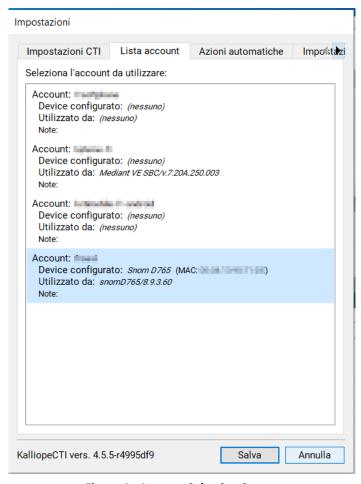

Figure 4 - Account Selection Screen

1.3 *Application Mode*

In this section, you can select the mode you want the application to run: KCTI 4 Free, KCTI 4 Pro, or KCTI 4 Phone. You can also set the language (English, Italian or Spanish).

1.4   KCTI Settings

The configurable parameters in this section are the following:

- *PBX address:* the IP address assigned to the KalliopePBX you want to connect to

- *Username:* the username assigned

- *Password:* the password associated with the user

> **Note: Username and password correspond to the credentials configured on KalliopePBX in the panel "System → User management."**

1.5   Services

The configurable parameters in this section are the following:

- **Import Microsoft Outlook contacts**: if selected, KCTI will automatically synchronize Microsoft Outlook contacts at startup. The imported contacts will appear in the phonebook, marked with the icon.

- **Start minimized as a system icon:** if selected, it causes the application to start minimized as a system icon.

- **Enable call receipt popup:** enables or disables the call receipt notification popup.

- **Pause all queues on logout**

- **Pause on all queues when answering a queue call**

- **Enable automatic updates:** automatically downloads available KalliopeCTI 4 updates at every startup.

1.6   Updates

The configurable parameters in this section are the following:

- **Check for updates at startup:** if selected, the application will check for a new updated version. If there are new versions, a popup message will appear to warn the user and ask whether to update the application or not.

- **Check for updates every (minute):** you can tell the application to check for new updates at regular intervals of minutes selectable in the variable field.

1.7 Keyboard Shortcuts (Windows version only)

KCTI can also be easily managed using convenient keyboard shortcuts. In this section, you can configure the hotkey combination for establishing a new call. You can request the initiation of a call by selecting the string containing the number and significant key variety set in this section. The specified string will be automatically cleared of any spaces and other special characters (# + , : () . /\) and passed to the KCTI engine, which will immediately (**without further confirmation**) make an **external call** to the resulting number.

> **Note: The Speed Dial service can only be used for outbound calls. The service will automatically insert the outside line commitment prefix and cannot be used to call other extensions or services of the numbering plan.**

Below is a list of the available shortcuts (not modifiable) in the various application modes:

KalliopeCTI 4 Pro and Phone

F5 = Put on hold

CTRL + F5 = Retrieve oldest waiting call

F6 = Blind transfer

F7 = Attended transfer (after having chosen and called the number to which to transfer the call, press F7 again to complete the transfer)

F8 = Move the cursor to the dialing field

CANC = Cancel transfer

KalliopeCTI 4 Pro, Phone and Free
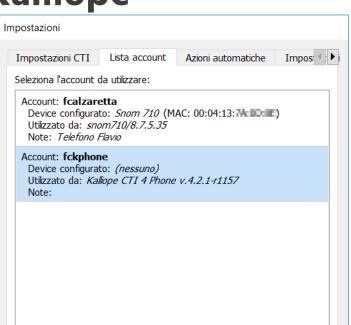
F9 = Favorites Tab

F10= Extension Tab (extension search field)

F11= Phonebook tab (text field to search for contacts in phonebook)

F12= CDR Tab (CDR search text field)

END = End call

CTRL + P = pauses the user on all the queues in which he is an operator

CTRL + K = Show numeric keypad

CTRL + S = Sets reduced display mode

CTRL + E = Sets the extended display mode

CTRL + Q = Closes the application

1.8 *Phone Integration*

In KCTI 4 Pro mode, it is possible to drive the associated telephone system via the native APIs. This feature is currently available only with Snom and Yealink phones.

1.9 *Account List*

In this box are listed all the accounts associated with the user with information about the account's brand, model, firmware, and MAC address.
It will be up to the user to select the account to associate with KalliopeCTI.

Figure 5 - Account Selection Screen
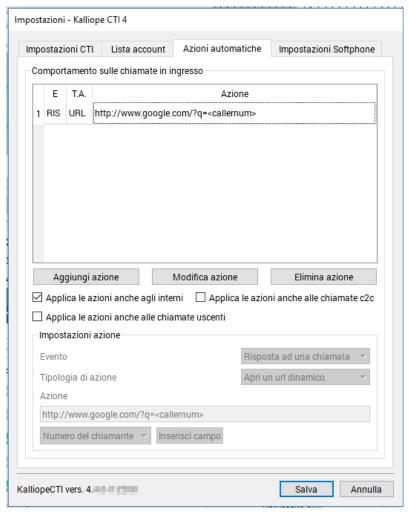
1.10 _Automatic Actions_

Figure 6 - Event configuration screen

In this panel, it is possible to manage the behavior on inbound calls through the configuration of actions to be triggered when the following events occur:

- Receiving a call (equivalent to ringing)
- Answer a call: the event is triggered when the inbound call is answered
- End of a call: the event is triggered when the call is ended (both by the local and the remote user).

