EnGenius

HOME Guardian

EDS1130

Intelligent IP-Camera

User Manual

IMPORTANT

To install this IP-Camera please refer to the **Quick Start Guide** included in the product packaging.

Table of Contents

Chapter 1

Product Overview

The **EDS1130** is a Wireless Intelligent Network Camera which adds surveillance capability to the home network environment. It helps family members and small business owners keep an eye on what matters and get notified by what just happened on demand allowing around-the-clock monitoring remotely.

It features LED Infrared Night Vision with automatic activation system. Megapixel HD live streaming with high speed H.264 encoding ensures fine quality image recording without losing any details. Infrared Night Vision feature can deliver 24 hours non-stop monitoring. With the support of EnGenius Cloud service, you can monitor your home remotely at anytime from anywhere on iPhone®, iPad® and Andorid™-based smartphone and tablet using EnViewer app or on PC via web-based User Interface.

Introduction

This document will guide you through steps in detail for EDS1130 installation and both basic and advanced configurations. Be familiar with the product features can help you fully utilize the camera for various application scenarios. Please note that the product features may improve over time, be sure to check out the latest firmware and user manual for most updated changes on EnGenius website.

Thank you for choosing EnGenius products.

Read Before Using

For users' convenience, the camera is configured with DHCP enabled by default which allows the camera to get an IP address for itself automatically. This applies to the majority of the home network settings. However, if you are connecting the product in an office (or any public settings), you may need to consult the IT technician at the MIS department ahead to avoid IP address conflict.

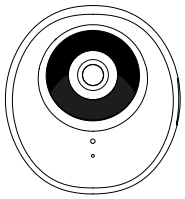
Like all electronic devices, do not install the product in hazard environment where humidity or temperature is high to avoid danger. This camera is designed for indoor usage only, do not expose it directly under the sun and avoid contact with water. In case of wall-mount installing, secure the camera and wires in place and prevent it from dangling.

Key Features

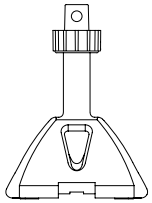
+ Megapixel HD Resolution to Deliver Quality Streaming on A Variety of Mobile Devices and PCs
+ LED Infrared Night Vision up to 16 Feet (5 Meters) with Automatic Activation System
+ Wireless-N Network Compliant with Optimum Wi-Fi Performance
+ Supports Dual-Stream Live View with High Speed H.264 Encoding
+ Built-in Microphone & External Audio Out for Two-Way communication
+ Multiple Storage Options - Built-in Micro SD/SDHC Slot for Onboard Storage and Samba/FTP Client to Save to an External Storage
+ Configurable Motion Detection Windows
+ EnGenius Cloud Services Supported (Apps and Web-based Services)
+ Easy Setup with Simple Configuration using UID QR Code or Auto Search
  Work with EnViewer APP
+ Supports Push Message and Play Back on Smart Devices triggered by Motion/Sound Detection

Package Contents

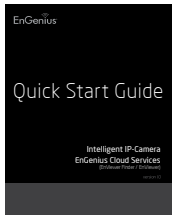
The package should contain all of following items shown below.



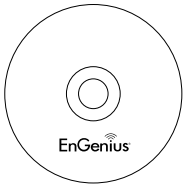
Camera



Camera Stand

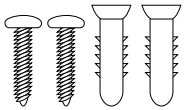


Quick Start Guide



CD

QR Code Label
(for EnViewer APP)



Wall Mount Screw Set

12V/1A Power Adapter

RJ-45 Ethernet Cable

Physical Description

1 Camera
2 Infrared LED x 6
3 Micro SD Card Slot
4 Brightness Sensor
5 LED indicator: Power
6 Microphone Receiver
7 Power Jack
8 RJ-45 Ethernet Port
9 Speaker
10 LED indicator: WiFi / WPS
11 WPS button
12 Rest button
13 Camera stand

LED Status

LED indicator shows operational status with colors.

LED Indicator: Power

Color	Status
Green Blinking	Booting up
Green	Local Connection established

LED Indicator: WiFi/WPS

Color	Status
N/A	Wi-Fi is off
Orange	Wi-Fi is on but did not connect to Gateway/Router yet
Green Blinking	Pairing WPS
Green	Wi-Fi connected

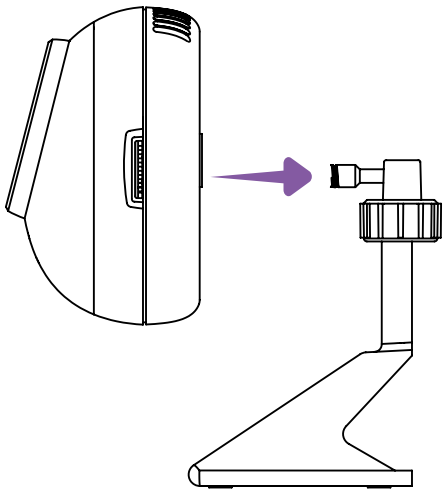
Chapter 2

Installation

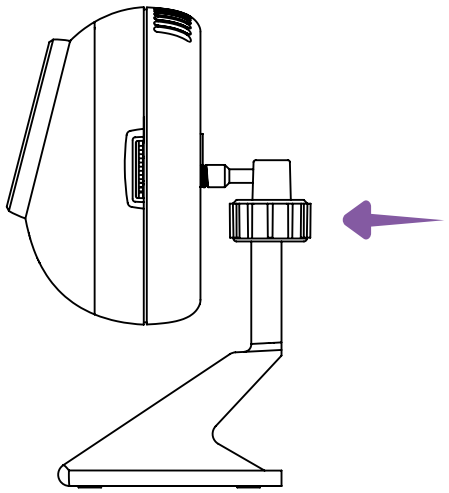
Hardware Assembly

Before installing the camera, ensure that the camera is properly configured and tested before hardware installation especially when the camera is intended to be mounted on a wall. Also, the power outlet is required near the installation site.

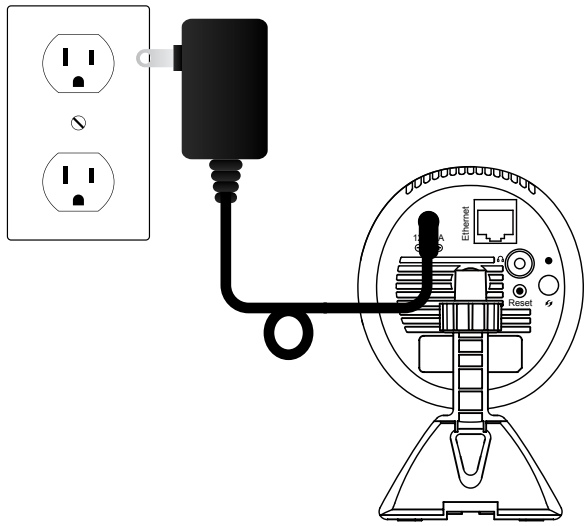
I.



II.



III.



I. **Screw the stand to the camera.**

II. **Adjust camera angle and tighten the neck knob.**

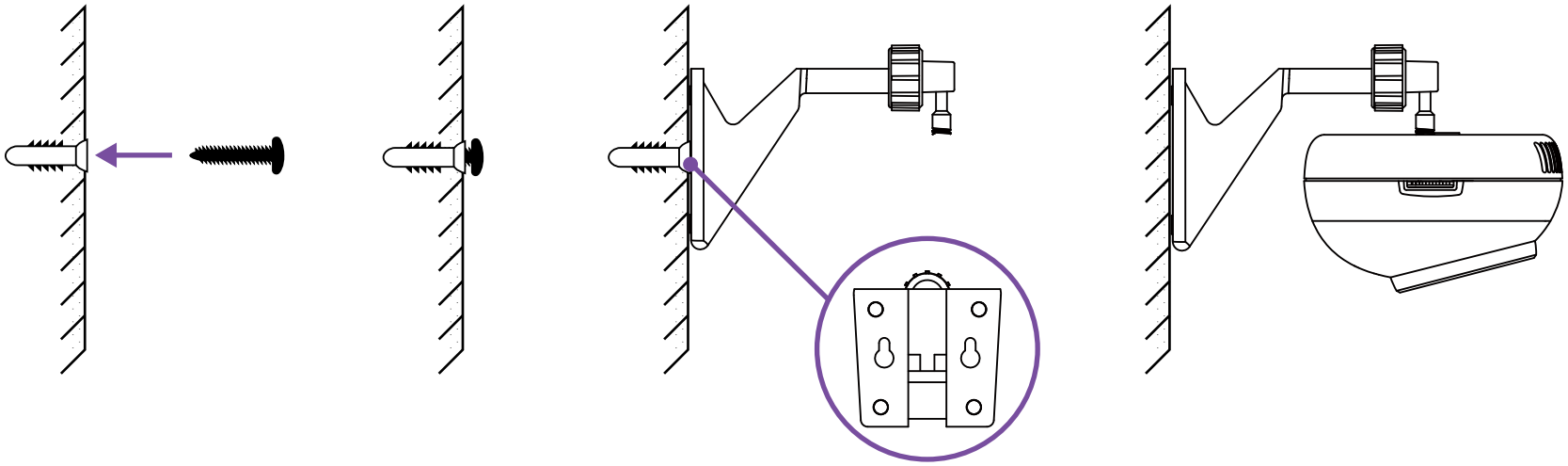
III. **Attach the power adapter to the camera and plug into a wall outlet.**

Tabletop

- Complete the camera assembly. Find a secure location where the monitored space is within the camera view range and adjust the camera angle focusing on the target area or object.
- Plug in the power adapter to the wall outlet once ready.

Wall-mount

- Detach the camera from the stand for easily installation.
- Find a proper place on the wall where camera is able to aim at the monitored space.
- Once location is determined, mark and drill two pilot holes aligning to the screw holes at the bottom of the camera stand. Once aligned, put wall anchors into the holes and insert screws into the wall anchor. Screw and secure the stand in place.
- Now, you can attach the camera to the stand. Then, plug in the power adapter to the wall outlet to complete the installation.

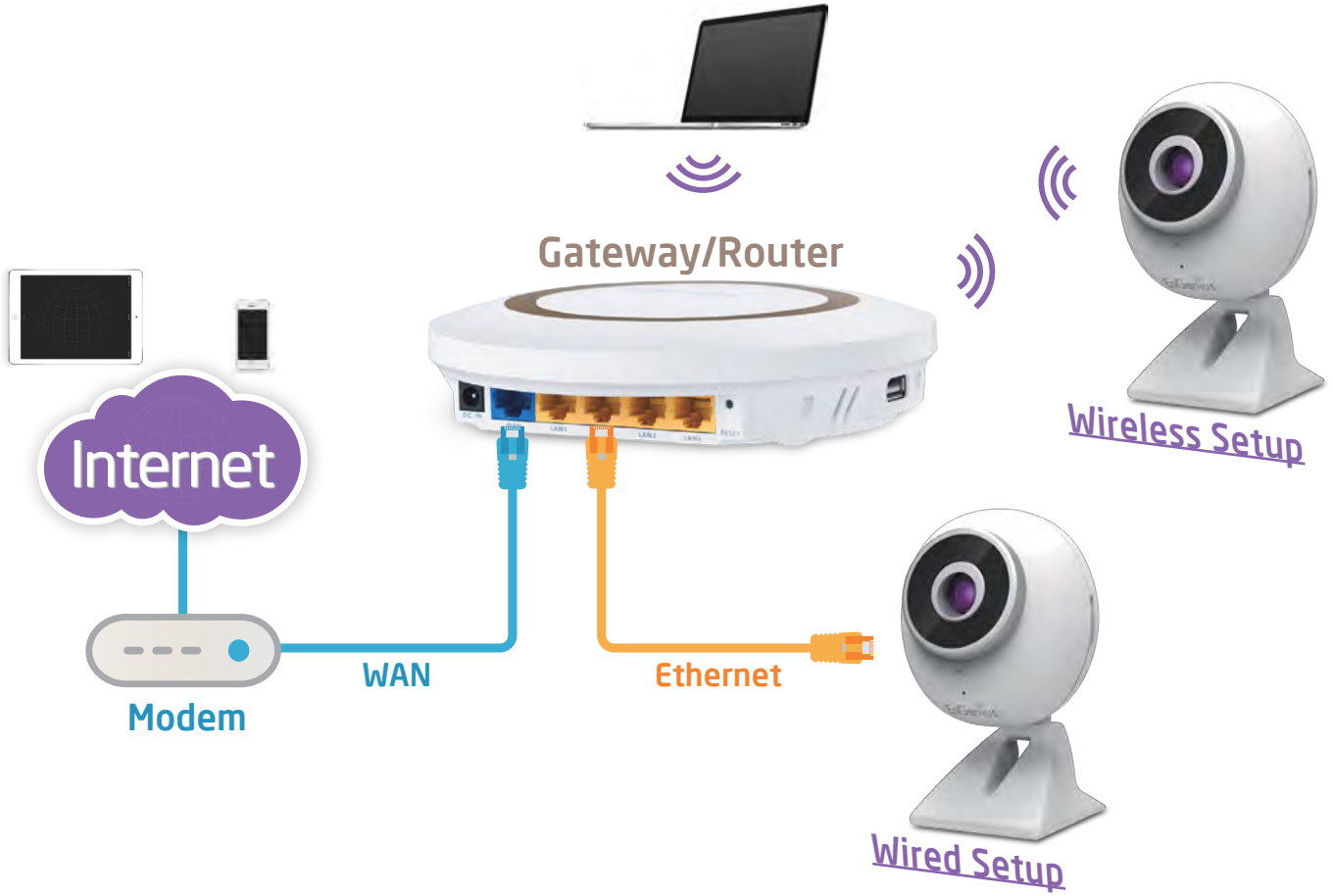


Network Deployment

Before setting up the camera with your gateway or router, please ensure the Internet is ready.

When camera is configured with the gateway/router with Internet connection, you can then access the camera throughtout your home or studio office. This section will guide you through the connection setup. Please follow the succedding guide step by step for setting up the connection between your camera and the home gateway/router.

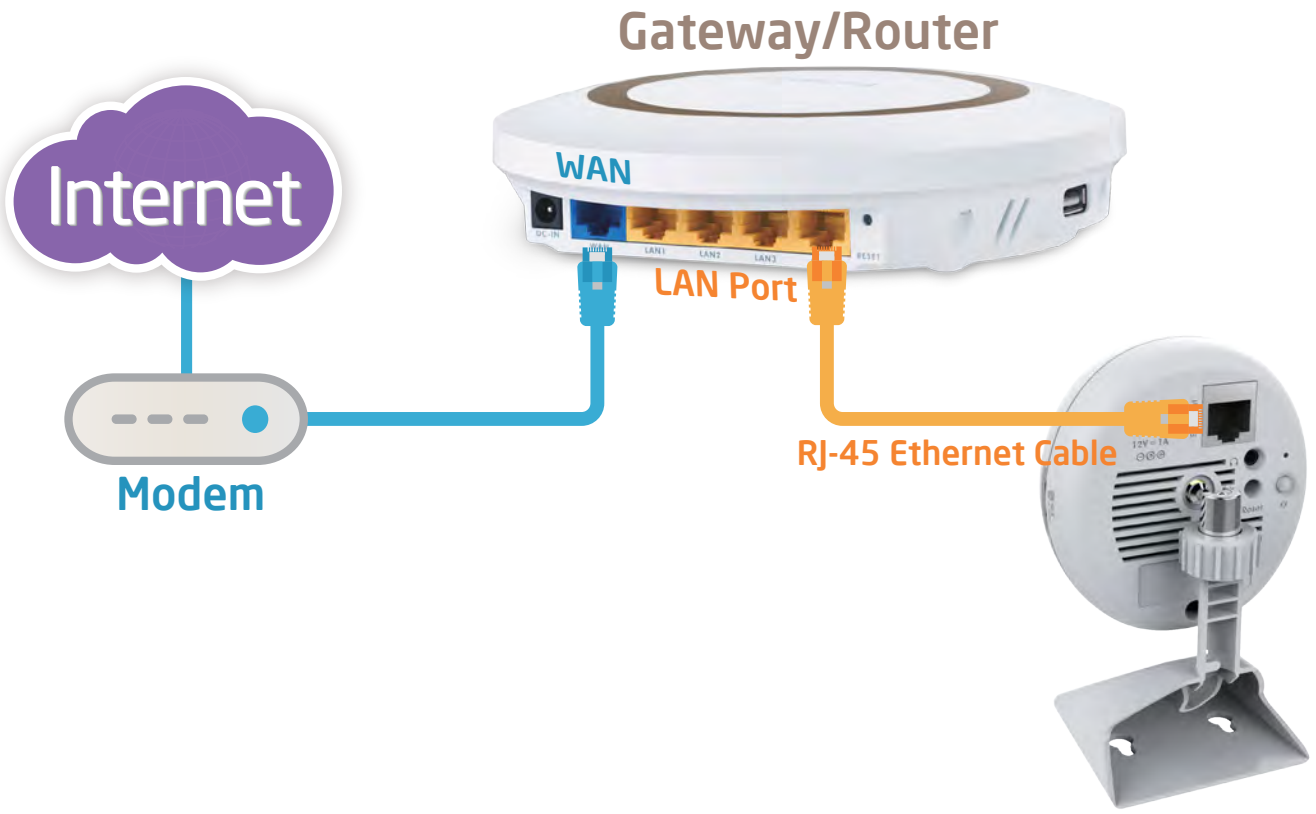
There are two ways to establish connection between the camera and gateway/router: Wired (Ethernet) and Wireless (Wi-Fi).



Connecting via Ethernet Cable

Connect the camera to the gateway/router on the LAN ports with a network CAT5 RJ-45 Ethernet cable (shown below). You may use the cable included in the package for initial setup; however, you may be required to switch to wireless setting or purchase a longer cable to extend the connecting range.

As a rule of thumb, using an Ethernet cable for optimized connectivity if your camera is close enough to the gateway/router; and for wall-mount installation, adopting wireless setup will be a better choice. Choose either way for the application you find suitable.



Connecting via Wi-Fi Setup

It is recommended that to make initial setup with RJ-45 Ethernet cable and then switch to wireless after you have completed all the settings. However, you can also start wirelessly with WPS mechanism.

Note: **Ensure the gateway/router supports WPS feature and confirm that the feature is enabled.**

Make sure two devices are close enough and the gateway/router is not occupied by heavy traffic or P2P loading.

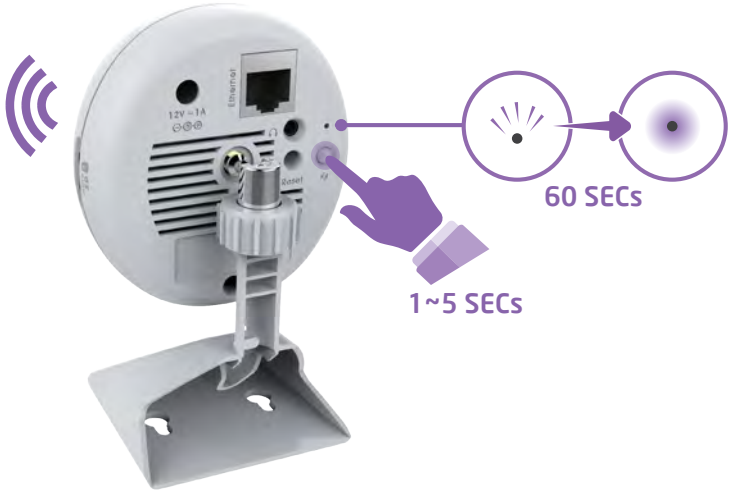
I. Press the WPS button (shown below) on your gateway or router until WPS LED blinks.

II. Press and hold the WPS button on the back of your camera for 1-5 seconds and the Wi-Fi LED will start blinking frequently. When the connectivity is complete, the Wi-Fi LED will become solid green. The process may take up to 1 minute.

Please note that there may be differences in WPS between brands; therefore, if the gateway or router does not respond to camera connection request properly, please use RJ-45 cable for initial setup and manually configure wireless setting afterwards. Please refer to Chapter 3 for manual wireless setup.

I.

II.

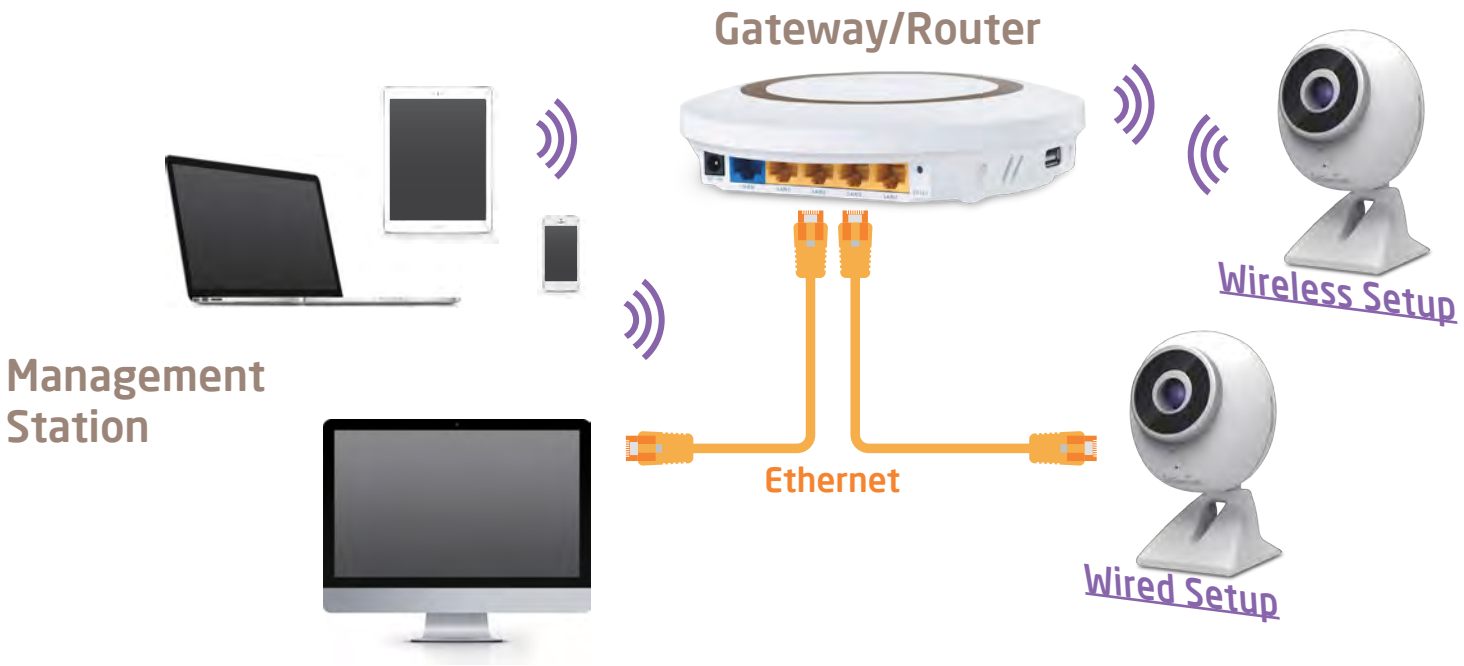


Chapter 3

Accessing the Camera after Installation

There are several ways to get access to your camera throughout your home network. You should probably have a setup similar to the following diagram. You can manage the camera using your PC, Laptop, or via iPhone, iPad or Android-based mobile devices; we will call it **management station** in the following context.

Note: Please be advised that management station and the camera must be connected to the **same gateway or router**.



Managing using PC or Laptop

EnViewer Finder by EnGenius

EnViewer Finder is an utility tool provided by EnGenius that helps you to discover the camera within the local network. You should be able to find the tool from the included CD in the package. Please copy the tool to your **management station** desktop for quick access when you need it. Please take note of the IP address shown. In this example, **192.168.0.101** is the camera IP address.

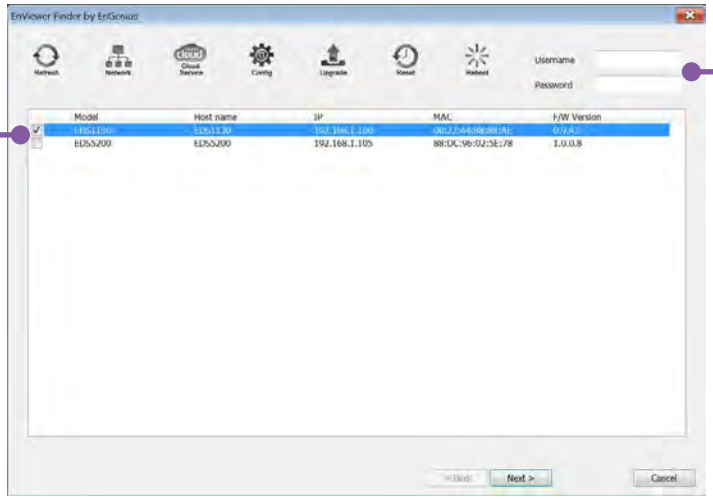
EnViewer Finder by EnGenius

Double-click on the icon to run the installation.

The camera list displays the discovered cameras currently connected to your gateway or router (local network). If you do not find the one you intend to configure, please click on 

to rescan the network until it appears on the list.

Note: Please ensure any heavy-loading applications such as P2P that may occupy your home network. The scanning process may take a few seconds.



Enter **Username** and **Password** on the upper right for the selected camera on the list. The default value of both Username and Password is admin.

Then, click on **Next** to start configuration.

The **EnViewer Finder** will guide you step by step through the basic settings, including Network, EnGenius Cloud Services and Video Configuration. You can also switch between settings by clicking the icons on the top of the panel.

In **Config** page, you can quickly set up the initial video settings.

In **EnGenius Cloud Services** page, you can give a rememberable name for your exclusive Dynamic DNS.

In the **Network** page, you will be reviewing network IP settings, setting up your local time zone and the administrator login password.

Refresh the network for camera within the local network

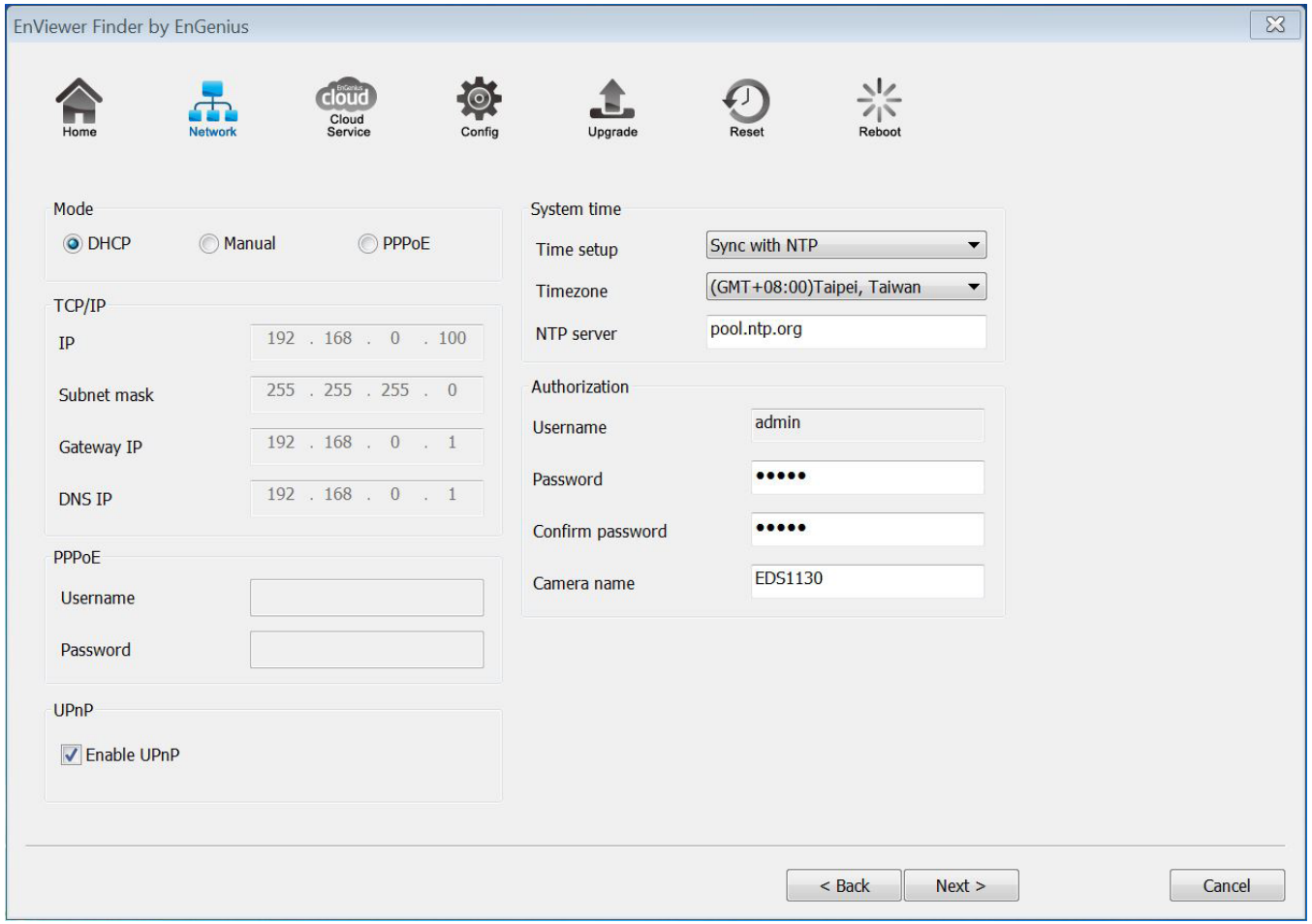
EnViewer Finder can also assist you to manage the advanced device management.

Reboot/restart the camera

Reset the camera to factory default settings

Upgrade the latest camera firmware.

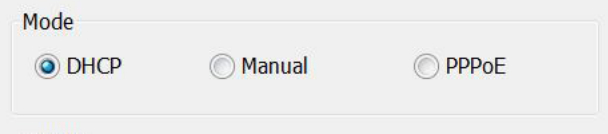
EnViewer Finder>> Network



EnViewer Finder: Network>>

Mode

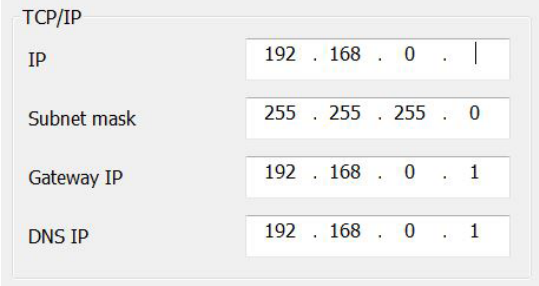
There are three modes that your camera can get its IP address: **DHCP**, **Manual** or **PPPoE**.



DHCP:

It is the most popular way in the home network settings. It will request IP address from your gateway or router automatically. The requirement is that your gateway/router should enable DHCP (which is basically the default setting for most of the home gateway/ router products). You are not required to enter any IP related information.

Manual:



You will need to assign the IP address details in TCP/IP section. Please ensure that the IP address is not being used by someone else in the network.

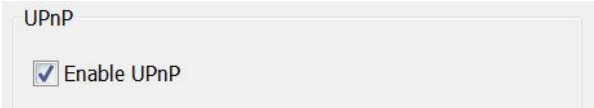
PPPoE:

If you are connecting to the Internet without going through your home gateway/router, you can connect the camera directly to your modem (given that your Internet service is using PPPoE protocol). Please consult your local network service provider for more detail. Basically, the PPPoE setting is exactly the same as what your home gateway or router. You will need to provide at least the **Username** and **Password** to get the access.

EnViewer Finder: Network>>

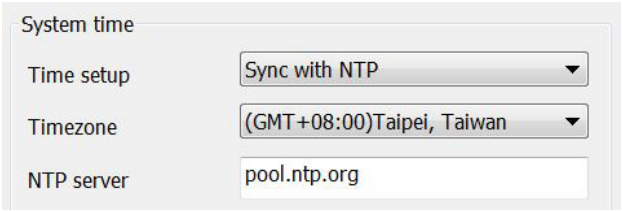
UPnP

UPnP must be enabled so that the camera can be discovered by UPnP services. Leave it **enabled** if you unsure what UPnP is.



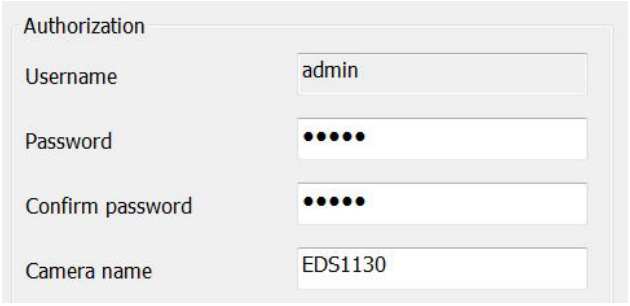
System Time

Like any other surveillance system, time is essential because we want to keep track of the time of the events recorded or detected by the camera. By default, the camera is connected to a public time server (pool.ntp.org) and its time is always synchronized with the server over the Internet. Normally, you only need to change the **Time Zone**. Choose the one that matches your location from the dropdown menu. Leave the other settings as default should be fine. Setting the wrong time server or time zone will result in inaccurate scheduling and time stamp.

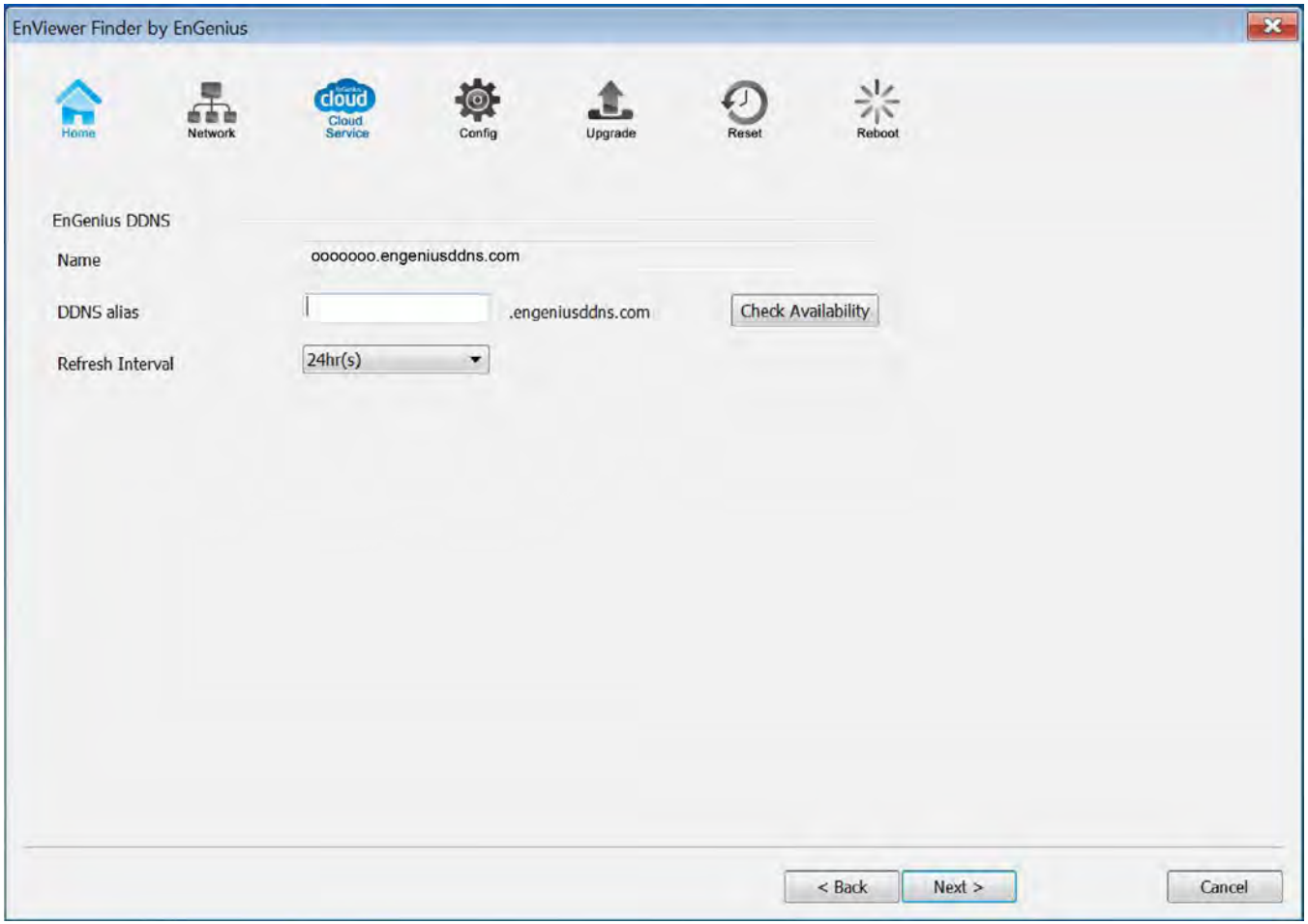


Authorization

You may change the **Password** of 'admin' or **Camera Name** here. Please note that, once you changed the password, you will need to provide your new password the next time your login the camera through EnViewer Finder or Web Browser. The Camera Name is the camera host name that represents the identity of the camera. If you installed several cameras, please assign a unique name for each camera for better identification.



