# KinoServer Manager's User Guide

Introduction and start

KinoServer Manager allows you to manage, use and set all the functionalities of your KinoServer in a fast and efficient manner. The program's behavior is rather simple, it starts by searching for KinoServer/s in the same LAN network with which the computer executing the program is connected. Once it establishes a connection with a KinoServer, the user's input to the KinoServer Manager program will be translated and sent as specific messages to the KinoServer, the server will then, based on the received message, execute the required operation.

The program's execution and the requirements for it depend on the operating system in use.

Start from Windows

In case you're using a Windows system (XP version or newer) the program needs java installed in the system (version 7 or newer).
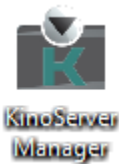
To start the program, you only need to double click on the icon of the executable file.

Start from MacOSX

In case you're using a MacOSX system the program doesn't need any specific requirement, to start it you'll have to go through the installation procedure just as with any other ordinary application, once you execute the kinoservermanager.dmg file just follow the instructions, when the procedure is ended the KinoServer Manager app will be present among all the other apps installed on the system.

Start from Linux
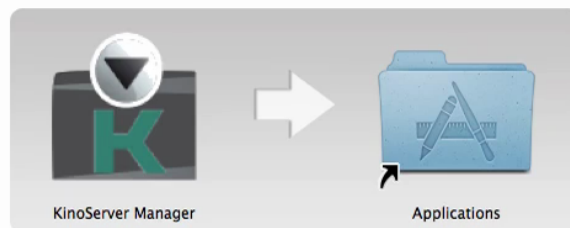
In case you're using a Linux system the program needs java installed in the system (version 7 or newer). To start the program just execute the kinoservermanager_minihd.jar file with your java runtime environment.

Services

In this section we'll (briefly) introduce the services offered by the KinoServer, how access them with the KinoServer Manager program and some of the details regarding their usage.

Plex Media Server

Streaming service (both local and remote) for the audio or video files saved on the KinoServer.

To use the service just click on the "Go to Plex Media Server" button in the manager's main panel, once the button's clicked the default operating system's internet browser will open and will direct you to the local webpage of the service, in this page you can use the service (watch your video/listen to your music) or also change its various settings.
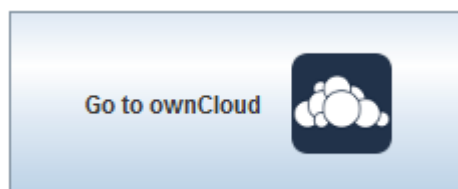
The first time you access the webpage you'll need to enter your Plex login credentials if you already have them otherwise you can (for free) sign up to Plex from there.

Once you've accessed the webpage the service will be ready to use, the first thing to do in order for the system to detect your multimedia files (or better, the ones you want the service to detect) you'll need to create a new library, and while doing so you'll have to specify the directory containing the files you want to be detected.

ownCloud

ownCloud is an open-source clouding service which allows you to save on the server your personal files and have them always available from many other devices. The privacy and security of the service is very high, and so is its reliability, it all is even more strengthened from the KinoServer's top noch hardware and software.

To use the service just click on the "Go to ownCloud" button in the manager's main panel, once the button's clicked the default operating system's internet browser will open and will direct you to the local webpage of the service, in this page you can use the service (upload/download your personal files) or also change its various settings.

The first time you access the webpage you'll be asked to set a username and a password which will become the informations for your main user in the service, once you've given those click on the confirmation button and the service will be ready to go. Next time you'll access the webpage just use the username and password you've set (those can be changed from the local webpage and you can even add new users to the service).

Webmin

Webmin is a server management service which you can use to find any type of hardware/software informations about your own KinoServer and you can even change specific system's settings.

Through wrong settings set for the KinoServer it could become undetectable from the KinoServer Manager, or malfunction partially or totally. For these reasons we highly advise you to utilize Webmin only as a tool to check the server's informations without modify anything, or if you really want to modify something just be sure of what you're doing and the possible consequences.

To use the service just click on the "Go to Webmin" button in the manager's main panel, once the button's clicked the default operating system's internet browser will open and will direct you to the local webpage of the service, through this page you can use the service.