To each of these events, it is possible to associate one or more automatic actions of two types:

- Opening of a customized URL
- Execution of an external process

In both cases, you can insert the following dynamic parameters into the actions:

- **Caller number** (<callernum>): this parameter is automatically replaced by the phone number of the caller
- **Caller name** (<callername>): this parameter is automatically replaced with the name associated with the caller number (if present in the phonebook)
- **Caller company** (<callercompany>): this parameter is automatically replaced by the company to which the contact associated with the caller number belongs (if present in the directory)
- **Caller unit** (<callerunit>): this parameter is automatically replaced with the unit to which the contact associated with the caller's number belongs (if present in the phonebook)
- **Extension number** (<extenNum>): this parameter is automatically replaced with the extension number associated with the local user
- **Queue Name** (<queueName>): this parameter is automatically replaced with the name of the call queue receiving the caller (if the call is not directed to a queue, this parameter will remain empty)
- **Call ID** (<uid>): this parameter is automatically replaced with a unique call id, which helps find the call details in the call log (CDR).
- **Called number** (<callednum>): this parameter is automatically replaced with the phone number the caller dialed. If the call is from an external line, the number of the line used by the caller is shown.

> **Note: Automatic Actions are available in any operating mode: Free, Pro and Phone.**

Figure 6 - shows the automatic event configuration screen.

The table at the top of the panel contains a list of configured actions, indicating the type of event ("IN" = inbound call, "RIS" = answer to a call, "FIN" = end of a call), the type of action ("EXE" = execution of an external process, "URL" = opening of a dynamic URL) and the action detail.

Once an action is saved, it is possible to modify or delete it by selecting it in the table and clicking on the appropriate button (Edit Action/Delete Action).

For each action, it is possible to indicate:

- if it should be applied in case of calls between extensions or only when the remote user is external
- if it should be applied for outbound calls
- if it should be applied on C2C calls, deriving from a request through click-to-call API

Refer to the wiki page for the KalliopePBX Rest API documentation: **https://www.kalliope.com/wiki/AdminGuide:RestAPI/en**.

> **Note: You can associate more than one action with each event. Similarly, it is possible to associate the same action with more than one event.**

1.11 *Softphone Settings*

This panel (shown in **Figure 7**) is only available in KCTI 4 Phone mode and is divided into two sections:
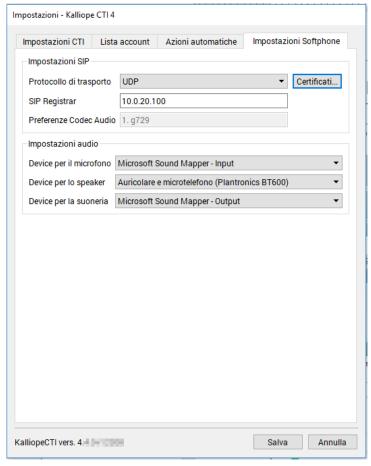

Figure 7 - Softphone Settings

- **SIP Settings:** in this screen, you can select the transport protocol for SIP signaling (UDP/TLS) and, if TLS protocol is chosen, select the certificate from the Authority signing the server certificate of KalliopePBX.

> **Note: If you decide to use the self-signed built-in certificate in KalliopePBX, you need to load the "root certificate of the local CA" in this section, which can be downloaded directly from Kalliope PBX in the section System Settings -> SSL Settings -> Management of local certificate authority**

In the case of certificates signed by commercial CAs present in the list below, http://www.kalliopepbx.com/wiki/it/docs/certdata.txt it is not necessary to do anything.

> **Note: When a certificate is loaded, or when changing the transport protocol (UDP/TLS), it is necessary to restart the application (the user is warned with a popup)**

- The same section shows the ordered list of audio codecs configured by the PBX administrator for the selected SIP account (see section 0) and the IP address of the SIP Registrar to which the KCTI SIP engine is registered. This last field is automatically filled with the IP address of the KalliopePBX, but you may need to change it manually. For example, if an SBC masks the KalliopePBX.
- *Audio Settings*: in this section, you can modify the audio input device used for the microphone, the audio output for listening, and notifications (the audio output for the ringtone and other notifications).

1.12 *TOS Configuration*

KalliopeCTI from version 4.4 allows you to set the TOS (Type Of Service) field of the IP header of voice and signaling packets. To change the TOS on packets, you need to manually edit the `kcti.ini` configuration file located at the following path:

- Mac version: `$HOME/Library/Application Support/KCTI4`
- Windows version: `%appdata%\Roaming\KCTI4`

and add the two values to the CTI section of the file:

```
audioTos=<decimal numeric value>
sipTos=<decimal numeric value>
```

If you do not specify a value, the application will set the **default** to the following values: **AudiotTos=56** and **sipTos=40** (the default settings do not appear in the configuration file).