EnViewer Finder>> EnGenius Cloud Service



Default DDNS name

Each camera is distributed with a unique DDNS name and the default DDNS name is shown in the column. You can also find the default DDNS information on the QR code label inside the package.

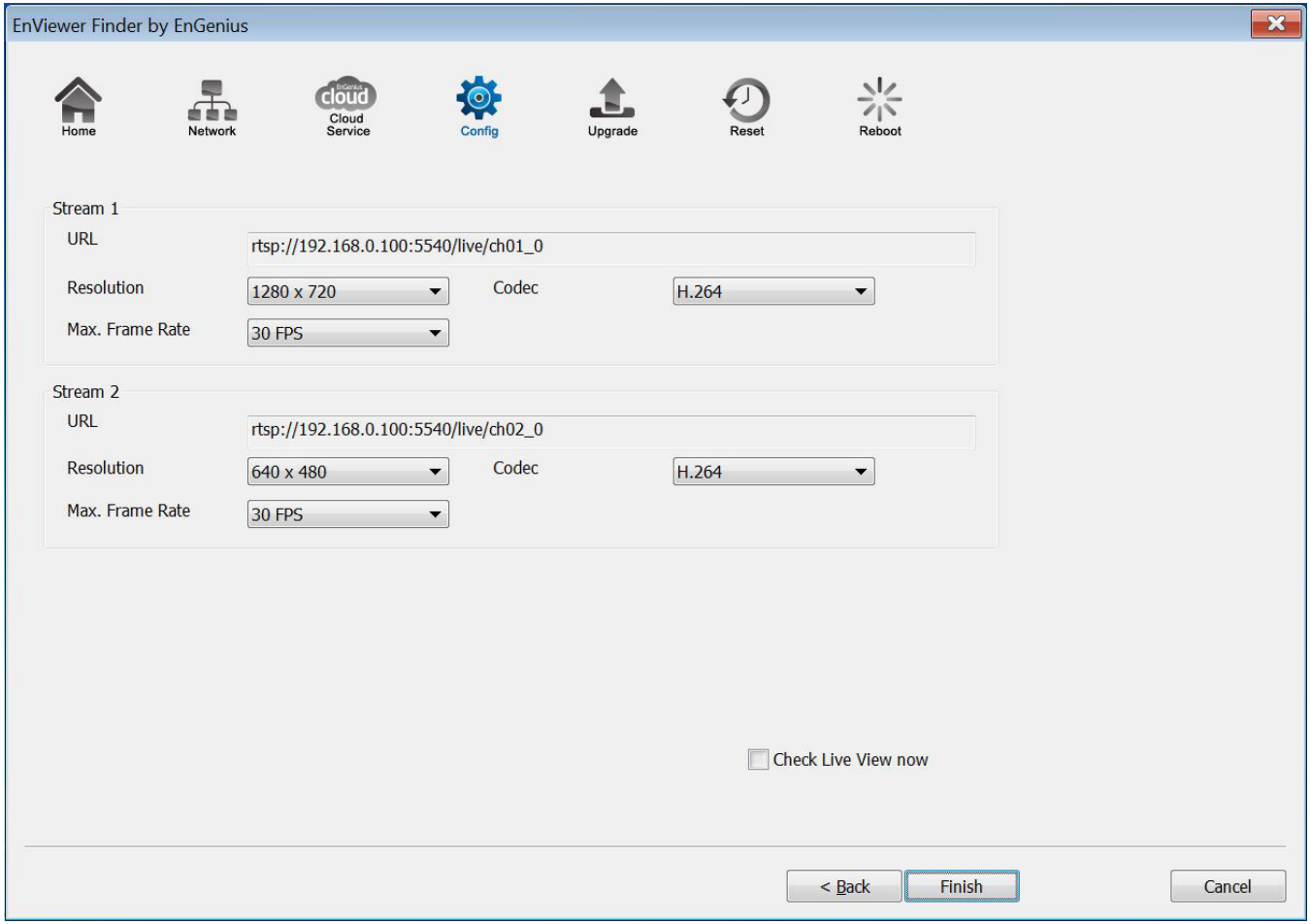
DDNS Alias

You may give an rememberable for future access easily. For instance, you can use your nickname with cam as a combination; for example, supermancam. Then you need to check whether the name has been taken by someone else by clicking on **Check Availability** button. If the alias is not being used by others, then you can access the camera with both your default DDNS and the new alias DDNS (supermancam.engeniusddns.com).

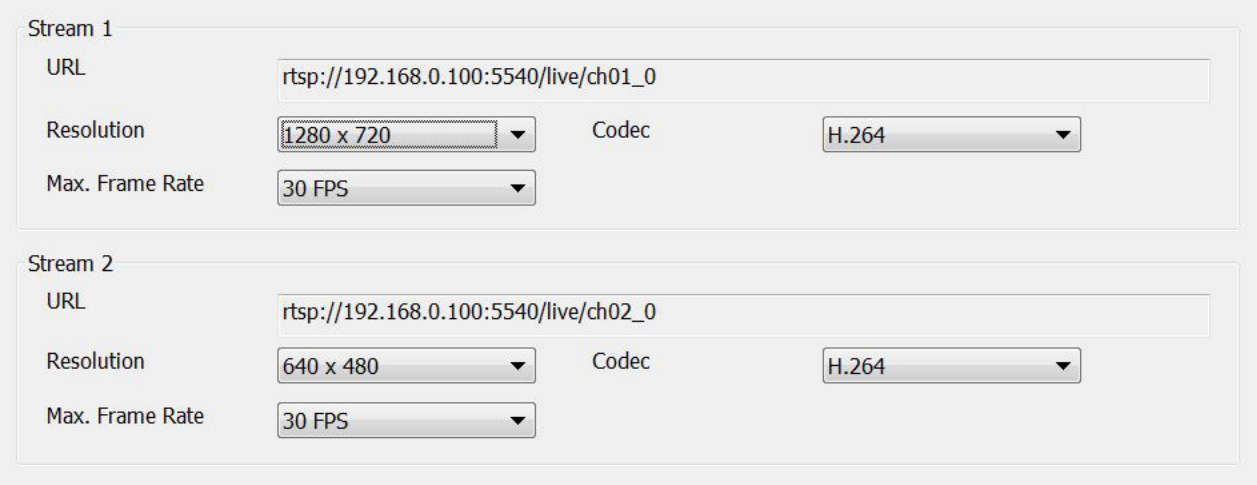
Refresh Time

options are 3HRs, 6HRs, 9HRs, 12HRs and 24HRs. DDNS server needs to synchronize with your IP address often so that you can access your device over the Internet with DDNS name. Depends on your Internet Service provider, your WAN IP address lease time will be different. You can check with your local Internet Service provider for WAN IP address refresh time. The default setting is **24HRs** (which means DDNS server will check the synchronization **every 24 hours**). Normally, the default setting 24HR is fine for most cases.

EnViewer Finder>> Config



EnViewer Finder: Config>>



The camera supports two concurrent video streams simultaneously; by default, **Stream 1** serves for monitoring over browser while **Stream 2** serves mobile APP - EnViewer. However, you can switch the stream on both browser and EnViewer app manually.

In this Config page, you will be able to get the URL of each stream and configure the basic video settings for each stream before getting started.

URL

The URLs are provided for your reference. There are many 3rd party media player that supports RTSP streams. You can provide these URLs to those players and view the camera streams in real time.

Resolution

You can select the resolution for both stream according from the dropdown menu. However, it is suggested to keep the settings as default in regular network environment. As mentioned, the Stream 2 is the default setting for EnViewer app and the lower resolution (VGA, 640x480) will be recommended for smoother live streaming because mobile devices have smaller screens and are likely with limited network bandwidth than PCs/Laptops.

EnViewer Finder: Config>>

Codec

This setting determines what codec used for video compression. Please keep the default codec H.264 for optimized video quality. The compression method affects overall performance and file size. The options are reserved for advanced purposes only.

Max. frame rate

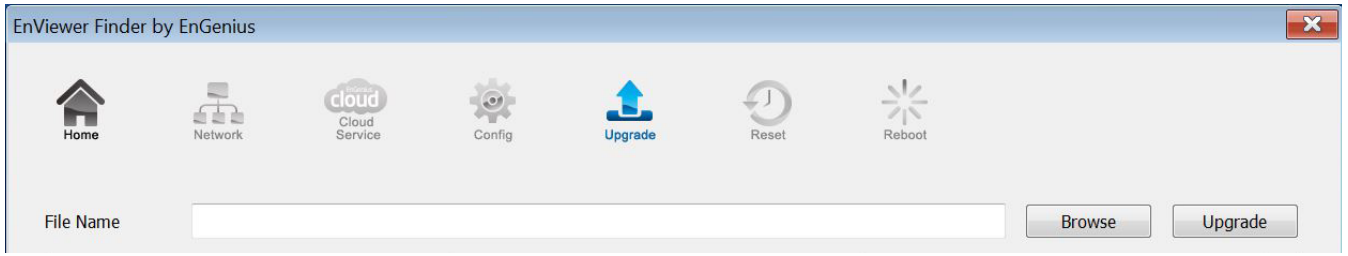
This setting determines how many frames are taken per second. This setting affects the quality of the video. High frame rate results in smoother video quality but it also generate larger video file size.

Please ensure that the option "Check Live View now" is ticked before hitting the **Finish** button. It will direct you to the camera Live View page for check the video streaming.

Click **Finish** when completed.

You should get familiar with your camera page. Please bookmark it to your favorite site so that you don't have to memorize the IP address the next time you want to login into the camera. Of course, you can also use your DDNS name to access the camera management page. Either way works fine.

EnViewer Finder>> Upgrade



EnViewer Finder also allows you to upgrade your camera firmware. The product feature may improve over time, you may check EnGenius official website for the latest firmware. New firmware may contain bug fixes or feature improvements which is beneficial to you. You need to download the latest firmware file to your local computer first.

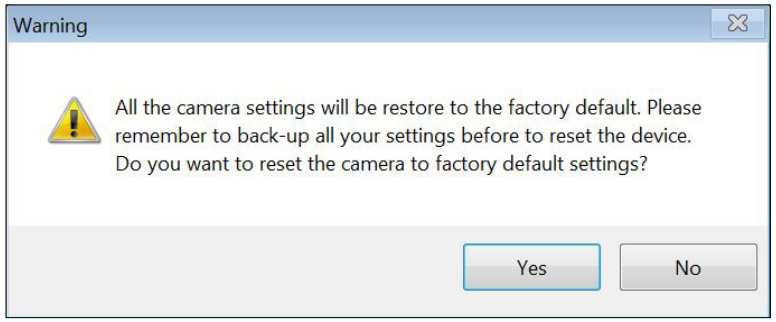
Click **Browse** and select the firmware file you downloaded.

Click **Update** to proceed upgrade process.

It may take a moment for the upgrading process, please wait patiently.

WARNING: Do not turn off the device in the middle of upgrade process. Terminating the device during the process will damage the device and may cause the device to fail.

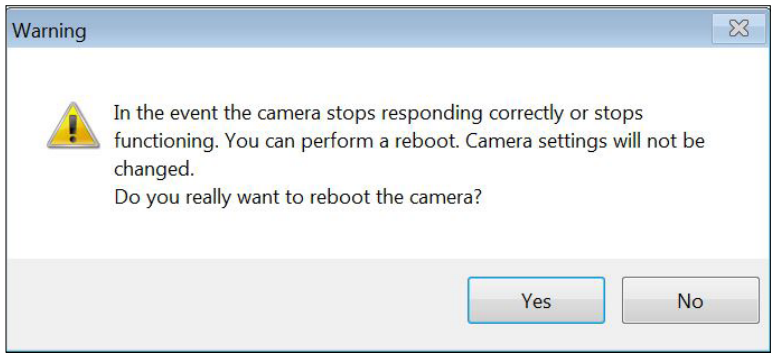
EnViewer Finder>> Reset



You can **reset** the camera to its factory default state and your settings on the camera will be erased.

Note: It will take a while for the camera to come back again. Therefore, the camera will not appear on the camera list if you rescan the network before it resets to default and boots up.

EnViewer Finder>> Reboot



You can **reboot** the camera on EnViewer Finder if the camera stops responding for unknown reason.

Click on **Yes** to proceed.

Note: It will take a while for the camera to come back on again. Therefore, the camera will not appear on the camera list if you rescan the network before it boots up.

Web Browser

You can use web browser on the management station to access the camera by entering IP address or DDNS of your camera. DDNS works only if your gateway or router is already connected to the Internet. Please refer to the previous section **EnViewer Finder: EnGenius Cloud Services** if you do not know the IP address or DDNS of your camera.

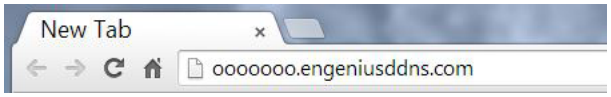
For this example, we have our DDNS and IP address as follows:

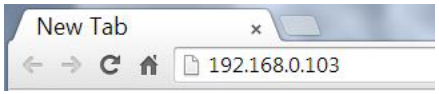
DDNS: ooooooo.engeniusddns.com

IP Address: 192.168.0.101

If you are using EnGenius **IoT Gateway** or **Intelligent Router**, please proceed to **Manage camera over EnGenius Gateway/ Router** chapter.

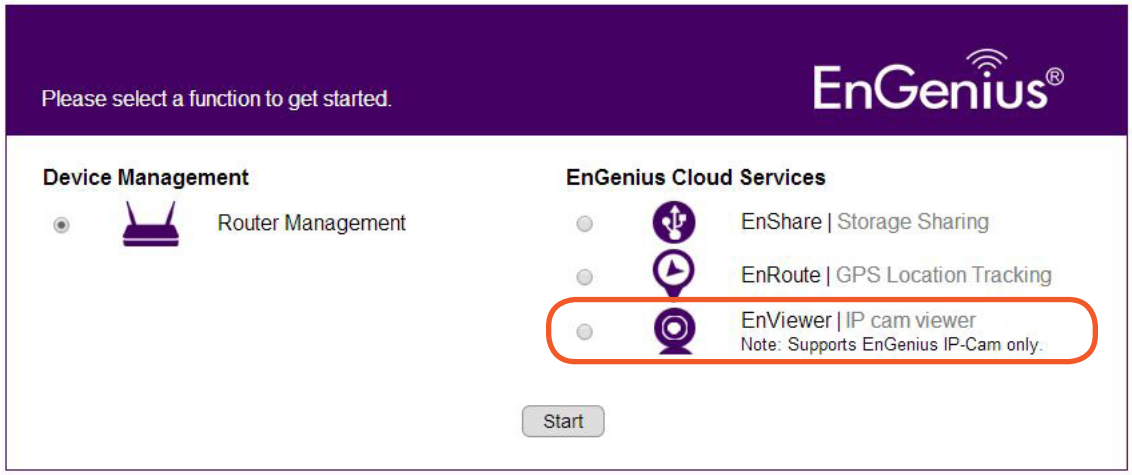
If not, please proceed to **First Time Basic Setting** chapter for more detail guide on camera initial settings.





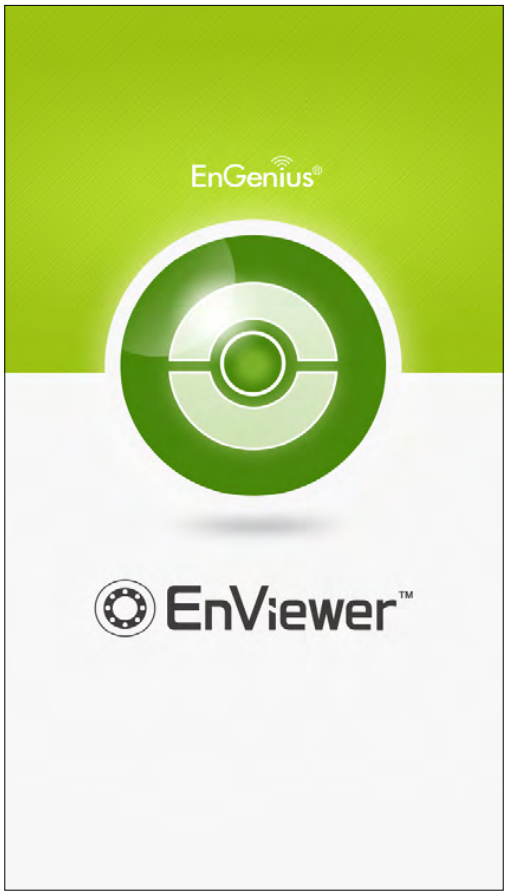
EnGenius Gateway/Router

If you are using EnGenius IoT Gateway or Intelligent Router or, you can manage the camera through the gateway/router Graphic User interface (GUI). The benefit of this is that you can manage both the gateway/router and the camera on a single integrated user interface. Please refer to **Manage camera over EnGenius Gateway/Router** section for detail.



Manage using Smartphone or Tablet

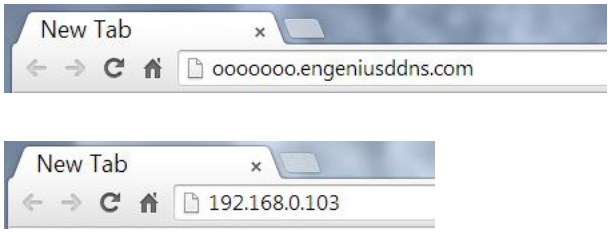
You can manage your camera over smartphones or tablet using the free EnGenius APP **EnViewer**. EnViewer currently supports the two most popular Android and iOS platforms. Please search the keyword "EnViewer by EnGenius" in Google Play if you are using Android-based devices or in APP Store if you are using iPhone or iPad. For more detail on its usage, please refer to the chapter **EnViewer APP**.

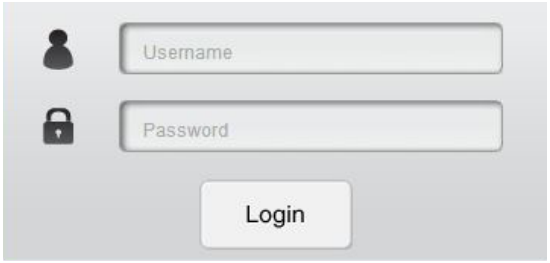


Chapter 4
Basic Settings

Basic Settings

Open your browser and type in the camera IP (e.g. 192.168.0.103) address or the given DDNS name printed on the QR code label inside the package (e.g. ooooooo.engeniusddns.com) using a regular web browser.





If you have not changed the password of admin in EnViewer Finder utility, enter the default username **admin** and password **admin**. Click **Login** to proceed.

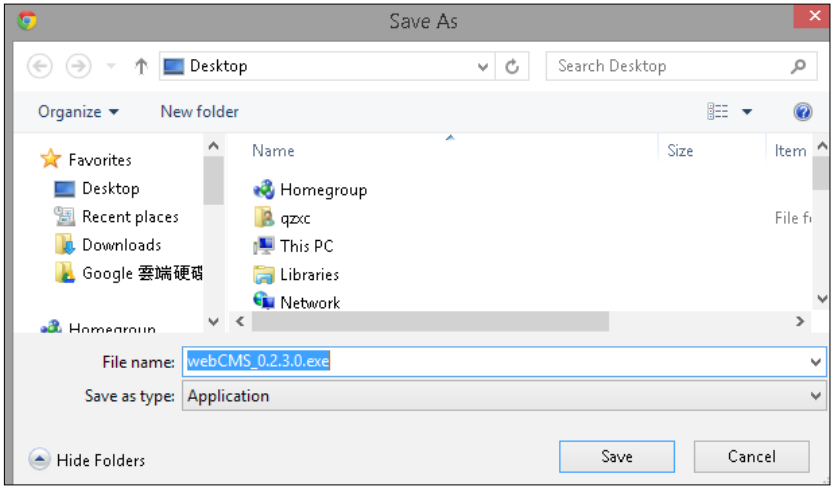
For the first time of login or when there is newer version available, you will be informed to download and install **"WebCMS"** plug-in for your browser. Please click on **"Download WebCMS"** to start downloading (you will be required to have Internet connection on your gateway/router). WebCMS enables browsers to support camera live view feature. Don't worry if you are prompted with a different version number because the software upgrade from time to time.

Note: The WebCMS supports Windows Operation System.

If prompted with the following question, click on **Save**.

Note: The interface may be slightly different between browsers. Here, Internet Explorer is shown as example.

Save the file to your computer.

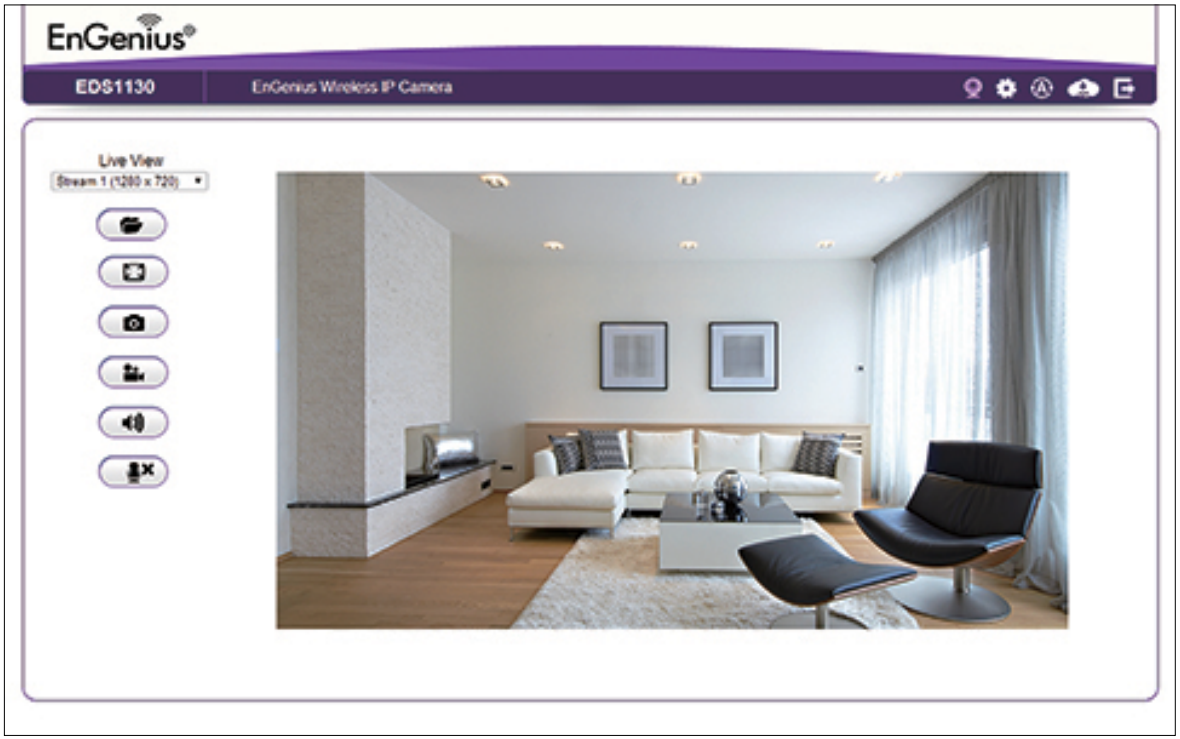


Once download is completed, you **MUST close all the browsers** before install WebCMS.

Double click on **WebCMS** to install the program. You may not have noticed, the installation is very fast, it only takes a few seconds for WebCMS to be installed.

When installation is completed, open the browser and login into the camera again. You should be able to see the camera viewer in live as shown below. If you do not see the viewer that means you did not install WebCMS properly or try login using other browsers.

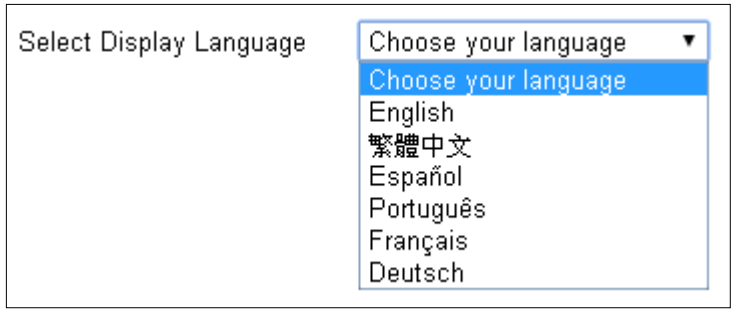
NOTE: If you are seeing grey color in the viewer, it is because the camera has detected insufficient of light in the room and enabled night vision mode automatically. If you point your camera to a brighter space you should be able see it switched to normal color mode. Try a few places to get a feeling of how it works. You may hear the sound "click" from the camera when night vision is switched on and off if you listen closely.



Congratulations, you are now ready to proceed to further camera settings!

Setting the Interface Language

First of all you may want to change the user interface language. The default factory language is English. To change the language, click on the right side of upper navigation panel to make the change. On the language list, click to select the one you are familiar with. The user interface with refresh automatically to display in chosen language.

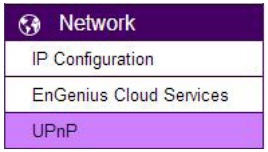


Changing the Camera Name

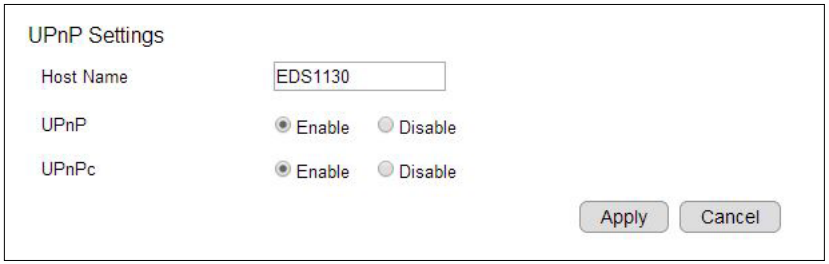
On the management page, click on the right side of upper navigation panel to access the configuration Main Menu.

On the Main Menu, select **Network → UPnP**

Then, you may want to assign the camera Host Name with proper naming for better identification if you have several cameras at the same time. Meaningful names such as living room, kitchen, baby room or any other descriptions you find suitable to describe the space being monitored.



Select **Network → UPnP**



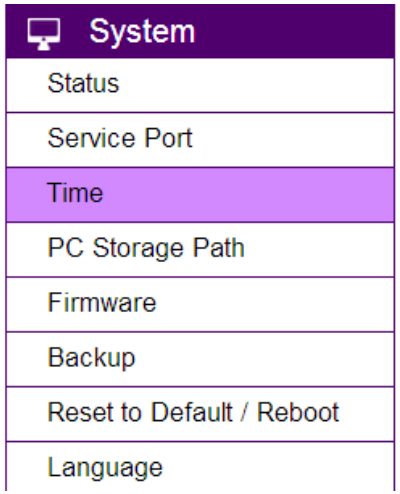
Host Name: Enter a new name into this field

Click **Apply** to change the camera name

Setting the Camera Time

It is crucial to setup camera time properly so that scheduling can be arranged and events be recorded with accurate date and time.

On the Main Menu, select **System → Time**.

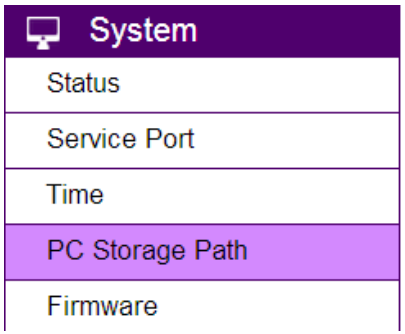


Please refer to **Chapter 5** to learn more about **Time Setting**.

Setting the PC Storage Folder

The Storage Folder is the location where media files will be placed.

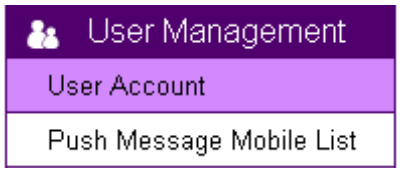
On the Main Menu, select **System → PC Storage Path**



Please refer to **Chapter 5** for detail setting.

Adding a User Account

On the Main Menu, select User **Management → User Account**



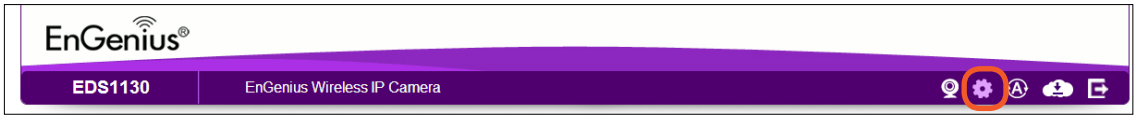
Please refer to **Chapter 5** for User Management for adding a User.

Wireless Setting

Please skip this step if you only use wired setup for your camera.

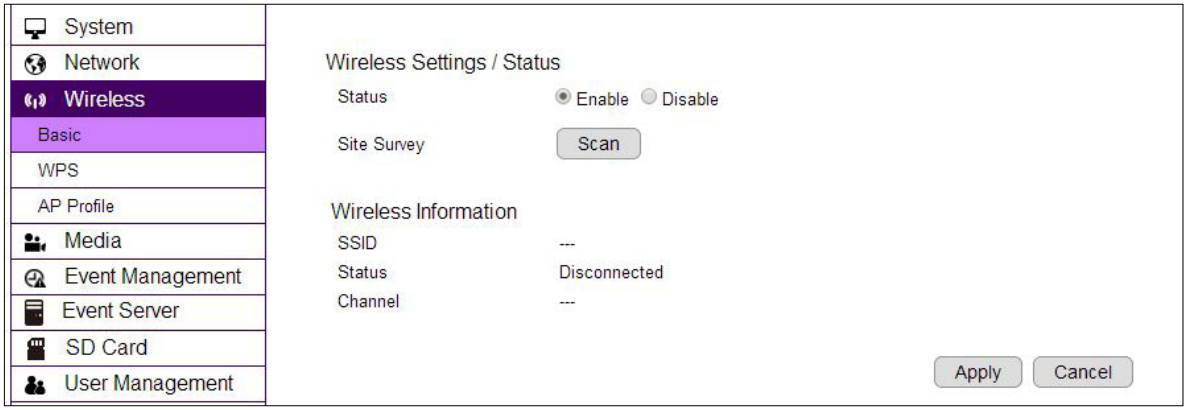
Ensure your home gateway/router supports wireless capability and is enabled.

On the management page, click  to access the configuration **Main Menu**.



On the other hand, we also need to enable camera's wireless feature; please check again to ensure you have wireless enabled.

On the Main Menu, select **Wireless → Basic**

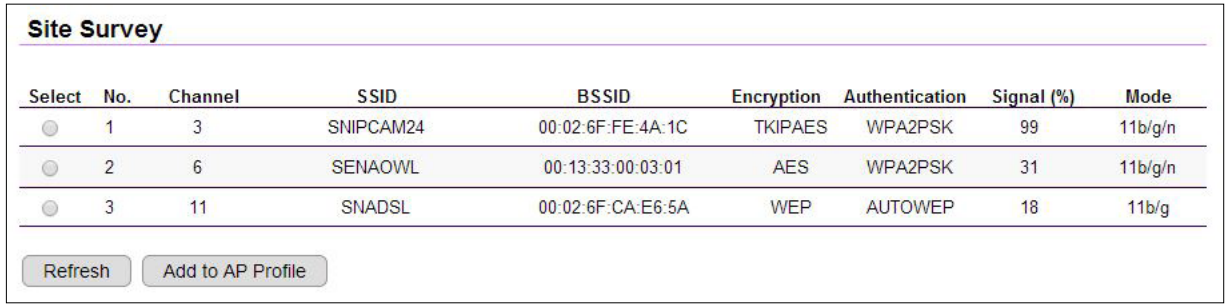


Enable wireless by choosing **Enable** option.

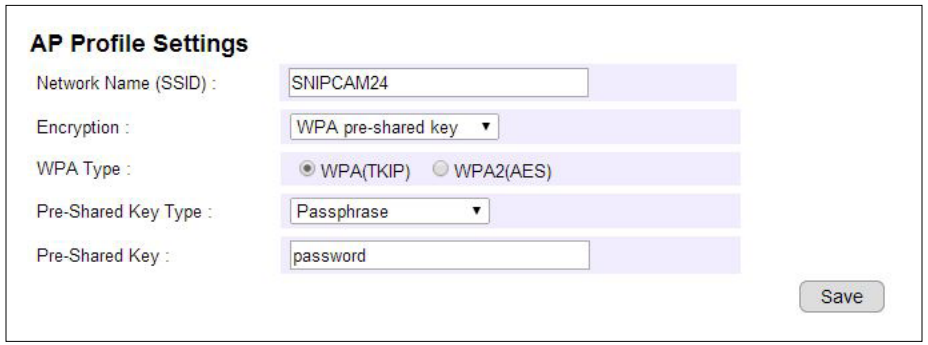
Click on **Scan** to search for existing wireless access points (APs).

When prompted with Site Survey window, click on **Refresh** if you do not find your AP on the list.

On the site list, choose your preferred AP and then click **Add to AP Profile**.

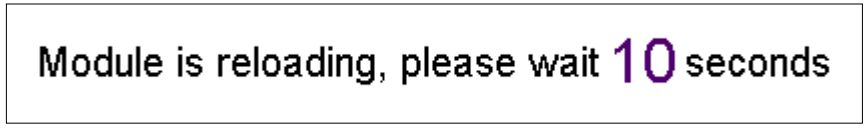


Then, on the AP Profile Settings window, please check if the security settings are correct. Please review the settings: **Encryption, WPA type, and Pre-Shared Key type**. They are automatically detected. Normally, you only need to provide the Pre-Shared Key (password). However, you can still change the settings if they do not match with the actually AP wireless security settings.



Enter your Pre-Shared Key and press **Save** to complete the setting.

Please wait for a moment for the setup to complete.

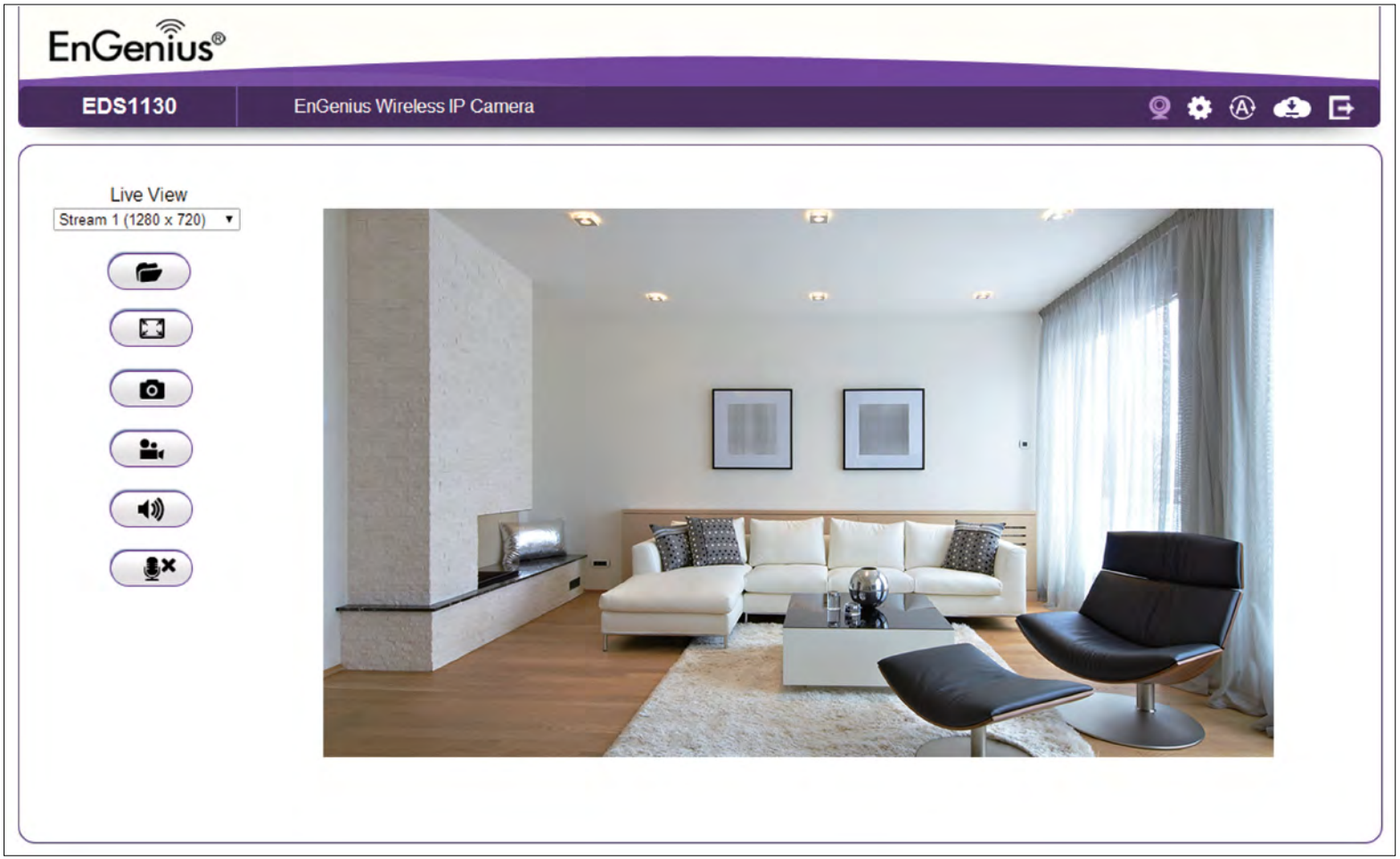


While waiting, you can remove RJ-45 Ethernet Cable from the camera now. It may take a moment for the camera to detach from wired network and switch to the newly established wireless connection with the chosen AP (your gateway/outer).

