

ETHIRIS[®]

VIDEO MANAGEMENT SOFTWARE

Getting started with Ethisis Mobile 

Camera 4

Camera 5

Camera



Camera

Camera 11

Camera

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1 Introduction

1.1 Introduction

This manual is designed to help beginners get started with their Ethis Mobile app.

There are a total of 6 various manuals for Ethis. Besides this one, there are also *Installing Ethis*, *Integration with Ethis*, *Getting Started with Ethis*, *Admin - Configuration for Ethis*, and *Ethis Client User's Guide*.

This part of the manual describes the structure and the basic setup of Ethis Mobile, assuming that Ethis is already installed on the computer. For information on how to install Ethis, please see the *Installing Ethis* manual.

1.1.1 Use

The primary purpose of Ethis is camera surveillance, which is performed in two ways. One way is manually to monitor live video from different cameras. The other way involves recording video from connected cameras. Recording can take place continuously from one or more cameras or in the form of video sequences when a recording condition is met. The recorded video can be played back afterward using sophisticated timelines and a VCR-like interface.

1.2 General Description

Ethis is a surveillance system that uses network cameras and analog cameras, together with video encoders from different suppliers.

The product is divided into several program parts, where *Ethis Server* & *Ethis Client* are the most important ones. The server part manages all cameras and stores video on the hard disk. The client part displays live video and recorded video sequences. As for the mobile platforms, there is *Ethis Mobile*. The main purpose of this program is to work as a mobile surveillance solution tightly integrated with the rest of the Ethis system.

There is also a program called *Ethis Admin*, which is used for configuring all Ethis modules in the system. In *Ethis Admin*, you configure the *Ethis Servers* by, e.g., defining which cameras are connected to each *Ethis Server*, when video shall be recorded, what frame rate and resolution to use, etc. You also define the view layout in the various *Ethis Clients* in the system using *Ethis Admin*.

In theory, an unlimited number of cameras could be connected to each Ethis server and be displayed in the desired number of Ethis clients simultaneously. In practice, however, bandwidth and monitor resolution set limits for the appropriate number of cameras connected.

There are different license levels for Ethisis, which permit different numbers of cameras to be connected. To meet the need for a large number of cameras, Ethisis is designed with a focus on scalability. Scalability means that it is possible to divide your system into several Ethisis servers and thus distribute the load over several computers.

A summary of the different Ethisis programs is below:



Ethisis Server

Ethisis Server is the core of an Ethisis system. It handles all communication with the cameras and recording of video on a hard disk. Ethisis Server runs as a service under the operating system and is automatically started as soon as the computer is started. An Ethisis system can be comprised of one or several Ethisis Servers.



Ethisis Client

Ethisis Client is used for viewing live video and recorded video. An Ethisis Client can connect to one or several Ethisis Servers for access to cameras. An Ethisis system can contain one or several Ethisis Clients.



Ethisis Admin

Ethisis Admin is used for configuring the different parts in an Ethisis system. Ethisis Server, Ethisis Client & Ethisis Analyzer are configured with this common tool. From any computer in the system, Ethisis Admin can be run and used for configuring all Ethisis components on-site.



Ethisis Mobile

Ethisis Mobile is an app for connecting to your Ethisis systems via your cell. With Ethisis Mobile you can watch live video from various cameras in your system. You can also see all the alarms.



Ethisis Server OPC Server

Ethisis Server OPC Server is a separate Ethisis component that is used for letting other systems gain access to the information in Ethisis Server. Any other system with an OPC client can connect to one or several Ethisis Servers and read/write to all signals in Ethisis Server. E.g. starting recording of a camera or control a PTZ camera. All analysis information is also available via OPC.



Ethisis ActiveX

Ethisis ActiveX is a component used for viewing live video from a camera connected to an Ethisis Server. This component can be used in any system that can handle standard ActiveX components.



Ethisis Viewer

Ethisis Viewer is a separate program used for viewing exported video from an Ethisis system.



Ethisis Signature Validator

Ethisis Signature Validator is a separate software that is used to validate the authenticity of exported jpg images, so-called *watermark*.

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2 Getting Started

2.1 Overview

In the following section, you will learn how to start using Ethis Mobile.

We will start with a short introduction to the Ethis Mobile prerequisites. Step by step, we will configure this app to be ready to receive live video streaming from an Ethis Server.

2.2 Prerequisites

2.2.1 Ethis License

Ethis Mobile can connect to any Ethis servers, version 5.4 or later, that supports the Mobile option.

2.2.2 License levels

For the moment, there are five license levels in Ethis. The difference lies mainly in how large of a system that can be built.

Free

The entry-level is free of charge and is intended to be used by anyone who wants to try out Ethis. You can connect up to 4 cameras. The functionality is limited but works just fine for many small systems.

Basic

The commercial entry level is intended to be used by smaller companies, small shops, and home users. There is no support for external I/O, although I/O that comes with cameras and videoencoders are available in Ethis.

Extended

This level is suitable for medium-sized companies and shops. At this level, PTZ support is available. Integration via OPC comes at this level and also support for external I/O (not just I/O via cameras).

Advanced

This license level is suitable for larger companies and larger shops. In Advanced, you get integrated support for Windows authentication and audit trail in Ethis. You also get support for multiple storage devices, which mean you can store recorded video in several locations from one Ethis Server.