> **Note: under Windows, the only values allowed by the operating system for the TOS field are: 8 (0x08), 40 (0x28), and 56 (0x38), in order of increasing priority.**

Once the values of the TOS field have been modified, it is necessary to restart the application. Below is an example of a configuration file with the values of the TOS field (in bold).

```
[CTI]
Kaddress=192.168.0.100
micVol=95
spkVol=92
user=username
utf8pwd=true
password=XXXXXXXXXXX
account=accountname
License=2
SIPLocalAddress=192.168.0.10
SIPRegistrarAddress=192.168.0.100
spkdevice=Microsoft Sound Mapper - Input
micdevice=Microsoft Sound Mapper - Input
ringdevice=Microsoft Sound Mapper - Output
startMinimized=0
PauseOnLogoff=0
PauseOnIncomingCall=0
PopupCall=1
actionsToExten=1
outboundActions=0
actionsOnC2c=0
importOutlookContacts=1
checkUpdatesAtStartup=1
checkUpdatesTimeoutMins=60
rapidCallMods=CTRL
rapidCallKey=1
SIPProtocol=UDP
audioTos=8
sipTos=40
```
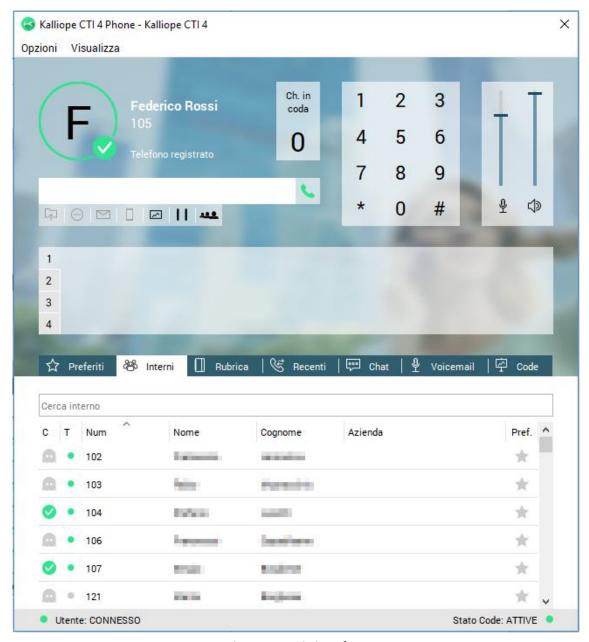
1.13 *Main interface*

Figure 8 – Main interface

Figura 8 shows the main screen of the application, which can be divided into four sections:

- Menu bar
- Telephone control section
- Phonebooks and reports section
- Status bar

Each section will be described in detail below.

1.14 *Menu Bar*

The Menu Bar has two submenus: *Options* and *View*.

The **Options** menu has the following items:

- **Connect to KalliopePBX:** starts the connection with KalliopePBX.
- **Disconnect from KalliopePBX:** breaks the connection with KalliopePBX.
- **Pause on all queues/Clear pause:** if the local user is an operator inserted in at least one call queue, it allows pausing on all queues in which they appear as an operator.
- **Settings:** allows access to the Settings screen (see par. **Error! Reference source not found.**)
- **Exit:** closes the application.

> **Note: This command allows the definitive exit from the application. The application is not closed but minimized as a system icon.**

The *View* menu allows you to configure the main screen display layout. In particular, the main screen can be displayed in *extended* and *reduced* modes.

The extended mode is shown in **Figure 8** and allows you to view all the available sections.

The reduced mode reduces the space occupied by the application on the screen by hiding the *Phonebooks and reports* section (see **Figure 9**).
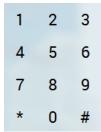
Figure 9 - Main screen in reduced mode

More in detail, the *View* menu presents the following items:

- **Show numeric keypad:** enables/disables the display of the numeric keypad

- **Show function buttons:** enable/disable the display of function buttons
- **Show volumes:** enable/disable the display of microphone and speaker volumes in KCTI 4 Phone mode
- **Show number of calls in queue:** if the logged-in user is a call-center operator, enabling this checkbox displays a box with the number of calls in the queue in real-time

- **Extended mode:** enables the display of the main screen in extended mode by disabling the reduced mode

- **Reduced mode:** enables the display of the main screen in reduced mode by disabling the extended mode
- **Always in the foreground:** if enabled, the main screen will always remain in the foreground compared to all the other windows on the desktop.
- **Transparency:** if the *Always on top* mode is enabled, this menu lets you select the level of transparency of the main screen. Since it is always in the foreground, setting a transparency level to see the windows underneath may be convenient.

1.15 *Status Bar*

The status bar indicates whether the connection to KalliopePBX V4 is active or not. It shows the status of the local user in the waiting queues ("IN PAUSA" on all queues, "PARZ. IN PAUSA" only on some queues, or "ATTIVO").

If the user is paused on all queues, the LED will become red **Stato Code: IN PAUSA** ● and the application icon will show the following image ⏸. On the other hand, if the user is paused only on certain queues, the LED will become orange **Stato Code: PARZ.IN PAUSA** ● while the application icon will not change.