To check if the connection is successful, you can verify it by login into your camera again. In case if the camera is still not accessible, please check your gateway/router again see whether your camera is connected. Also, check the security setting again just for sure.

Chapter 5
User Interface

Camera manager page allows you to view and configure the camera at real time. This chapter will introduce all supported features and detail configurations.



Navigation Panel

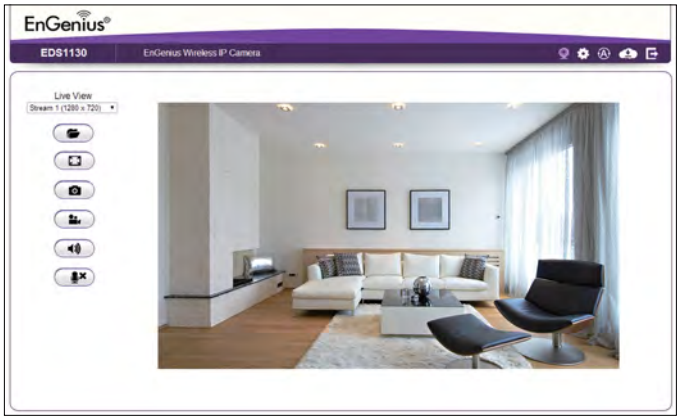
The **Navigation Panel** is located at the upper right corner of the page. Since there are two different user levels (Administrator and Viewer), the functions shown on the Navigation Panel also vary accordingly. For more information about user account, please refer to **Chapter 5 - User Management** for more details.

Administrator has full control of all the camera settings.

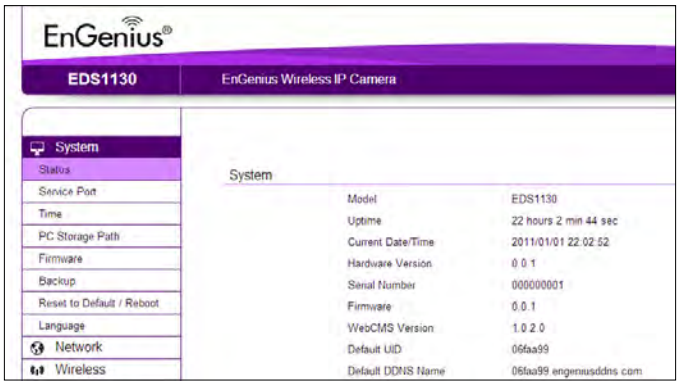
The **viewer** only has camera viewer features.

The detail description is as follows

Live View: Switch the management page to camera viewer within which snapshots or video clips can be taken at real time.

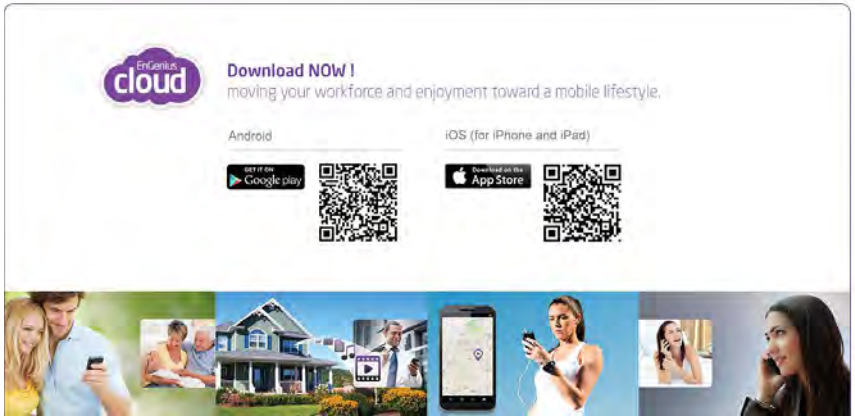


Settings: Switch the management page to camera setting. Please refer to Main Menu section for detail camera settings.



Language: Allows user to change management language setting.

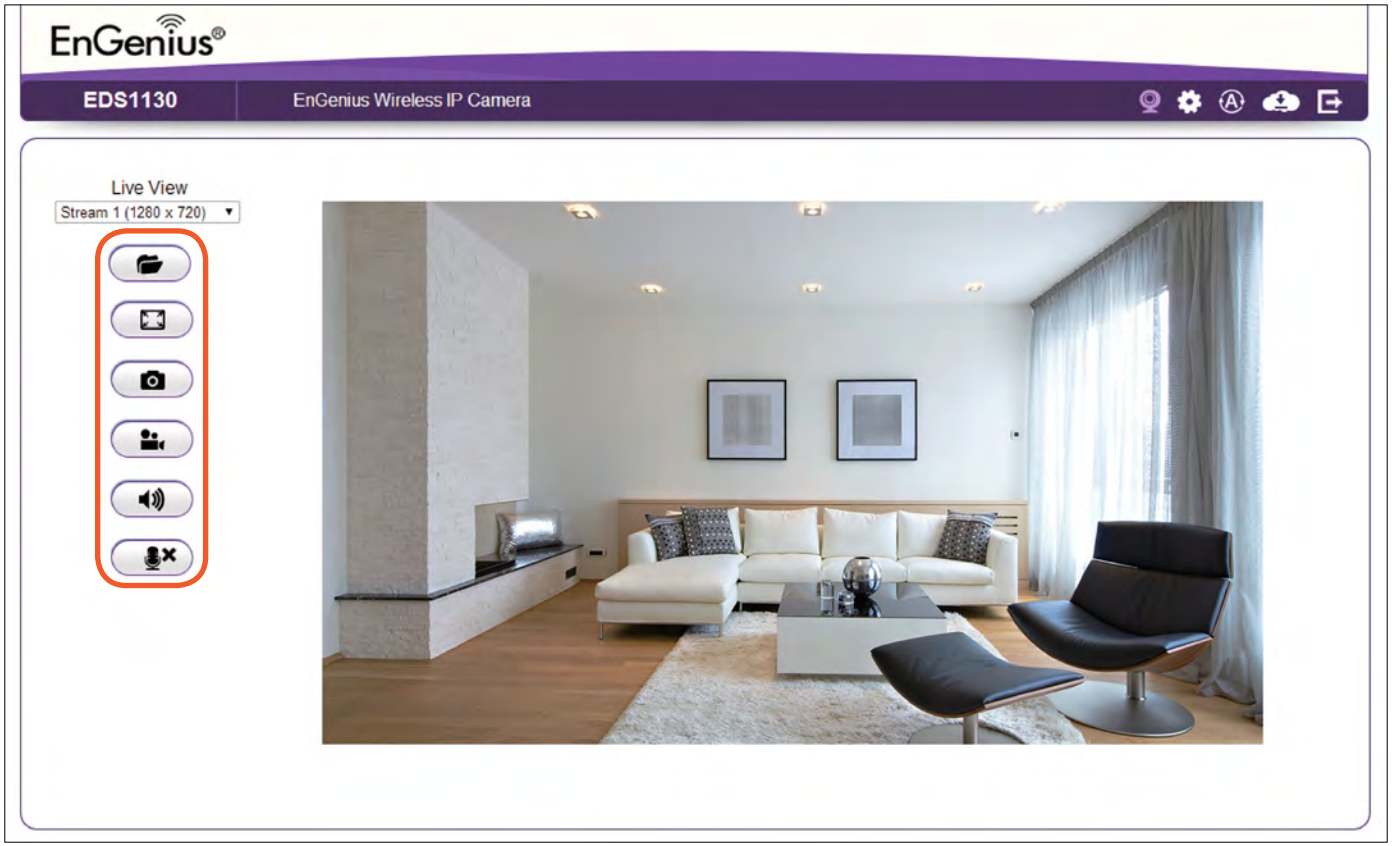
EnGenius Cloud Service: Deliver the latest EnGenius Cloud Service information.



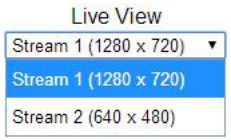
Logout: Exit the user interface.

Live View Settings

The **Navigation Panel** is located at the upper right corner of the page. Since there are two different user levels (Administrator and Viewer), the functions shown on the Navigation Panel also vary accordingly. For more information about user account, please refer to **Chapter 5 - User Management**.

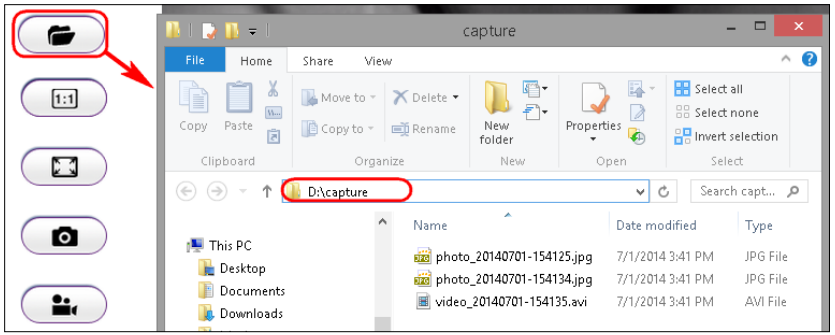


The **Live View Management** menu is located at the left side of the page.



Live View: There are two streams running concurrently: Stream 1 (1280 x 720) and Stream 2 (640x480). By default, Stream 1 has the higher resolution than stream 2 and Stream 2 is applied to serve lower resolution for mobile devices use at remote. You can preview each stream at real time by selecting it from the list.

Open Folder: This opens the local folder on PC where the real time captured images and video clips are stored. You may change the storage folder path at **Main Menu→ System→ PC Storage Path**.



Note: To play the recorded video, it is suggested to use **VLC media player** that supports most of the video type.

Full Screen: This switch will hide the browser and expand the view to full screen. You can press ESC button to cancel the full screen mode.

Snapshot: This button takes a snap-shot on the real time view and store the image in the local folder.

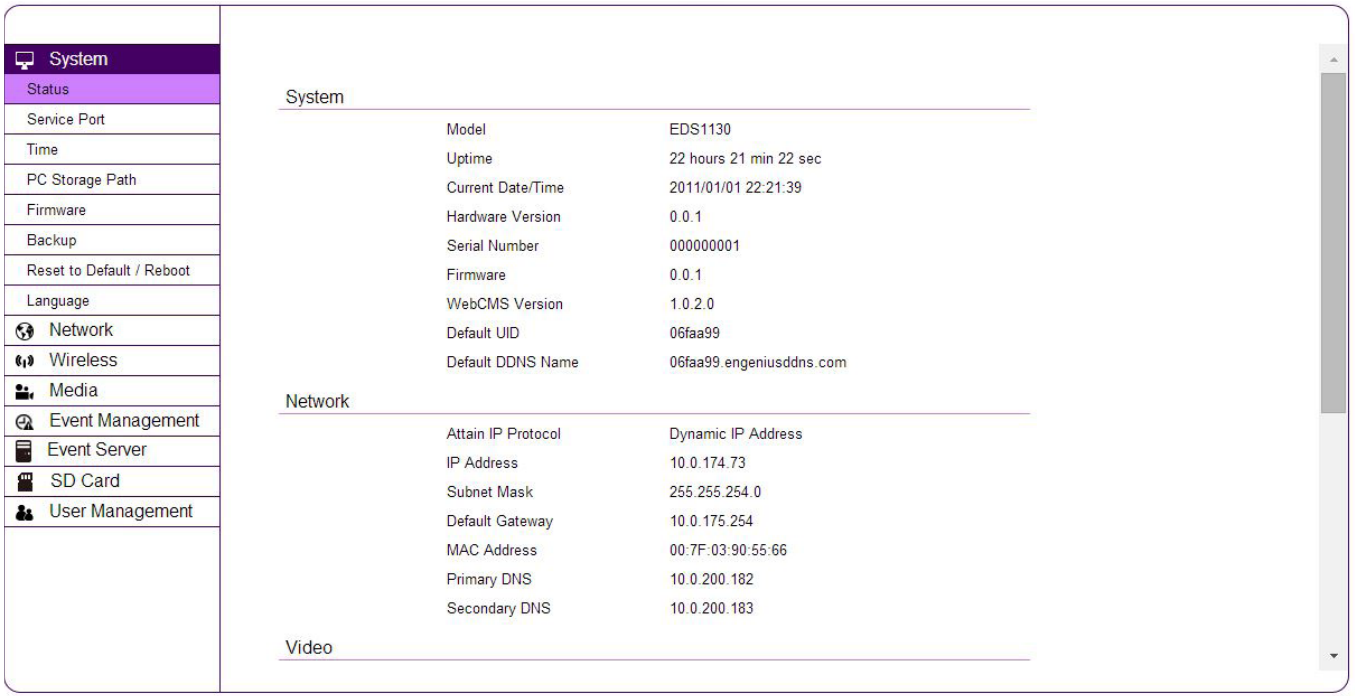
	**Recording:** Toggle this button to start recording movie clip at real time. Click on the button to start recording. Please note that when icon changed to purple  ,the camera recording in process and **REC** is marked om the upper right corner. To stop recording, simply click the button again.
	**Speaker:** Toggle this button to turn speaker ON and OFF. The default setting is ON, click the button to turn it off; the icon should change to  to signify off state.
	**Microphone:** Toggle this button to turn microphone ON and OFF. The default setting is OFF, click the button to turn it ON; the icon should change to  to signify ON state. When microphone is turned off, there won't be any audio data recorded during recording. If audio is not important for your application, you are advised to turn it off to reduce the recording file size.

Main Menus

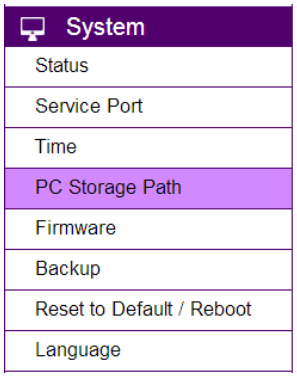
Only Users with administrator authority can get access to Main Menu. Guest Viewers do not have the privilege of changing camera settings.

To get access to the Main Menu, click on the **Settings** icon.

The Main Menu is shown below.



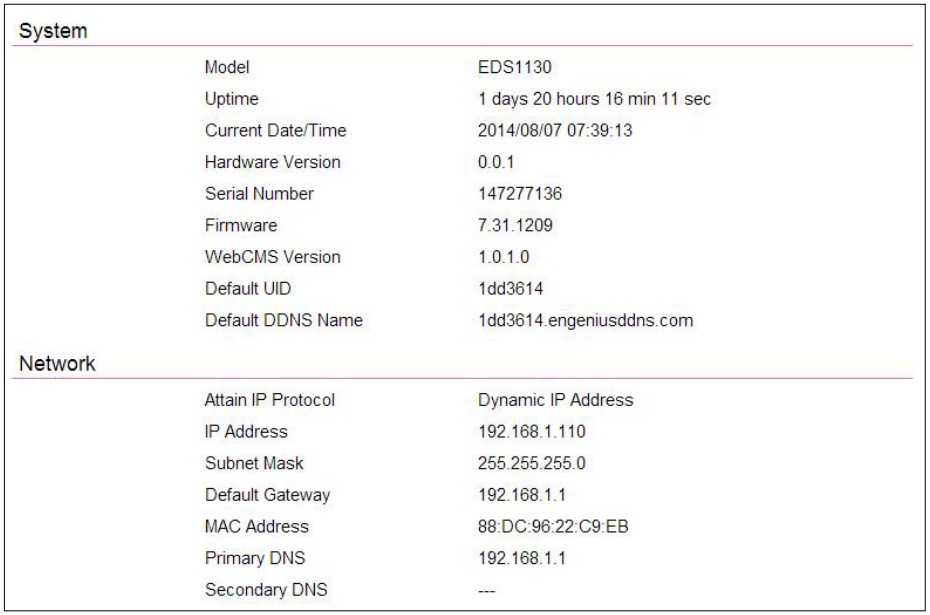
System

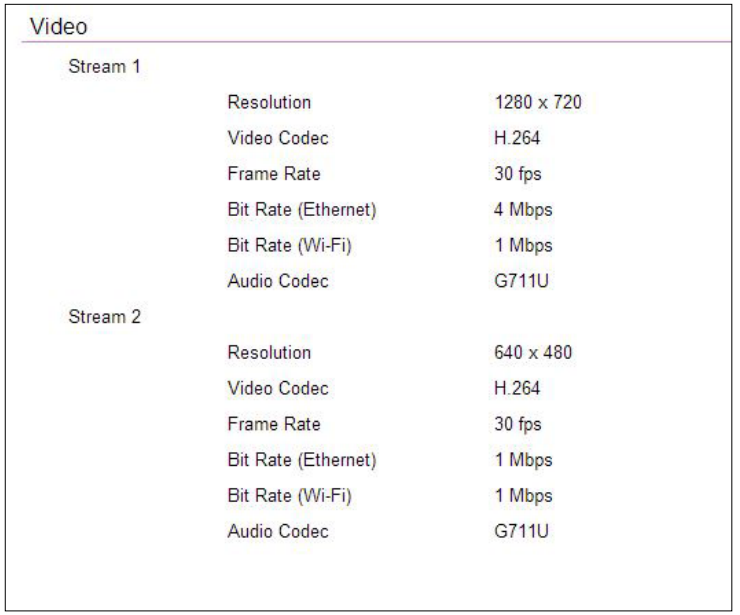


The System setting menu consists of system related configurations.

System>> Status

Status Page displays the overview of System, Network and Video information on the page, including current time, firmware version, DDNS name, IP address ...etc.

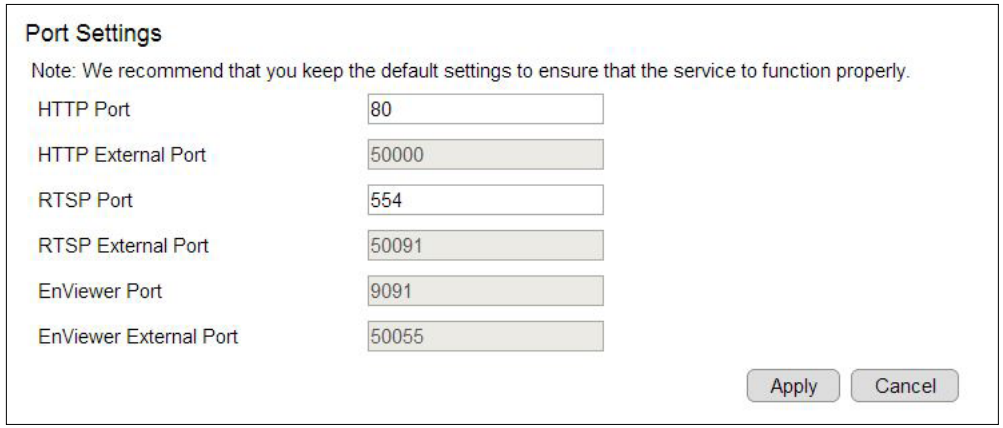




System>> Service Port

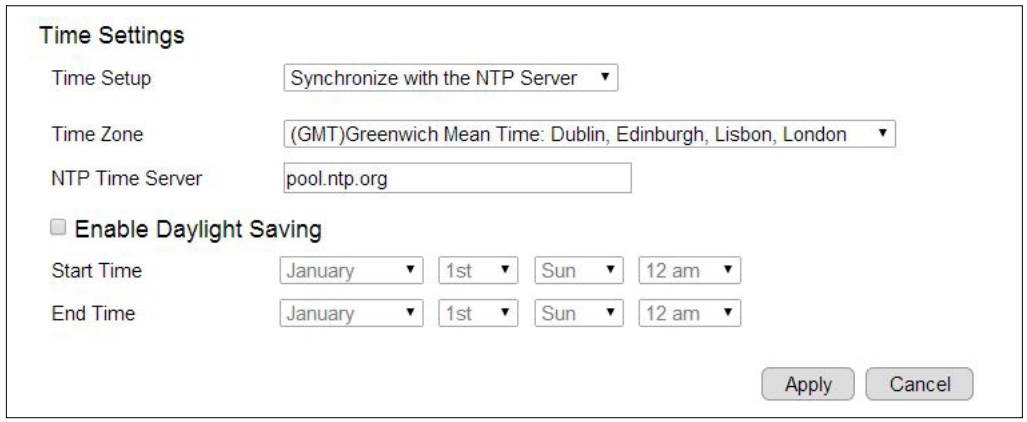
The page provides the default service port information of HTTP, RTSP, and EnViewer mobile app.

Warning: This section is only reserved for advanced users who wants to keep certain ports for other particular services. Changing the ports will result in unexpected result. Unless necessary, please keep the default setting.



System>> Time

Like any other surveillance system, time is essential because we want to keep track of the time of the events recorded or detected by the camera. By default, the camera is connected to a public time server (pool.ntp.org) and its time is always synchronized with the server over the Internet. Normally, you only need to change the **Time Zone**. Choose the one that matches your location. Leave the other setting as default should be fine. Setting the wrong time server or time zone will result in inaccurate scheduling and time stamp.



Time Setup: select how the camera obtains the current time

Time Zone: select time zone for the camera

NTP Time Server: enter the domain name or IP address of an NTP server.

Enable Daylight Saving: Tick to enable or disable daylight saving time if applicable.

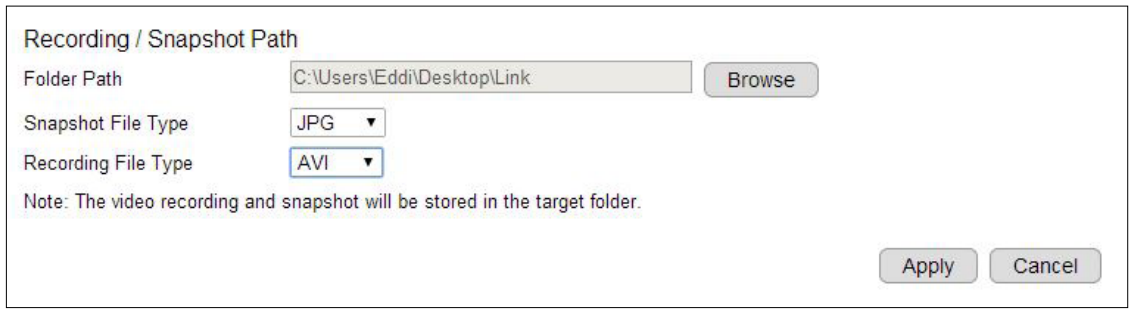
Start Time: select the date and time when daylight saving time starts.

End Time: select the date and time when daylight saving time ends.

Click **Apply** to save the settings or **Cancel** to discard changes.

System>> PC Storage Path

Select the folder path that you prefer to keep the snapshot and the video clips recorded. You could also choose the image and video type that is ideal for you to save.



Folder Path: click **Browse** to decide the storage path

Snapshot File Type: select the file type for your snapshot, supporting type are JPG, PNG & BMP.

Recording File Type: select the file type for your snapshot, supporting type are AVI and MP4

Note: If file size is the concern to you, please refer to the compression rate below.

- Image: JPG > PNG > BMP (from High to Low)
- Video: MP4 > AVI (from High to Low)

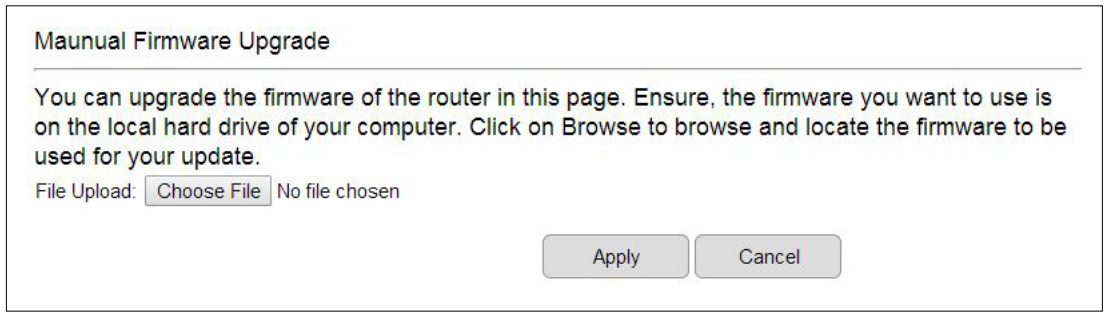
To make change, click **Apply** to save the settings.

System>> Firmware

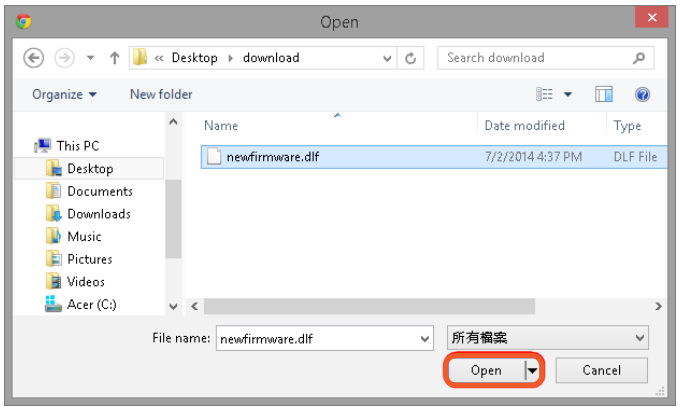
The product feature may improve over time, you can choose to upgrade the firmware manually or enable the auto firmware upgrade to keep informed the latest update.

Manual Firmware Upgrade:

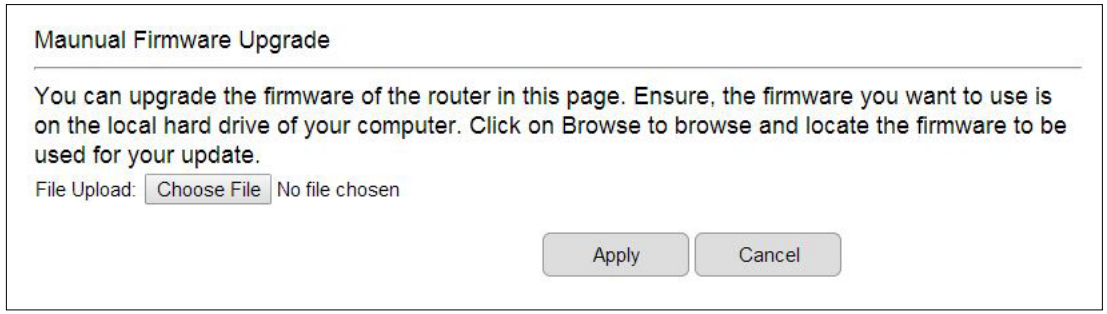
You may check EnGenius official technical support site http://www.engeniusnetworks.com/support/ to get the latest firmware. New firmware may contains bug fixes or feature improvements which is beneficial to you. You need to download the latest firmware file to your local computer first. Click **Browse** (for Choose File) and select the firmware file to start upgrade firmware.



Select the downloaded new firmware then click on **Open.**



Click **Apply** to start upgrading the firmware.

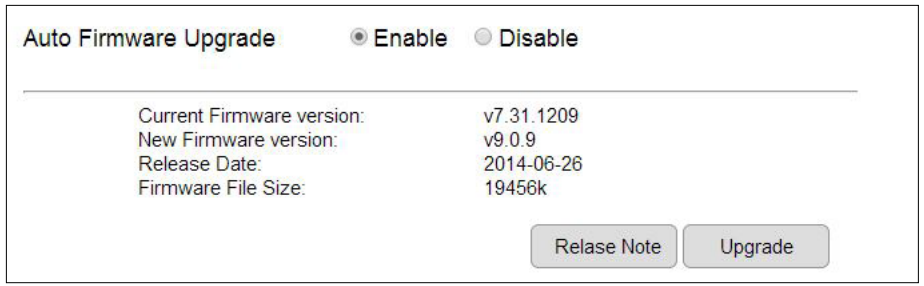


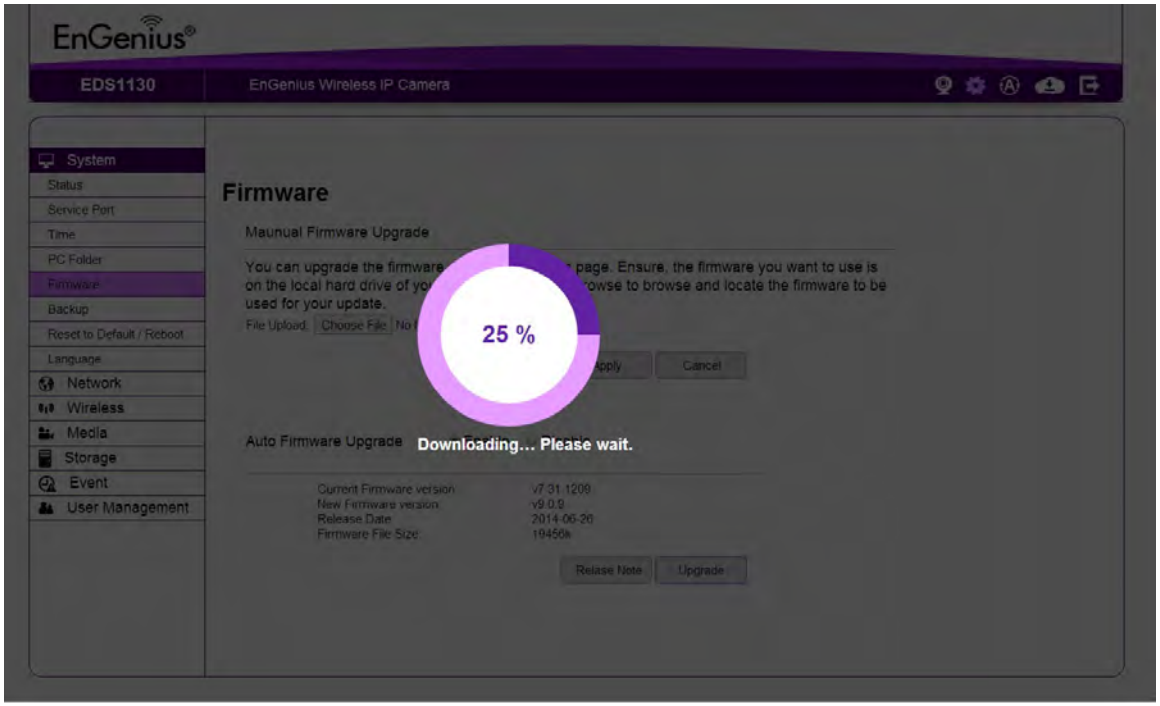
It may take a moment for the upgrading process, please wait patiently.

WARNING: Do not turn off the device in the middle of upgrade process. Terminating the device during the process will damage the device and may cause the device to fail.

Auto Firmware Upgrade:

Enable the Auto Firmware Upgrade function, and the latest update firmware information will be shown. Click **Release Note** to check the update details and click **Upgrade** to proceed the firmware upgrade immediately.





WARNING: Do not turn off the device in the middle of upgrade process. Terminating the device during the process will damage the device and may cause the device to fail.

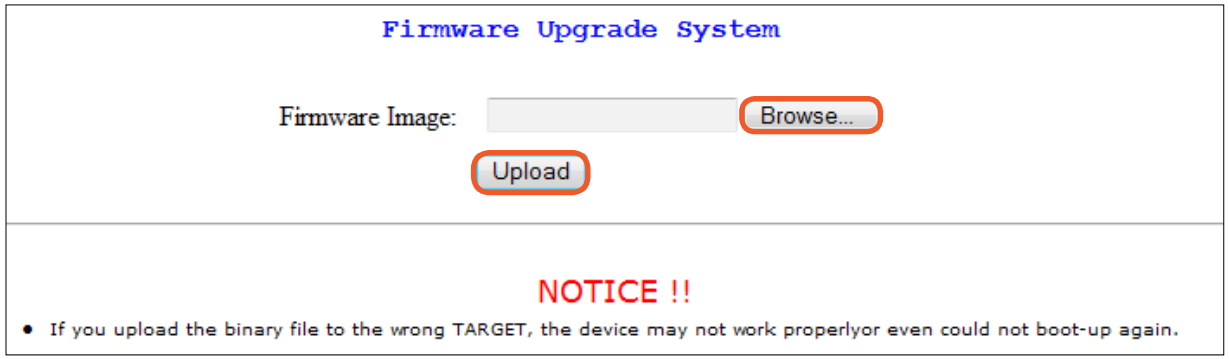
Emergency Backup Mode

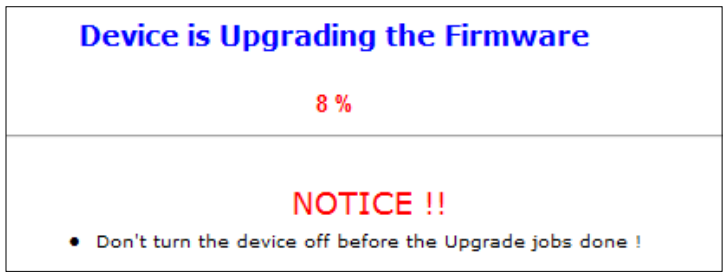
If your firmware upgrade failed, you may enter the Emergency Backup Webpage.

Enter the IP address: **192.168.99.9** to the browser to enter Emergency Backup page.

Note: You have to configure PC/Notebook IP address to 192.168.99.8 manually.

Click the **Browse** button and navigate to the location of the upgrade file and then click **Upload**.





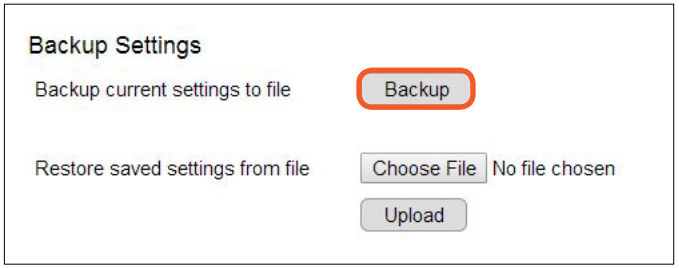
Wait for firmware upgrade and reboot the device.

You can access the device again.

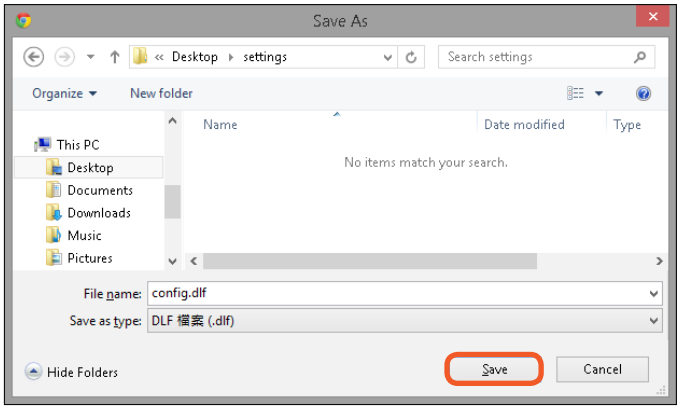
System>> Backup

There are times that you may want to test new settings or keep different settings for different application scenarios. You can do the backup by following the steps below.

Click **Backup** to initiate setting backup process.

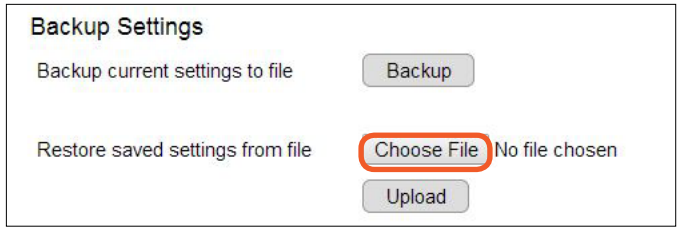


Click **Save** to store the file to the chosen location.

