

MacroPhone

ISDN Call Monitor, Telephone Answering Machine
and Fax-Functions over Networks

This document describes the basic concept and function of MacroPhone
and the necessary steps to install and run the program

If you want to use MacroPhone in your company and if you have questions
or problems which this document does not address please feel free to
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The MacroPhone Idea

The idea behind this software is to make ISDN functions like caller id display, voice mail (telephone answering machine), fax sending and receiving, call notification via SMS (mobile short messages) and email available to all users in a Windows TCP/IP network.

The program works as a client/server software with a central software component that runs on a computer which is equipped with an ISDN board or terminal adapter (server) and user components which run on the desktop computers in your organization and which allow the users to access the ISDN functions.

Program Parts

MacroPhone Server-Service: The server component does not have a user interface (window, menus, etc.) but runs as a Windows system service instead. The computer on which this component runs is referred to as the MacroPhone Server. However, this does not necessarily mean that the machine needs to be a file server in the common sense of the word (running a Windows server operating system). Every computer which is equipped with ISDN hardware and connected to your telephone system and network can play the role of a MacroPhone server. The server usually is installed as a system service and thus will continue to run even if no user is logged in on the server computer.

The server performs all ISDN tasks (answering calls through voice mail, distributing caller id information, sending/receiving faxes, etc.) and makes them available to other network computers (MacroPhone clients, see below). The configuration and administration of the server also happens through the use of clients which have been assigned specific rights.

MacroPhone Client: The MacroPhone client is a software component which offers the user interface (window, menu, dialogs, etc.) to access the ISDN functions on the server. The client software can run on any computer in the network and even on the same computer which runs the server service.

The client computers do not require or use ISDN hardware. Instead they redirect their requests (like sending a fax through means of a fax printer driver) to the server which then performs the tasks through its own ISDN board or terminal adapter.

When started, the MacroPhone client logs on to the MacroPhone server over the TCP/IP network with the name of the workstation and currently logged on user and the server checks this against its list of permissions to allow (or deny) the client a specific set of functions. If no clients have been entered on the MacroPhone server, the first client who logs on is automatically assigned full administrative access.

Installation Instructions

Requirements for Installation:

1. To run the server and/or client you need a computer with Pentium 4 processor, about 128 MB or more main memory and about 10 MB disk space. This means that basically every computer which is able to run Microsoft Office or a current version of Internet Explorer will also be able to run the MacroPhone components.
2. To run the server you also need an ISDN-board or terminal adapter which needs to support CAPI 2.0 interface (CAPI2032.DLL) and which needs to be connected to your phone system.
3. Also, required to run the server, you will need a Windows operating system with system services, i.e. Windows NT 4.0, Windows 200x, XP, Vista.
4. Communication through TCP/IP ports 6666 and 6667 between MacroPhone Client and Server.

Installation of MacroPhone Server:

1. During installation of the server component, you need to log in on the server as a user with administrative user rights. (This is only necessary during installation. Because the server runs as a system service, it can later run unattended and with no user logged in.)
2. It will not be necessary to reboot the server at any time during the installation, so work in progress will not be interrupted. The installation will only create files inside the designated installation folder and will not modify or override Windows system files.
3. Please start the installation archive macrophonesrvXXX.exe and follow the steps and instructions of the installation assistant.
4. After the installation has been completed, please go to Start-Menu, All Programs, MacroPhone and select "Install MacroPhone Server as a Service". This will show a dialog where you click "Install" to add the program to the Windows list of system services. After a few seconds the "Install" button will turn gray. Then click "Start" to actually start the service.
5. Alternately you can run the program as a normal application (without adding it as a service). To do that you can simply click on the MacroPhone Server icon in the MacroPhone program group. You will note a small gray window on the screen while the program is active and you can terminate the program by closing this window. (Other than that the window has no function.)
6. If you are running MacroPhone Server under Windows XP SP2 or higher, it is necessary to add the program to the Windows firewall to allow it to receive requests from MacroPhone clients. To do this please go to Windows Control Panel, Windows Firewall, Exceptions and there use the Add Program button to add MacroPhone Server to the list of exceptions.