Usually when the browser opens the page it will warn you that the connection's not secure, in order to use the service you have to pass this warning page (eventually by adding a security exception for the page) (the way to pass this warning page changes from browser to browser, but it should be made available directly from the page in question).

To access the webpage the requested login credentials are the same of the KinoServer's system (those should have been given to you when you've purchased the server).

Transmission

Application for the peer-to-peer file download through the torrent system, it allows you to input an url torrent-magnet or directly upload a torrent file and download all the specified data. The files will be saved in the "transmission" directory located in the KinoServer's drive.

To use the service just click on the "Go to Transmission" button in the manager's main panel, once the button's clicked the default operating system's internet browser will open and will direct you to the local webpage of the service, in this page you can use the service (manage the downloads and see their progress and informations) or also
change its settings.

Whenever you access the Transmission's page you'll be asked for the login credentials, they're both "transmission" (if you don't want to be asked anymore for the credentials just set your browser to save the credentials for the page).

MinimServer

For license reasons the MinimServer program doesn't come installed on the server right away. But its installation is very simple, just click on the "Install MinimServer" and the server will take care of the rest letting you know when the server is installed and ready to use.

After the installation before being able to use the service (through the "Go to MinimServer") you need to accept its license terms.

MinimServer is one of the best UpnP AV music servers, its purpose is to be used with client applications that are compatible with the standard UPnP AV.

Through the "Go to MinimServer" button (after you've accepted the license terms) you can see the current state of the service, rescan the server's files and you can also set the content directory (the directory from which the service takes the audio files) to a desired path (normally this path should be "/raid/multimedia/musica").
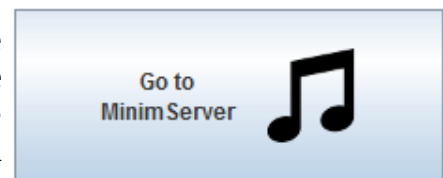
Roon

Every Kinoserver comes with a preinstalled Roon Server which lets you use the Roon service for streaming any sort of music file to any Roon-compatibile device. The Roon service requires a memberships which can be annual or lifetime and can be purchased from the official Roon website (roonlabs.com). Once you have a membership you can simply start the Roon client program (available for mac OSx, Windows, iOS and Android) and select the usual /raid/multimedia/music folder (or any other folder you'd like)

Automatic audio cd ripping

With the KinoServer you can rip audio cds automatically and with minimal interaction, meaning that the server will extract the audio files from audio cds and will convert them and save them onto its internal storage, in this way you'll have a copy of your music in digital format inside your KinoServer (note that this operation is legal and should be done for backup/accessibility purposes only if you're the original audio cd's owner).

For this feature you need an external usb cd drive externally powered (meaning that it isn't powered by the KinoServer's usb port) or any external usb cd drive connected to the KinoServer through a usb hub powered externally (meaning that the hub allows you to connect usb devices to a port and provides all the necessary power to the device).

For this feature you need an external usb cd drive, to rip an audio cd you need your cd drive to be connected to the KinoServer and then simply inserting the cd in it will start the procedure, the server will execute all the necessary operations and will eject the cd from the drive at the end of the procedure, the ejection also happens in case some error occurs (like if for example you've inserted a cd that is not in audio format). Once you've ripped an audio cd you can immediately insert another one (in case you wrongly reinsert the same audio cd wait until the automatic ejection of the cd, stopping the procedure could corrupt the audio data already saved).

At the end of the ripping procedure the audio files and their playlist will be saved in the /raid/multimedia/musica/rippati directory inside the KinoServer's disk which you can access through a samba connection (see next section) and the MinimServer will automatically execute a rescan. WARNING, do not create and/or modify files and directories inside the "rippati" directory while the server is ripping an audio cd.

The ripping procedure includes the automatic search and download of the cover images (which will be then shown in the UpnP client when playing the music), in case this search fails (or in case the cover image found is not of your liking), you can always put a 600x600 jpg or png image named "cover" in the directory containing the mp3 files extracted from the cd, as soon as the first minimserver's rescan will be executed the files' album cover will be updated.