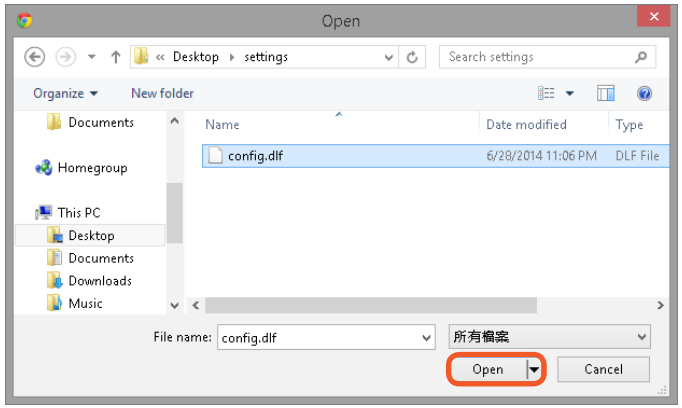


Restore Saved Settings from file

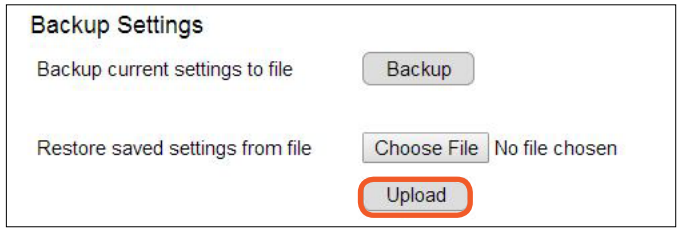
Click on **Choose File** to select the backup file you are going to restore.



Choose the configuration file and click on **Open**.



Click on **Upload** to start storing process.



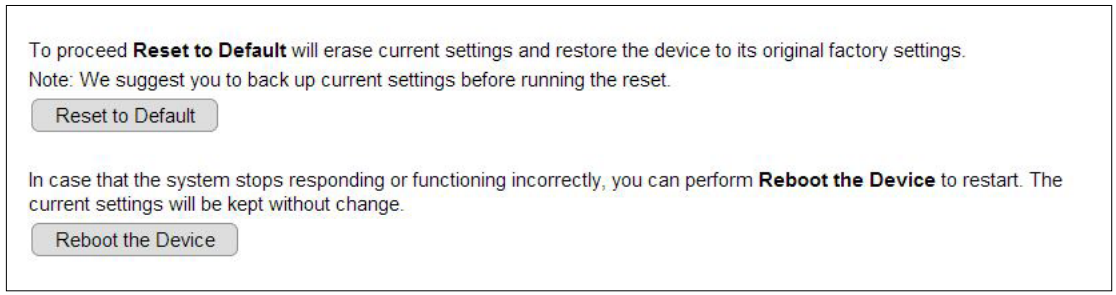
It may take a moment for the uploading process, please wait patiently.

WARNING: Do not turn off the device in the middle of the upload. Terminating the device during the process will damage the device and may cause the device to fail.

System>> Reset to Default / Reboot

There may be times that you feel like to restore the settings to factory default. To reset to default click on the button **Reset to Default**.

If the camera stop responding for some reasons or acting abnormally, you can choose to **Reboot the Device**. If the device still does not recover to normal operation, please consider to perform a hard reset (unplug and re-plug the power adapter).



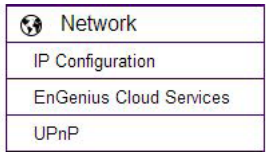
System>> Language

The default User Interface language is English, you can change the language with just a mouse click.

On the language list, click to select the one you feel comfortable with from the list. The user interface with refresh automatically with your chosen language.

Network

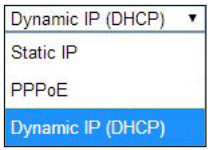
The Network setting menu consists of Network related configurations.



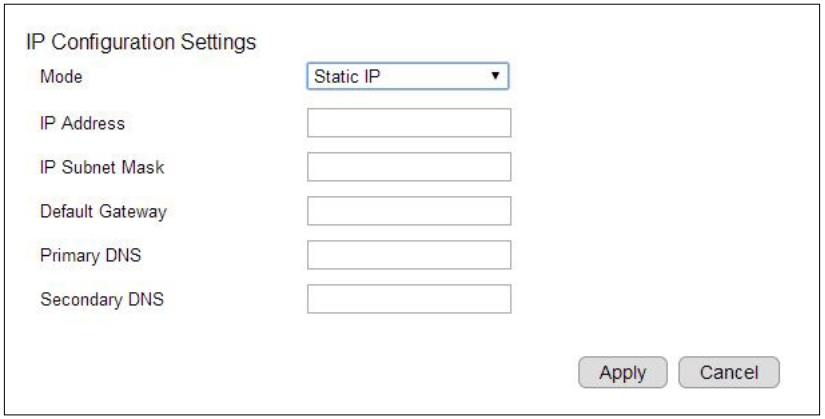
Network>> IP Configuration

Each camera should be assigned with an IP address in the network for identification. **IP Configuration** setting allows you to change the method with which the camera obtain its IP address. The default setting **Dynamic IP (DHCP)** is applicable to most of the application scenario. However, advanced users can also change to **Static IP** or **PPPoE** whichever suits the purpose.

Mode: Static IP, PPPoE and Dynamic IP (DHCP)



Static IP

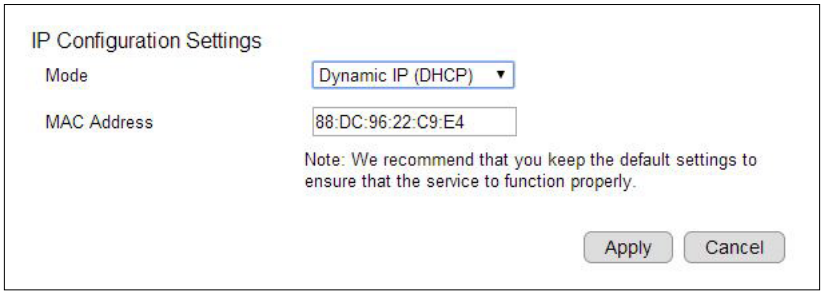


If your network requires Static IP, you need to specify the detail IP settings similar to above. Please note that, if you are managing your camera in local network similar to the example shown above, you will need to configure your management PC/Laptop under the same domain.

PPPoE

If you are connecting to the Internet without going through your home gateway/router, you can connect the camera directly to your modem (given that you are using PPPoE for your Internet service). Please consult your local network service provider for more detail. Basically, the PPPoE setting is exactly the same as what your home gateway/router. You need to provide at least **Username** and **Password** to get access.

Dynamic IP (DHCP)

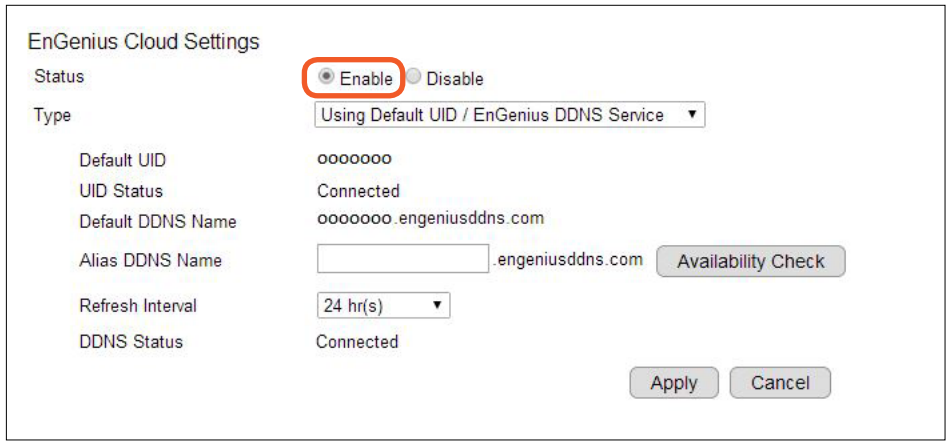


MAC Address: Normally, the MAC address is obtained automatically. To change the setting, type in the MAC address into the field.

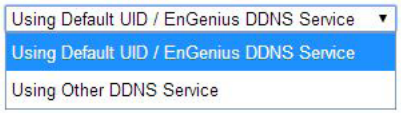
Click **Apply** when configuration is done to activate new settings.

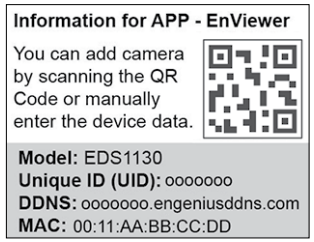
Network>> EnGenius Cloud Services

You must **Enable** EnGenius Cloud first and then choose the **Type**.

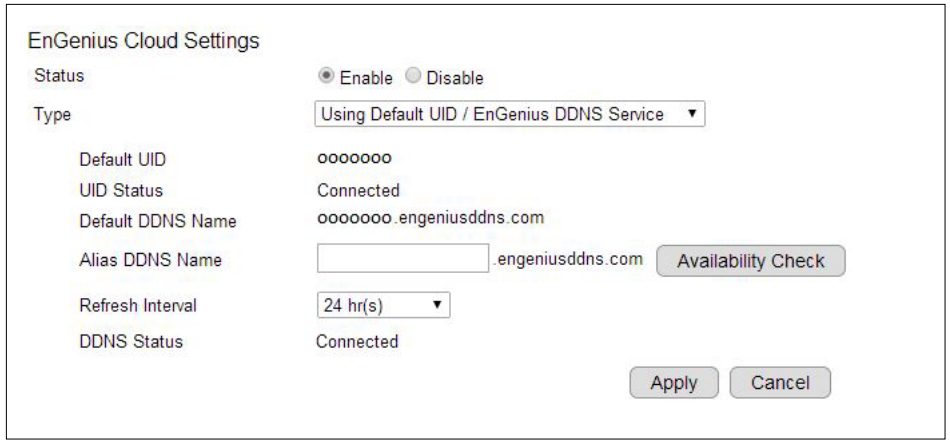


A key part about EnGenius Cloud Service is DDNS. Dynamic DNS (DDNS) is a type of DNS that works with dynamic IP address. DDNS keeps update its mapping regularly and ensures a consistent matching so that your device can be accessed over the Internet using a fixed DDNS name. You can either use the default EnGenius DDNS Service or other 3rd party Service you prefer.





Users are recommended to use the free EnGenius DDNS service that the address is printed on the QR Code label inside the packaging. This is because ISP often leases dynamic WAN IP address that changes from time to time. DDNS domain name will always be the same even if the WAN IP address changes. The domain name can also be found on your **System → Status** page. As shown below, the DDNS domain name used for the example is oooooo.engeniusddns.com.



Default UID: Each device is distributed with an exclusive unique identification (UID). You can find the default UID shown here.

UID Status: when working properly, it should show "Connected".

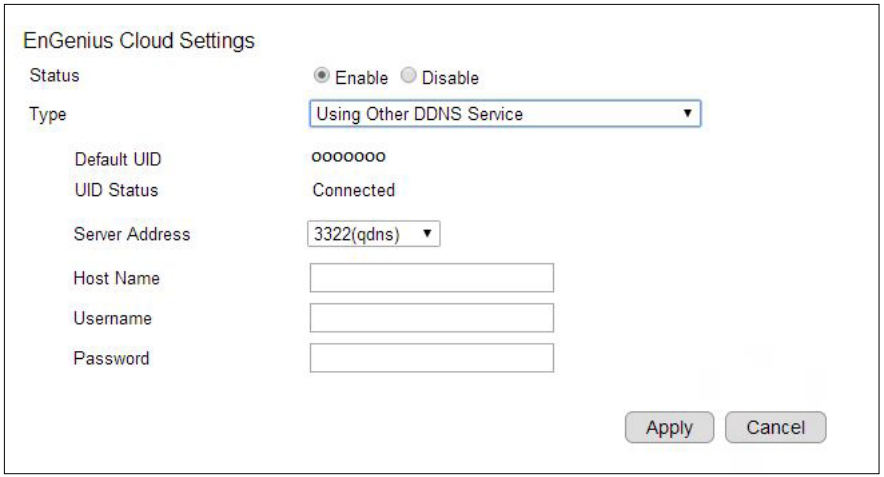
Default DDNS: Each device is distributed with an exclusive DDNS. You can find the default DDNS shown here.

Alias DDNS Name: You may find that your DDNS is too difficult to remember. EnGenius provides free DDNS name registration as long as the alias is not yet been taken other EnGenius product users. You can check the availability by clicking on the button **Availability Check** for verification. For example, if "superman" is available and when the setting is activated, both DDNS name "**superman**.engeniusddns.com" and "**ooooooo**.engeniusddns.com" can be used to access this camera.

Refresh Time: options are 3HRs, 6HRs, 9HRs, 12HRs and 24HRs. DDNS server needs to synchronize with your IP address often so that you can access your device over the Internet with DDNS name. Depends on your Internet Service provider, your WAN IP address lease time will be different. You can check with your local Internet Service provider for WAN IP address refresh time. The default setting is **24 HRs** (which means DDNS server will check the synchronization every 24 hours). Normally, the default setting 24 HRs is okay for most cases.

DDNS Status: when working properly, it should show "Connected".

Note: DDNS will only work only if your gateway/router is connected to the Internet. If gateway/router is not connected to the Internet, your DDNS status will show "Disconnected".



If you prefer using third-party DDNS server, you can choose this option.

The current supported third-party DDNS services are 3322(qdns), DHS, DynDNS, ZoneEdit and CyberGate. Choose the one that best suits your purpose. You should provide your account information so that the camera can communicate with the selected DDNS vendor.

Your third-party DDNS service account credential should include the following information.

Host Name: please enter your registered Host Name

Username: please enter your registered Username

Password: please enter the password for this

Click **Apply** when configuration is done to activate new settings.

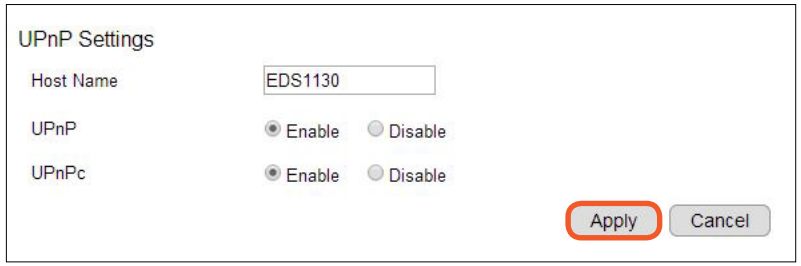
Network>> UPnP

Universal Plug and Play (UPnP) allows the other device to detect the presence of the camera. You should enable UPnP if you wish your camera to be recognized by your home gateway/router. UPnP Traversal makes camera remote access over the Internet possible using camera DDNS name. You won't be able to access the camera if you disable UPnP feature. Please keep it **Enable** if you are not sure.

Hostname: You may rename your camera to other meaningful names such as living room, kitchen, baby room or any other descriptions you find suitable to describe the space being monitored.

UPnP: Enable or Disable

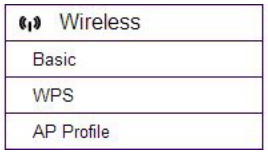
UPnPc: Enable or Disable



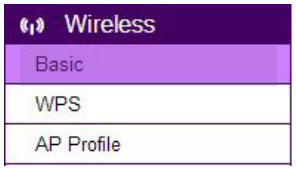
Click **Apply** when configuration is done to activate new settings.

Wireless

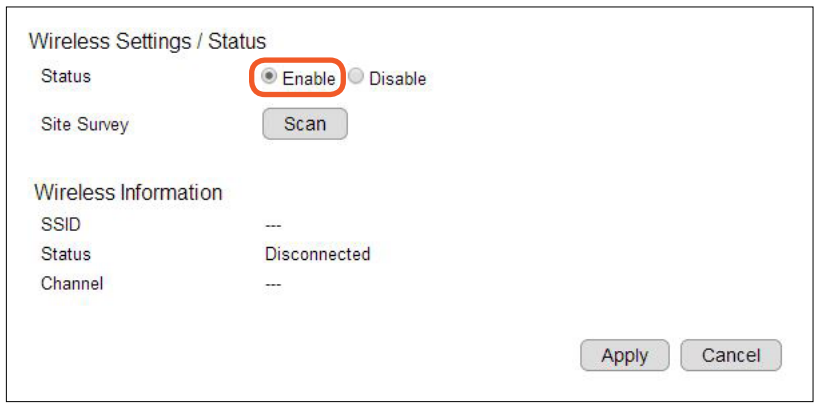
All wireless related settings can be found under **Wireless** menu. The camera store several **AP profiles** (candidate AP list) although only one AP will be connected at any given time.



Wireless>> basic



Under Basic, you can turn on or off the wireless radio, setting connection with the existing AP surrounded. Wireless Information shows the current wireless status.

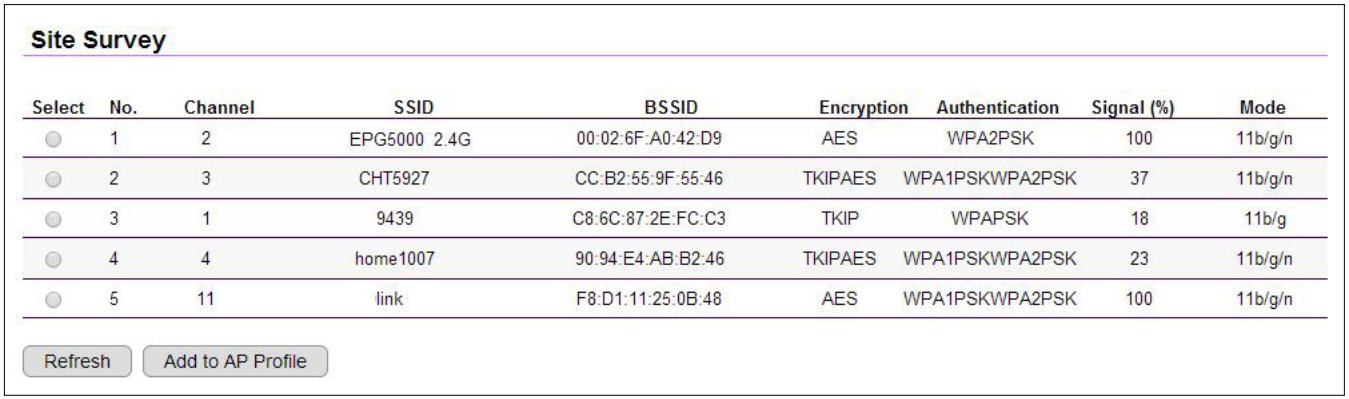


To setup a wireless connection, you must first enable wireless by choosing **Enable** option.

Click on **Scan** button to search for existing wireless access points (AP).

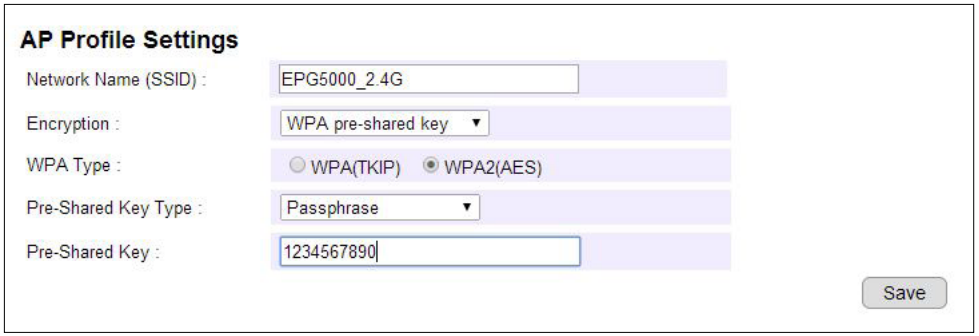
When prompted with Site Survey window, click on **Refresh** button if you do not find your AP on the list.

On the site list, choose your preferred AP and then click **Add to AP Profile**.

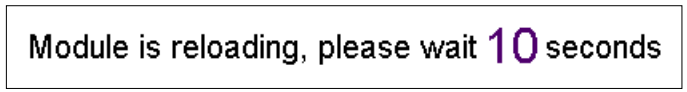


Then, on the AP Profile Settings window, please check if the security settings are correct. Please review the settings: **Encryption**, **WPA type**, and **Pre-Shared Key type**. They are automatically detected. Normally, you only need to provide the **Pre-Shared Key** (password). However, you can still change the settings if they do not match with the actually AP wireless security settings.

Enter your Pre-Shared Key and press **Save** to complete the setting.



Please wait for a moment for the setup to complete.



While waiting, you can remove RJ45 Ethernet Cable from the camera now. It may take a moment for the camera to establish wireless connection with the chosen AP (your gateway/router).

Your camera should be connected to the gateway/router now. You can verify it by logging into your camera again. In case if the camera is still not accessible, please check your gateway/router wireless setting again see whether your camera is connected.

Wireless>> WPS

Wi-Fi Protected Setup (WPS) is a network security standard that allow users to easily secure a wireless home network. This feature allows user to set up wireless connection between the camera and home gateway/router without entering any detail wireless security configurations such as SSID, encryption method or pre-shared key (password). However, you need to initiate WPS process on both the camera and the gateway/router at the same time so that they can find each other.

Normally, for WPS-enabled products, you should be able to find the WPS button on the product. Only few rare cases that require user to initiate WPS process over web page. Make sure WPS feature is **Enabled** on both the camera and your gateway/router. Then, you need to know how to initiate gateway's/router's WPS process first. It is mostly likely a simple push of the WSP button on your gateway/router. On EDS1330, you can initiate WPS process by pressing the WPS button or through the web page.

WPS Button

The simplest way to setup wireless connection with a gateway/router is by pressing on the WPS button.

First, press the WPS button on the gateway/router (there may be changes on the LED lights as signs of initiation).

Then, press the WPS button the camera.

Wait a minute for two devices to establish the wireless connection. Once the process is complete, the WPS LED indicator will become solid green.

WPS over web page

You can initiate camera's WPS process on the web page.

First, press the WPS button on the gateway/router (there may be changes on the LED lights as signs of initiation).

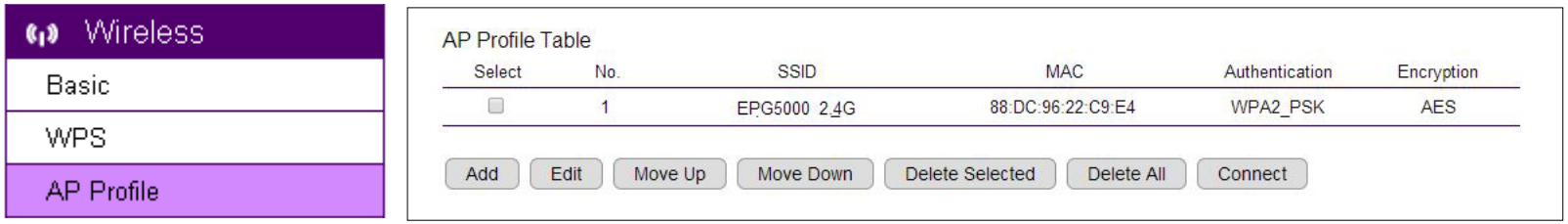
On camera's WPS page, press **Start to Process**.

Wait a minute for two devices to establish the wireless connection; when the connectivity is complete, the WPS LED indicator will become solid green.

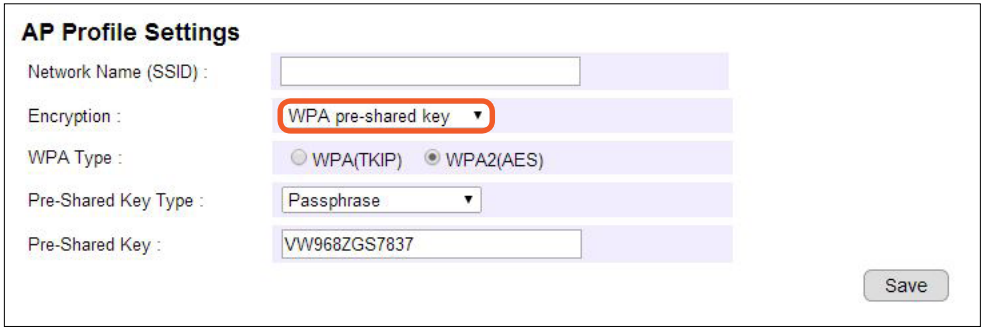
NOTE: For WPS to setup wireless connection successfully, timing is essential. Once the gateway/router has initiated WPS process, your camera WPS process must be initiated within a given time range. It will be best if you have two devices in close range so that WPS process on both sides can be initiated immediately after another.

Wireless>> AP Profile

You can keep several AP Profiles (settings) if your application may need to switch between APs in case one of them failed. Each profile matches to a specific AP.



App Profile >> Add >> WPA pre-shared key



Network Name (SSID): enter the SSID of the target AP

Encryption: supports Disabled, WEP and WPA pre-shared key

WPA Type: supports WPA (TKIP) and WPS2(AES)

Pre-Shared Key Type: Passphrase or HEX (64 characters)

App Profile >> Add >> WEP

Please note that WEP has proven be insure, this security option is reserved only for legacy products that supports WEP only.

Authentication Type: supports **Open System** and **Shared Key**

Key Length: 64bit and 128bit (the longer the safer)

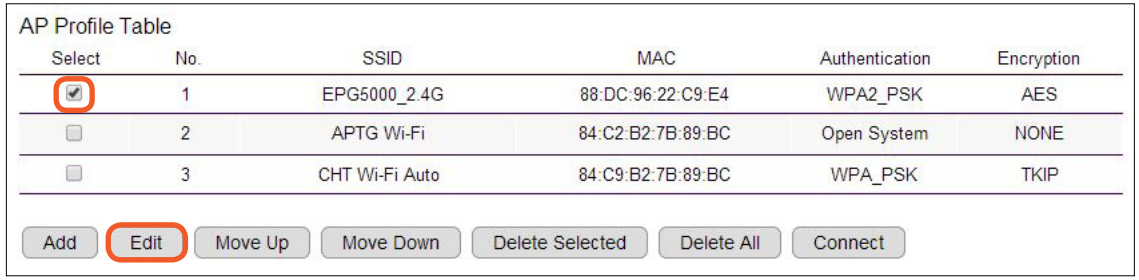
Key Type: ASCII or HEX

Default Key: the key that will be used for authentication

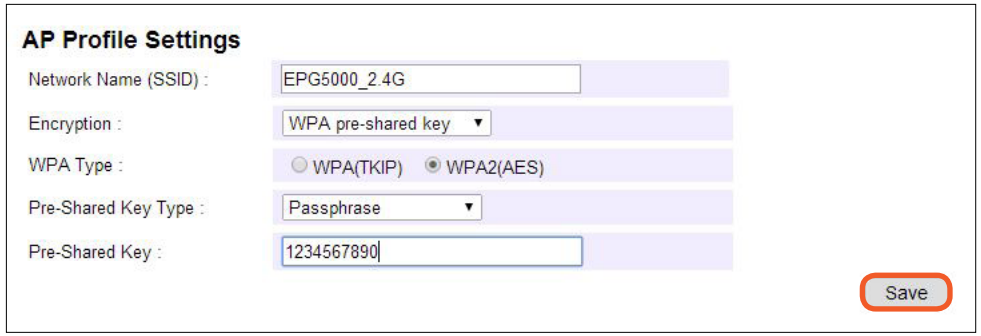
Encryption Key 1~4: the candidate keys for authentication

App Profile >> Edit

On the table select the profile and then click on **Edit** to modify the profile setting.

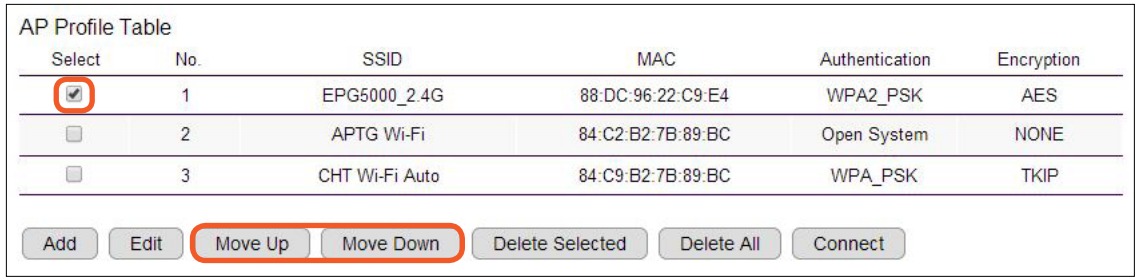


Once complete the modification, click **Save** to make the changes effectively.



App Profile >> Move Up / Down

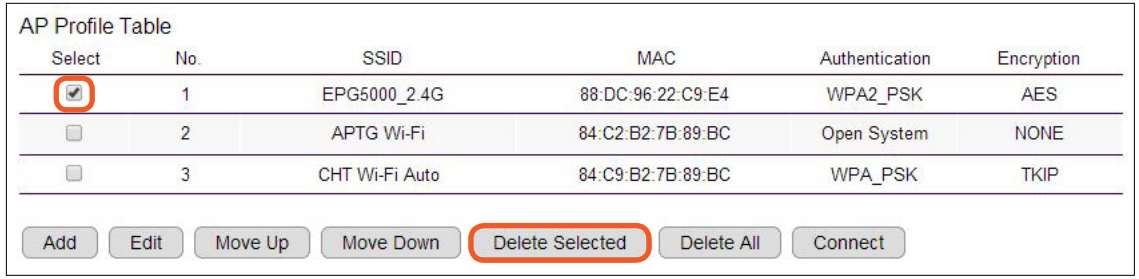
Each profile the ordered by the number at the front, the ones on top has higher priority when camera tries to search for the existing AP. You can change the AP priority by moving them up or down. Select the profile and then click either on **Move Up** or **Move Down**.



App Profile >> Delete

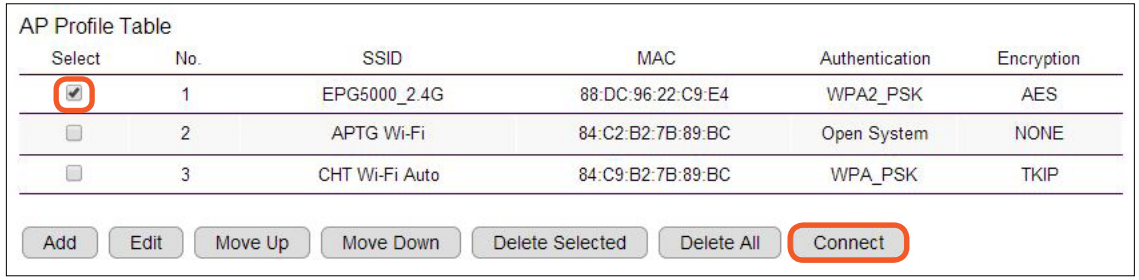
Delete Selected: only delete the selected profile.
Select the profile to be deleted and then click on **Delete Selected** button.

Delete All: this will delete all the AP profiles on the table

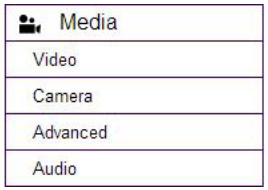


App Profile >> Connect

Select a profile to be connected and then click on **Connect** to initiate the wireless connection.



Media

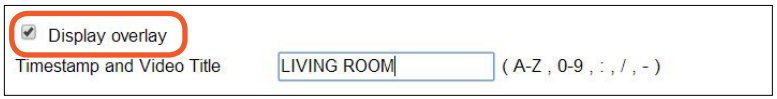


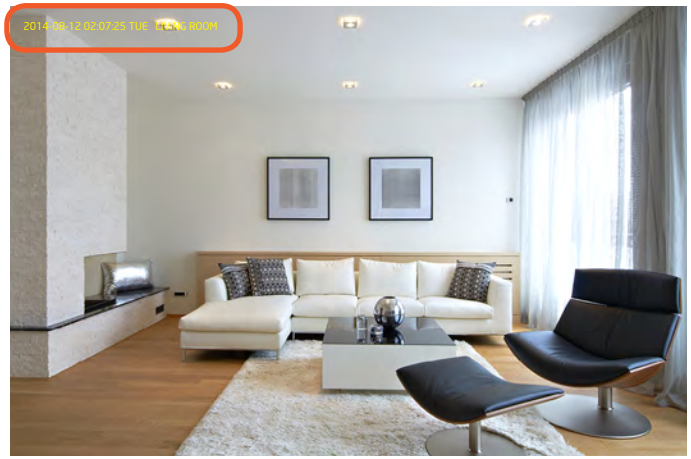
All media quality related settings can be found under **Media** menu. These settings will have direct effect on the captured image or video.

Media>> Video

Display Overlay

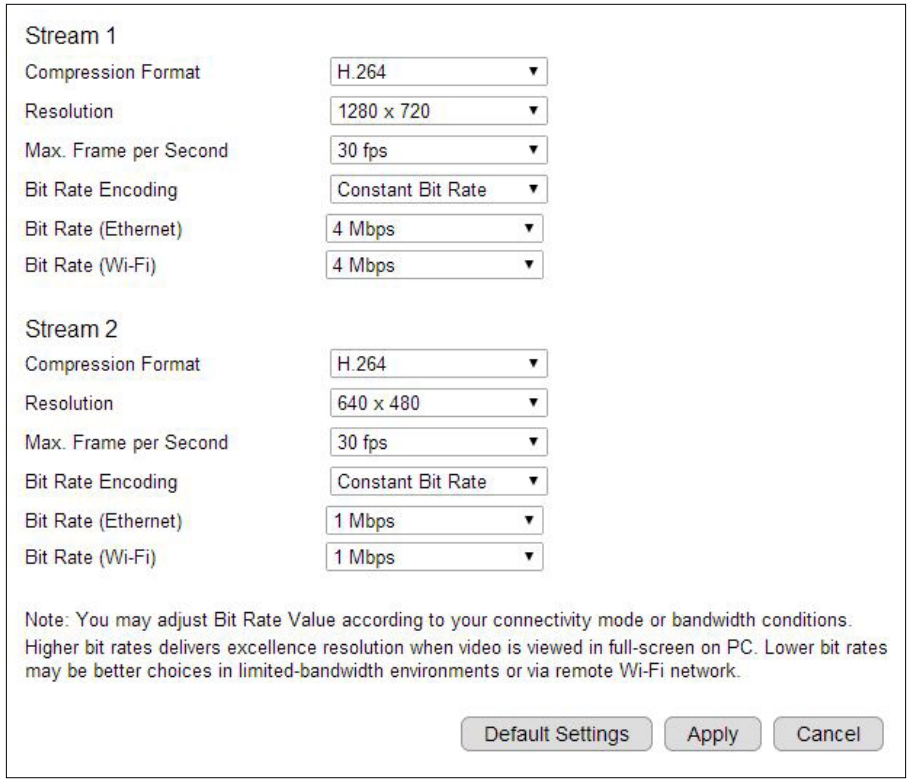
It is recommended that you enable the **Time Stamp** and **Video Title** and enter the Video Title that is easy for you to recognize when showing on the viewer. The overlay will be shown on the upper left corner of your live viewer as shown below.





Stream1 and Stream2

There are two streams running concurrently: **Stream 1** and **Stream 2**. By default, Stream 1 has the higher resolution than stream 2. Stream 2 serves lower resolution for mobile devices which has smaller screens. Each stream has independent settings.



Compression Format: H.264 is suggested that serves the best compression quality.

Resolution: This sets the resolution of the image. Higher resolution delivers higher quality image but consumes more storage spaces and network bandwidth.

Max. Frame per Second: This sets the maximun number of frames to be captured per second. Higher frame rate delivers smoother video but consumes more storage spaces and network bandwidth.

Bit Rate Encoding: This sets the bit rate encoding at which tha output data consumed is constant or variable per time segment.

Bit Rate (Ethernet): The bit rate when data is transmitted using Ethernet.

Bit Rate (WiFi): The bit rate when data is transmitted using wireless connection.