Installation of the first Admin-Client:

1. You can install the first MacroPhone client (which is used to configure the server) on any computer in your network or on the same computer where you installed the server. To do this simply start the installation archive (macrophoneclientxxx.exe) and follow the steps of the installation assistant.
2. After completing the installation, please start the MacroPhone client component from the Start menu (All Programs, MacroPhone, Macrophone).
3. The first client which is started and which logs on as a server is automatically assigned administrative permissions for the MacroPhone server. This allows you to configure the server, add more clients, tweak the other clients' user rights etc.
4. This will bring up the window for the client software. Please wait a few seconds and allow the client to locate the server and connect to it. When the server was found the title bar of the program window will change and show "MacroPhone [<servername>]". If this does not happen and the title instead shows "MacroPhone [no server]" please select "File, Connect to..." and enter the name of the Server (which is the Windows workstation name of the computer which runs the server component). Then click "Connect" and wait for the server name to appear in the window title.
5. Now you can configure the server through the server functions from the Edit menu.

Installation and Configuration of Additional Clients:

After having installed the first (administrative) client you can use that to go to the Edit, Clients menu there to add entries for other client machines and users who are allowed to log on and specify their usage permissions. You can group entries by using workstation or user names or even make a generic pattern that matches all possible clients. Please refer to the help text in the Edit Clients dialog for specific information.

After you completed this task, press OK. Now you are ready to install the MacroPhone client archive on other computers. When you start them, they will locate the server (or you can specify the server name in the "File, Connect to..." dialog) and will then logon and then will have the assigned (permitted) functions.

First Steps to Configure the Server

Below you will find a few basic steps which are necessary to install and configure the MacroPhone server. Additional information is available in the help file of the MacroPhone client (see "Using the Program") and by pressing the Help button in all of the configuration dialogs.

Entry of Phone Numbers

Your first tasks at the server will probably be to enter your phone numbers. To do this go to the "Edit, Server Own Numbers" dialog and make an entry for all of your phone numbers (ISDN MSN) and assign them a name (like "Office", "Support Hotline", etc.) Please enter the phone number without an area code and refer to the help text of this dialog for more information.

Note: After entering the phone numbers you may want to revisit the "Edit, Clients" dialog and restrict MacroPhone client's access to specific phone numbers only.

Adding Voice Mail (Answering Machines), Fax Reception, etc.

Once you have added the phone numbers (see above) they will appear in the tree view on the left side of the main window. If you right-click them there, a menu will appear that allows you to add voice mail, fax reception, SMS (mobile short message) or email notification and call forwarding when a call is received on this phone number.

Just select an option and refer to the help text in the corresponding dialogs for more information.

Server Side Caller-ID Detection

The server (and also the clients) can look up caller ids in an internal phone book. Entries found in the server's directory will automatically be provided to all MacroPhone clients so you will probably start entering names and phone numbers on the server.

Individual clients can add entries to the server phone book and thus make them accessible to all other users. To do this, log on to the server with any client that has permission to add/edit the server address book and select "Edit, Server Callers".

Additionally, if you have an MS Exchange server, you can configure the server to look up names there as well (if they are not found in the MacroPhone address book). To do this, use "Edit, Server Options" on any client that has the permission for this function and select the MAPI (Exchange) contacts folders that you want to be included in the search.

It is also possible to use an SQL database (MS SQL Server, MS Access, etc.) via ODBC connection to identify callers. Please refer to the online help text in the corresponding dialogs for further technical information.

Last but not least, there is a server option under the Additional Caller Lists tab, that allows you to include text files (e.g. an exported database) in the search or even use an external program to assign names to phone numbers.

Further details to all these steps can be found in the help text of the respective dialogs.

Configuring SMS- and Email-Delivery

To allow MacroPhone to send SMS (short messages) to a mobile phone, please choose the SMS tab in Server Options (from the Edit menu of any client that has permission to change the server options). Some ISDN to SMS have been added to the program already for Germany, Switzerland and the Netherlands. If you are living in a different country and know the name and phone number and technical details of an ISDN to SMS Gateway you can edit the file SMSPROVIDER.INI in the MacroPhone server program directory to add these. (Changes there require to restart the MacroPhone server service).

If you want call notification via email you also need to configure the email delivery settings in the server options. There you need to enter the name or IP address of your mail server as well as a senders email address. The dialog also allows you to choose the desired format for image (fax) and voice mail.