You can also choose the audio format in which you want the ripped audio files to be, simply click on the "Ripping's Options" button, the available audio formats are :

- WAV, this format does not compress the audio file, this ensures that the quality is not inferior of that of the original audio in the cd, the downside is that such files occupy more storage space
- FLAC (the default choice), this format slightly compresses the audio file (the lost of quality is not appreciable), reducing the storage space required
- MP3, this is the most popular format it compresses efficiently the audio file, the audio quality is lower than flac format, but so is also the storage space required
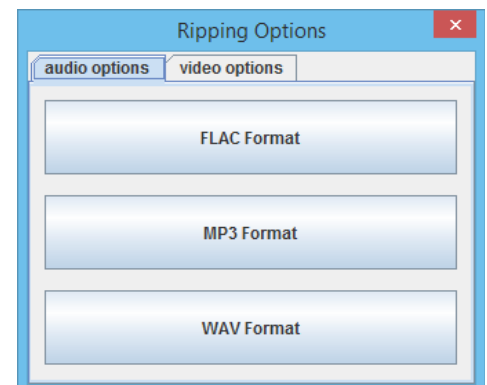
## Automatic Dvd/Bluray ripping

With the KinoServer you can also rip Dvds and Blurays automatically and with minimal interaction, meaning that the server will extract the video files from your dvds/blurays and will convert them and save them onto its internal storage, in this way you'll have a copy of your movies in digital format inside your KinoServer.
This feature must be used for backup/accessibility purposes only if you're the original owner of the dvd/bluray, in order to emphasize this aspect, the service, at first disabled, will be enabled only after the user accepts the personal usage conditions presented when he accesses the video section of the "Ripping's Options" window for the first time.

After having accepted the aforementioned conditions, to rip a dvd/bluray with this service all you need to do is to insert the disk in the dvd/bluray drive included in the KinoServer, this will automatically start the procedure, the server will then execute all the necessary operations and will eject the disk from the drive at the end of the procedure, the ejection also happens in case some error occurs (like if for example you've inserted a disk that does not contain videos). Once you've ripped a dvd/bluray you can immediately insert another one (in case you wrongly reinsert the same disk the server will eject it as soon as it has read its metadata).

You can also choose the preferred language for the ripping, simply click on the "Ripping's Options" button, and then accessing the video options tab (in this way if the dvd/bluray contains more than one video fitting for the ripping the server will give priority to the one with your preferred language)

Note: If you create a plex library for the /raid/multimedia/video/rippati directory, all the movies that the server will rip will be automatically added to it
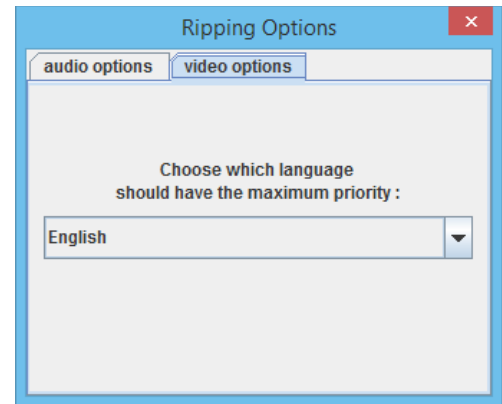
Samba

To access your audio files you can use the samba service which is present in all the modern operating systems.

The access credentials are Username: "kino" and Password: "kinopass".
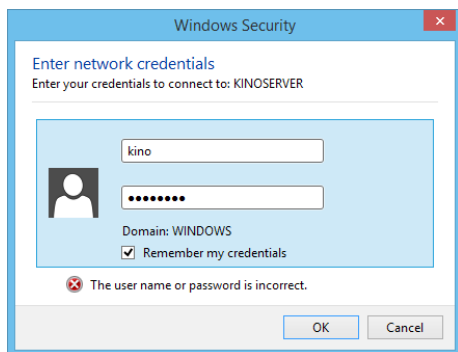
The samba connections are :
 1. "multimedia" which links you to a directory containing your multimedia files.
 2. "share".
 3. "transmission" which links you to the transmission service's download directory, from here you can access,modify or delete all the files you've downloaded.
 4. "rip_audio" which links you to the directory containing all the files generated by the automatic audio ripping service.
 5. "rip_video" which links you to the directory containing all the files generated by the automatic video ripping service.

Samba through Windows

Let's now see how to establish a samba connection with one of the most popular operating systems: Windows.
The procedure is very simple: open the system's file browser, choose "network" from the list (navigation panel) on the left then from the available choices choose the "KINOSERVER" one.