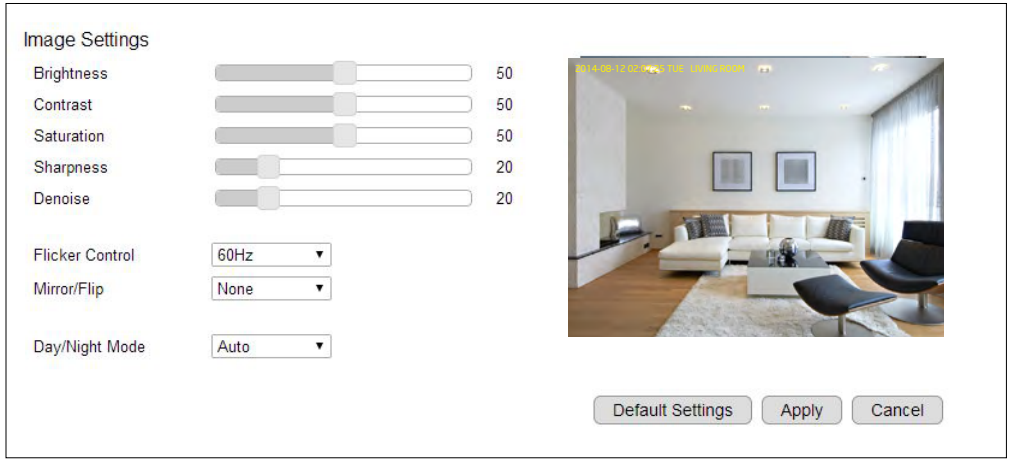
You are adivsed to set a smaller video size and lower bit rate for remote viewing on mobile phones (Stream 2) and a larger video size and a higher bit rate for live viewing on web browsers (Stream 1). In addition, Ethernet suffers less interference and tends to be faster than wireless; therefore, the bit rate can be set higher for (Stream 1). The reason that Stream 2 bit rate settings are both low simply because Stream 2 is applied to serve low bandwidth appliances such as mobile phone.

Media>> Camera

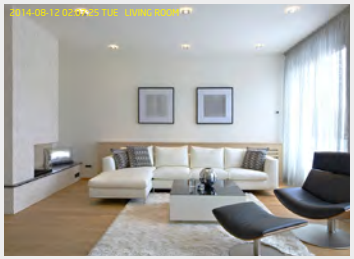
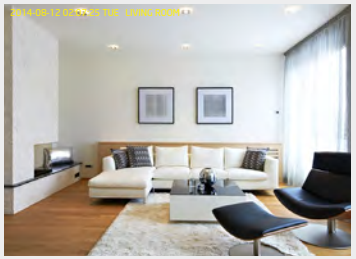
You can get better image appearance by tuning the image parameters of the camera using the sliders shown. For example, in a dark room you may want to set the Brightness higher to generate clearer result. When directly facing an outdoor window, you may want to lower the Brightness a bit. There may be different settings under different circumstance; therefore, you should tune the value if the image quality has become too low to serve its purpose.

By clicking **Default Settings**, all the settings will be reset to default value. And click **Apply** to make change effectively.

Please refer to the following examples for comparison between low and high for each of the light settings.

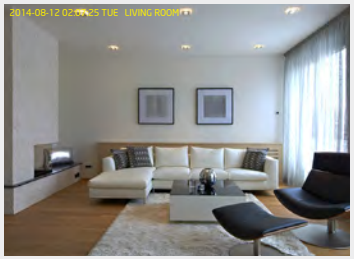
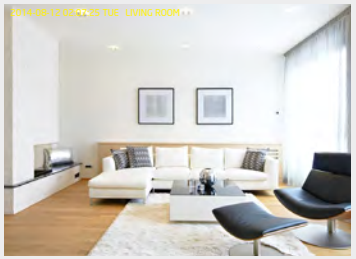


Contrast

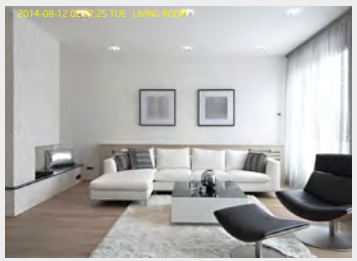
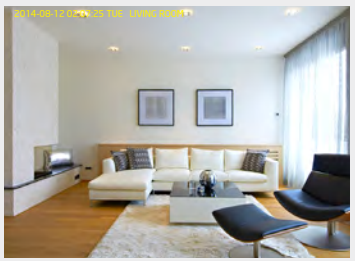
Adjust the contrast of the image.
Default: 50
Low 0 ⟷ 100 High

Brightness

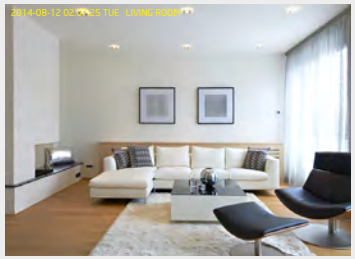
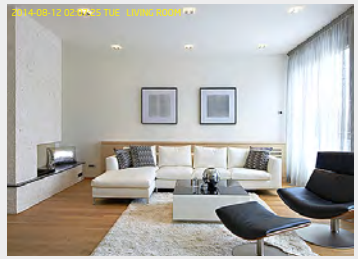
Adjust the brightness of the image by percentage.
Default: 50
Darker 0 ⟷ 100 Brighter

Saturation

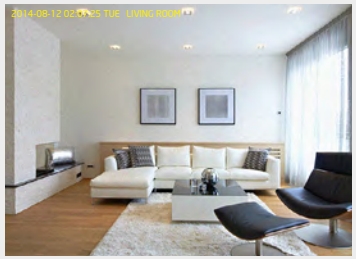
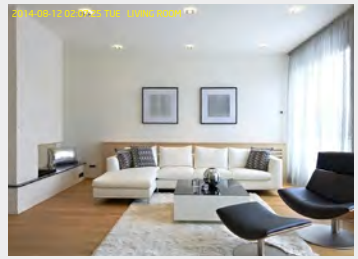
Adjust saturation of image by percentage
Default: 50
Less 0 ⟷100 More

Sharpness

Adjust the sharpness of the image by percentage.
Default: 50
Softer 0 ⟷ 100 Sharper

Denoise

Adjust effect of denoise on the image by percentage.
Default: 20
None 0 ⟷ 100 Strong

Noise is a random variation of color and brightness in the image captured under low light environment. You may find adjusting Denoise useful when your camera requires to operate under such condition, especially if you do not enable night-vision.

Note: Some of the effects will be more obvious in higher resolution at real time.

Camera>> Flicker Control

The supported options are: **60Hz** & **50Hz**

Flicker Control is an anti-flicker feature setting.

AC lamp can cause a flicker effect, which is a consequence of the AC power frequency (50 or 60 Hz). As the light can change from picture to picture, causing light flicker. This will lead to inconsistent light source between each snapshot. To eliminate flicker, configure your camera to PAL (60Hz) or NTSC (50Hz) modes to compensate the effects. Check the power supply of your region for proper setting.

Camera>> Mirror / Flip

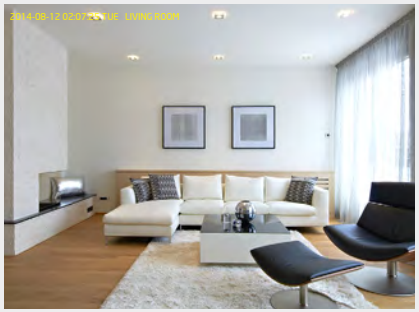
Supported video orientation options are **None**, **Mirror, Flip** and **Both**

There are times that the camera will have to be mounted upside down or sideways. That is, the view become angle needs to be adjusted. The **Mirror** settings does not reflect on the preview at real time (unlike lighting condition settings). Therefore, you have to click on **Apply** to see the result.

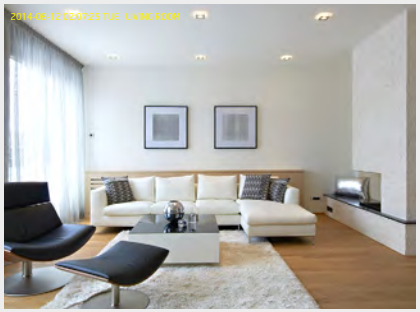
To reset to the default, click **Default Settings** and then click **Apply**.

The following examples compares **none** with **a chosen mirror/flip effect.**

Mirror - Horizontally reflect the display of the live view

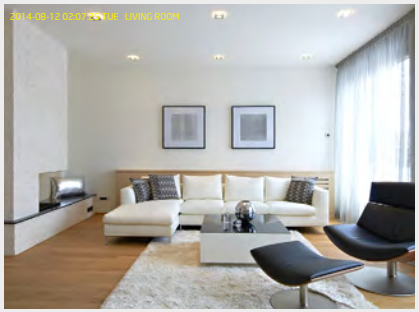


None



Mirror

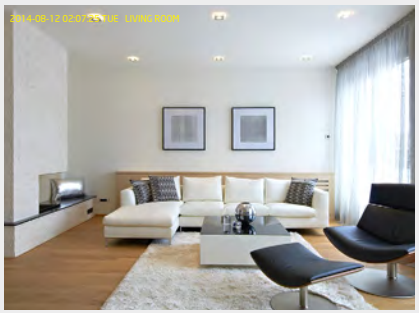
Both - Horizontally and vertically reflect the display of the live view



None

Both

Flip - Vertically reflect the display of the live view



None

Flip

Camera>> Day / Night Mode

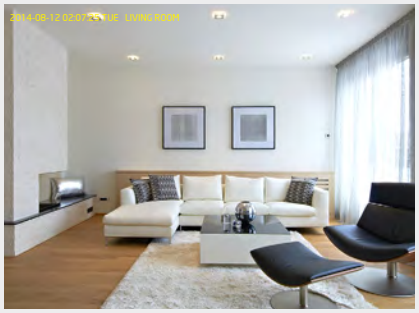
This controls **Night Vision** ON and OFF.

Auto: the camera automatically switch between Day and Night modes by judging ambient light sufficiency.

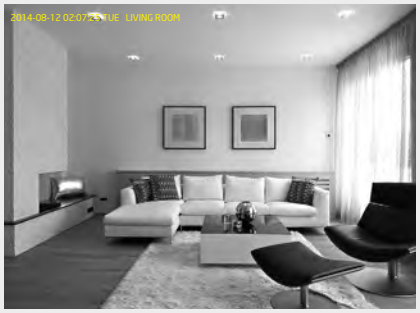
Day: force the camera to turn Night Vision **OFF**.

Night: force the camera to turn Night Vision **ON**.

Day

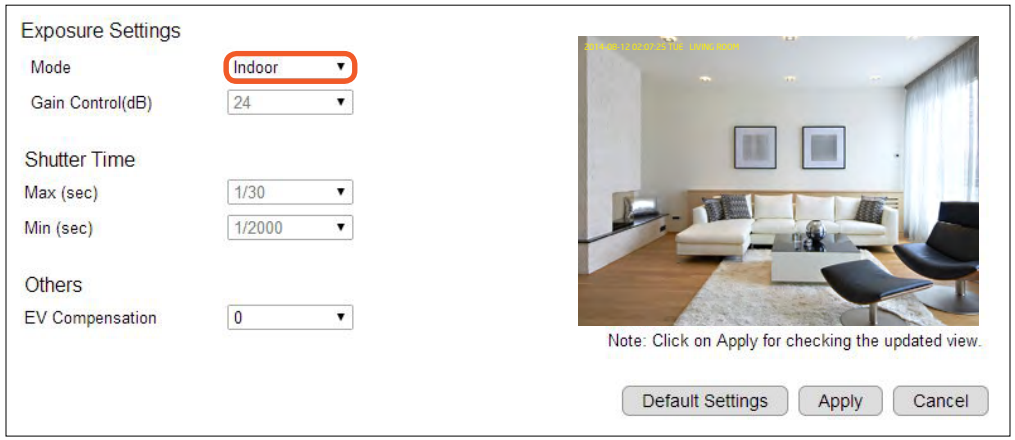


Night



Media>> Advanced

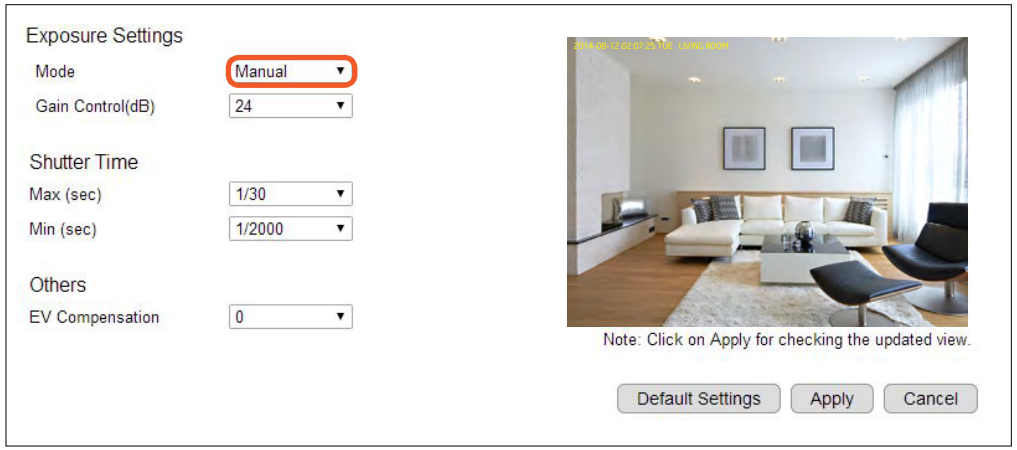
On this page, you can set the **Exposure Mode** and **Gain Control Settings**, **Shutter Speed** and also the **Exposure Value (EV) Compensation**.



Exposure Settings

Mode: **Manual**, **Indoor**, **Outdoor**

For regular users, please choose indoor or outdoor, the default values will be preconfigured. The areas are grey out for preconfigured settings when you choose **Indoor** or **Outdoor**.



Manual

Choose the mode Manual if you would like to fine tune some of the settings that suits your application. Please be noted that these settings may have impacts on the image quality and performance. If you are not sure about the terms and behavior, you are suggested to keep it as default.

Click **Apply** to save the configured settings.

Click **Default Settings** to reset to default and then click **Apply** to save the settings.

Media>> Audio

Status:

If the audio is important to what you are monitoring, you need to set the audio status to **Enable**. So that the microphone can pick up sounds in the environment. On the other hand, if audio is not necessary (for instance an open space with a lot of noises), you are advised to **Disable** the audio to reduce the clips file size.

Mode:

Both Mic & Speaker: enable both microphone and speaker
Only Mic: enable only the microphone
Only Speaker: enable only the speaker

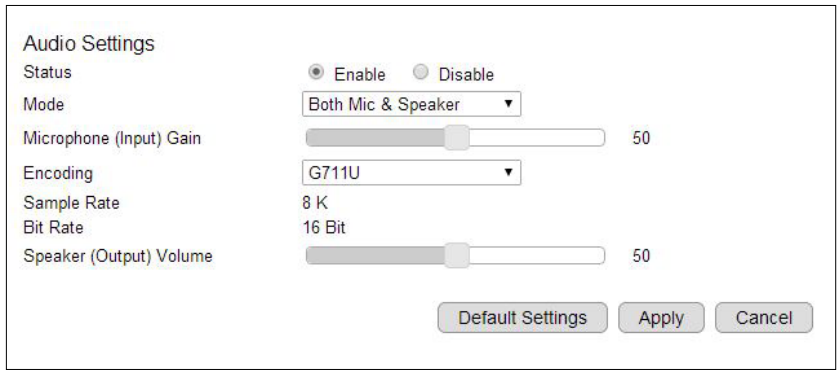
Microphone (Input) Gain: setting the sensitivity of the microphone. High gain will result in higher volume and but may possibly picks up more noise.

Encoding: supporting encoding type is G711A, AAC and G711U

Sample Rate: 8 K

Bit Rate: 16 Bit

Speaker (Output) Volume: adjusting speaker volume by sliding the bar



Event Management

This camera supports many intelligent features that allows you to utilize the camera in many application scenarios. This section will introduce each of them in detail. For application examples, please refers to the **Application Guide**.

Event Management >> Setup Wizard

Wizard is an integrated configuration flow guide to the two main features on the camera: **Schedule Recording** and **Event/Alarm**.

Schedule Recording: Set the camera to record video regularly based on a predefined schedule.

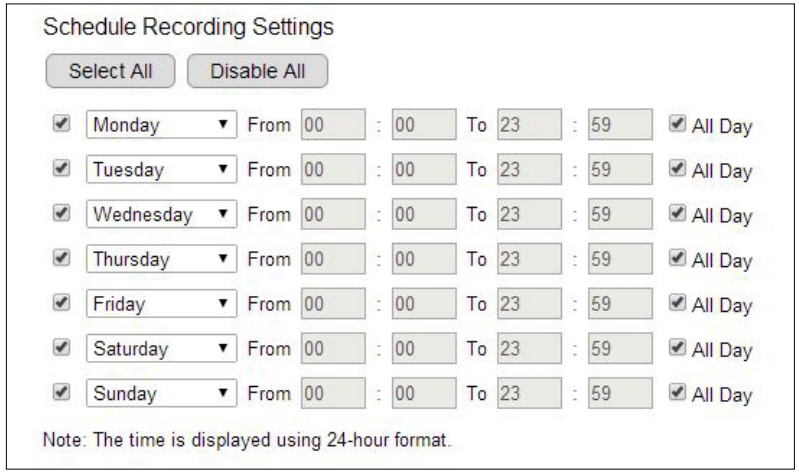
Event/Alarm: When camera detects an event that matches the predefined condition, an alarm will be triggered and proceed with the defined actions; for instance, taking snapshots or recording videos for the specified length of time.

Wizard - Schedule Recording

Step 1: Select Scheduled Recording

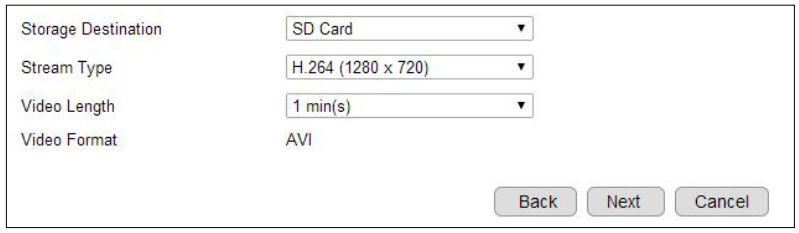
Choose **Schedule Recording** on the page and click **Next** to proceed.

Step 2: Schedule the Recording



You can specify the time range for each schedule or simply click on **All Day** for 24-hour recording.

You must **Select** to enable the schedule.



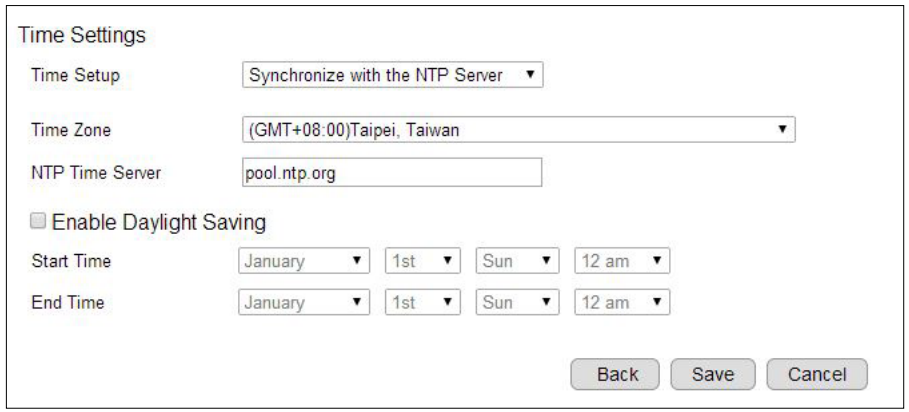
Storage Destination: SD Card or Network Storage
Stream Type: H.264 (1280x720) or H.264 (640x480). This options is based on current video settings for Stream 1 and Stream 2.
Video Length: the maximum video length of time per file
Video Format: AVI

Note: You may have two different schedules for the same day. As shown in the example above, you can have two schedules: Monday 08:00~12:00 and Monday 14:00 ~ 18:00.

Step 3: Time Settings

Like any other surveillance system, time is essential because we want to keep track of the time of the events recorded or detected by the camera. You suppose have completed the time setting during the installation. This is just another confirmation just in case if you did not have not configure the time setting.

Click **Save** to complete the wizard.

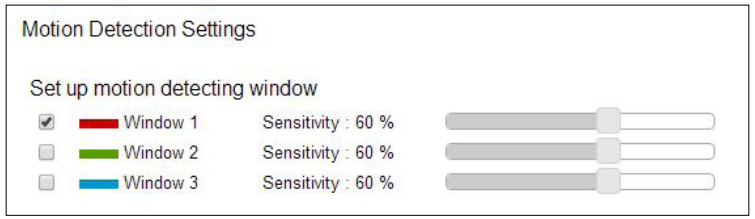


Wizard - Event/Alarm

Step 1: Select Alarm

Choose **Event/Alarm** on the page and click **Next** to proceed.

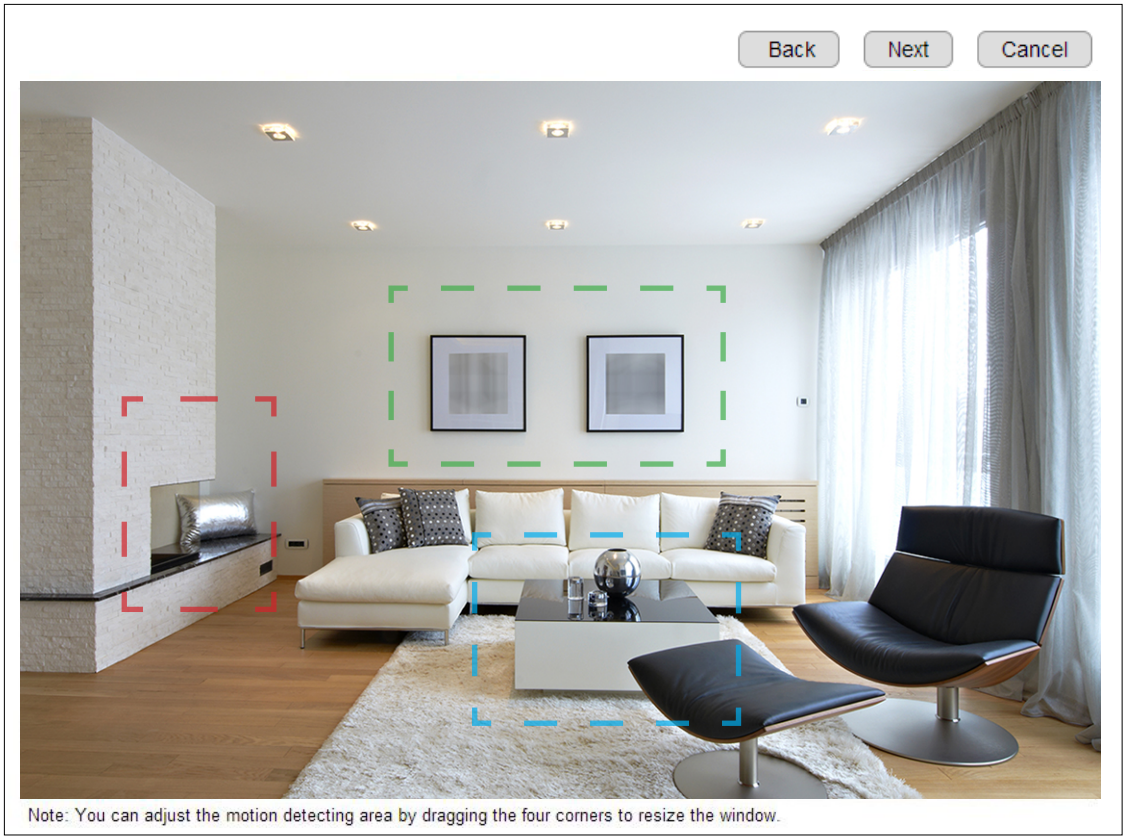
Step 2: Motion Detection Window Setting



Motion Detection Window is a hot zone that the camera analyzes for movement. When a motion is detected within the zone, an event alarm will be triggered.

There can be 3 windows configured at the most. Simply click on the check box to enable or disable the selected window. Three windows are differentiated by color; Window 1 is Red, Window 2 is Green and Window 3 is Blue.

Sensitivity: The sensitivity is set by percentage. The higher percentage represents higher sensitivity.
Depends on your application, high sensitivity will trigger event more often than low sensitivity and produce more snapshots or videos. However, overly sensitive detection will fill up the storage very quickly. Even if you have unlimited storage space, large amount of files can become a problem when you need search through each of the files to find what you are really looking for. It may take some time for you to fine tune the optimal sensitivity for your application.



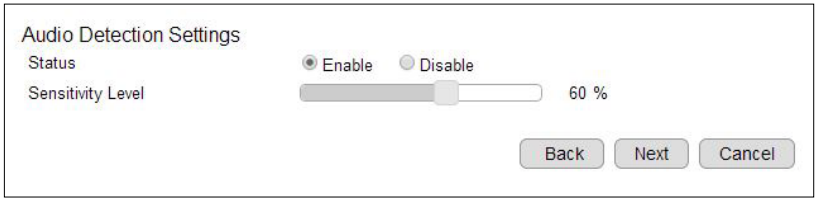
By default, Window 1 is enabled and full detecting area is set with red dashed color frame.

You can configure the detection window by dragging around the frame to decide the monitoring objects or area.

Please refer to **Event Management>> Motion Detection** for resizing the window

Click **Next** to continunue the event settings.

Step 3: Audio Detection Settings



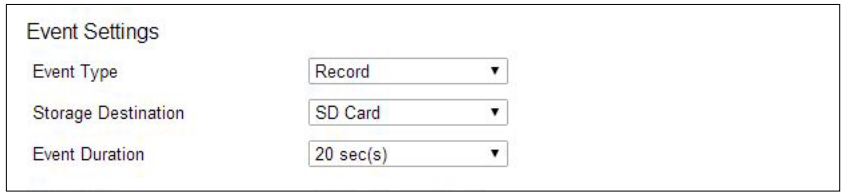
Audio Detection is another way to trigger the event and alarm. It can be enabled to initiate snapshot or recording when there's sound detected in the background. When the incidence falls out of the motion detection window, "sound" can be a good indication that a change in the environment has occurred and it's better to take actions to keep event in record.

Status: Enable or Disable

Sensitivity Level: The sensitivity is set by percentage. The higher percentage represents higher sensitivity.

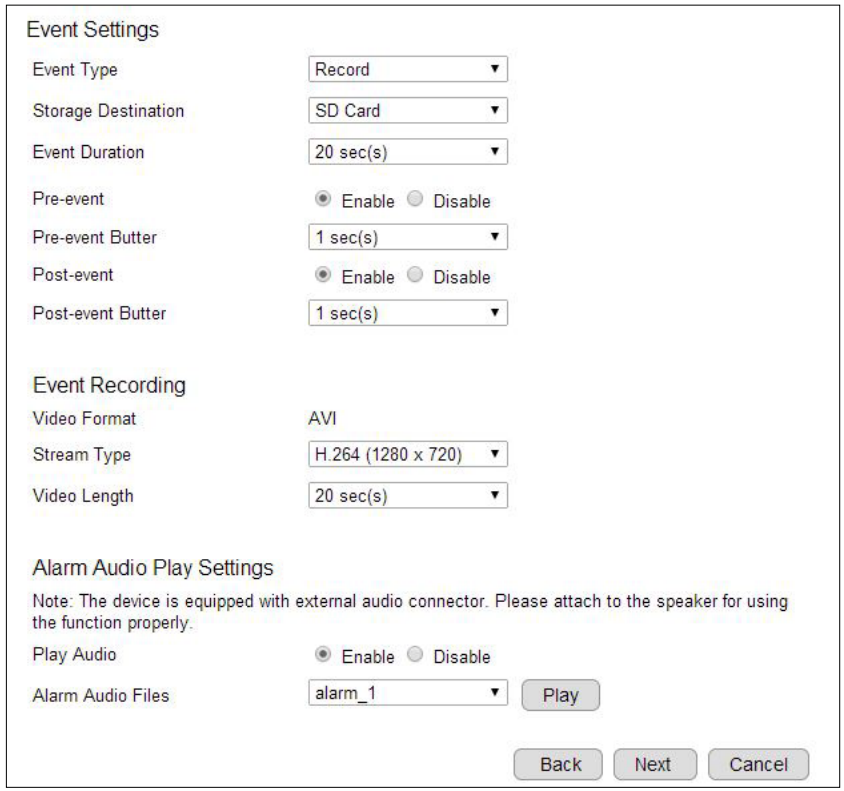
Similar to motion detection, high sensitivity will trigger event more often than low sensitivity and produce more snapshots or videos. However, overly sensitive detection will fill up the storage very quickly. Even if you have unlimited storage space, large amount of files can become a problem when you need search through each of the files to find what you are really looking for. It may take some time for you to fine tune the optimal sensitivity for your application.

Step 4: Select the Event Type



Select the Event Action Type, **Record** or **Snapshot** to proceed.

Event Type: Record (movie clip)



Event Settings

Storage Destination: SD Card or Network Storage

Event Duration: the length of time when an event is triggered

Pre-event: Enable or Disable pre-event

Pre-event Buffer: duration: the length of pre-event, 1~3 seconds

Post-event: Enable or Disable post-event

Post-event Buffer: the length of post-event, 1~3 seconds

Event Recording

Video Format: AVI is set

Stream Type: H.264 (1280x720) or H.264 (640x480). The options may vary as it is the settings of current Stream 1 and Stream 2

Video Length: the maximum video length of time per file

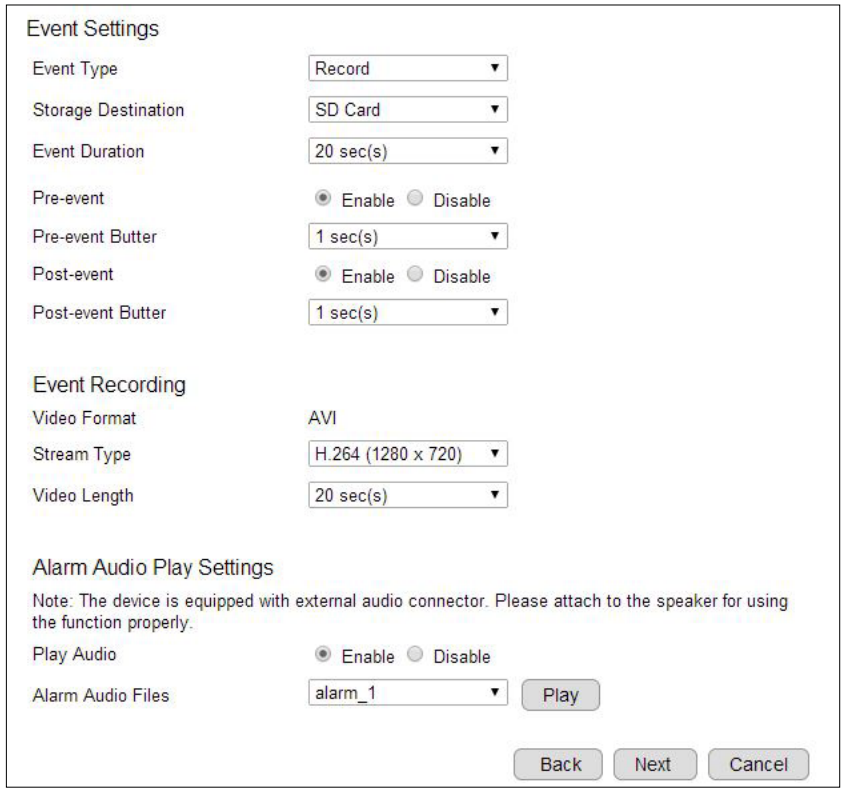
Alarm Audio Play Settings

Play Audio: Enable or Disable the alarm audio through the speaker when an event is triggered.

Alarm Audio Files: the sound file to be played when alarm is triggered. Click **Play** to test.

Click **Next** to continue.

Event Type: Record (movie clip)



Event Settings

Storage Destination: SD Card or Network Storage

Event Duration: the length of time when an event is triggered

Pre-event: Enable or Disable pre-event

Pre-event Buffer: duration: the length of pre-event, 1~3 seconds

Post-event: Enable or Disable post-event

Post-event Buffer: the length of post-event, 1~3 seconds

Event Recording

Video Format: AVI is set

Stream Type: H.264 (1280x720) or H.264 (640x480). The options may vary as it is the settings of current Stream 1 and Stream 2

Video Length: the maximum video length of time per file

Alarm Audio Play Settings

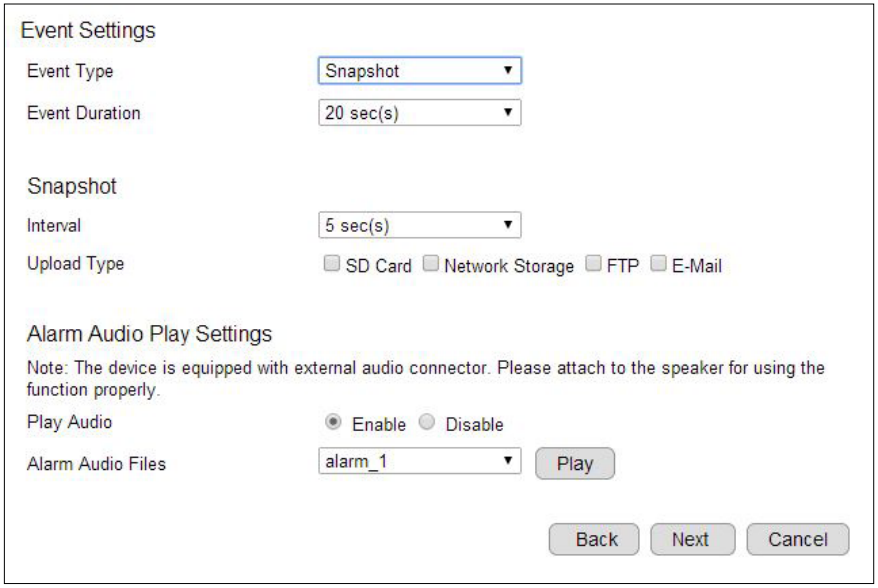
Play Audio: Enable or Disable the alarm audio through the speaker when an event is triggered.

Alarm Audio Files: the sound file to be played when alarm is triggered. Click **Play** to test.

Click **Next** to continue.

Note: If setting Event Duration to 20 seconds, the camera will keep recording for 20 seconds when an event is triggered. In this case, if the Video Length is 20 seconds, then 1 file will be generated for instance of event. If Video Length per clipis 10 seconds, then 2 files will be generated event. Please note that pre-alarm and post-alarm will extend the length of the clip for the chosen extra length of time.

Event Type: Snapshot (images)



Event Duration: the length of time when an event is triggered.

Interval: the elapse time between each snapshot, the options are from 5 seconds to 5 minutes.

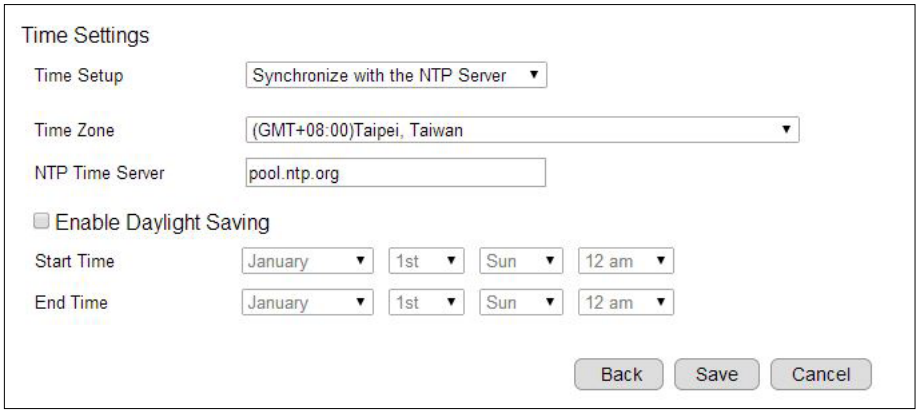
Upload Type: select where you prefer to keep the snapshot. You may choose two at most.

Play Audio: Enable or Disable (enable to play alarm audiothrough the speaker whenan event is triggered).

Alarm Audio Files: the sound file to be played when alarm is triggered. Test the alarm by clicking **Play**.

Click **Next** when this step is complete and proceed to the last step.

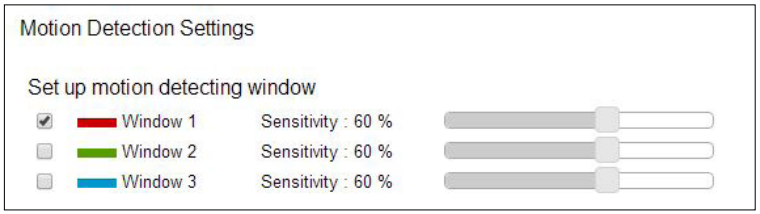
Step 5: Time Setting



Like any other surveillance system, time is essential because we want to keep track of the time of the events recorded or detected by the camera. You suppose have completed the time setting during the installation. This is just another confirmation just in case if you did not have not configure the time setting.

Click **Save** to complete the wizard.