Advanced configuration

IP Port (Network Communication between Client and Server)

By default the MacroPhone server answers requests from clients on TCP/IP port 6666. The port on which the clients can be reached by the server is 6667. If multiple clients run on the same machine (e.g. when multiple users are active under Windows XP) the clients will then try to allocate the next first free port (e.g. 6668, 6669, etc.).

Communication through these ports is possible over a corporate network (LAN) or over the internet, if the ports are routed and not blocked by a firewall

If these ports are blocked by a firewall and it is not possible to open these ports, you can change the port numbers in the Windows registry via REGEDIT.EXE.

The registry entries for server and client are:

HKEY_LOCAL_MACHINE\Software\Emtec\MacroPhone Server

HKEY_LOCAL_MACHINE\Software\Emtec\MacroPhone

To change these ports, please start REGEDIT, go to the respective folder in the registry and create a new key named "NetworkRpcPortIn", select type „Text“ for the key and enter a port number of your choice.

Changing the ISDN CAPI controller ID

MacroPhone Server usually accesses the ISDN board via CAPI as board/controller ID 1. If you have multiple controllers installed, you can assign a different controller to MacroPhone in the Windows registry via REGEDIT.EXE.

The registry entry for MacroPhone Server is:

HKEY_LOCAL_MACHINE\Software\Emtec\MacroPhone Server

In this location, create a new key named "CapiCtrlId", select type „Text“ and enter the controller id as the value (e.g. "2").

Deactivation of Server Access to MAPI Address Books

If your server does not offer a MAPI interface (Windows Mail API, -e.g. Windows Exchange Server) or if the MAPI configuration is faulty or if access to the MAPI contact folders is generally not desired, it is possible to disable the MacroPhone MAPI interface.

To do this please start REGEDIT.EXE and go to

HKEY_LOCAL_MACHINE\Software\Emtec\MacroPhone Server

In this location, create a new key named "NoMapi", select type „Text“ and enter the value „1“ for this key.

Deactivating the server's b-channel detection for AVM boards

When using an AVM ISDN board, MacroPhone Server automatically uses a proprietary AVM function to detect the status of the two b-channels on the ISDN S0 bus. In this case the clients will display LEDs in the status bar which reflect the channel's status (dark green= available, light green= connecting, red= connected). If you do not wish to use this function or if you have problems using it, you can deactivate the function through an entry in the Windows registry.

To do this please start REGEDIT.EXE and go to

HKEY_LOCAL_MACHINE\Software\Emtec\MacroPhone Server

To deactivate the b-channel detection, create a new key named "NoDss1", select type „Text“ and enter the value „1“ for this key.

Relocating the MacroPhone Server data folder

By default MacroPhone Server stores all its data (configuration and other files) in the "Data" folder inside the folder where the program was installed. If you want to change the location of the data folder, you can select an alternate location by creating a registry entry.

To do this please start REGEDIT.EXE and go to

HKEY_LOCAL_MACHINE\Software\Emtec\MacroPhone Server

In this location, create a new key named "WorkDir", select type „Text“ and enter the desired data folder location.

Common questions and answers

MacroPhone Clients cannot connect to the MacroPhone Server

Please run a MacroPhone client on the same computer where the server is installed and check if it is able to connect to the server. If this is possible it is almost sure that clients on other computers are blocked by some sort of filtering or firewall software. In this case make a test and disable all such software (firewall, anti virus, anti spyware, etc.). If even the client on the same computer is unable to connect to the server it may be possible that the server cannot open it's port (number 6666) for listening. The reason for this could be another software which listens on this port or a security software on the server which does not allow the program to open an incoming port.

The answering machine does not pick up calls

When this happens, the problem usually is that you did not enter the correct phone number for the phone/answering machine in "Edit, Server Own Numbers". The number (MSN) entered there needs to be exactly the number the telephone system and ISDN boards reports as the called number. To resolve the problem, make a test call to the desired phone number. MacroPhone will then show a call in the main window. The phone number shown in the "To" column is what the ISDN system reports. Please enter this number in the "Edit, Server Own Numbers" dialog.

I do not want to see calls to my fax machine

List all numbers but the fax in the "Edit, Server Own Numbers" dialog and select "Ignore calls to unlisted own numbers" in "Edit, Server Options".