Now a new window will be open asking you for the access credentials (which we've said are "kino" and "kinopass").
Once the credentials have been given the browser will show you the available samba connections which you can treat as if they were ordinary directories inside your computer and in which you can manage your files (note that audio files won't be recognized by the MinimServer if you won't execute a rescan from its service page after adding/modifying them).

(Note that when you're asked for the credentials the system offers you the possibility to save them so that you won't be asked again for them when you'll access the samba connections).

Remote connection

If you have a device which provides a samba remote connection (like for example a NAS) it is possible to establish a remote connection with the device and so access the files it shares. Once you've set the connection the remote volume will be mounted on the /remoto directory which you can consider as any ordinary directory in the KinoServer's hard disk, in partucular you can set a new Plex library for the /remoto directory and/or its subdirectories, in this way the KinoServer's Plex Media Server will allow you to enjoy the multimedial files located in the device.
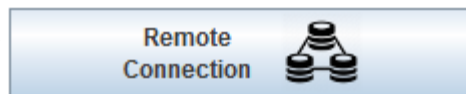
Remote connection through the guest user

If you choose the connection with guest user the program will just ask you for the remote path to which you want the KinoServer to establish a remote connection to.
Such path is usually defined in this way :
- The device's local address (this could be its ip address or its hostname,for example 192.168.1.10)
- The "/" character
- The name of the samba connection (for example SambaDirectory)
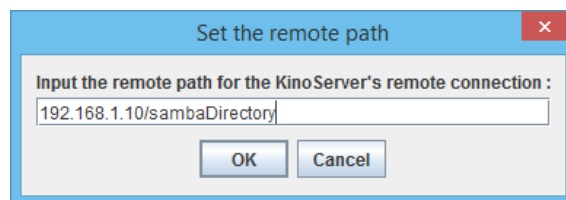
Once you've given the remote path the program will show you a message telling you the result of the remote connection attempt (the attempt could fail if the device isn't rightly set or if the given remote path is not correct).

## Remote connection through username and password

If you choose the protected remote connection the program will ask you (as for the guest connection) the remote path for the connection, next you'll also be asked for the required username and password.

Once you've inputted the required data the program will show you a message telling you the result of the remote connection attempt (the attempt could fail if the device isn't rightly set, if the given remote path is not correct and if the given username or password are incorrect).

Server's settings

In this section we introduce the settings available for the KinoServer which you can modify through the KinoServer Manager program, you can also modify more specific aspect of the server through the Webmin service.

To access the settings' panel simply click on the "Settings" button present in the main panel of the KinoServer Manager program (to return to the main panel you just need to click on the "Back" button).
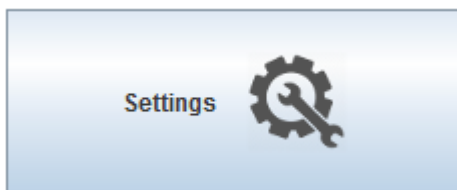
Setting a static IP address

By clicking on the "Set a Static IP" button and following the simple instructions presented you can set a static ip address for your KinoServer.
Setting an Ip address for the servers bring many advantages, such as: the data saved with your browser will remain always valid (as for example the username and password used to access a service), in some cases knowing the server's ip address could be crucial to solve some problems with the server, if the server has a static Ip address, the services' urls will not change with time (of course provided that you yourself don't set a new static ip for the machine or return to the use of dhcp addresses), so you'll be able to access the services by using the same exact urls you've visited before through the KinoServer Manager program (this way you can also save this urls as bookmarks or even set one as your browser's homepage).

Connection to a wifi network

KinoServer (unlike many other products of its kind) offers you the possibility to connect wirelessly to a LAN network (wifi network protected with WPA2).

This type of connection brings many benefits, such as convenience and discretion (the KinoServer does no longer need to be placed near the access point but wherever you'd like).

To connect the server to a wifi network make sure that its connection is an ethernet type first (it is not possible to connect from a wifi network to another, the server must always pass through an ethernet connection midway), click on the "Connect to a Wifi Network" button and follow the instructions.