1.16 *Telephone Control Section*

The Telephone control section is detailed below:

Nome utente e interno

Stato BLF e presence

Controllo volumi

Campo di composizione
e pulsanti funzione

At the top of the picture are shown the extension number and the username associated with the local user (127 is the extension number while "Flavio Calzaretta" is the username).

Each user's presence status and BLF are also reported. The colored circle indicates the BLF of the extension, while the icon at the bottom right shows the user's presence.

There is a Volume Control section to the right of the numeric keypad. This section is visible only in KCTI 4 Phone mode since it is used to adjust the volume of the listening audio and the microphone level in calls.

The *Phone Dialing Field* is a text box for dialing phone numbers. To dial a number or enter a number during a conversation (for example, sending DTMF codes), click on the box to bring up the text cursor and enter the desired number on the keypad.

The Dialing Field is also filled in using the numeric keypad, the display of which can be enabled/disabled from the View menu (see 1.14). The numeric keypad is more intuitive as it reproduces the keys available on telephone systems and is even more helpful when using operating systems with a touch interface.

In the Phone Control section, there are also the following buttons:

Start Call: this button starts a call to the number shown in the *Phone Dialing Field*. The behavior of this button varies slightly depending on how the application is used:

- *KCTI 4 Free:* a request is sent to the KalliopePBX to set up the phone associated with the KCTI 4 call to the number listed in the *Phone Dialing Field*. The associated phone will receive a call showing "**c2c: XXXXX**" on display (where XXXXX stands for the phone number). As soon as the user answers the call, the KalliopePBX will trigger the actual call to the desired number. This type of call will hereafter be referred to as "**click-to-call**."

- *KCTI 4 Pro:* (without phone-specific API support): the behavior, in this case, is the same as in KCTI Free mode, i.e., a click-to-call is triggered.

- *KCTI 4 Pro* (with phone-specific API support): the phone-specific API associated with the KCTI (see par.1.8) allows the KCTI Pro to control all the phone-associated features. In this case, pressing the Start Call button is the same as starting the call directly from the phone.

- *KCTI 4 Phone:* similar to the previous case, it directly starts the call to the number indicated in the Phone dialing field.

Unconditional call forward: The unconditional call forward function allows you to program the KalliopePBX so that every call directed to your extension (only calls between extensions or external calls leading to a specific extension, but not to a call group) is forwarded to a different PBX extension. This feature is useful when away from your workstation and want to redirect inbound calls to another extension. It sets the number to which all inbound calls are forwarded unconditionally.

This button is only active in KCTI Pro (with phone-specific API support) and KCTI Phone modes, not in free mode.

Once you click this button, you will be shown the screen to enter the number to unconditionally forward inbound calls.
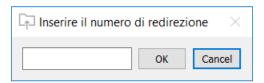
Figure 10 - Call forwarding screen

Once the unconditional call forward service is enabled, the button and the application icon turn black   to indicate the call forwarding service is active.

> **Note: Unconditional call forward only affects calls directed to the extension and not those presented as belonging to a group or call queue.**

Do Not Disturb (DND): enables Do Not Disturb (DND) mode. The phone automatically rejects all inbound calls (direct and group calls).

This button is active only in KCTI Pro (with phone-specific API support) and KCTI Phone modes. It is not active in the KCTI Free mode.

Once the DND service is enabled, the button and the application icon become black   to indicate active service.

> **Note: DND service and unconditional forward can be enabled in parallel. In this case, calls addressed directly to the extension will be forwarded to the indicated number. In contrast, group calls (i.e., addressed to groups or queues of which the extension is a member) will find the extension unavailable.**
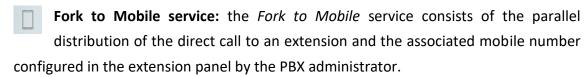
Voicemail: allows direct access to the voicemail associated with the extension (if enabled on KalliopePBX for the local user).

Refer to the wiki page

http://www.kalliopepbx.com/wiki/it/AdminGuide:Service:Voicemail for a description of the voice mail service.

This button is active in all modes: KCTI Free, KCTI Pro, and KCTI Phone.

This button also acts as an indicator of the presence or absence of messages in the voice mail. If unheard messages are in the voicemail box, the button will look like this
.

Fork to Mobile service: the *Fork to Mobile* service consists of the parallel distribution of the direct call to an extension and the associated mobile number configured in the extension panel by the PBX administrator.

This button is NOT active in KCTI Free mode.

The button is enabled only if the *Fork to Mobile* service has been made available for the local user at the KalliopePBX level, i.e. if the "Mobile number" field has been defined for the local user. In this case, you can check which mobile number the *Fork to Mobile* service has been associated with by moving the mouse pointer over the button to see the related tooltip. Depending on whether the *Fork to Mobile* service is active or not, the button will have the following icons:

- *Fork to Mobile* service active

- *Fork to Mobile* service inactive

Supervisor Panel: if a KalliopeCallCenter license has been activated and the logged-in user has the role of Supervisor, through this button, they can access the Kalliope Supervisor Panel application. The supervisor panel allows consultation of aggregated and individual data related to all queues and operators; it gives the possibility to add dynamic operators, force the pause status, and change the interval for consulting statistics.