Premium

This level is suitable for large and advanced installations. The possibility for expansion is almost without limit. At the Premium level, ActiveX and OPC Server is included in the license fee, providing a lot of integration possibilities

The following table (Table 1) describes the different license levels:

Ethis Server

License level	<i>Free</i>	<i>Basic</i>	<i>Extended</i>	<i>Advanced</i>	<i>Premium</i>
Number of cameras ¹	4	1-20	1-40	1-64	1-250
Max storage capacity	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
Max storage time	1 day	Unlimited	Unlimited	Unlimited	Unlimited
Number of concur. clients conn. to server (the sum of clients, ActX, Ethis Mobile & WQ) ¹	2	3	5	20	Unlimited
Requires Internet connection	Yes	No	No	No	No
Support for megapixel cameras	•	•	•	•	•
Schedules	•	•	•	•	•
Recording on event	•	•	•	•	•
Continuous recording	•	•	•	•	•
Motion detection	•	•	•	•	•
Centralized administration	•	•	•	•	•
Browsing for cameras on the network	•	•	•	•	•
Script engine	•	•	•	•	•
Data logging	•	•	•	•	•
PTZ	•	•	•	•	•
Camera groups	•	•	•	•	•
Connect I/O devices via plug-in (1 device / camera license)	•	•	•	•	•
Connect Ethis Mobile – Light mode	•	•	•	•	•
Connect Ethis Mobile – Full mode	-	•	•	•	•
E-mail/SMS	-	•	•	•	•
OPC-client	-	-	•	•	•
Signing of exported jpg images	-	-	•	•	•
Multiple streams from cameras ²	-	-	•	•	•
Door controllers (1 door / camera license)	-	-	•	•	•
Audio out to cameras / audio devices	-	-	•	•	•
Audio devices (1 device / camera license)	-	-	•	•	•
Number of I/O signals via external OPC-server	-	-	32	128	Unlimited
Number of preset positions/camera	-	-	Unlimited	Unlimited	Unlimited
Number of guarded tours/camera	-	-	Unlimited	Unlimited	Unlimited
TCP/http listeners	-	-	Unlimited	Unlimited	Unlimited
Connect Ethis Server OPC-server	-	-	Option	Option	•
Connect ActiveX client	-	-	Option	Option	•
Connect WideQuick EthisView	-	-	-	Option	•
Multiple storage devices	-	-	-	•	•
Authorization	-	-	-	•	•
Possibility of pre authorization	-	-	-	•	•
Ethis native users and user groups	-	-	-	•	•
Audit trail	-	-	-	•	•
Remote control of Ethis Client via script	-	-	-	•	•
Dewarping of 360-cameras in Admin/Client	-	-	-	•	•
Support for UPS	-	-	-	•	•
Hardware acceleration	-	-	-	•	•
Support for GigE cameras	-	-	-	-	•
Floating camera licenses	-	-	-	-	•
Encryption of video and data storage	-	-	-	-	•
Support for cluster and redundancy	-	-	-	-	•
Support for database connections	-	-	-	-	•
Support for alarm central functions	-	-	-	-	•
SIA-server	-	-	-	-	Option

¹ The current hardware of the server/network may limit the actual number of cameras/clients that can be connected. It is up to the integrator to ascertain that the offered hardware can handle the proposed plant.

² Maximum total number of video streams is 2 x the number of available camera licenses.

2.2.3 System requirement

Ethis Mobile is a mobile application developed for iOS and Android platforms.

It can be installed on:

- All Android devices with operating system version 4.1.2 and later.
- All iOS devices with operating system version 8.0 and later.

2.3 Getting Started

The first view that appears when you launch Ethis mobile is the “*Ethis Servers*” view. From here, you can create a new Ethis Server by clicking the “*Create New Server*” button on the navigation bar.

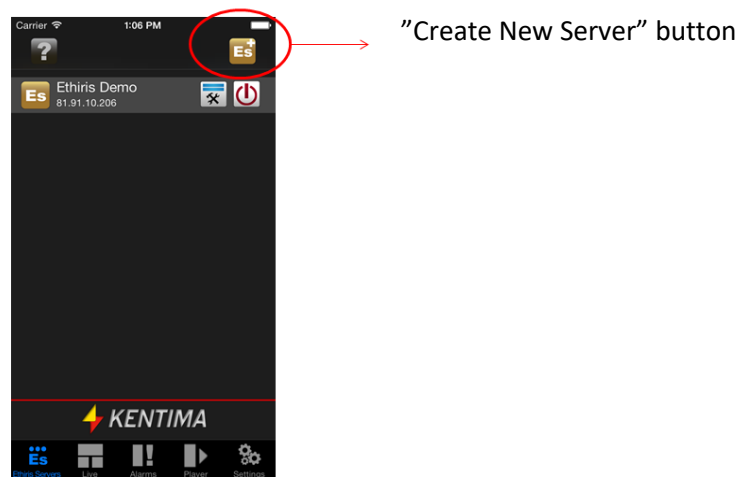


Figure 1 “Ethis Servers” view

Once you have clicked on the “*Create New Server*” button, the “*Add New Server*” view will appear as illustrated below (Figure 2).