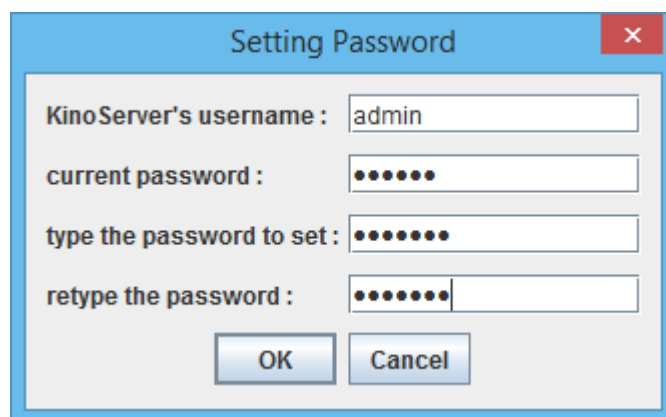## Setting the dynamic IP addresses use

If you've set a static ip address for the server and you want for whatever reason to return to the use of dhcp ip addresses then click on the "Set Dynamic IPs use" button, confirm as required the KinoServer's reboot and wait until the reboot is done.

Disconnection from a wifi network

If you've connected your KinoServer to a wifi network and you want to return to use an ethernet connection (or if you want to connect the server to a different wifi network, which needs the server to be connected through ethernet first), click on the "Disconnect Server from the wifi Network" button, confirm as required the KinoServer's reboot and wait until the reboot is done.

Password setting

By clicking on the "Server's Name and Password Settings" and choosing the option "Set the Kinoserver's Password" you can change the password of one of the KinoServer's users. Initially the only user saved in the server's system is the user "kino" with password "kinopass".

These passwords (and their respective usernames) are the login credentials for the ssh connections (see the section "Direct communications with the server" for more details) and also for the use of the Webmin's service. If you don't understand or care about these details just leave everything as it is and don't change any password, it is not in any way a necessary operation.

Server's name setting

By clicking on the "Server's Name and Password Settings" and choosing the option "Set the Kinoserver's Name" you can change the name of your personal KinoServer, this name is commonly known as the machine's hostname and can be used to identify your machine inside your local network.

Hardware informations

By clicking on the "Hardware Informations" button you'll open a new window (independent from the program) in which will be presented the current hardware values of the KinoServer in real-time.

Those are the main values with which you can check the state of the server's hardware.
You can see this values also with the Webmin service, but it contains much more infos and details, the purpose of this window is instead that of showing you only the most important and crucial informations in a immediate, direct and fast manner, which can be useful for quick ckecks.
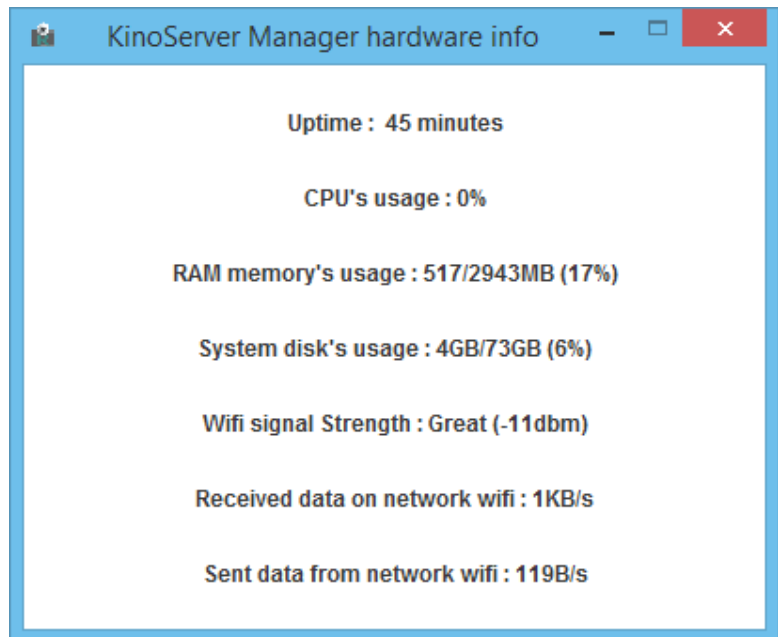
Software update

By clicking on the "Update Software" button you'll open a little window which allows you to update some of the server's software.
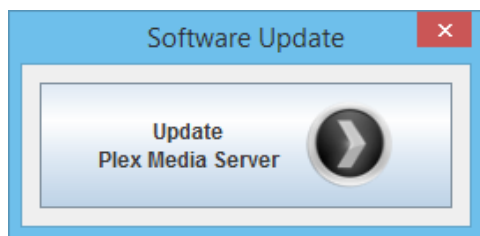

At the moment the only option offered by this windows is the option to update the Plex Media Server, it often offers improvements to the service through updates which are shown to the user in the service's local webpage.