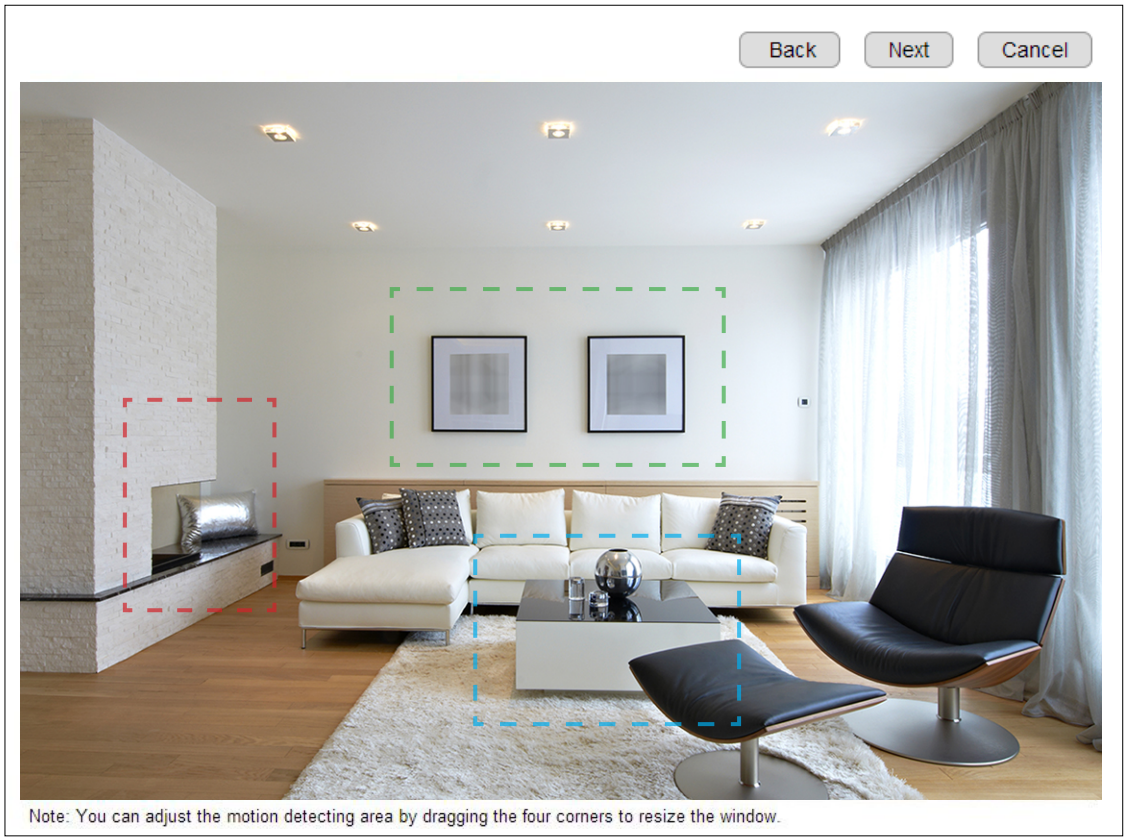
Event Management>> Motion Detection



Motion Detection Window is a hot zone that the camera analyzes for movement. When a motion is detected within the zone, an event alarm will be triggered.

There can be 3 windows configured at the most. Simply click on the check box to enable or disable the selected window. Three windows are differentiated by color; Window 1 is Red, Window 2 is Green and Window 3 is Blue.

Sensitivity: The sensitivity is set by percentage. The higher percentage represents higher sensitivity.
Depends on your application, high sensitivity will trigger event more often than low sensitivity and produce more snapshots or videos. However, overly sensitive detection will fill up the storage very quickly. Even if you have unlimited storage space, large amount of files can become a problem when you need search through each of the files to find what you are really looking for. It may take some time for you to fine tune the optimal sensitivity for your application.



By default, Window 1 is enabled and full detecting area is set with red dashed color frame.

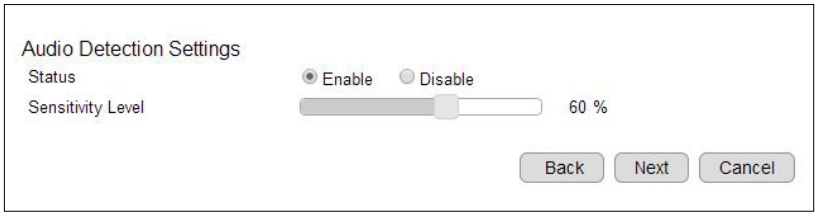
You can configure the detection window by dragging around the frame to decide the monitoring objects or area.

Click **Next** to continunue the event settings.

You can adjust the motion detecting area by dragging the four corners to resize the window.

Therefore, you can have a combination of three different detection window size.

Event Management>> Audio Detection



Audio Detection is another way to trigger the event and alarm. You want the camera to initiate recording or snapshot when there's a sound in the background. When the incidence falls out of the motion detection window, "sound" can be a good indication that a change in the environment has occurred and it's better to start recording.

Status: Enable or Disable

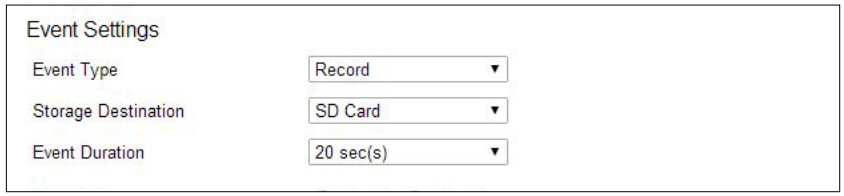
Sensitivity Level: The sensitivity is set by percentage. The higher percentage represents higher sensitivity.

Similar to motion detection, high sensitivity will trigger event more often than low sensitivity and produce more snapshots or videos. However, overly sensitive detection will fill up the storage very quickly. Even if you have unlimited storage space, large amount of files can become a problem when you need search through each of the files to find what you are really looking for. It may take some time for you to fine tune the optimal sensitivity for your application.

Event Management>> Event / Alarm

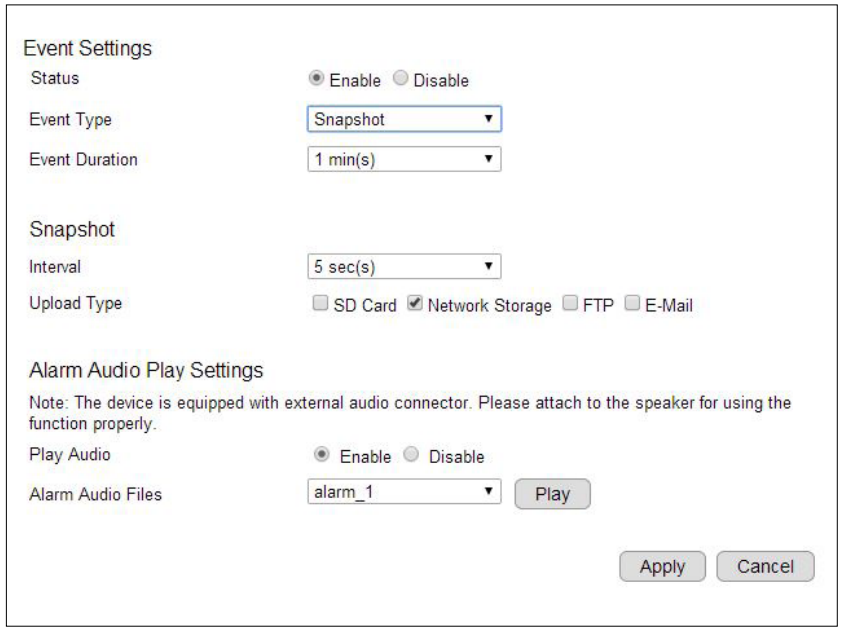
Enable Schedule Recording for proceeding the succedding settings.

Note: Please disable Event/Alarm ahead of configuring Schedule Recording.



Firstly, select the event action type, **Record** or **Snapshot** you prefer to keep the event on track.

Event Type: Snapshot (images)



Event Duration: the length of time when an event is triggered.

Snapshot Settings

Interval: the elapse time between each snapshot, the options are from 5 seconds to 5 minutes.

Upload Type: select where you prefer to keep the snapshot. You may choose two at most.

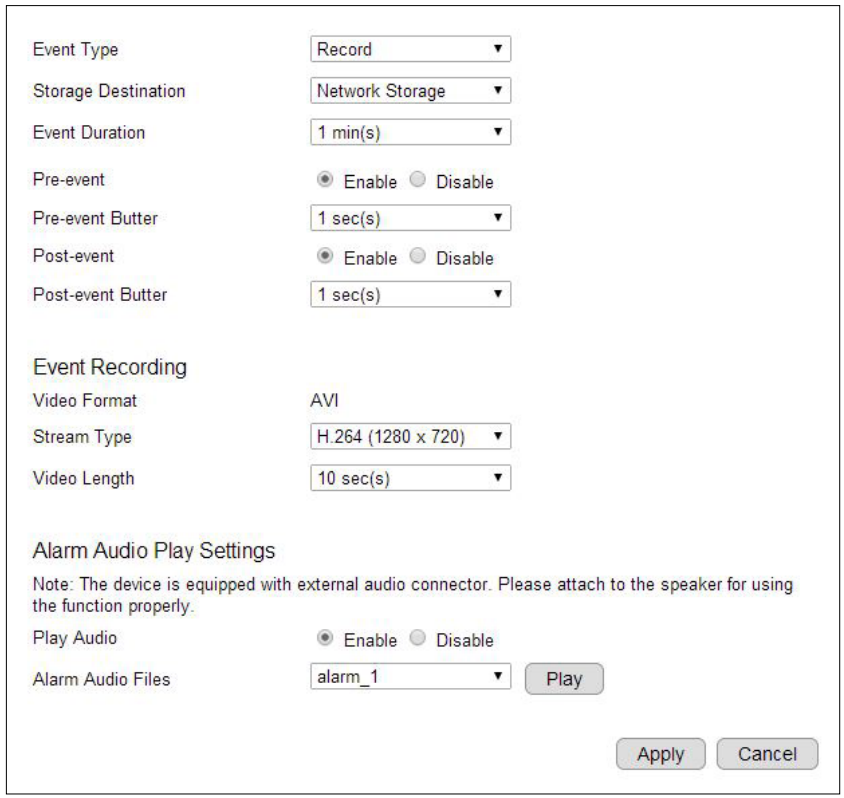
Alarm Audio Play Settings

Play Audio: Enable or Disable (enable to play alarm audiothrough the speaker whenan event is triggered).

Alarm Audio Files: the sound file to be played when alarm is triggered. Test the alarm by clicking **Play**.

Click **Apply** to save the event settings.

Event Type: Record (movie clip)



Event Settings

Storage Destination: SD Card or Network Storage

Event Duration: the length of time when an event is triggered

Pre-event: Enable or Disable pre-event

Pre-event Buffer: duration: the length of pre-event, 1~3 seconds

Post-event: Enable or Disable post-event

Post-event Buffer: the length of post-event, 1~3 seconds

Event Recording

Video Format: AVI is set

Stream Type: H.264 (1280x720) or H.264 (640x480). The options may vary as it is the settings of current Stream 1 and Stream 2

Video Length: the maximum video length of time per file

Alarm Audio Play Settings

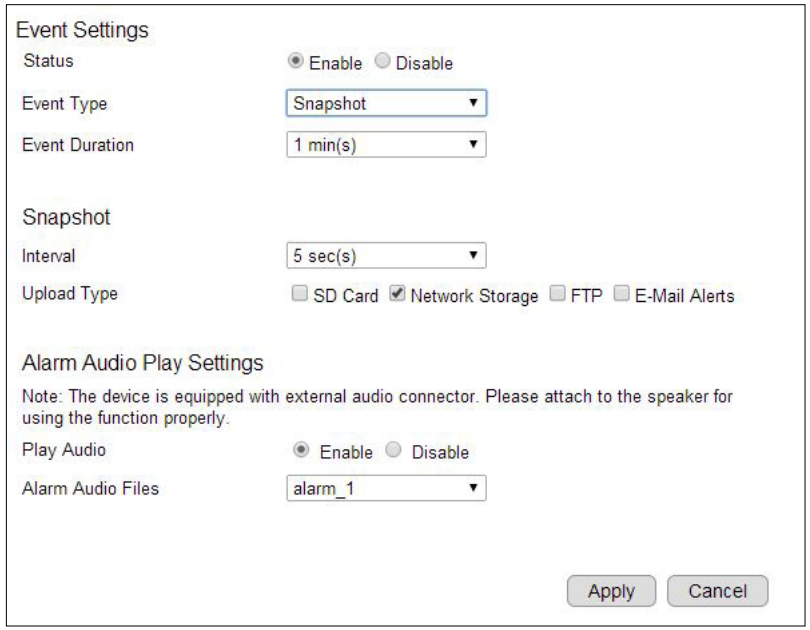
Play Audio: Enable or Disable the alarm audio through the speaker when an event is triggered.

Alarm Audio Files: the sound file to be played when alarm is triggered. Click **Play** to test.

Click **Apply** to save the event settings.

Note: If setting Event Duration to 20 seconds, the camera will keep recording for 20 seconds when an event is triggered. In this case, if the Video Length is 20 seconds, then 1 file will be generated for instance of event. If Video Length per clipis 10 seconds, then 2 files will be generated event. Please note that pre-alarm and post-alarm will extend the length of the clip for the chosen extra length of time.

Event Type: Snapshot (images)



Event Duration: the length of time when an eventis triggered

Interval: Select the elapse time between each snapshot, the options are from 5 seconds to 5 minutes.

Upload Type: method of storage

Play Audio: Enable or Disable (enable to play audio file through the speaker when alarm is triggered)

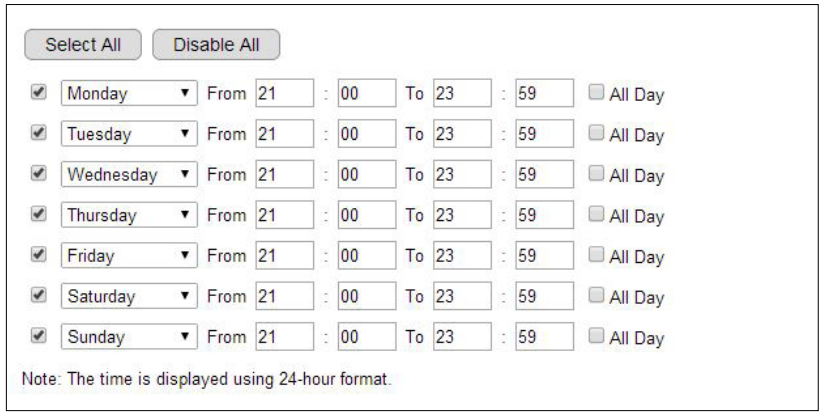
Alarm Audio Files: the sound file to be played when alarm is triggered

Click **Apply** When complete.

Event Management>> Schedule Recording

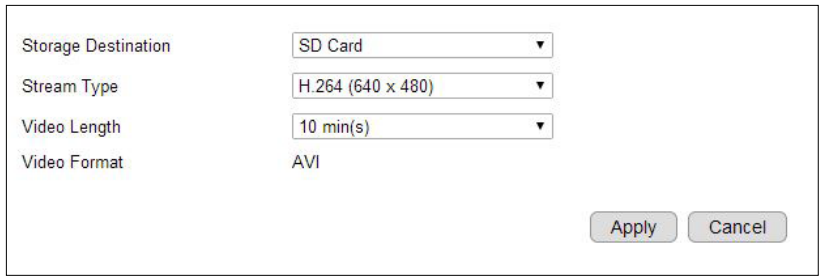
Enable Schedule Recording for proceeding the succedding settings.

Note: Please disable Event/Alarm ahead of configuring Schedule Recording.



You can specify the time range for each schedule or simply click on **All Day** for 24-hours recording.

You must Select to enable to schedule.



Then continue the recording file settings.

Storage Destination: SD Card or Network Storage

Stream Type: H.264 (1280x720) or H.264 (640x480). This options is based on current video settings for Stream 1 and Stream 2.

Video Length: the maximum video length of time per file

Video Format: the media file format.

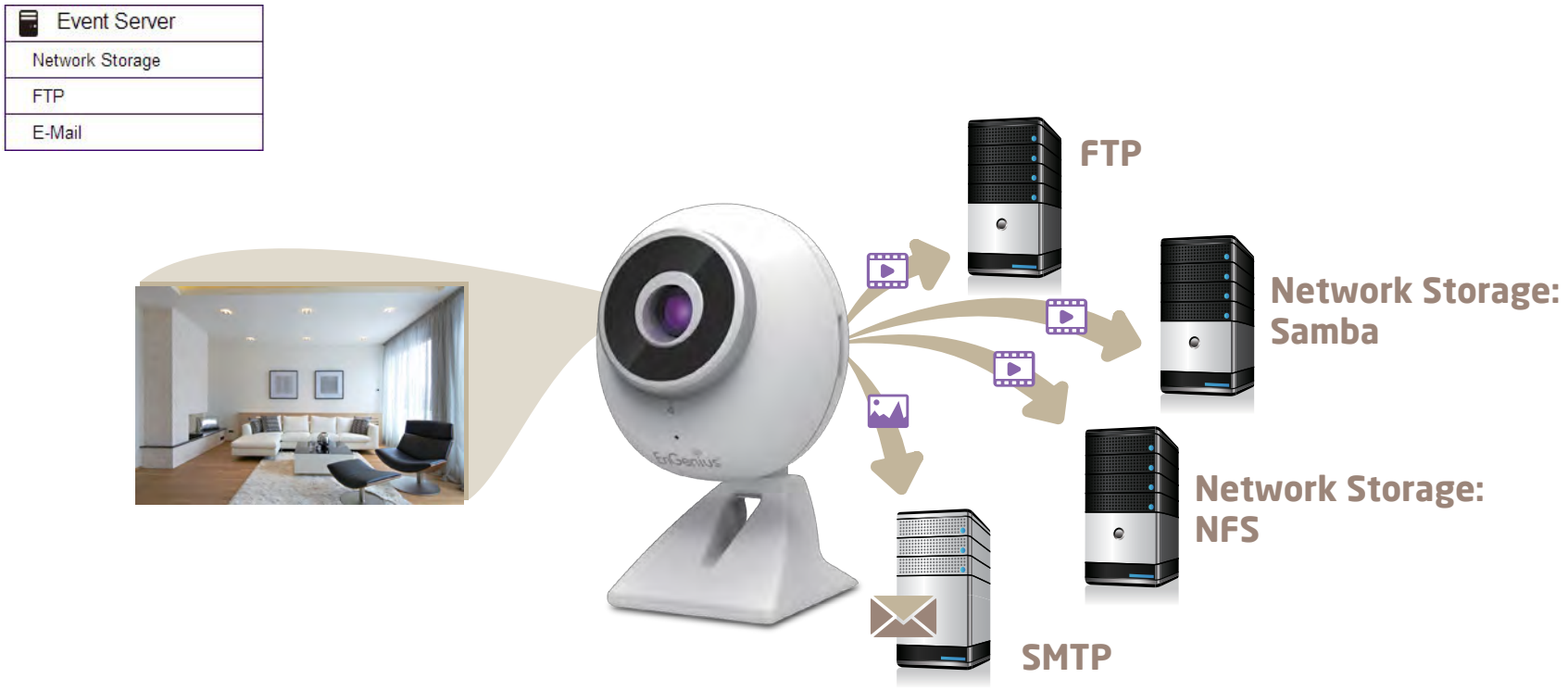
Click **Apply** to enable the schedule recording settings.

Note: You may have two different schedules for the same day. As shown in the example above, you can have two schedules: Monday 08:00~12:00 and Monday 14:00 ~ 18:00.

Event Server

It is required for you to configure **Event Server** settings after setting camera **Event Management**. You will have to tell where the captured images and video recording are going to be stored. The following concept diagram depicts the flow of the image file when and when captured. The recording file is stored at one of the predefined storage locations while the snapshot can be saved to two storage destinations.

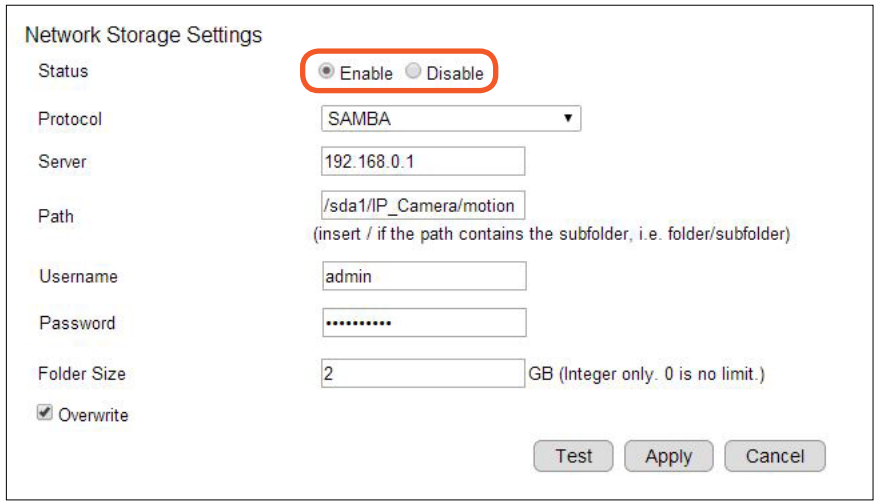
The simplest way to keep the media files is to save on **SD card (see next Chapter)**; however, SD card storage size is relatively limited comparing to other alternatives. On the other hand, **Network Storage** and **FTP** require you to have existing servers ready for upload. **E-Mail Alerts** is good for small image captured since it sends file through email. You should choose what is best for your application.



Event Server>> Network Storage

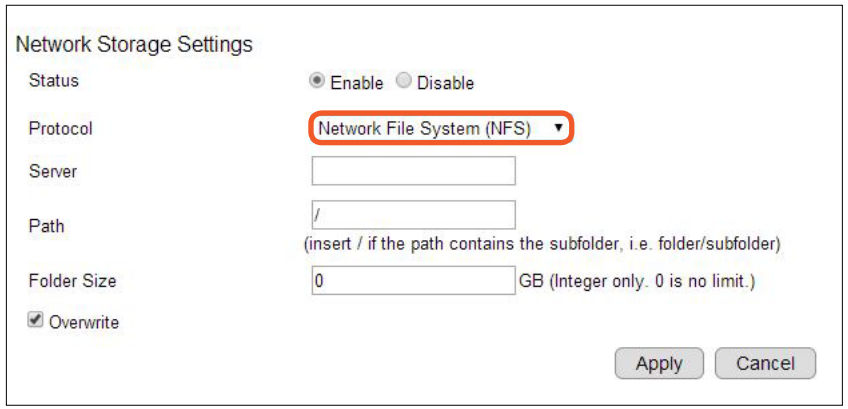
This camera supports two types of Network Storage: **Network File System (NFS)** and **SAMBA**.

Before going further, you need to **Enable** to configure the Network Storage first.



Please refer to the following sections for **NFS** and **SMABA**.

Network Storage >> NFS (Network File System)



Server: IP address of the NFS server

Path: enter the initial path if applicable

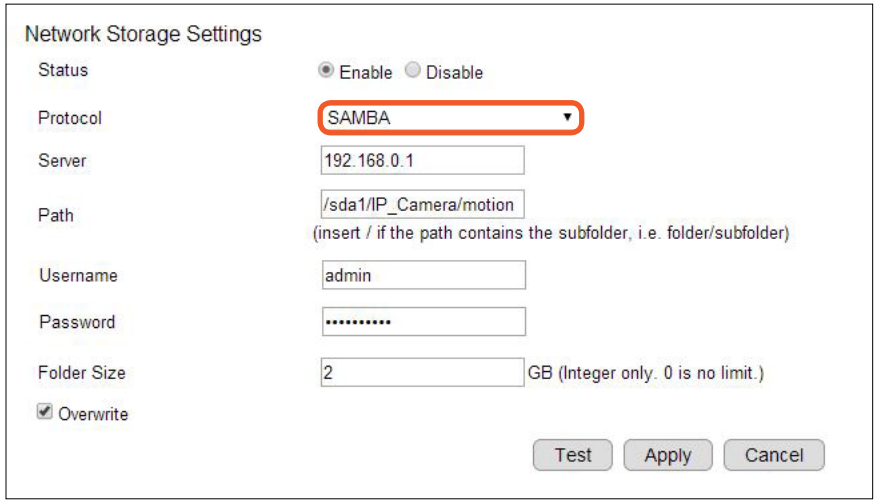
Folder Size: storage allocated for the camera; the default value 0 signifies utilizing full capacity of the storage.

Overwrite: when the defined folder is full, the oldest files will be overwritten to accommodate the new one.

Click **Apply** when done.

Network Storage >> SAMBA

Note: If you are connecting the camera to an EnGenius IoT Gateway or Intelligent Router and have configured the camera profile, the following information will be shown automatically. Refer to **Chapter 6** for more details.



Server: IP address of the SAMBA server

Path: enter the initial path if applicable

User Name: username for accessing SAMBA server

Password: password for accessing SAMBA server

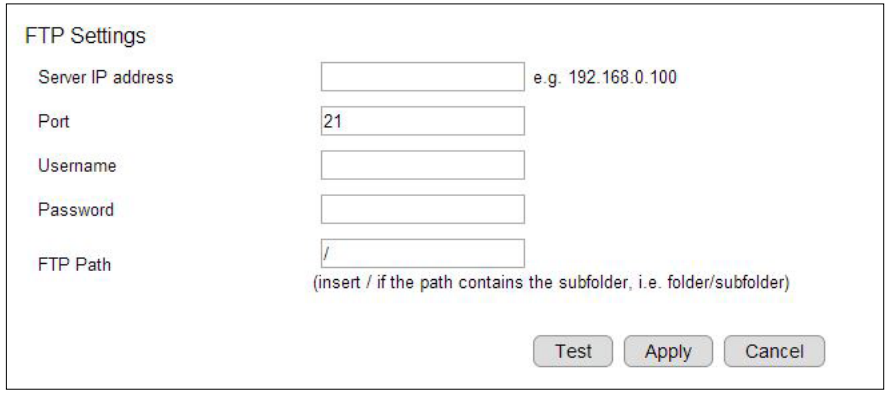
Folder Size: storage allocated for the camera; the default value 0 signifies utilizing full capacity of the storage.

Overwrite: when the defined folder is full, the oldest files will be overwritten to accommodate the new one.

Click **Test** to verify the connection with the server using the username and password.

Click **Apply** when you have completed the settings.

Event Server>> FTP (File Transfer Protocol)



Server: IP address of the FTP server

Port: the FTP server port; default port is 21

User Name: username for accessing FTP server

Password: password for accessing FTP server

FTP Path: enter the initial path if applicable

Click **Test** to verify the connection with the server using the username and password.

Click **Apply** when you have completed the settings.

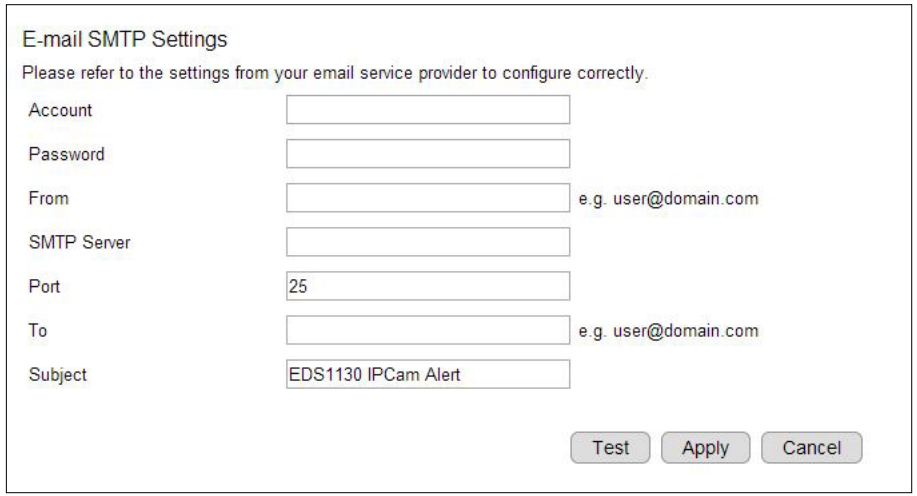
Event Server>> E-mail Alerts

EDS1130 allows camera to send captured snapshots to the predefined e-mail to notify an event triggered by configured motion or audio detection.

SMTP is an email sender's server. You need to check whether your e-mail service provider supports SMTP and obtain the required information for this setting.

Note: The function doesn't support the SMTP server secured by SSL. Please verify your e-mail provider settings ahead.

The snapshots settings can be configured under Chapter 6.1.3 Event Management → Event Settings → Event Type.



Account: the e-mail account name; if your e-mail is myemail@domain.com, **myemail** is the account name.

Password: the password you use to login into your e-mail box.

Sender: you can type in your e-mail address or other address if you would like the receiver to reply the e-mail to.

SMTP Server: enter the SMTP server address (e.g. smtp.domain.com).

Port: enter SMTP server port (normally the value is 587 or 465)

Receiver: enter the receiver e-mail here (usually your or the administrator's e-mail).

Subject: enter the email subject here.

SD Card

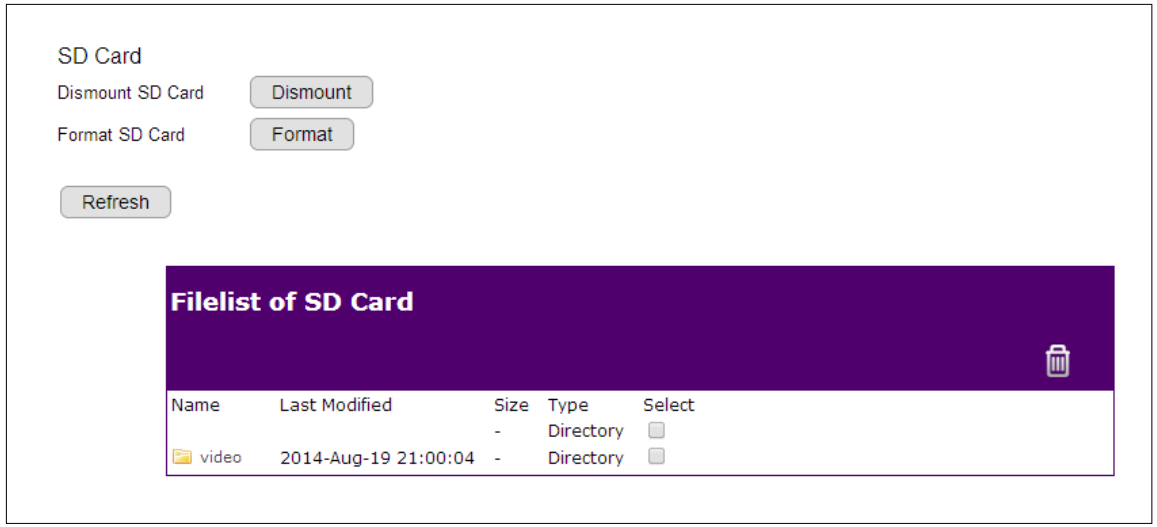
With the onboard SD card slot, the camera provides another simple options for managing media files.

You will be seeing the file list after the SD card is inserted securly. If not, refresh the page by clicking on **Refresh** button and double check if the Micro SD card has been properly attached.

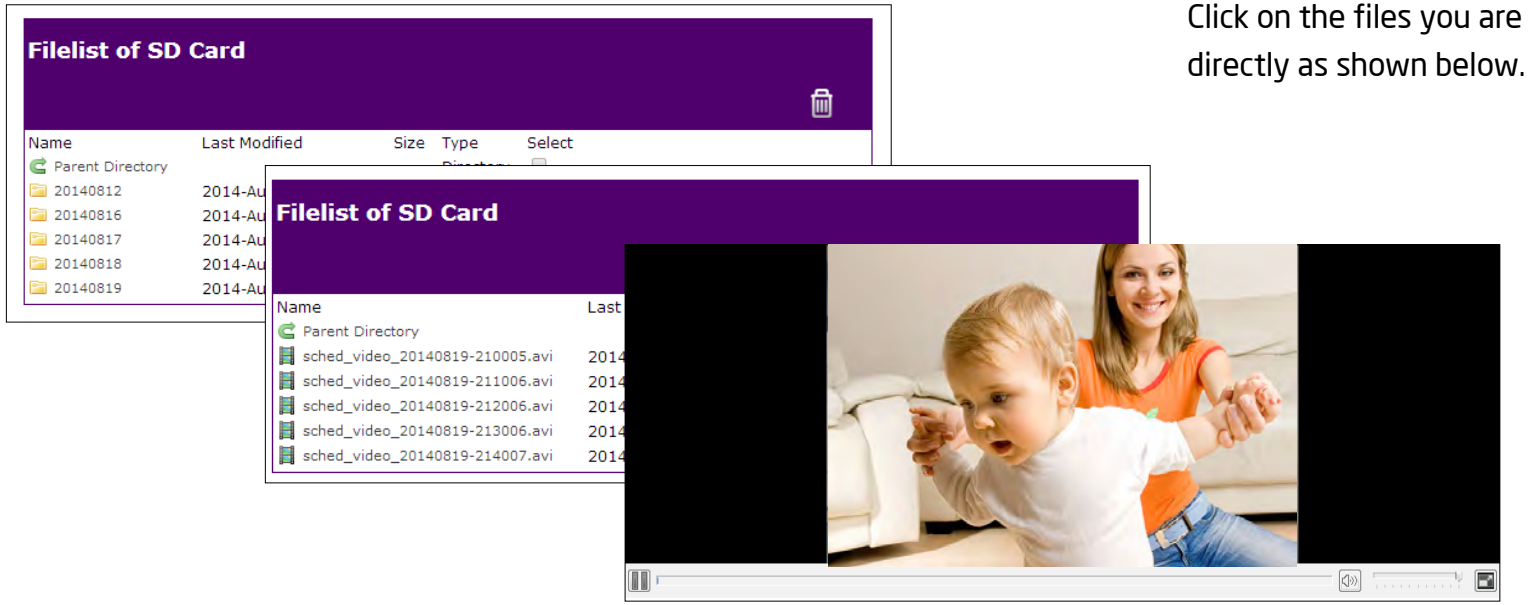
Default folders named **snapshot** and **video** will be created automatically upon the camera stores the media files.

Dismount: you should dismount the SD card before physically removing it from the slot to avoid file damage.

Format: You can clean a SD card by formatting it (all data will be erased).



You can browse through the folder like any other file manager by clicking on the folder name.



Click on the files you are looking for and view it directly as shown below.

Delete function: Select the folder/file(s) and then click on the icon to **REMOVE** them from the SD card.

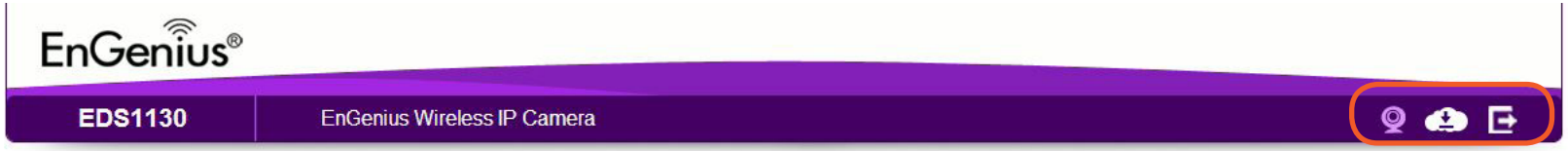
User Management

User Management>> User Account

There are two types of user accounts: **Administrator** and **Viewer**. Administrator has full control over the camera settings while viewer only has the accessibility of watching the real time video. Viewer account is particularly useful when you have multiple users such as other family members. You may have many administrators as well as viewers depends on your needs.

Administrator has full control of the camera interface with configuration features as shown below.

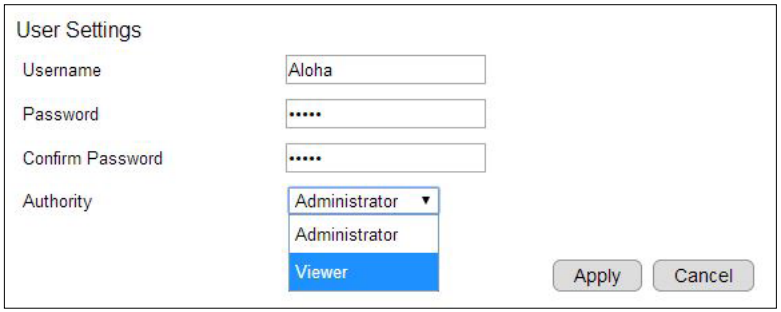
Viewer only has basic camera view interface.



User List provides the overview of the account currently registered to the camera.

Add Account

Click **Add** for adding a new account.



User Name: enter the username for the new account

Password: enter password

Confirm Password: enter password for confirmation

Authority: select Administrator or Viewer from the dropdown menu.