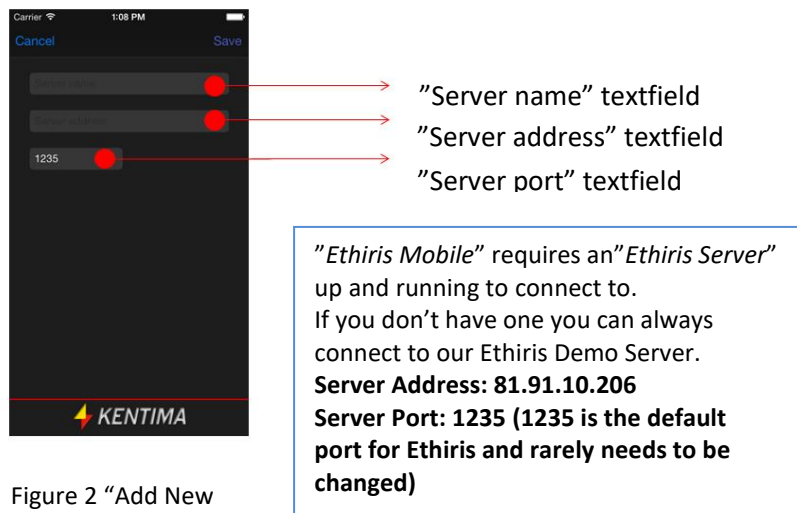


Figure 2 “Add New Server” view

This view allows you to insert all the information needed to create a new Ethis Server object.

After you have inserted the name, address, and port for the new server, just click on “Save” to save your changes. This will navigate you back to the “Ethis Servers” view, where the new server will be displayed.

To delete a server from the “Ethis Servers” view, swipe your finger across the row containing the name of the server instance you want to delete and then click on the delete button.

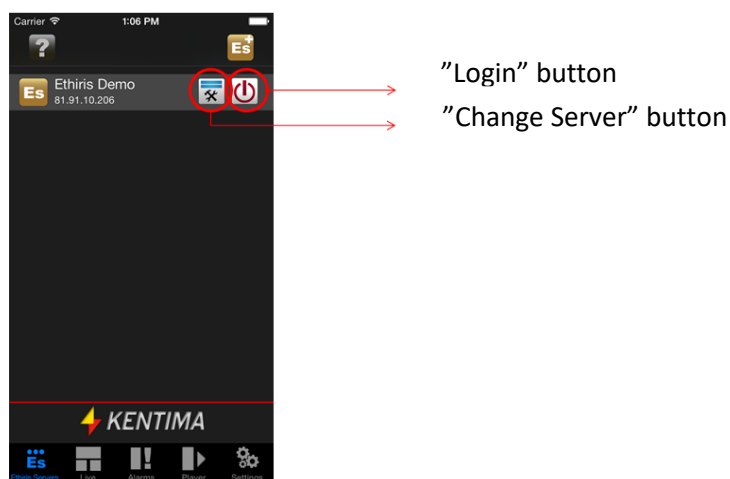


Figure 3

Once you are back to this view, click on the “Login” button to start the connection process. The “Login” button will open a Login Dialog (Figure 4), where you can insert a username and password for the server (if needed) and login to the selected server. If you choose to “Remember login info”, whatever was entered (even empty fields) will be remembered for this specific server in the future and will override any master credentials.

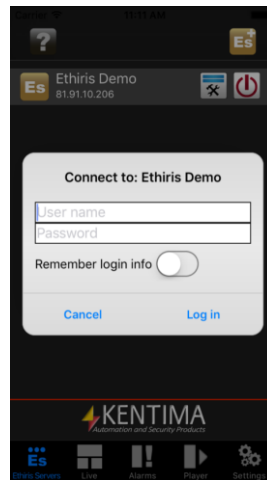


Figure 4 “Ethisis Servers” view with Login dialog

The first time you connect to a server, you will be asked to choose a client configuration. These configurations can be created and edited in the *Ethisis Admin* tool.

For information about setting up client configurations in Ethisis, please see the *Admin Configuration* and *Client User’s Guide*.

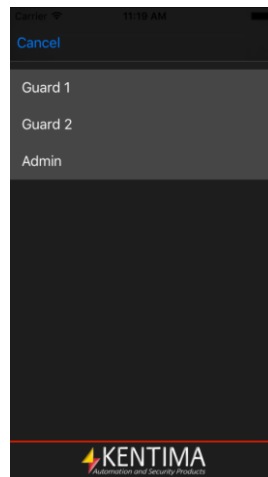


Figure 5 Example list of client configurations

The chosen configuration will be remembered and automatically loaded if possible whenever you connect to this specific server. If you want to go back to this list and choose a different configuration, it can be accessed by clicking the “Configuration list” button.

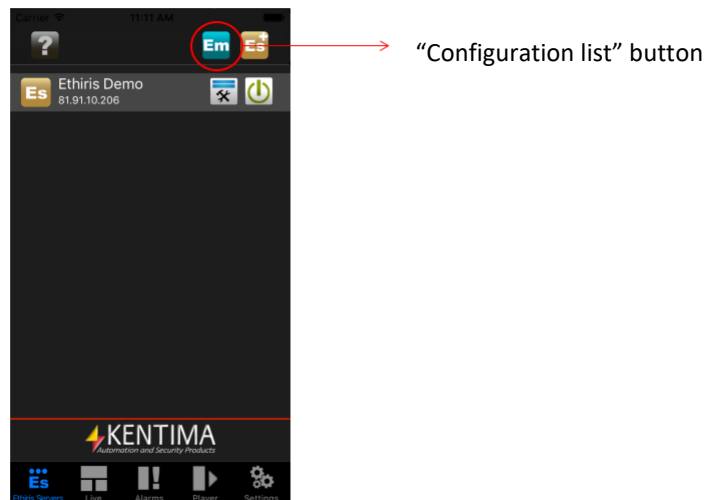


Figure 6

Navigate to the “Live” tab and long-press the view to open the menu, then the “Cameras Panel” button (Figure 7). (Opening the cameras panel might require logging in with a user that has permission. If you can’t do that there should be predefined views with specific cameras already selected)