Pause on all queues: If a Kalliope CallCenter license has been activated and the logged-in user has the operator role on one or more queues, this button allows the user to switch his status from paused to active and vice versa. When the user is paused on all queues, the button will be shown in this manner .

Audioconference service: this button allows direct access to the KalliopePBX audioconference service. Please refer to the wiki page *http://www.kalliopepbx.com/wiki/it/AdminGuide:Service:MeetMe* for the description of the *Audioconference service*.

This button is active in all the modes: KCTI Free, KCTI Pro, and KCTI Phone.

1.17 _Phonebook and reports section_

The Phonebook and Reports section is divided into the following subsections:

- ⭐ Favorites
- 👥 Extensions
- 🔲 Phonebook
- 📞 Recent
- 💬 Chat
- 🖥 Queues (available in combination with the Call Center module and only if the local user has the role of the operator and/or supervisor)
- 🎤 Voicemail

In the following paragraphs, the individual subsections will be described in detail.

1.17.1 _Extension Phonebook_

Figure 11 shows the KalliopePBX extension directory panel.

The "Search Extension" field allows you to search the extension phonebook on First Name, Last Name, and Company fields. The search is performed automatically, and the table is filtered as the search field is filled in.
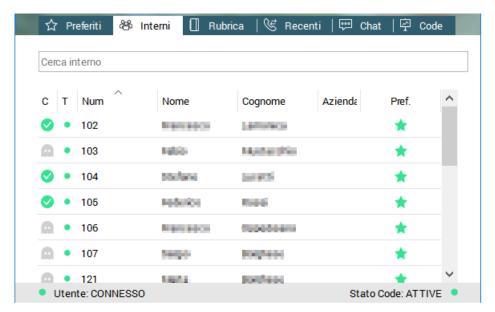

Figure 11 - Extension Phonebook Panel

The extension table shows the following columns:

- **C** (presence status): this column shows an icon representing the status of each Kalliope user.

  ✅ = Available

  🕐 = Out

  ⛔ = Busy

  🧑‍🦲 = Unavailable

  👻 = Offline

- **T** (Telephone Status): This column shows an icon representing the status of the telephone associated with each extension.

  🔴 = Busy

  🟢 = Free

  🔴 = (green/red flashing icon) Ringing

  ⚪ = Unregistered

  This column is NOT available in KCTI Free mode.

- **Number:** This column shows the extension number for each contact

- **Contact fields (NAME, SURNAME, COMPANY):** the table of the extension phonebook can be sorted by each of the contact fields.

- **Fav. (favorite field):** This column shows an icon indicating whether the extension is among the favorites of the local user or not.

  ☆ = extension is NOT among the favorites

  ⭐ = The extension is a favorite

The user can add/remove various extensions from the list of their favorite contacts by clicking on the star symbol in this column.

The phonebook of the extensions consists of a table with two levels, a primary and a secondary (or detail) one. Double-clicking on the primary row of an extension will take you to the detail level (**Figure 12**).

Figure 12 - Information structure of an extension

The detail row of an extension shows the extension number. Double-clicking on the detail line triggers a call to the indicated number.

*NOTE: Scrolling through the extension table with the keyboard arrows, you can switch from the main line of the contact to the detail line by pressing the → key and back to the main line by pressing the ← key. Moreover, it is possible to start the call to the selected extension by pressing the **ENTER** key (the detail line must be selected).*

1.17.1.1 Advanced Operations on Extensions

The extension phonebook panel allows you to perform advanced operations through the context menu. The following are all the possible operations available from the context menu (which appears by right-clicking on the mainline of the selected extension).

Calla: XXX - Make a call to extension XXX

Chat: XXX - Starts a chat with the selected extension

Attended transfer to XXX - Starts an attended transfer to the extension XXX (this option is visible only if there is an active call in progress - ref. chap. **Error! Reference source not found.**)

Forward to XXX - Starts a blind transfer to extension XXX (this option is visible only if there is an active call - ref. chap. **Error! Reference source not found.**)

Reserve call - Make a call reservation on busy (this option is visible only if the selected extension is busy - ref. chap. **Error! Reference source not found.**).

Pickup: XXX - Starts a direct call pickup from extension XXX (this option is visible only if the phone status of extension XXX is "STARTING")

Invite pickup: XXX - Starts an Invite pickup from extension XXX (this option is visible only if the phone status of extension XXX is "IS RINGING").

1.17.2 External Contacts Phonebook

Figure 13 shows the panel of the KalliopePBX external contact phonebooks (shared and personal) and contacts imported from Microsoft Outlook.