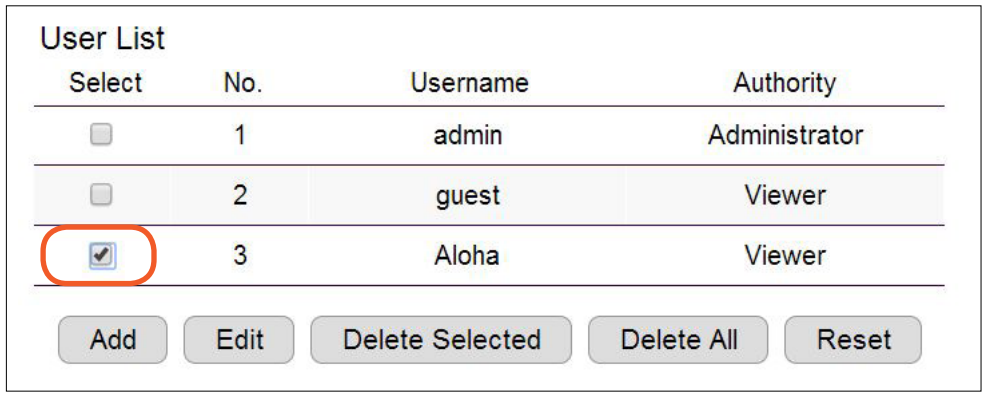
Click **Apply** to add the user

And the new account should be shown on the User List now.

Edit Account

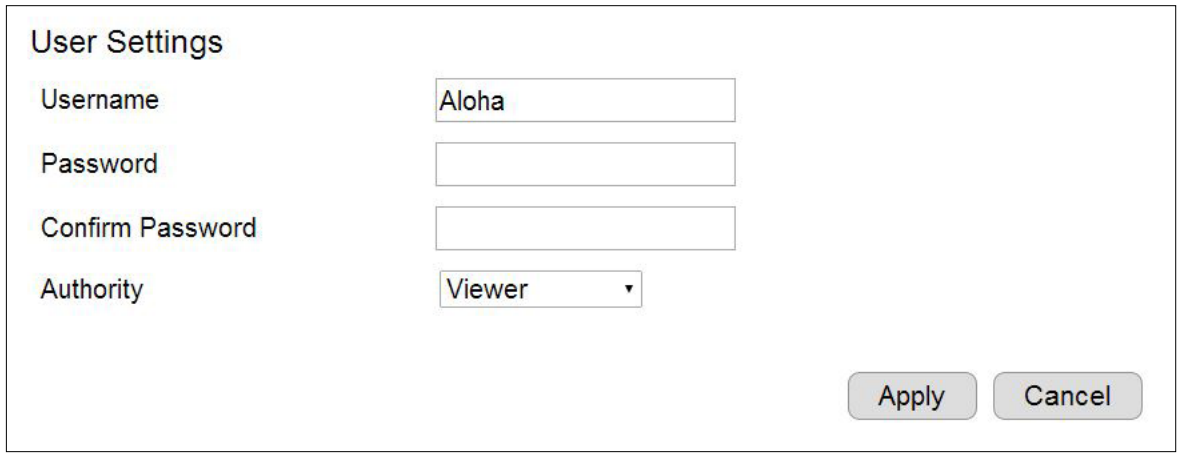
To edit the existing account, **Select** a user from the list by click on the check box.

Click **Edit** to change the user account setting.



Enter the new password and define the authority for the selected account.

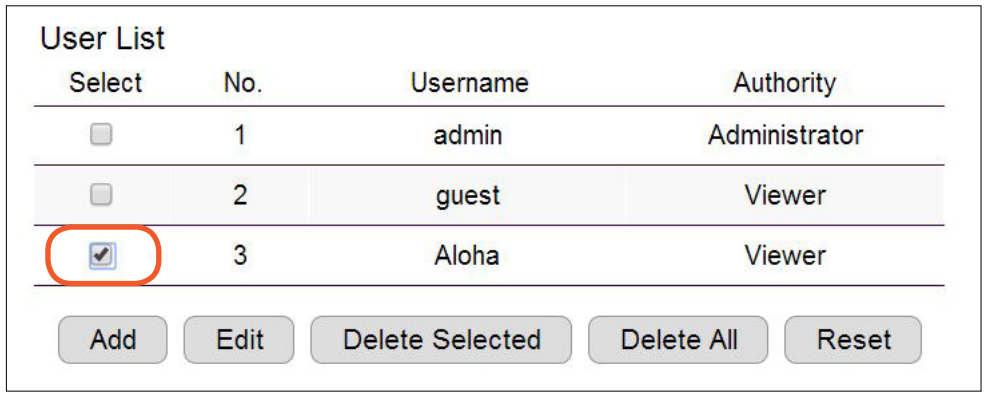
Once all necessary changes are made to the accounts, click **Apply** to make the changes affectively.



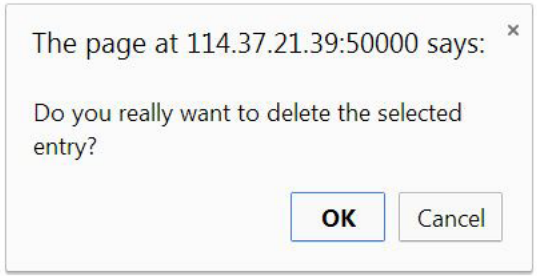
Delete User

On the user list, **select** user account(s) to be deleted.

Click on **Delete Selected** or **Delete All** if you have ticked multiple accounts.



When prompted with delete confirmation, click **OK** to delete.

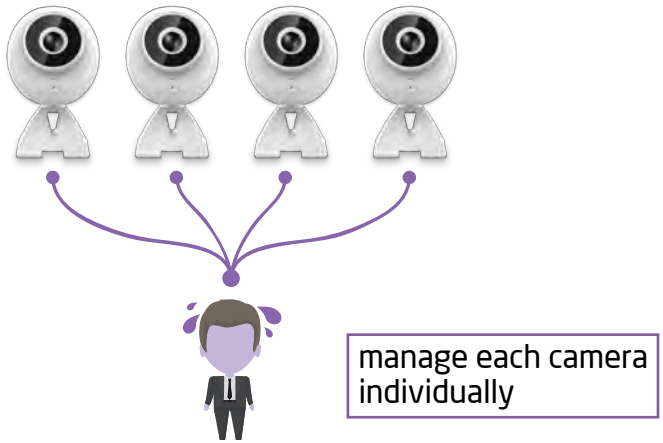


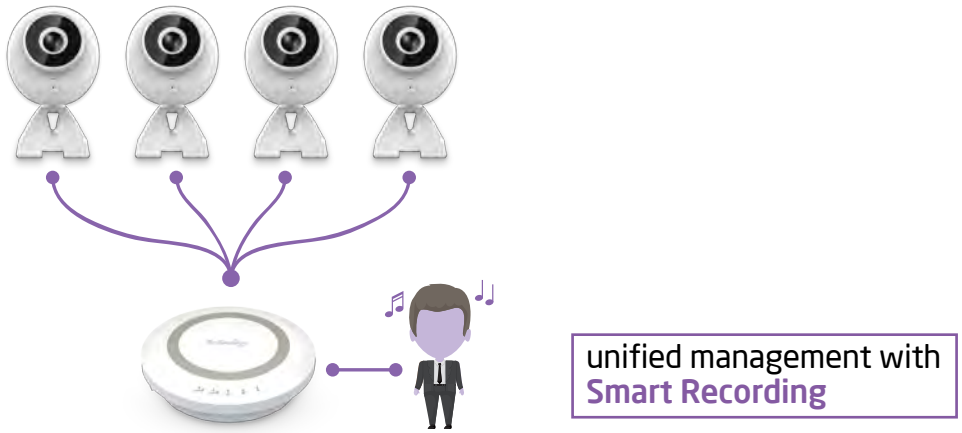
Chapter 6

Camera Connecting to EnGenius Gateway/ Router

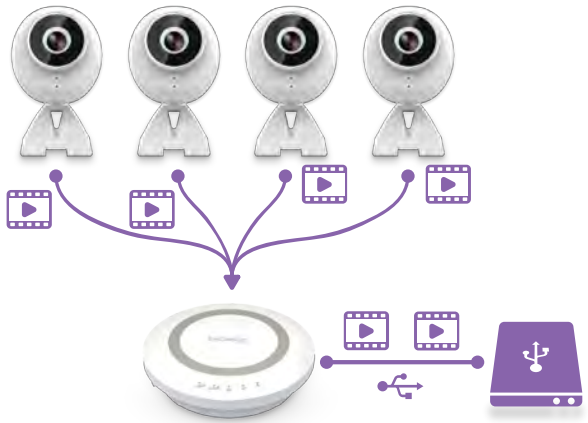
Smart Recording is an intelligent camera management technology that allows EnGenius users to manage cameras collectively with ease. EnGenius bundles cameras with **IoT gateway** and **Intelligent Router** series that provides a single entrance for integrated management. Traditionally, if you have multiple cameras installed you will need to go through the tedious configurations on each of the camera. The benefits of Smart Recording are as follows:

Easy and Integrated Access



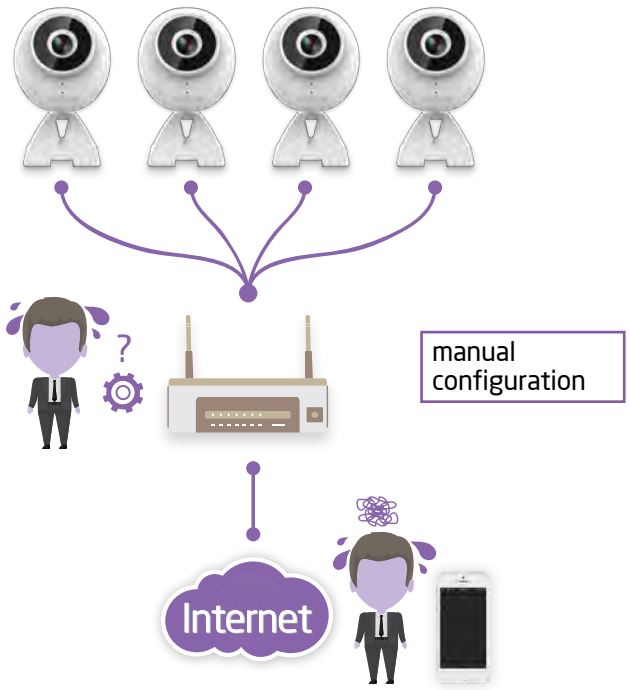


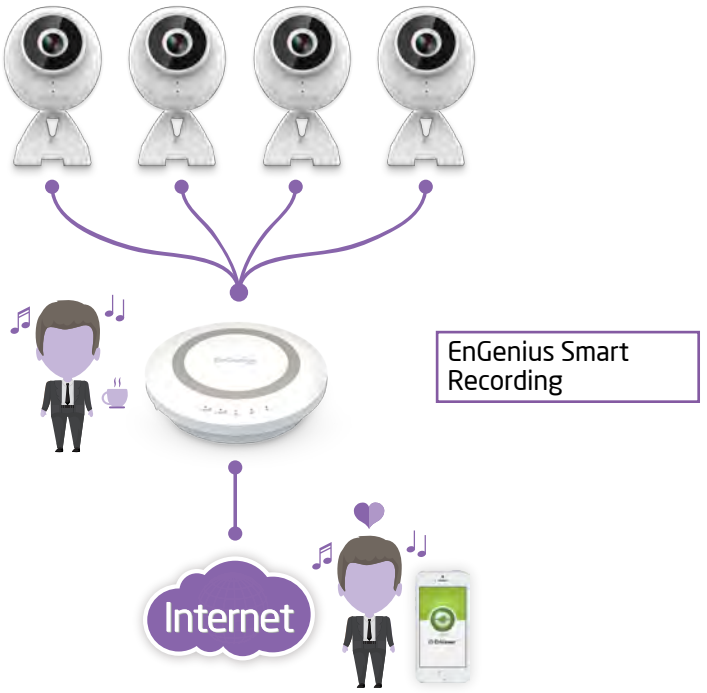
Integrated Storage



Easy Remote Access over Internet

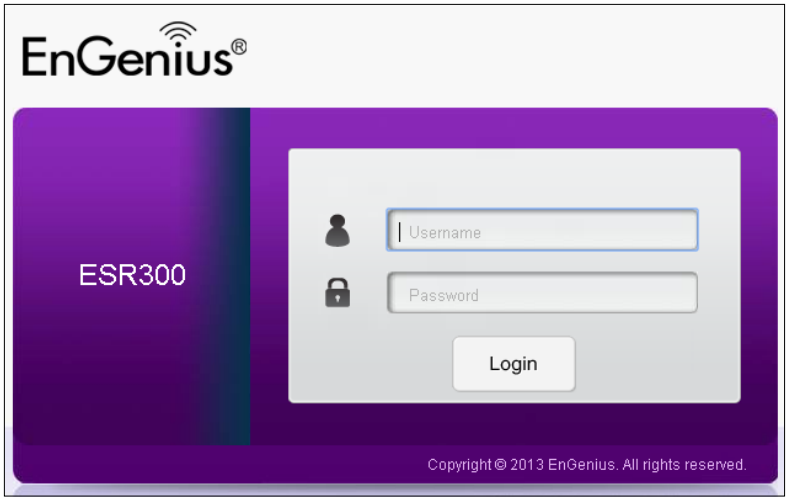
Traditionally, you cannot get access to your Camera over the Internet without some manual configuration known as Port Forwarding because your camera is installed under a local network. **Smart Recording** technology takes care all the complicated setup and leave you with ease of control. That is, you will be able to access any of the cameras in your home by providing their DDNS names on EnViewer mobile app or web browser if you are using PC/Laptop.



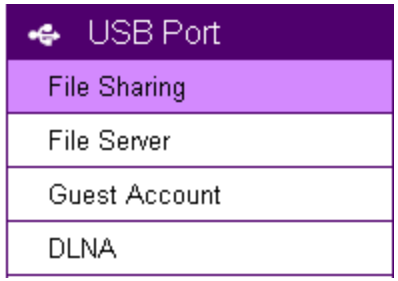


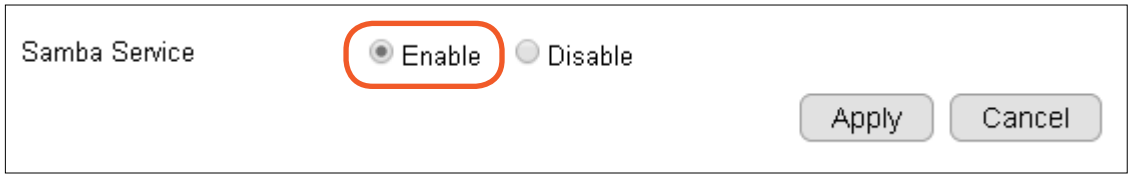
Enable Gateway/Router Storage Function

The best thing about **Smart Recording** is that you can make use of the EnGenius Network Storage function. You should attach an external USB storage device (portable hard-disk or USB flash drive) to your gateway/router. Enter the Username and Password of **your gateway/router** and click **Login**.



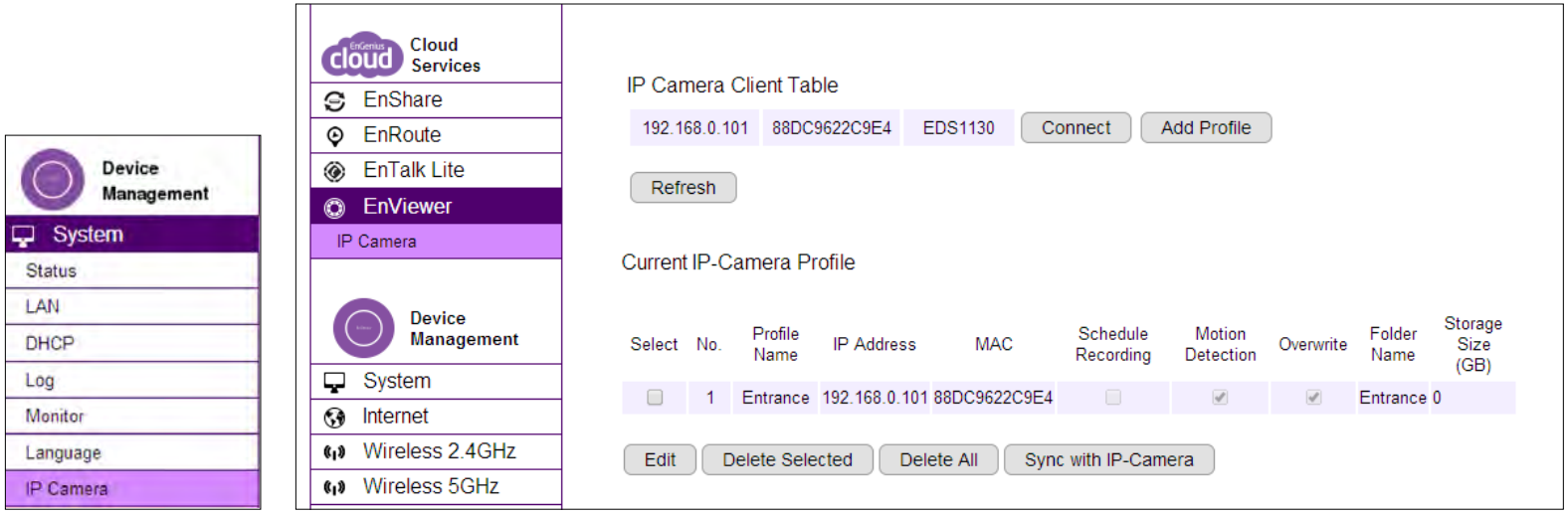
If you have not yet enable Network Storage **Samba Server** on your gateway/router, choose **USB Port → File Sharing**. Skip this step if Samba is already enabled. Then, **Enable** Samba Service and click on **Apply** to activate the function.





On your gateway's/router's Main Menu, Click **EnViewer → IP Camera** under Cloud Services to access the connected cameras.

Depending on the firmware version of the device, the page may be found on **System → IP Camera** under Device Management.



Note: Only EnGenius Cameras can be managed collectively by EnGenius Gateway/Router. For other vendor's cameras, you still have to configure them one by one manually.

You should be see all your cameras listed on the IP Camera Client Table. If not, click Refresh button to scan the network again.

Please be noted that only EnGenius Cameras will be listed on the table.

Connect: You can get access to the selected camera's User Interface Management page.

Add Profile: Add the selected camera to a profile (please refer to next section for more detail on Profile)

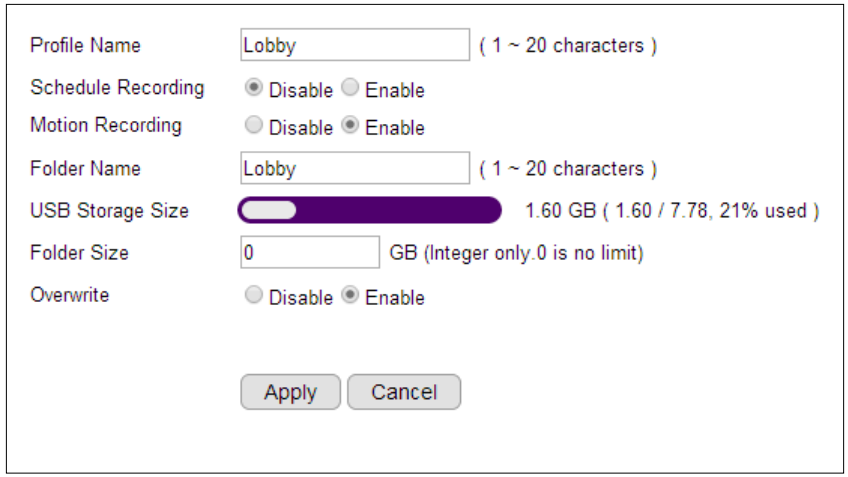
Camera Profile

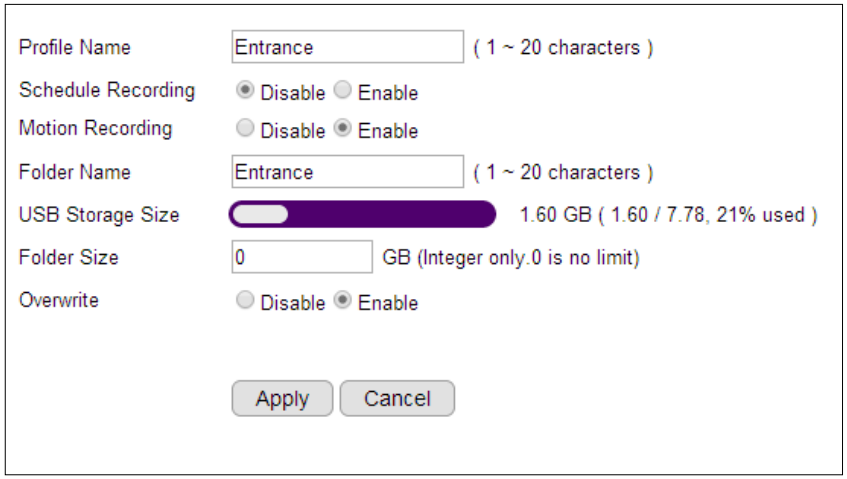
A Profile is an entry that represents the added camera. You must add the camera to a profile so that the gateway/router has the privilege to configure your camera and link them together.

Add Profile

This example shows 4 connecting cameras on the gateway/router. We have chosen to add two cameras (Lobby and Entrance) for demonstration purpose.

Click on **Add Profile** button to add the chosen camera.





IP Camera Name: Lobby (use meaningful name for better identification)

Schedule Recording: Enable/Disable this type of recording

Motion Recording: Enable/Disable this type of recording

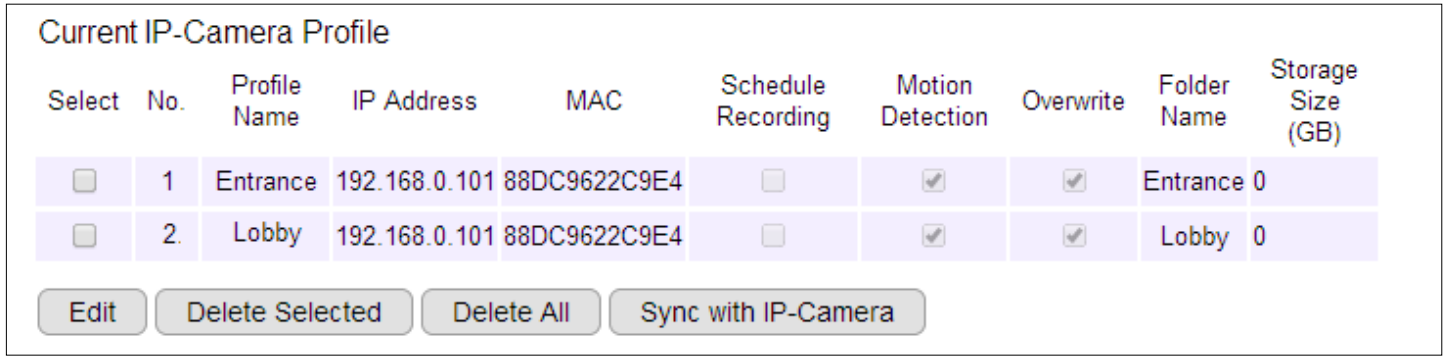
Folder Name: The name of the folder where the media files of this camera will be stored on the gateway/router storage.

Storage Size: put 0 if storage is unlimited.

Overwrite: Enable/Disable over-writing the old files when there's no space for storing the new files

Click **Apply** when the profile settings is done.

The added cameras will be listed as shown below.



You can **Edit** or **Delete** profile by selecting the profile and click on the buttons below.

Edit: Select the camera profile and then click Edit button to make the changes.

Delete Selected: Select the camera profile and then click Delete Selected button to delete the profile.

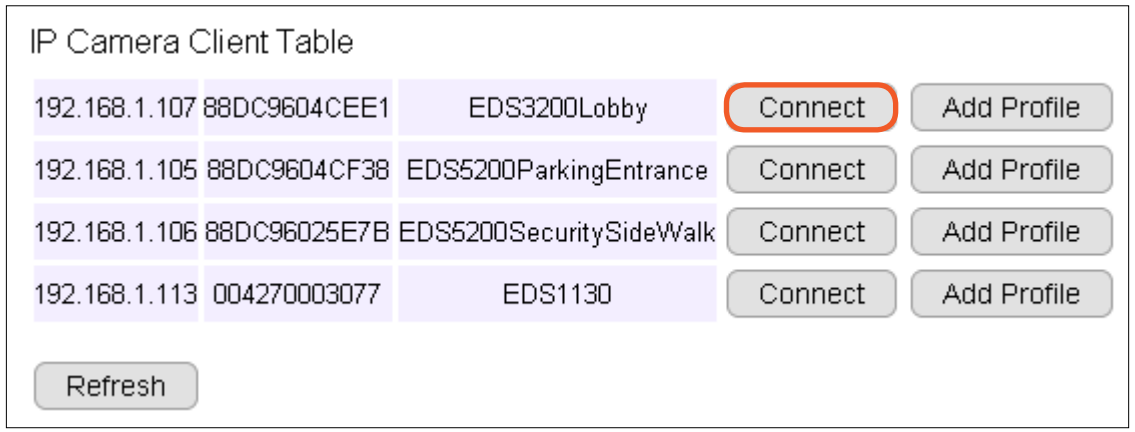
Delete All: Click Delete All to delete all the profiles.

Fine Tune Camera Configuration set by the Gateway/Router

This section provides extra information on what actually happened to your camera's setting after you added it to the Profile on the gateway/router.

It is helpful for you to go through the automatically configured camera settings and make proper changes when necessary.

Click on **Connect** button to open the chosen camera's login page.

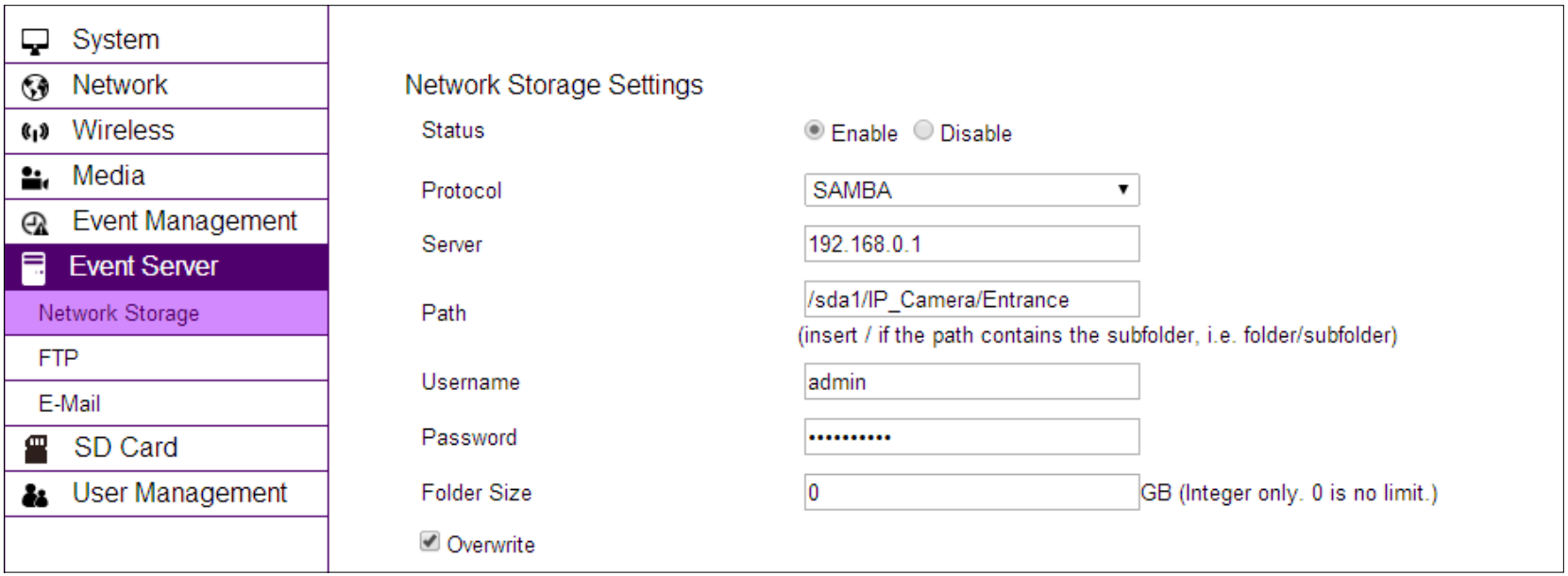


Camera Storage Setting

Then go to **Event Server → Network Storage** section.

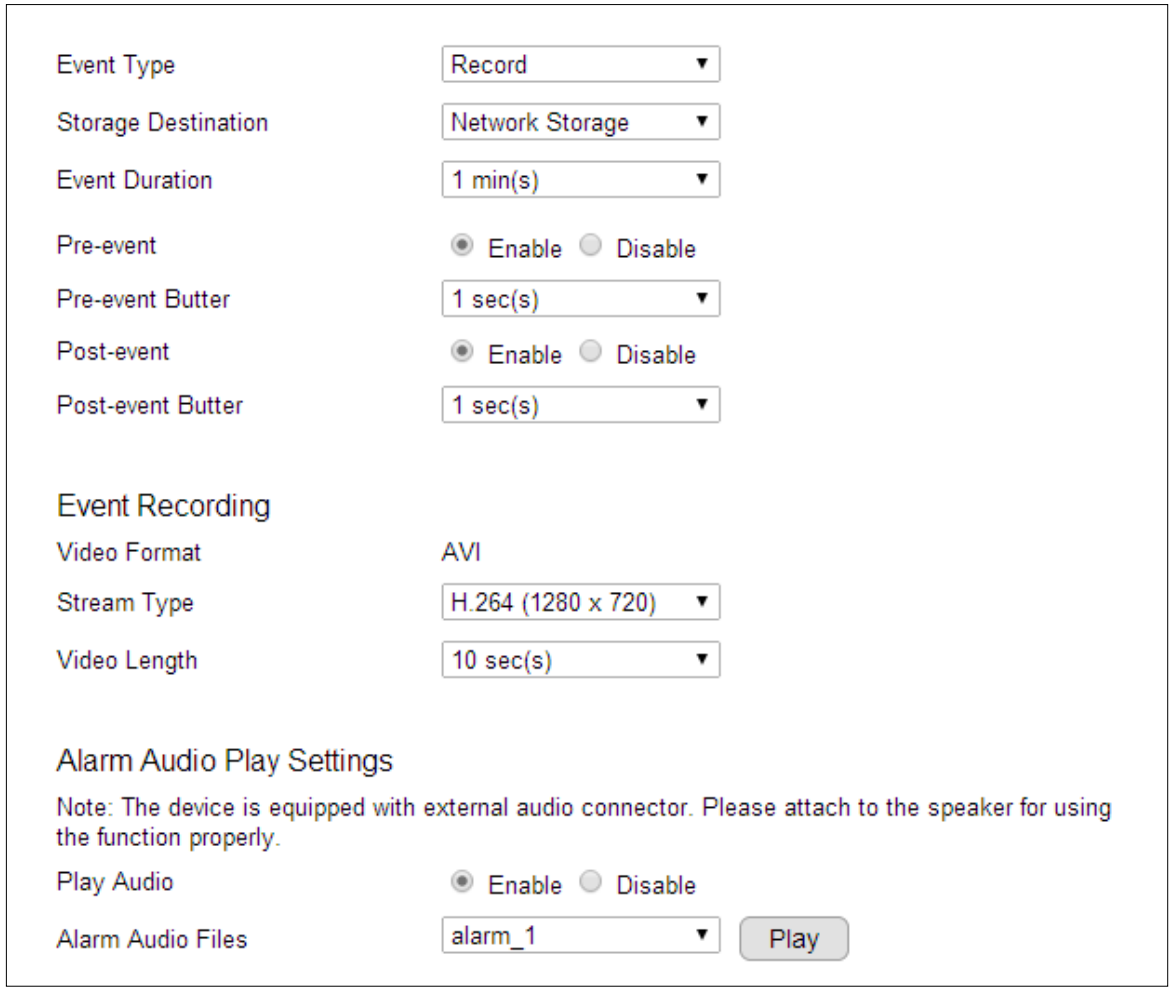
As you can see shown below, the camera storage **is automatically configured for you**. These settings enables your camera to store media files on the external storage attached to your gateway/router. Each camera will be given different **Path** so that you can search for the associated files easily.

In the previous example, we have named the camera profile as **Entrance**; therefore, the Path given to this camera is **/sda1/IP_Camera/Entrace**. Please **do not change the settings** because it only works if the setting matches the connected gateway/router.



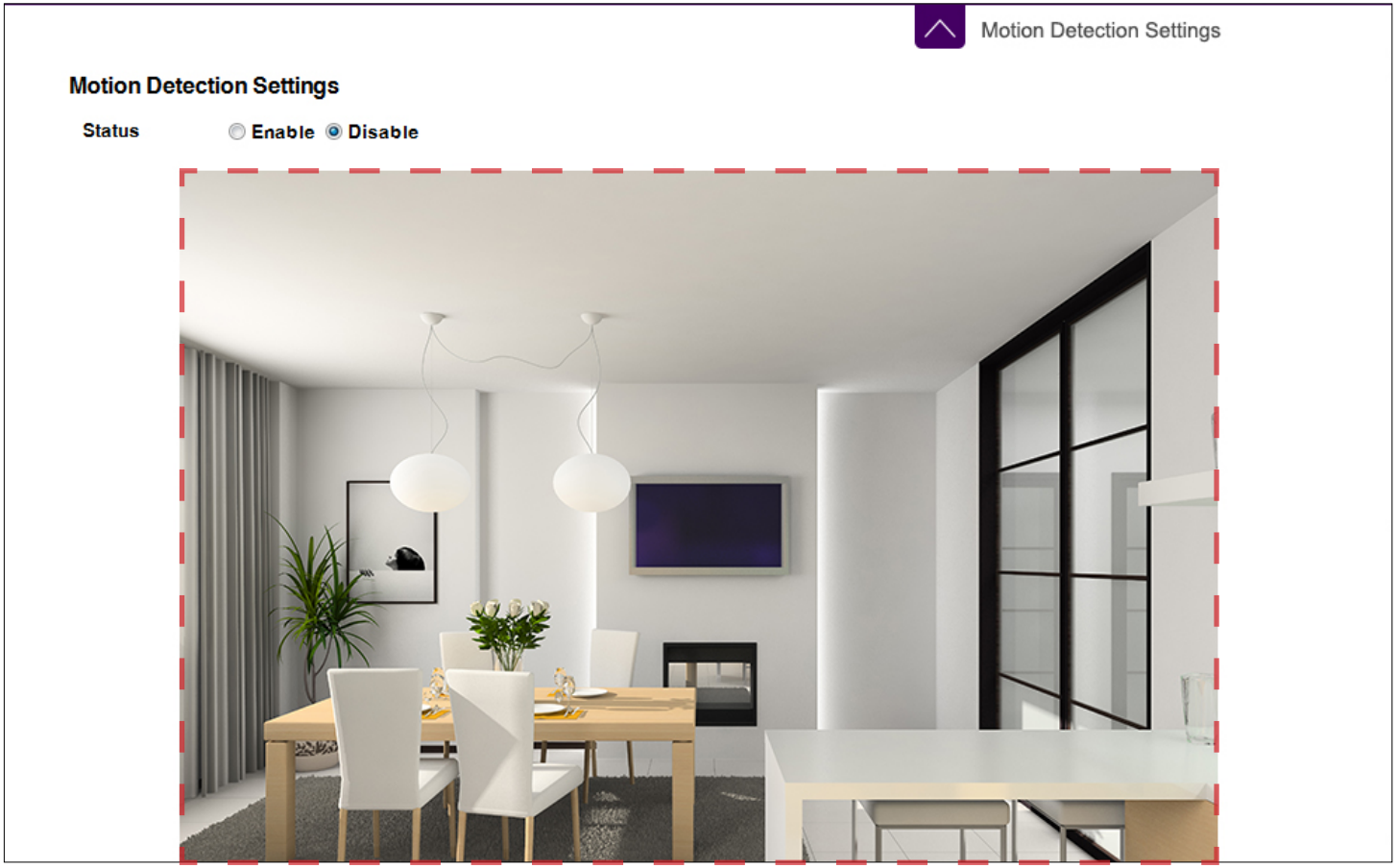
Camera Event/Alarm Setting

The gateway/router configured the camera with default Event Action Type: Record. You can make necessary changes if necessary. For instance, you may want to change Record to Snapshot if static pictures are preferable in your application.



Camera Motion Detection Setting

In the previous section, the Entrance profile is configured with Motion Detection enabled. Therefore, the gateway/router configured the camera with a full screen motion detection window. You may adjust the motion detection window if necessary.