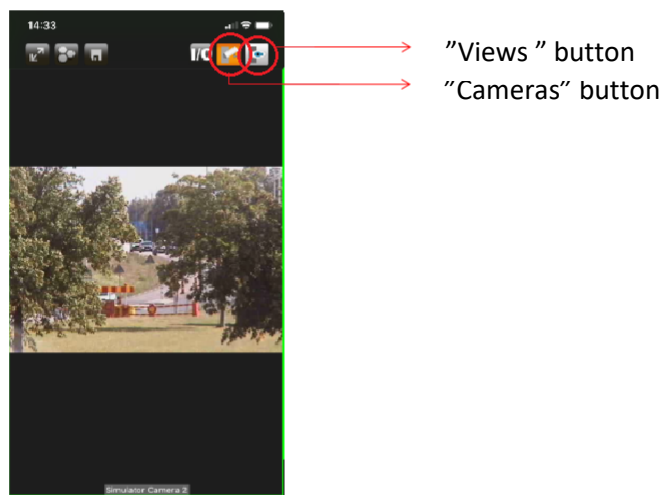


Figure 7 “Live” view

You can now choose a camera from the list illustrated below (Figure 8) and then click on the “Done” button.

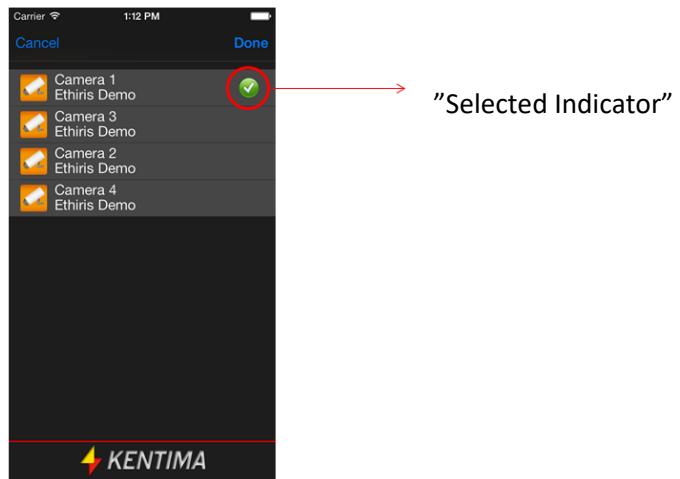


Figure 8 "Cameras Panel" view

Now the app should start the live-video streaming from the selected camera.

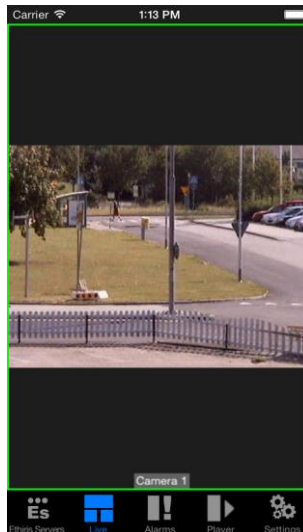


Figure 9 "Live" view

When a live view is visible you can swipe across the live video to cycle through the cameras (might require permission to do), if the visible view has multiple cameras you need to swipe across the video of a camera at the left or right edge of the screen.

If the configuration has I/O buttons, then the option to open the list of buttons will appear among the other options in the live view menu.

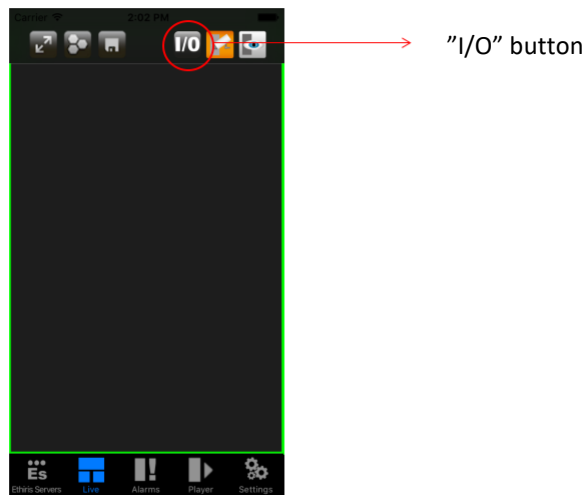


Figure 10

Here you can see and possibly alter the state of variables set up in Ethis Server. The current state will be reflected by the icon with a highlighted (filled) "I" meaning active and highlighted "O" meaning inactive. If you have permission to change the associated variables, pressing an I/O button will toggle its state.

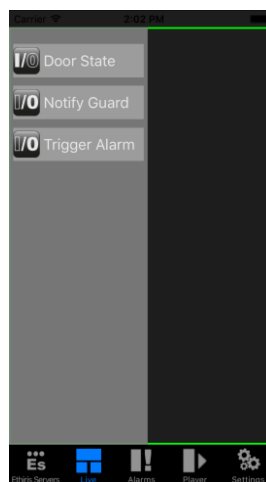


Figure 11 The I/O menu

3 PTZ	3:1
3.1 Overview	3:1

3 PTZ

3.1 Overview

When in the “*Single Camera*” view (Figure 12), it’s possible to control a camera through the PTZ commands. You can enter this view by double-tapping a “*Camera*” view.