We've decided not to include the option to update other of the KinoServer's services, since they don't often update or do not improve the user's experience through those updates. Anyway is always possible that more update options will be added to this window in future versions of the KinoServer Manager program.

LiveMonitor

By clicking on the "LiveMonitor" button you can start the monitoring service that will help you make sure your KinoServer's hardware is always healthy and prevent it from breaking. Clicking the button when the service's not active will allow you to activate it by inserting the requested informations and accepting the conditions for the processing of your personal data.When the service's active the button allows you to end it or to modify your personal data or view the hardware's health infos collected recently.
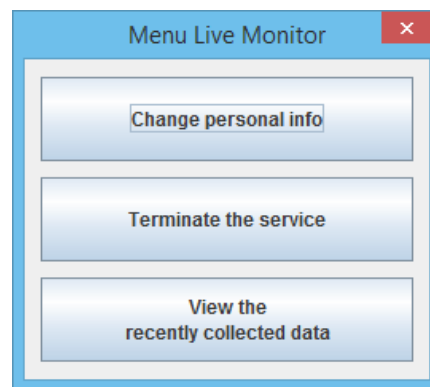
The LiveMonitor monitoring service uses the HealthTracker algorithm to constantly analyze the state of your KinoServer's hardware to make sure that there aren't problems of any kind, in case some anomaly is detected, the server's data is sent to the KinoServer's staff which will immediately analyze it and if deemed necessary will contact the server's user through its personal data given at moment of the service's activation, suggesting what course of action would be best to solve the situation.
Any information sent by the KinoServer to our staff is protected by PGP encryption with the RSA at 4096 bits key and it will be used uniquely for the service's purposes. So you can be sure that your data won't go to third parties nor any spam or ad will be sent to you.

Unfortunately, the LiveMonitor service needs proper infrastructures and personnel to analyze the data and contact the users in case of alarming situations, for this reasons the service is not free. To use it you need to have a specific activation code that you'll be asked to insert at the moment of the service's activation.
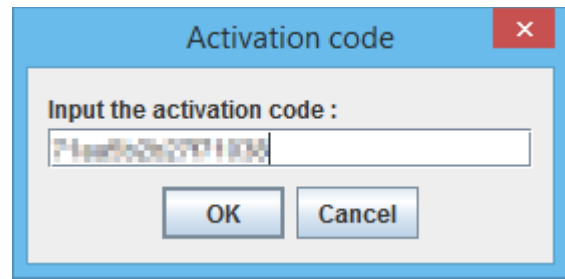

About

The "About" button opens a little information window which shows the version of the KinoServer Manager program and the email address you can use to contact the KinoServer's staff for information, support and advices regarding KinoServer and all its products.

Shutdown and reboot

By clicking on the power button on the top-right corner you'll open a small window which allows you to shutdown or reboot the KinoServer.

Through the window you can shutdown or reboot the server simply by clicking on the specific buttons (this is the most correct and safe way to reboot or shutdown the server, much more than pressing the server's physical power button).
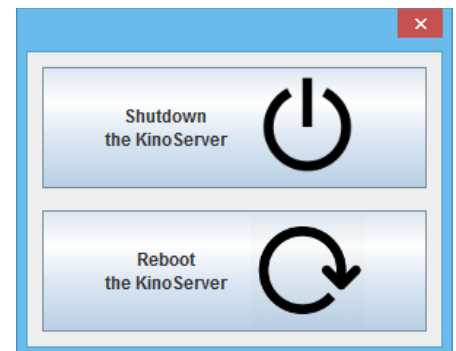
Advanced

In this section we'll present details and technical informations not strictly necessary for the KinoServer Manager program usage nor for that of the KinoServer, but useful in other various situations, such can for example be the case in which you'd like to understand in more detail how the server works and use it in a more direct manner without needing the use of the provided software or another example could be the situation in which you want to try solving unexpected problems directly.