My ISDN supports Fax G3, but MacroPhone says it does not.

Some ISDN boards do not support fax functions on CAPI driver level, but use third party software instead (in these cases usually the product RVS-COM lite is installed together with the ISDN drivers). However, MacroPhone can not use such third party software. Fax support on driver level is required by MacroPhone.

For use with MacroPhone server we recommend to use an ISDN board from AVM (<http://www.avm.de>). Boards from this manufacturer have excellent drivers which also support fax G3 to allow MacroPhone server to send and receive faxes.

What is the search order for the various address books?

MacroPhone offers different address books for the server and client which are used to identify a caller. These are checked in the following order:

- Client: caller list (Edit, Callers)
- Client: outlook address books (Options, Caller Lists)
- Client: advanced caller identification (Options, Caller Lists)
- Server: caller list (Edit, Server Callers)
- Server: SQL database access via ODBC (Server Options, ODBC)
- Server: Exchange Server / Outlook address book (Server Options, MAPI Address Books)
- Server: advanced caller identification (Server Options, Additional Caller Lists)

Is it possible to send mail merge faxes via MacroPhone?

As a simple solution, MacroPhone allows to enter multiple fax numbers separated by a vertical bar ("|"). The program will then create one list entry per destination and will process these.

If you have a license for Small-Business (see the „Info about Licensing“ document) or higher, there are two additional ways to send mail merge faxes:

- Embedding destination fax numbers into the document (see below)
- Creating a „faxpreset.ini“ control file for each fax

The „faxpreset.ini“ file allows you to provide the relevant information without having to enter it in the fax sending dialog. This allows to send faxes automatically from other applications (depending on their scripting features).

To do this, the application needs to create „faxpreset.ini“ in the MacroPhone data folder (Tools, Workdir Directory) before starting to print to the MacroPhone fax printer. This control file can contain the following information:

```
FaxSendDestination=<Destination phone number > (required!)  
FaxSendHeadline=<Header>  
FaxSendOriginMsn=<Own MSN >  
FaxSendStationId=<Station ID>  
FaxSendAttempts=<Dial retries >  
FaxSendPauseBetween=<Delay >
```

This format of the file is similar to „macrophone.ini“ and it is sufficient to just provide the FaxSendDestination field. If you leave out parameters, MacroPhone will use the current defaults from the client dialog instead.

If a file is printed to the fax printer, MacroPhone will first check if the „faxpreset.ini“ exists. Depending on that, it will either use the values from that file or it will show the dialog. In

the first case, the file will be deleted as an indication that it has been processed.

Can the fax function detect /extract destination numbers directly from the fax document ?

If you have a license for Macrophone Small-Business (see the „Info about Licensing” document) or higher, Macrophone offers this function. To use this function, you can add the following keys to your document:

@@TO:09117406931@@	(destination number, <i>required!</i>)
@@FROM:7406856@@	(call originating from this MSN)
@@RETRY:3@@	(dial retries)
@@PAUSE:30@@	(delay between retries)
@@DIALOG@@	(show the fax-send dialog (for testing/debugging))

These text parts need to be printed into your document using the „**Arial 10pt**” font and they will be removed from the final document before

It is sufficient to only provide the destination fax number. Other missing parameters will be taken from the current Macrophone Client fax configuration.

If Macrophone detects the destination number, it will suppress the manual fax sending dialog and will instead immediately send the fax, which of course is an elegant solution to automated mail-merge style faxes.

Is it possible to access telephone dictionary CDs like klickTel with MacroPhone?

This is currently not supported by MacroPhone. However, there is a third party plug-in available to exploit MacroPhone's secondary caller list interface to query klickTel and klickIdent telephone CDs. You will find more information about kewlident at <http://h1.ripway.com/kewlident>

Which directories are relevant for backing up data?

By default all relevant files are stored in the “Data” subfolder inside the MacroPhone Server's program folder. If you moved the default wordir location via the Windows registry (see above), obviously you will need to backup that location instead.

How long will Macrophone Server store incoming calls?

Macrophone stores the list of calls in a database (via Microsoft SQL Jet Engine 4.0). All entries which are no longer required for display by the MacroPhone Clients will be automatically flagged as archived and are then available through the "Search in Server Archive" function. Inside the archive, the calls will remain stored until they are deleted manually.