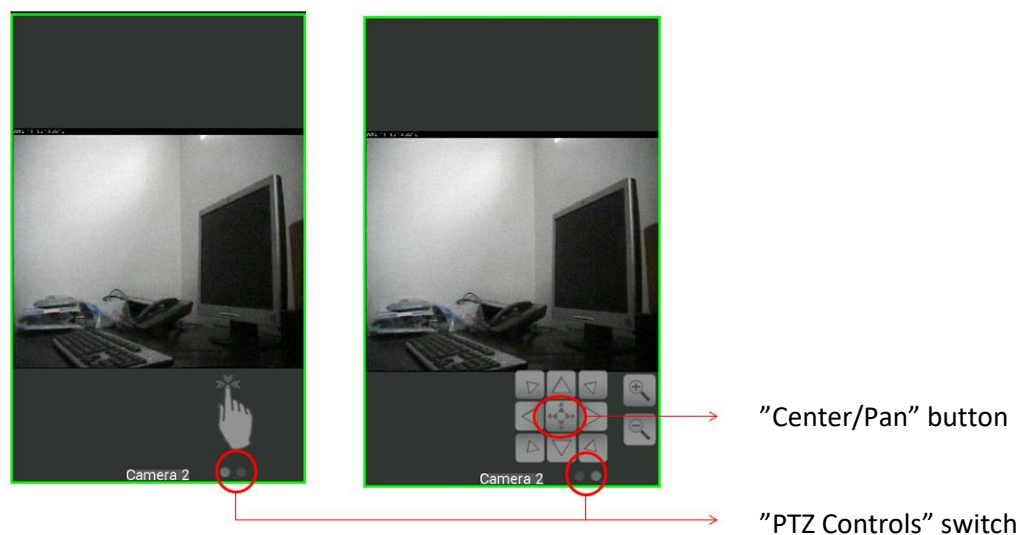


Figure 12. “Single camera” view

In general, when the user talks about PTZ, he is thinking of what we call optical PTZ, i.e., controlling the movement of a motorized camera physically.

The main difference between the digital PTZ and optical PTZ is that the digital PTZ only affects the frames in Ethis Mobile. The optical PTZ, on the other hand, has a direct impact on the frames sent from the camera.

Another difference between these two modes is that all cameras can be operated in digital PTZ mode; meanwhile, optical PTZ is only available on real PTZ cameras.

Both modes implement the following gestures, as shown in Table 1.

**Double-tap**

Double-tap: The double-tap gesture is reserved for returning to the Live Tab view.

**Drag-flick**

Drag-flick: The Drag-flick gesture is reserved for the Tilt-Up/Down function and the Pan Left/Right function.

**Pinch**

Pinch: The Pinch gesture is reserved for the Zoom in function.

**Spread**

Spread: The Spread gesture is reserved for the Zoom out function.

Table 1

4 Alarms	4:1
4.1 Overview	4:1
4.2 Alarm information.....	4:2
4.3 Alarm states	4:2

4 Alarms

4.1 Overview

The “Alarms” view (Figure 13) displays all the active or unacked alarms in the system.

Alarms are used for capturing severe problems in the system. When an alarm is activated, it appears in the Alarms list and will not disappear until the alarm condition has withdrawn and the alarm has been acknowledged.

For information about the alarm system in Ethis, please see the *Admin Configuration* and *Client User’s Guide*.

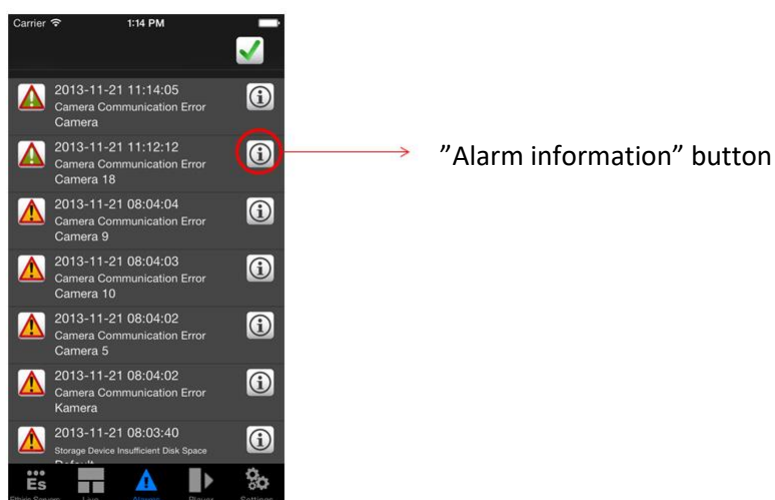


Figure 13 “Alarms” view

4.2 Alarm information

To see further details than those visualized on the “Alarms” view, the user can open the “Alarm information” view. This view displays all the relevant information of the selected alarm, as shown below (Figure 14).

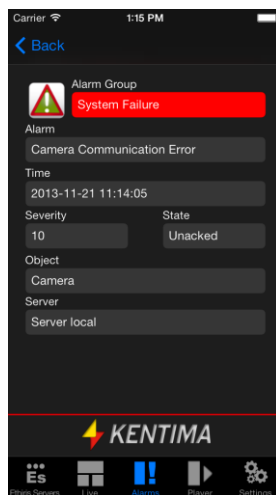


Figure 14 “Alarm information” view

4.3 Alarm states

An alarm can have several states. The current state of an alarm is indicated by the icon to the left of each alarm in the Alarms list of the Alarm Tab view.