The *Search Contact* field allows you to search the external contact phonebooks on the First Name, Last Name, Company, and Details fields. The search is performed automatically, and the table is filtered as the search field is filled in.
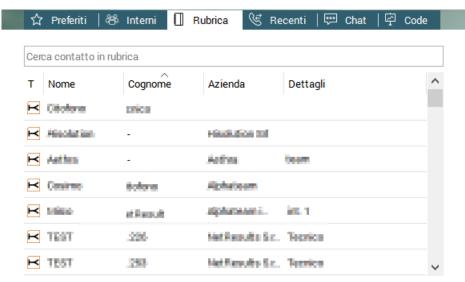

Figure 13 - External contacts phonebook panel

The contacts' phonebook is a table with two levels, a primary and a secondary (or details). Double-clicking on the main line of an extension gives access to the secondary level (**Figure 4**), composed of several lines, one for each contact information (phone number, email, etc.).

Figure 14 - Structure of the contacts phonebook

In the details lines of contact, the contact information is shown on lines distinguished by type with a specific icon:

☎ Landline number

▢ Phone number

✉ Email address

By double-clicking on the detail line, depending on the type of information it contains, the following actions are triggered:

- call initiation to the number indicated in the detail
- send an email with the default email software at the system level

*NOTE: scrolling the contact table with the keyboard arrows, you can switch from the primary contact line to the details line by pressing the → key and back to the primary line by pressing the ← key. Moreover, by pressing the **ENTER** key, it is possible to use the selected contact detail (call the number or send the email).*

1.17.2.1 "Add Contact" to Personal Phonebook (available with Version 4.5.5)

With KCTI Version 4.5.5, a new "Add Contact" button has been added to the "Phonebook" screen (**Figure 15**)), allowing you to save a contact to your phonebook.

The new "Add Contacts" feature requires a firmware version **greater than or equal to 4.7.16.**

Figure 15 - Add contact to your phonebook

Clicking on the "Add Contact" button will open a window where you can add the information of the new personal contact: first name, last name, company, department, phone numbers, and email.

To save the contact, it is necessary to write the first and last name, and at least one valid contact has been entered. If validation of contact information is not successful, fields containing errors will be highlighted in red. **(Figure 16)**
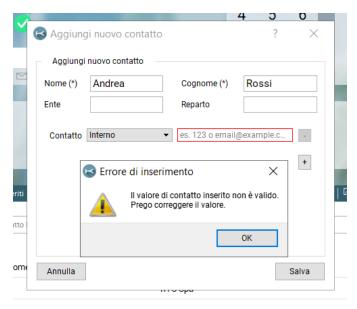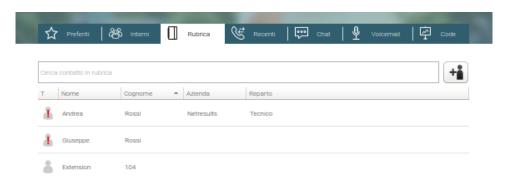
Figure 16

New contacts will be shown in the phonebook with an icon containing an exclamation mark, indicating the contact has not yet been synchronized to the server. Until this synchronization occurs, it's impossible to edit the new contact. One way to speed up the synchronization process is to disconnect and reconnect.

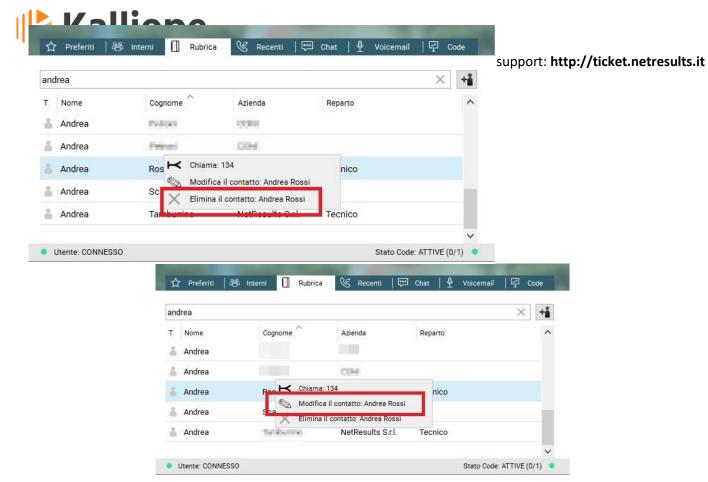Right-click on the contact and select "Edit Contact" (**Figure 17**).

Figure 17

Pushing the button will open a window in which it is possible to edit the personal contact information.

To save the contact, it is necessary to write the first and last name, and at least one valid contact has been entered. If validation of contact information is not successful, fields containing errors will be highlighted in red. (**Figure 16**)

The modified personal contacts will be immediately available for further modifications without waiting for the synchronization with the server.
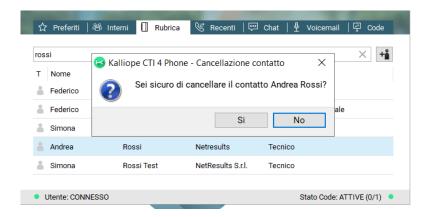
To delete a personal contact, right-click on the contact and select "Delete Contact" (**Figure 18**).

Figure 18

Clicking on the "Delete Contact" button will require confirmation before deleting the contact.