The Server's LAN IP Address

When the KinoServer Manager is connected to a KinoServer, the LAN IP address of the latter is shown in the upper panel of the program.
Alongside the address there is (in brackets), the type of ip address. This can either be dhcp if the server has been assigned its ip address by your access point's or router's dhcp service (which can change) or static, if the ip address has been specified by the server (and it doesn't change).

KinoServer IP: 192.168.1.8 (dhcp)

KinoServer IP: 192.168.1.123 (static)

The LAN IP address represents the machine's address in the local network in which is situated, this address identifies uniquely each machine connected to the network and allows communication and connections to and from the machine without problems nor ambiguities.

If you know the server's IP address you can communicate with it in a direct manner (see the "Direct communications with the server" section) or also access directly the KinoServer's services webpages, for example to access directly the Transmission's local webpage (without the need to use the KinoServer Manager's program) you just need to go to (with your internet browser) the following address:

http://LAN_IP_ADDRESS_OF_THE_KINOSERVER:9091/transmission/web/

(The same applies to the other services, to find out a service's specific URL you just need to open it with your internet browser and then read its address).
So since the knowledge of the IP address can be quite useful (both to the users and the web browser which can store/remember the specific urls) it is advised set the KinoServer to use a connection with static IP.

KinoServer's connection

The KinoServer starts with an ethernet connection with dynamic ip. This can then be changes from the KinoServer Manager.

As already said, the KinoServer can connect to a wifi network, but we advise you to be always capable of returning to the wired connection, since that is the most stable and the one the server returns in case it incurs in some problem. In more detail, when the KinoServer is turned on it starts by checking its local connection in regard to its settings, in case it doesn't find the connection (since the KinoServer if not connected to a LAN network is useless) it resets its connection to the default one (ethernet with dynamic IP) and reboots itself. After the reboot the same procedure starts again up to a maximum of 3 times, after that the KinoServer will give up to try to establish the connection and will remain on (to turn it off you can press the power button).

Another important detail is that the connection from a wifi network directly to another one isn't possible. To connect the KinoServer to a wifi network it always has to be connected with a wired connection. So, if the server's connected to a specific wifi network and you want to connect it to a different one you must first set its connection to an ethernet one and only after that you can connect it to the desired wifi network.

Direct communications with the server

To communicate directly to the KinoServer you can use the Secure Shell (ssh) protocol.

The protocol can be used from any of the modern operating systems, in case you're using a linux pc or a MacOSX one the ssh command should be already present in the system and usable through the system's terminal. In case you're using windows, there are many programs which allows you to establish ssh connections, one of the most popular and easy to use is PuTTY.

Once you've chosen your ssh client, to access the server you'll just need to input its local ip address and use the username "kino" and password "kinopass".

Note: While in a ssh connection be always careful and sure of what you're doing, if you wrongly modify system files that could cause the server in its entirety or in part to malfunction.

Operating system and updates

The operating system on which the KinoServer is based is Ubuntu Server LTS.
The system with its software can be updated (even if we don't reccomend it) with the apt-get upgrade command, through an ssh connection (see previous section) or through the Webmin service. We advise you to perform such operations ONLY if you're really sure of what you're doing. Changes to the operating system or its configuration files can cause the KinoServer to malfunction (totally or partially) or can cause the loss of some or all of your data stored on the server.

Total system reset

The KinoServer miniHD has been designed to be very reliable and with as few failures as possible. But there's always the possibility of some software damage (damages caused by some operating system's error, damages caused by user's wrong usage of Webmin, through an ssh connection, etc). In case your server would, because of a software problem, stop working properly or even become unaccessible, you can reset it to its initial state, to do so follow the steps written in the KinoServer's recovery webpage (http://download.kinoserver.it) or contact our sales network for technical support.

Troubleshooting

In case you've got any problem or inquiry related to the KinoServer Manager program, the KinoServer itself or the interaction between those two systems, do not hesitate to visit out support blog at http://kinoserver.it/blog/ or contact the KinoServer staff, which is always available at the email address info@kinoserver.it.