The normal state is that the alarm is inactive and acknowledged, i.e., everything is OK. In this state, the alarm usually is not visible on the list. Other possible states are illustrated in Figure 15.



Figure 15

- 1** Aked (Acknowledged): The alarm is in this state when the alarm condition still is true, but the operator has acknowledged the alarm. When the alarm condition no longer is true, an aked alarm disappears from the alarm list.
- 2** Active: This is when the alarm condition is true, and the alarm has not yet been acknowledged. If any alarm is in this state, the Alarm icon in the upper right of Ethis Client is flashing to get the attention of the operator.
- 3** Unacked: In this case, the alarm has been active and then inactive again (the alarm condition is no longer true), but the operator has not yet acknowledged the alarm. As soon as the operator acknowledges the alarm, it disappears from the alarm list.

5 Player

5:1

5.1 Overview	5:1
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5.3 Buffer indicator	5:4

5 Player

5.1 Overview

The Player panel is used for playback of recorded video. This functionality requires Ethis Server 5.10 or later.

There are two main parts in the Player, the timeline and the camera view. In Figure 16, the Player is loaded with a view of one camera.

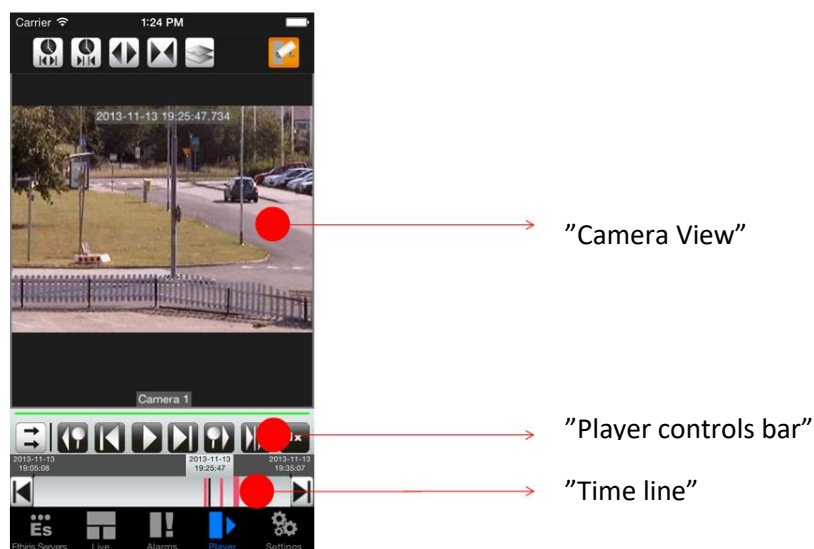
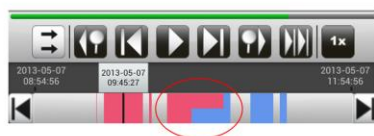


Figure 16 "Player" view

The timeline display information about recordings for each camera. Light grey color means no recording, red means event recording, and blue means continuous recording. Both continuous recording and event recording can go on at the same time, as shown below (Figure 17).



Time line example with both continuous and event

Figure 17

The player commands bar lets you navigate your recorded video.

By default, Ethis Mobile allows you to view content in either vertical (portrait) or horizontal (landscape) mode by rotating the device.

To maximize the available space when in landscape mode, the “Tab Bar” controller will be hidden.

The navigation bar is hidden by default, but you can make it visible by tapping on the “Camera View”.

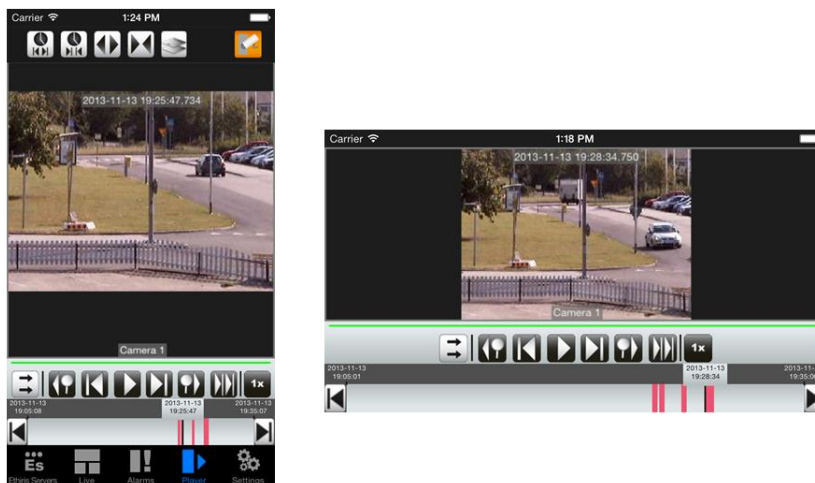


Figure 18 In landscape mode the “Tab Bar” controller will be hidden

5.2 Player commands bar

In this section, we will introduce you to the “Player commands bar”. Table 2 contains a description of all the buttons used to control the recorded video playback.



Select time span

Select time span is used to select the desired time span. Opens a list with different time spans, from 10 minutes to 1 week. The 30 minutes choice is automatically selected.



Select time

Select time is used to select the desired time. It opens a panel where it's possible to choose the desired time.