1.17.3 Recent

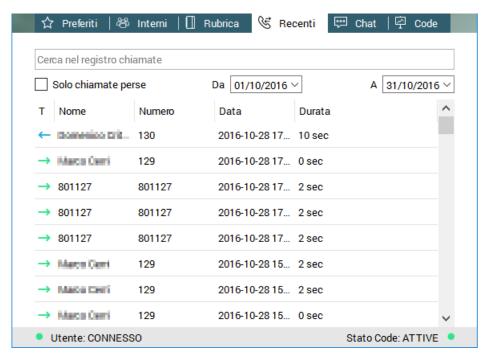**Figure 19** displays the panel showing the call log related to the local user.

Figure 19 - Recent calls

This section shows the detailed log of all the local users' calls on their extensions. The report is divided into four columns:

- Call type (**T**): indicates the type of call using the following icons:

    ↖ Inbound call not answered

    → Outbound call

    ← Inbound call answered

- **Name:** information related to the call partner. If the number is present in the phonebook, the name of the caller is also shown in this field
- **Date:** the date, start time, and duration of the call
- **Duration:** actual duration of the call expressed in seconds

In the *Search in call log* box, you can search the CDR by date (relative to the current month) and by the number/name of the caller.

> ⚠️ **Note: By right-clicking on a line in the call history, you can use the context menu to call up the selected contact and copy the number.**

1.17.4 Voicemail

Figure 20 displays the box showing the messages recorded on the customer voice mail and managed by the Voicemail service. Refer to the *http://www.kalliopepbx.com/wiki/it/AdminGuide:Service:Voicemail* wiki page for a description of the voicemail service.
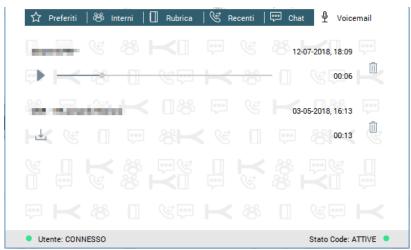

Figure 20 - Voicemail panel

For each voicemail message, you can see the sender (number or name of the contact if present in the phonebook), the duration, and the date and time when the message was recorded. In addition, for each message, you can:

- download a local copy by pressing the button 📥
- listen to it using the play/pause navigation buttons (only when downloaded)

- delete it from the voicemail using the trash button 🗑

> **Warning: deleting a message deletes the local copy of the message and deletes it from the switchboard.**

1.17.5 *Queue Status (queue statistics)*

The *Queue Status* section, marked with the symbol 🖼 , is available only if the CallCenter module is activated on the KalliopePBX and the local user has the Queue Operator or Queue Supervisor role.

In this section, you can monitor the status of queues in real-time. Whether they have the role of Operator or Supervisor, the local user will be able to see the queues of which they are a member.

By default, the statistics reported in this section refer to the last calendar day.

If the local user has a Supervisor role, they can access all statistics (both aggregate and individual) by clicking the Supervisor Panel button.

You can also change the time interval referred to by the data in the Queue Status section through the supervisor panel.

Figure 21 - Finestra di monitoraggio statistiche Coda d'attesa

Figure 21 shows the statistics monitoring window of a single queue.

Each monitoring window is divided into two sections, *General Queue Statistics,* and *Personal Statistics*.

The first section contains the following items:

- **Queued calls:** indicates the number of external users waiting in the queue
- **Missed calls:** indicates the number of calls in the queue not served because the remote user closed the call before speaking to an operator
- **Average conversation time:** indicates the average effective conversation time, i.e., net of IVR and waiting time
- **Average waiting time:** indicates the average waiting time of those accessing the queue (expressed in seconds), based on the history of calls received and processed
- **Processed calls:** indicates the number of calls received in the queue and served by operators.

The *Personal Statistics* section shows the following information about the logged-in user:

- **Number of calls handled**
- **Date and time of the last handled call**
- **User status on the queue**: indicates if the operator is paused or not (par. **Error! Reference source not found.**)
- **Pause/Active button**: allows changing the user's status on the single queue.

Finally, it is possible to change the pause/active status for each account associated with the user.

Remember that the operator can pause on all the queues by typing the key combination CTRL + P or the Options menu on the Menu bar (par. **Error! Reference source not found.**).

> ⚠️ **Note: If the local user has a Supervisor role, they can pause or un-pause any operator but only through the *Supervisor Panel*.**

Chapter 2 - Call management

As shown in Figure , inbound and outbound calls are managed by panels that populate the Call Management Area.

KalliopeCTI 4 supports up to four simultaneous calls; you can move between the different active calls by clicking on the relevant line number (from 1 to 4).

Depending on the status of the call, the corresponding box will take on a specific shape and color and present the appropriate command buttons.

Figure 22 - Call management area

1.18 *Inbound calls*

When an inbound call arrives, the box shown in Figure 23 appears in the *Call Management Area*. The box flashes yellow/grey with an audible notification.

Figure 23 - Inbound call box

The user has a specific number of operations available (depending on the application mode in execution).

Below is a table summarizing the availability of the different buttons in the various application modes.

	KCTI Free	KCTI Pro	KCTI Pro (con API)	KCTI Phone
Answer			⧖	⧖
Reject	⧖	⧖	⧖	⧖
Redirect			⧖	⧖

In addition to the Inbound Callbox, the inbound call event generates (if enabled in the Settings menu) a popup notification like the one shown in Figure 24.
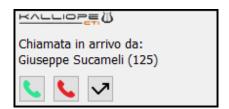

Figure 24 – Inbound call popup

The popup is convenient if the application is minimized as a system icon, and therefore the Call Management area is not visible. You can perform the same operations in the Inbound Call panel through the popup.

1.19 *Active calls*

When a call is active, the box shown in Figure 25 appears.

Figure 25 – Active callbox

The user can carry out a specific number of operations (depending on the application mode in execution).

Below is a table summarizing the availability of the different buttons in the various application modes.

	KCTI Free	KCTI Pro	KCTI Pro (con API)	KCTI Phone
Blind call transfer		⊢⊣	⊢⊣	⊢⊣
Attended call transfer			⊢⊣	⊢⊣
Call parking			⊢⊣	⊢⊣
Place calls on hold			⊢⊣	⊢⊣
Record calls (if enabled)			⊢⊣	⊢⊣
Close calls	⊢⊣	⊢⊣	⊢⊣	⊢⊣
Cancel call transfer (in transfer)			⊢⊣	⊢⊣

Refer to the KalliopePBX wiki for the meaning of the above phone services.

Call duration and microphone level indicator are available only in KCTI 4 Phone mode.

The call transfer service is handled in the following manner: the call is paused, and a tooltip tells the user to insert the number where to transfer the call in the phone dialing field. No popup appears, leaving the user free to consult the list of extensions and phonebooks.

If you try to transfer a call to a busy extension, a message will alert the user and ask him whether to proceed with the transfer.

> **Note: It is possible to have only one active call at a time. Therefore, if a new call arrives or you want to make a call while in an active call, the application will ask for confirmation, reminding you that the operation will automatically pause the already active call.**

1.20 *Call on hold*

The *Active Callbox* disappears when a call is on hold, and the box shown in Figure 26 appears.

Figure 26 – Call on hol callbox

Click on the symbol [icon] to resume a call on hold and make it active again.

> **Note: Since it is possible to have only one active call at a time if you want to resume a call when there is another call active, the application will ask for confirmation reminding you that the operation will automatically pause the active call.**

1.21 *Call reservations*

When a call has been reserved because the other party is busy, the *Call booked* box shown in Figura 27 appears.

Figure 27 - Call booked box

The box remains visible until the booked call partner is free. The Booked call box disappears, and a click-to-call is instructed to the requested caller. If it is no longer necessary to keep the reservation, it is possible to cancel by pressing the appropriate button [X].

Chapter 3 - Other Services

The KCTI 4 application also provides a Chat service between extensions.

1.22 Chat

Through the extensions and favorites directory menu (par. 2.4.1.1), it is possible to activate a Chat session with the selected extension.

The conversations are accessible from the Chat panel shown in figure 28 and are deleted when the application is closed.
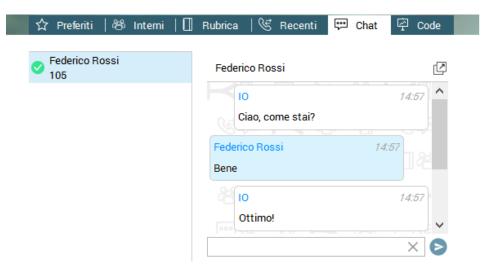

Figure 28 – Chat panel

The text message to be sent must be written in the editing field while sending is done by pressing the ENTER key on the keyboard or clicking on the key ➤ .

A *detach button* ⬈ on the screen allows the user to open the conversation in a separate window.

From version 4.5.7, integrating the history in the chats is also expected.

1.23 *Plantronics API Integration*

Thanks to the integration of the native API, KCTI 4 fully interfaces with Plantronics devices.

At each startup, the application detects the presence of a Plantronics device connected to the system in use. If positive, the system automatically chooses this device as default for audio input/output.

Once detected, you can use the headset controls to adjust volumes and answer or end a call once detected.

In case the Plantronics device is connected later when the application is already running, a restart of the CTI is required to detect the device.

1.24 *Jabra Headset Integration (disp. for KCTI 4.5.5)*

With version 4.5.5, Jabra headset support has been added only for Windows.
In version 4.5.5 of KCTI in Kphone mode following features have been implemented:

- Answer an inbound call from the green icon on the docking station or button on the headset
- Disconnect a conversation by pressing the red icon on the docking station or the button on the headset.
- Disconnect an outbound call before answering it from the red icon on the docking station or the button on the headset
- Mute on/off by the microphone icon on the docking station
- Start the conversation timer on the docking station after starting a conversation (made or answered call) from the GUI
- Stop the docking station talk timer after disconnecting from GUI or disconnecting the partner
- Activation/deactivation of the microphone icon on the docking station following the selection/deselection of Mute from the GUI

Features have been tested with Jabra Engage 65 and Jabra Engage 75 headsets (other headsets may work but are not guaranteed). In KCTI version 4.5.7, support for Jabra Evolve 75 is added to this list.