Expand time span

Expand time doubles the current time span.



Shrink time span

Shrink time span halves the current time span.



Go to now

Go to now sets the end time of the timelines to the current time.



Previous video segment

Previous video segment jumps back to the start of the previous video segment in the timelines.



Fast forward

Step backward displays the previous frame of the camera loaded into the Player.



Play

Play is used to start playing back the video.



Step forward

Step forward displays the next frame of the camera loaded into the Player. Each click on this button steps forward one frame in the recorded video.



Next video segment

Next video segment jumps to the start of the next video segment.



Fast forward

Continuous Step forward displays the next frame of the camera loaded into the Player while the button is depressed. When the button is released, the Player resumes the start state.



Playback speed

Playback speed The playback speed can be altered to slow motion/fast motion. The speed can be set between 1/128 to 128x normal speed.

Table 2

5.3 Buffer indicator

The purpose of the indicator is to give the operator a hint of whether the system manages to deliver video to the player at a sufficient pace. When the indicator indicates that the system does not keep up, the operator can do something about the problem by, for example, decrease the playback pace in the player.

The main principle is that when the indicator is green, everything is OK, and when it is red, the system has problems delivering video at a sufficient pace. Unfortunately, the whole truth is not quite that simple. Even when the indicator is red, everything might be OK. It may happen when there are no more images for a particular camera to deliver, and then the buffer will not be filled entirely.



Figure 19

"Buffer indicator"

6 Settings	6:1
6.1 Overview	6:1

6 Settings

6.1 Overview

From version 5.8 of Ethis Mobile, we have introduced a new “Settings” page. This page includes the following sections:

The “*Master Credentials*” section (Figure 20) allows you to save a username and password to use to connect to an Ethis Server. Once you have this function enabled, you don’t need to write your credentials anymore, Ethis Mobile does it for you.

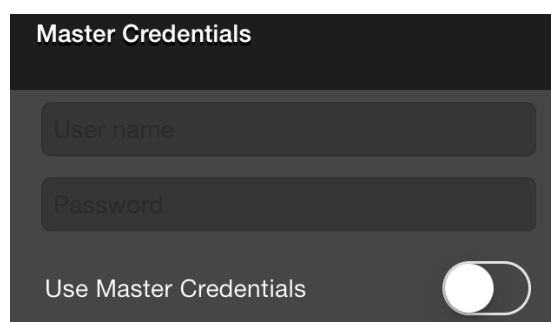


Figure 20

The “*Streaming Settings*” section (Figure 21). It allows you to customize the live and recording streaming that Ethis Mobile will receive from an Ethis Server.

Under this section, you can find the following settings:

- “*Frames per second*” - Set the frames per second (FPS) value between 1 and 25 or “Max”.

1 – 25 indicate a specific frame rate while “Max” means the maximum available frame rate for the transfer of video from an Ethis server to your device.

The suggested values for this setting are 15 for WiFi and 10 for Mobile networks.

This setting might conflict or be invalidated by the FPS setting of the camera.

- “*Image quality*” - Set the image quality of the video between 0 and 100. 100 indicates the maximum available quality.

The suggested values for this setting are 70 for WiFi and 50 for Mobile networks.

- “*Stay awake*” - If selected, sleep mode will be disabled during both live and recording streaming.

Note that sleep mode is useful to minimize power consumption and extend battery life.

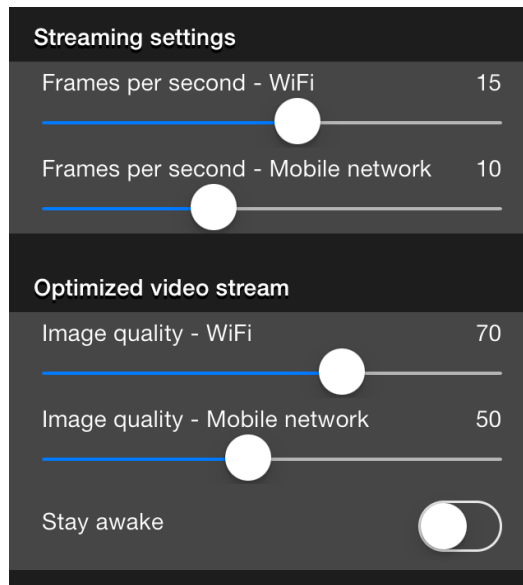


Figure 21

The “*PTZ Controls*” section (Figure 22).

Under this section, you can find the following settings:

- “*PTZ speed*” - Set the PTZ speed value between 25 and 300, with 100 being a 1 to 1 ratio and 300 being a 1 to 3 ratio.
This setting affects the pace at which a camera moves.
The suggested value for this setting is 100 (1 to 1 ratio).
- “*Transparency*” - Set the transparency value for the PTZ controls between 1 and 70, with each value being the transparency percent to apply to the controllers.
The suggested value for this setting is 40.

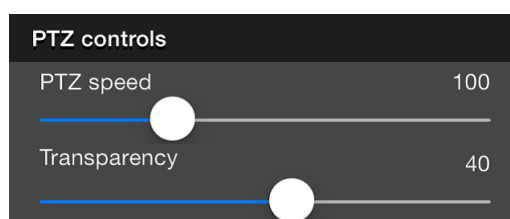


Figure 22

The “*Live*” section (Figure 23).

Both the “*Show camera name*” and “*Show frame per second*” setting apply only to the live streaming.

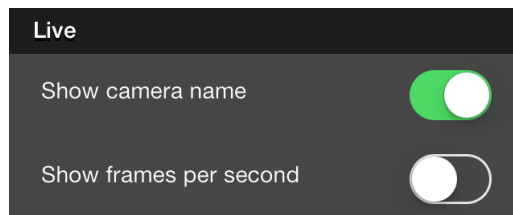


Figure 23

The “*Player*” section (Figure 24).

By default, the tab menu is hidden in the player if your device is in landscape mode to give more space for the video.

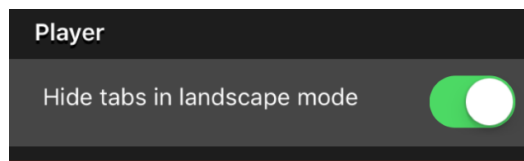


Figure 24

7 Connect to Ethisis Server	7:1
7.1 Overview	7:1
7.2 Configuring remote access.....	7:1

7 Connect to Ethis Server

7.1 Overview

Before you can start streaming video, you have to install Ethis on your server. For information on how to install Ethis, see the *Installing Ethis* manual.

Once you have an Ethis Server configured and running, you can install the Ethis Mobile app on your phone. Visit the App/Play Store to download the appropriate version for your device.

The first time you launch Ethis Mobile, you will see the login page. If you navigate to the Servers tab, you see that the server list is empty. If you already have an Ethis Server running and your phone is connected via Wi-Fi to the same network as your Ethis Server, you can just tap on the *New Server* button and enter its name, IP address, and port. Ethis Server uses TCP port 1235 by default.

If you navigate back to the Login tab, you should be able to connect your phone to the Ethis Server you set up.

7.2 Configuring remote access

As illustrated below, you have now set up your Ethis system so you can stream video to your phone as long as you are on the same network (Figure 25).

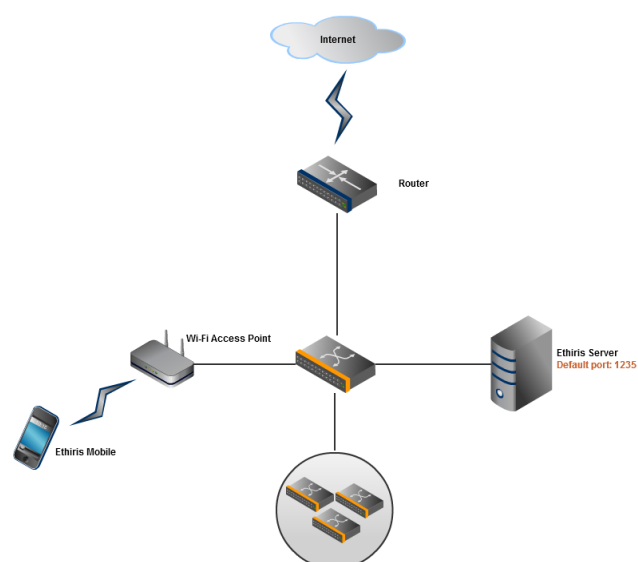


Figure 25 – Simple network configuration

To allow remote access over the internet to your Ethisis Server, you will need to make some changes to your network.

First of all, you need to configure port forwarding on your router; Ethisis Server uses TCP port 1235 by default.

Once you know which port your system uses, you can either open it for external connections on your router or, better yet, configure your router to route traffic arriving to that port directly to the Ethisis Server on your network.

This process varies from router to router, so please contact your network administrator or your Ethisis integrator if you need help with this.

If you have a static IP address, you can use it to connect your phone to your Ethisis Server. However, if you have a dynamic IP address assigned by your ISP, you need to use a service like DynDNS to complete this task.

To increase the security of your network, we strongly recommend to use a firewall and to connect your phone and your Ethisis Server through a VPN tunnel as illustrated in Figure 26. If you are not familiar with those terms, please contact your network administrator or your Ethisis integrator.

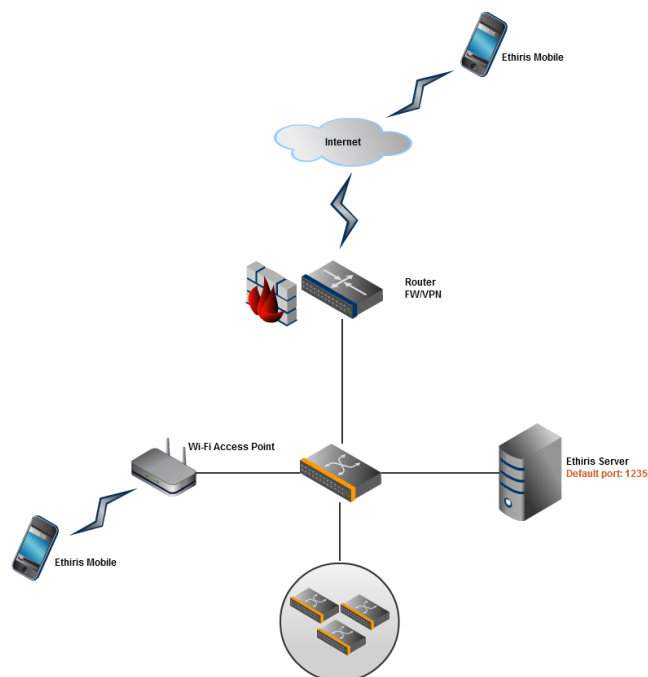


Figure 26 – Recommended network configuration

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