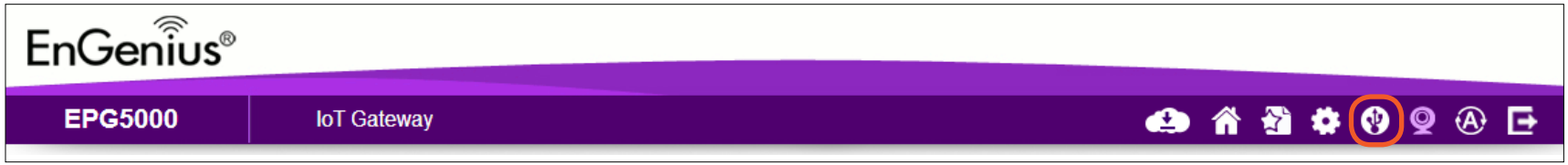


Access the Media files on the Gateway/Router

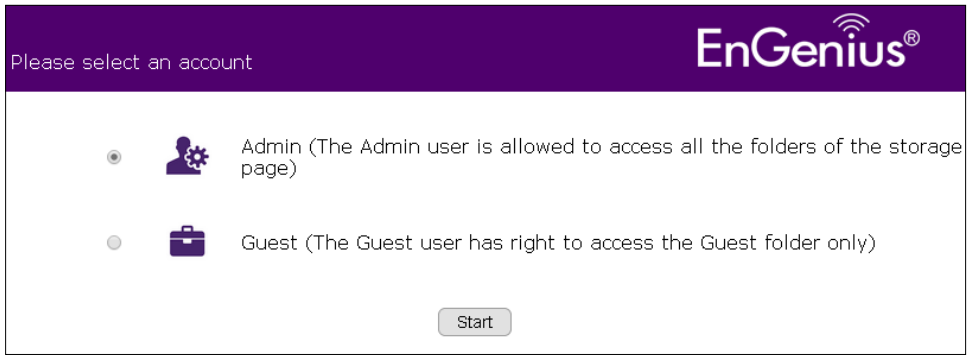
Using web browser

Please refer to EnGenius Gateway/Router user's manual for more detail on the EnShare Storage feature.

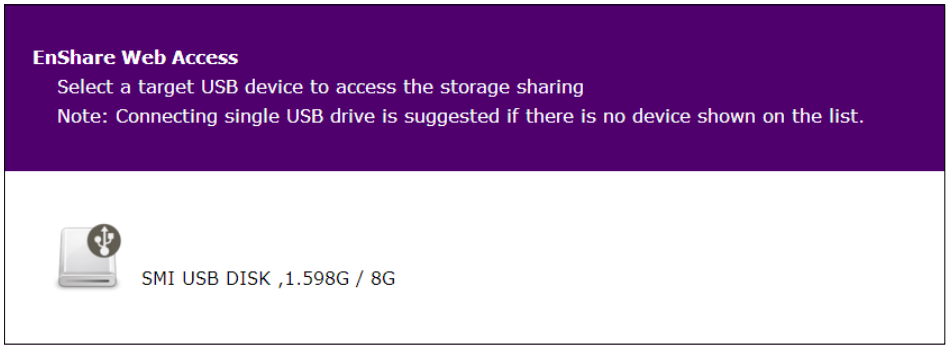
You can click on  to access the storage.



Choose **Admin** and click **Start** to access.

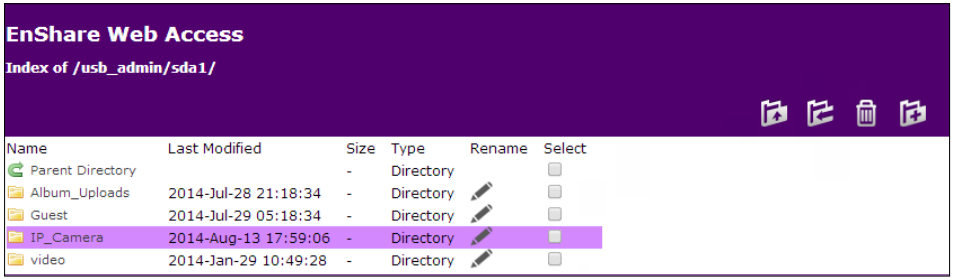


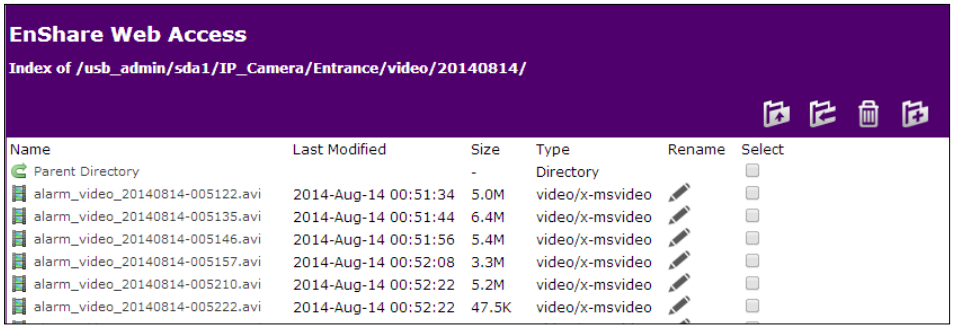
Choose the storage device to access the file.



In the previous example, the **Entrance** camera profile defines the path **/sda1/IP_Camera/Entrance/**

The media files will be stored as shown below.

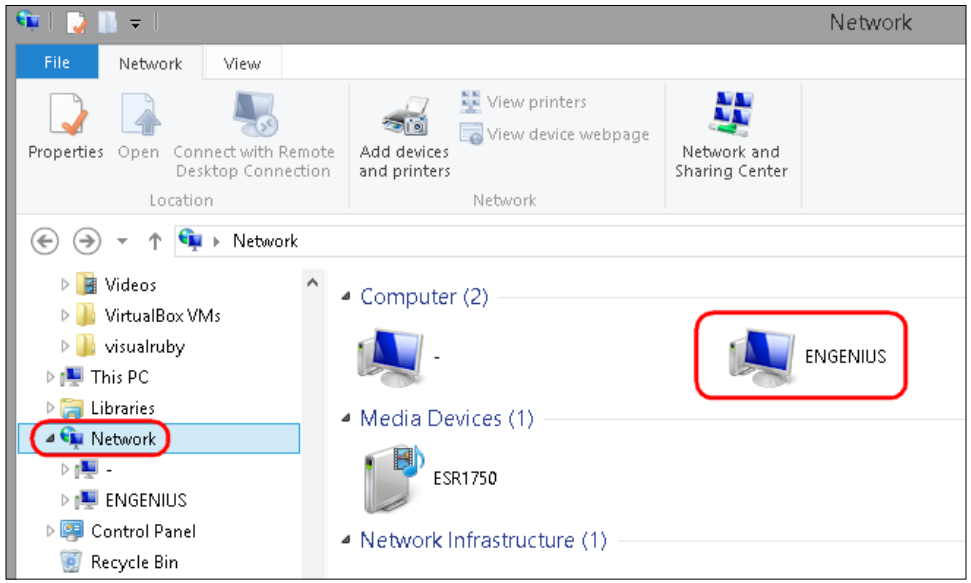




Click the target file to check the video download or right click to download the file from network storage.

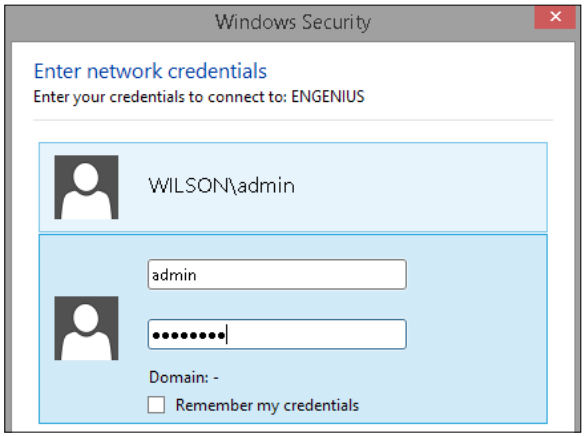
Using Windows File Explorer

Once enabled Samba on the EnGenius gateway/router, you should find the device under Network in your File Explorer as shown.

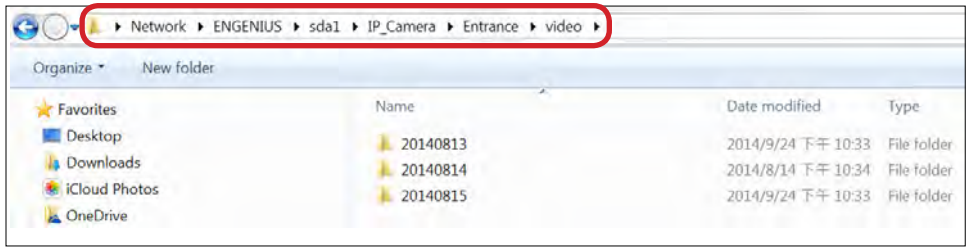


Double click on **ENGENIUS** to get access to the storage space.

Upon security prompt, enter the gateway's/router's **username** and **password** to continue.



You can access the media files located under **\\ENGENIUS\sda1\IP_Camera\Entrance**



Chapter 7

Camera Connecting to Other Router

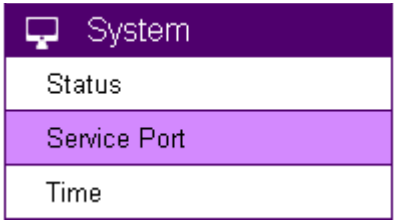
Normally, you do not need to make any changes to your router setting to be able to use the camera. However, in case if you experience issues in connecting the camera, you should probably check for the following settings. UPnP, UPnP Traversal and Firewall.

UPnP and UPnP Traversal:

Universal Plug and Play (UPnP) allows the other device to detect the presence of the camera. Please ensure that your router supports UPnP Traversal and has it enabled. Most of the modern wireless router today supports this feature. You should enable UPnP if you wish your camera to be recognized by the home router. If you can't find the related settings, they are most likely enabled by default. UPnP Traversal makes camera remote access over the Internet possible using camera DDNS name.

Firewall:

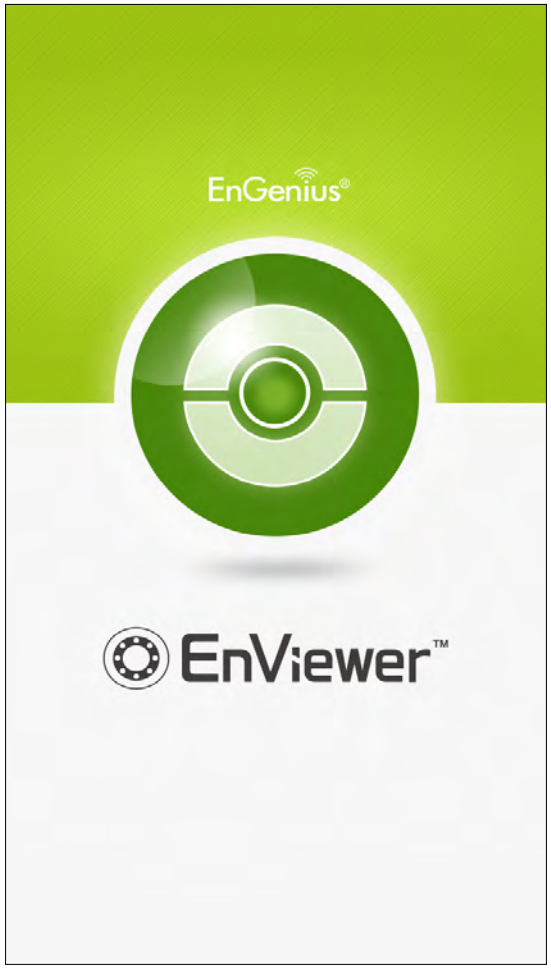
By default, the firewall function of the router is not configured to filter out specific traffic. However, in case if you have trouble accessing the camera view, it's likely that the traffic has been blocked by the firewall on your router. You may want to double check whether you have blocked the service ports. Check the camera setting **System → Service Port**. Make sure you do not block the following ports: 80, 50000, 554, 50045, 9091 and 50075.



Chapter 8

EnViewer APP

EnViewer is an APP that runs on the mobile devices such as mobile phones or tablets. This application enables you to view and control the camera and provides basic control on the camera at real time. You will be required to have a mobile device to go through the features in this chapter.



Install EnViewer

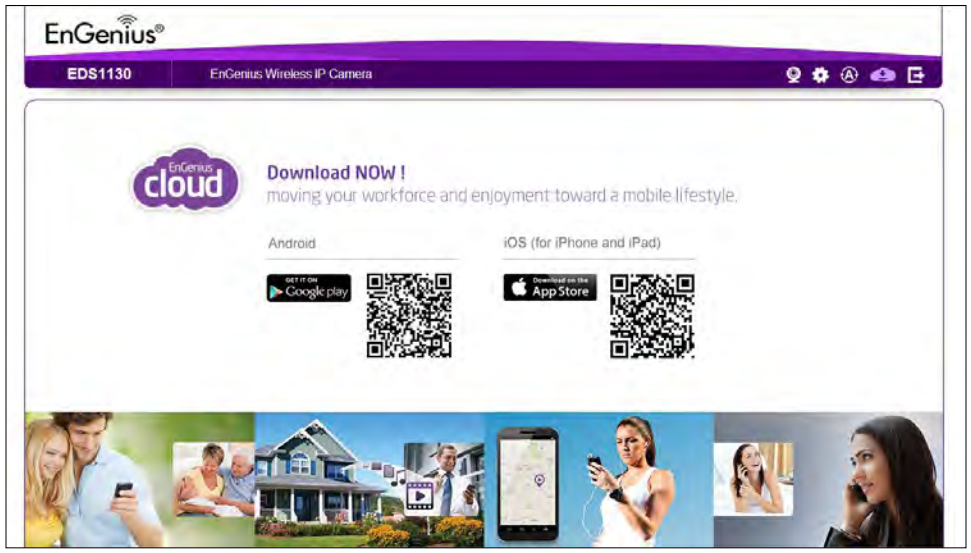
Download the **EnViewer** APP by scanning the QR code shown on the management page using your mobile phone. Both Android and iOS version are supported, please scan the corresponding QR code to download and install the APP.

Also, you can search "**EnViewer by EnGenius**" in App Store (for iPhone and iPad) or Google Play (for Android-based phone and tablets) for download.

Note:

You need to have your camera installed and configured in your home work to be able to use EnViewer.

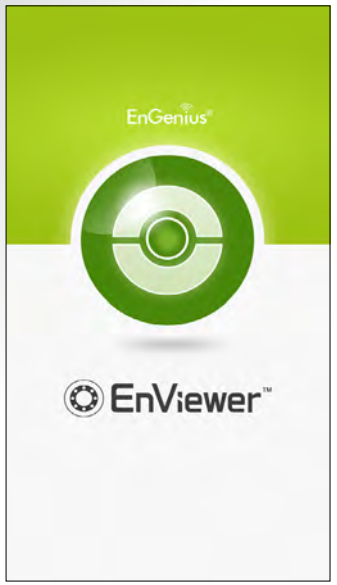
You need to have your mobile device connected to the same gateway/router that your camera is connected with through Wi-Fi.



EnViewer by EnGenius

EnViewer

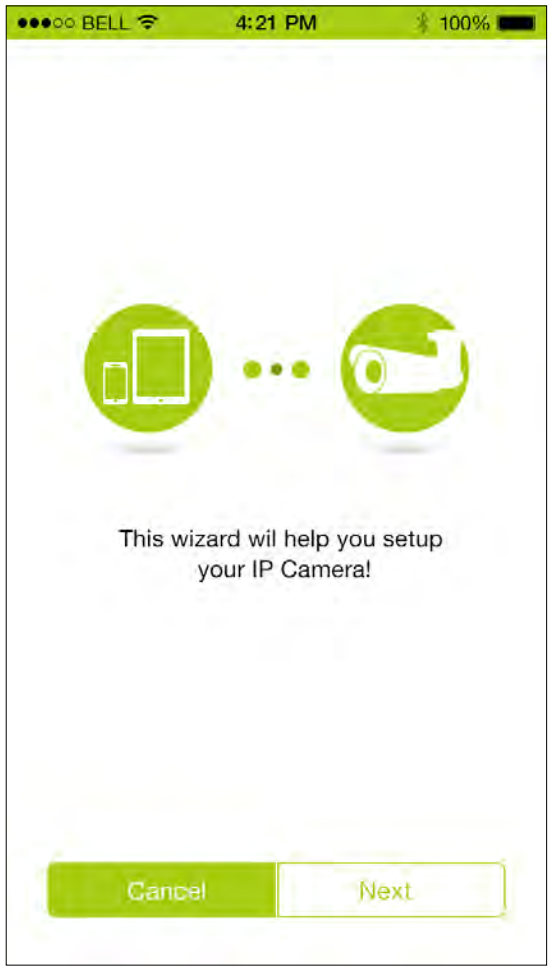
Start the EnViewer. You will be guided to Wizard for the first time using this APP.



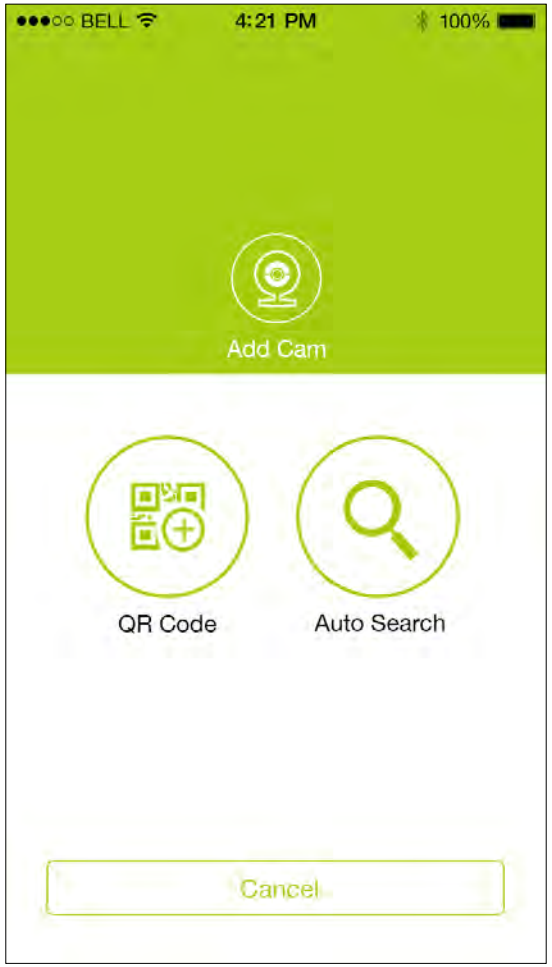
Welcome for using EnViewer.

EnViewer Wizard

The Wizard will take you through the initial settings quickly. Press **Next** to proceed.

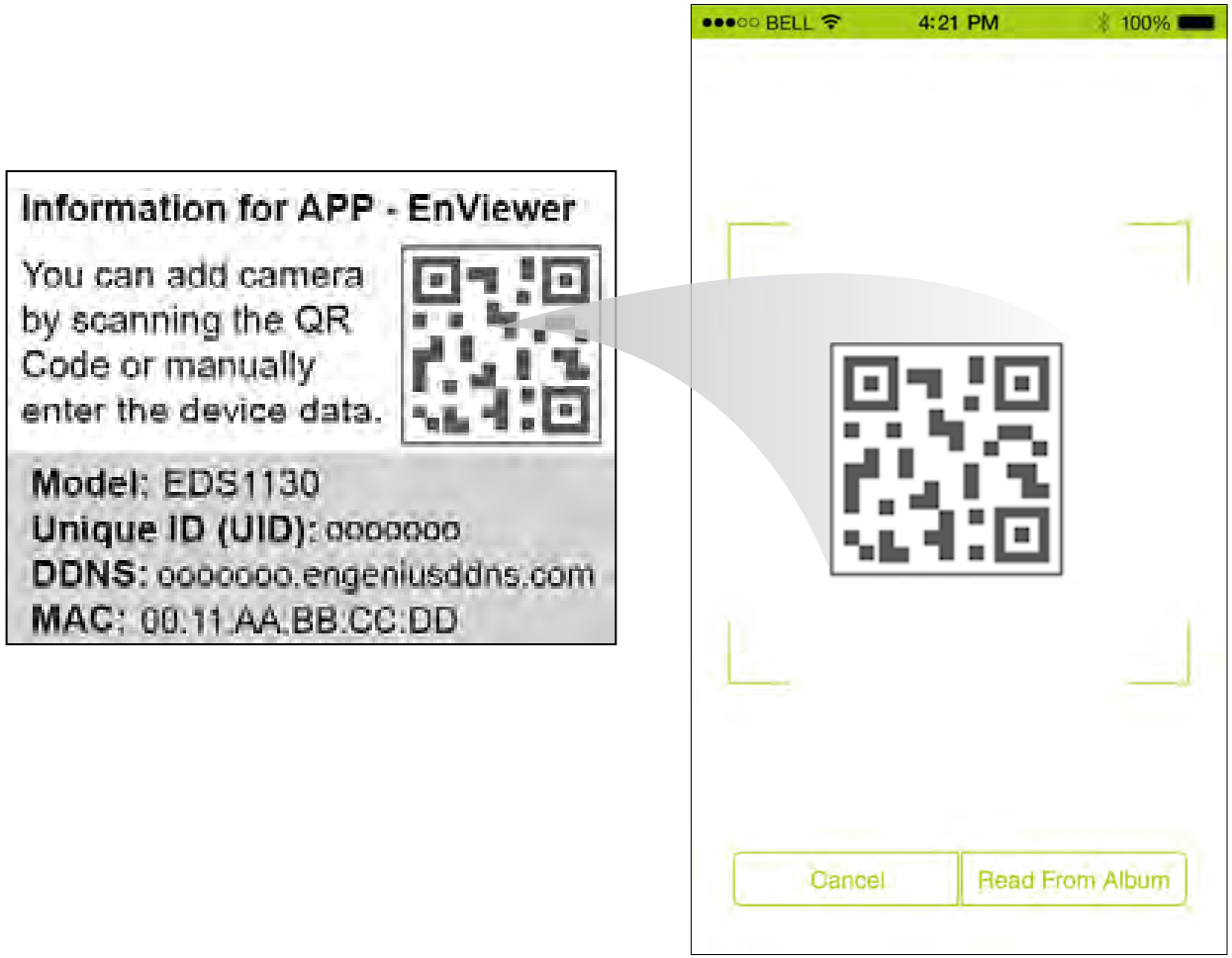


There are two ways to add new camera to EnViewer: **QR Code** and **AUTO SEARCH**.



QR Code

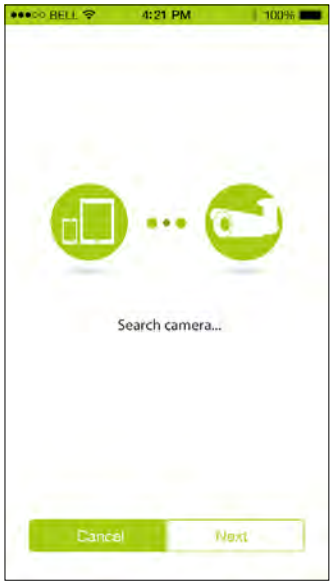
EnViewer will turn your mobile device camera into QR code reader. When the QR code reader is on, please aim your mobile device towards the QR code label inside the packaging as shown below. EnViewer will read QR code and identify your camera in a few seconds. You can also load the QR code image file stored on your phone for identification by pressing Read from **Photo Album button**.



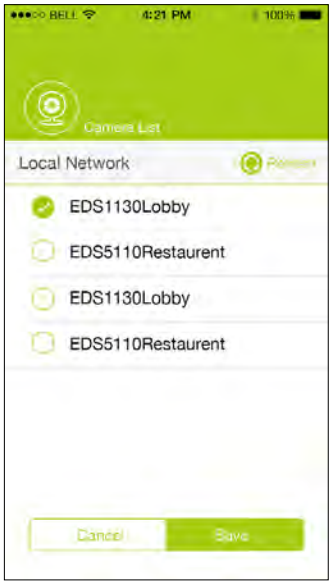
Auto Search

Through Auto Search, EnViewer scans the local network for cameras. Click **Next** to start searching.

Please wait while EnViewer scans the network. In case if none were found, you can press **Try Again** to re-scan.

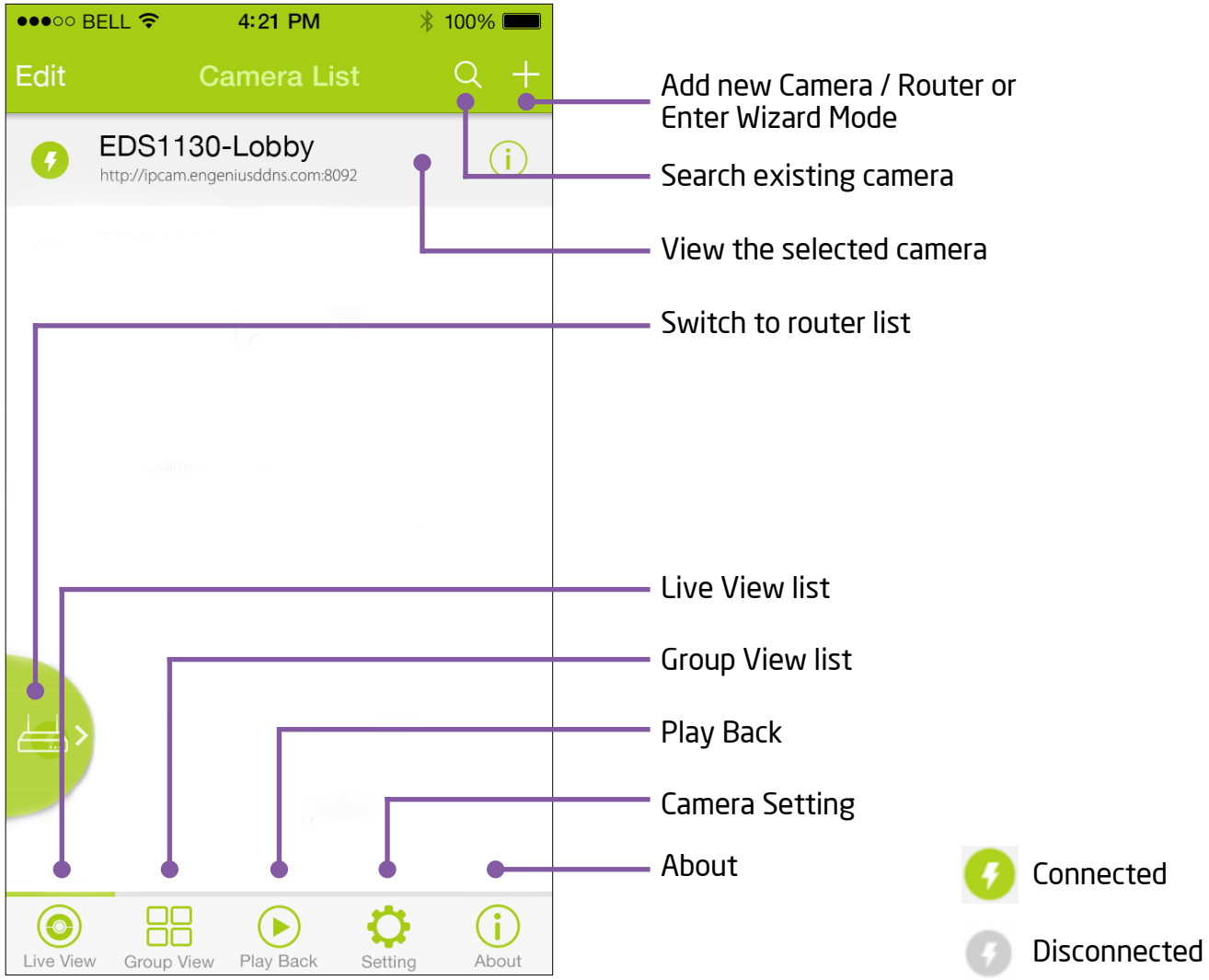


Cameras connected to the home gateway/router will be displayed on the list. **Tick** the one you want to add by pressing the button in front of their names. Then, press **Save** to complete the add process. If you did not find the camera you intend to add, you can press **Refresh** to try again.



Now, you have added a new camera to EnViewer. Please refer to the following sections on how to use EnViewer.

EnViewer Interface



There are two types of view: **Live View** and **Group View**.

Live View monitors a single selected camera.

Group View monitors multiple grouped cameras simultaneously.

Which type of view is best for your application?

+ If you only have one camera connected to your gateway/router, Live View is your best choice.
+ If you have multiple cameras connected to your router, Group View enables you to view multiple cameras at once if you grouped them.
+ You can still choose to use Live View if you have several cameras connected to your gateway/router.

Live View

Tap on Live View on the panel.

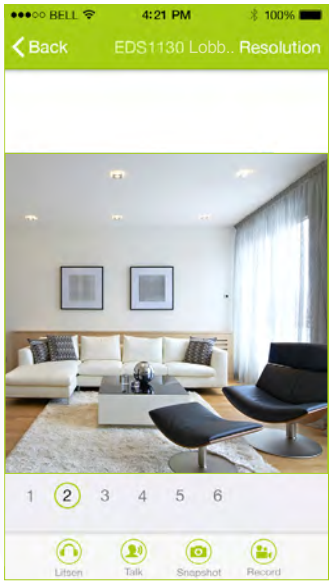
You can switch between **Router List** and **Camera List** by tapping on the tab on the sides shown.

Change to **Camera List**

Change to **Router List**

To view the camera, please switch to **Camera List**.

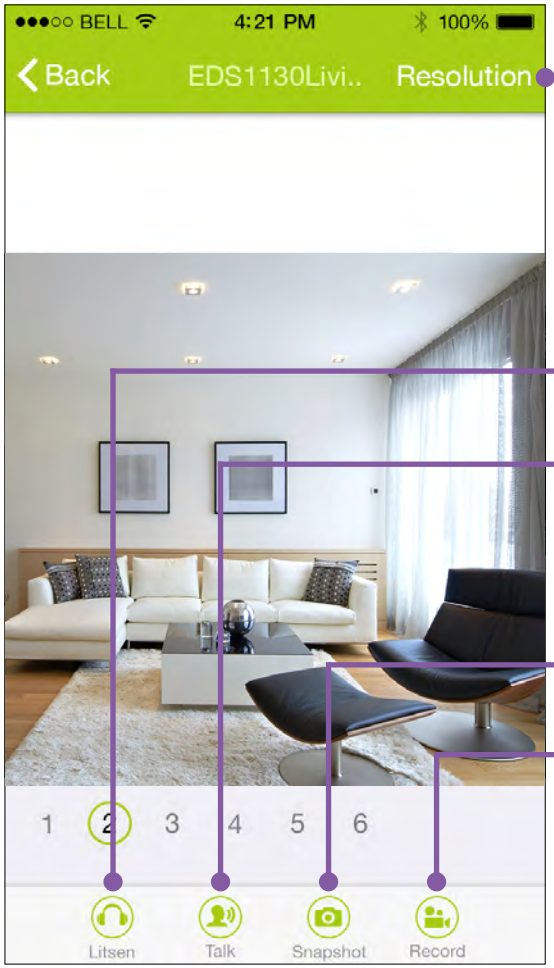
On the list, please **tap** on the **camera name** that you would to like view.



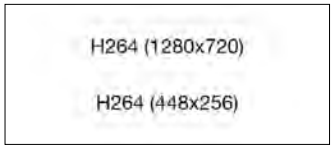
You are now viewing at real time.

The control panel located at the bottom of the screen allows you to perform basic operation on the camera.

Camera Control Panel



Click on Resolution to change the view resolution.



When turned on, you will be able to hear the sounds from the video.

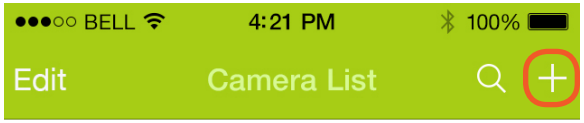
When turned on, you will be able to speak to the phone, the voice will be played through the camera. The sound can only be played if a speaker is connected to the camera on audio out port.

Takes a snapshot at real time.

Tap on the icon to start recording the video at real time. Click on the icon again to stop recording. A red-dot " ● " will appear on the screen when recording.

Adding new Camera

You should have added your camera through the Wizard when you start the EnViewer. You can add another camera simply by calling the Wizard again. Tap on the " + " icon. On the Add menu, select **Start Wizard**. Please refer to **EnViewer Wizard** for configuration detail.

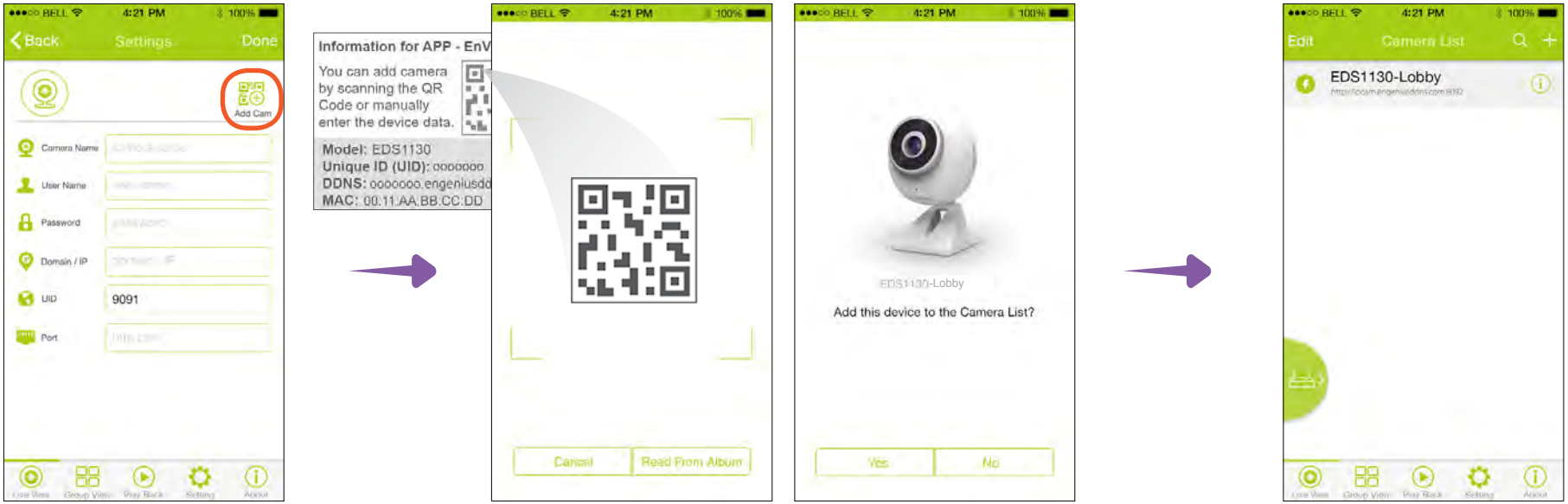


You can manually enter the camera information or scan the camera QR code.

Tap on **Add Cam**

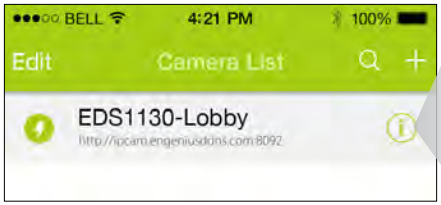
Scan the Camera QR code

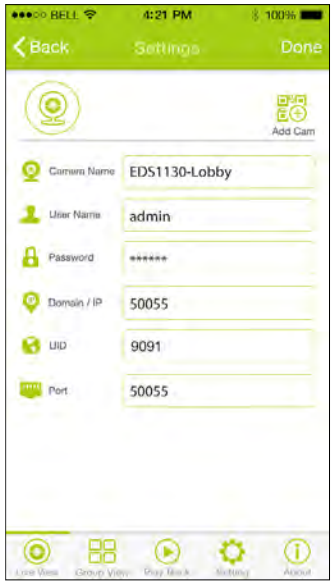
Tap **Yes** to confirm adding the camera.



Edit Camera

Tap on the " ⓘ " icon of the camera you would like to modify.

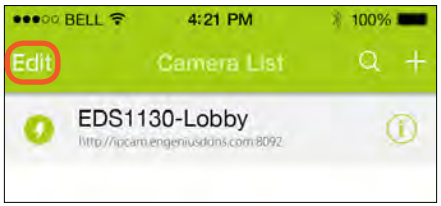




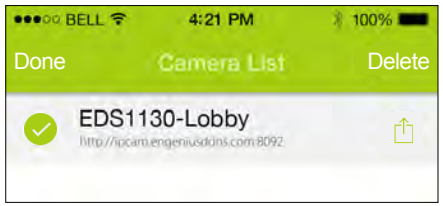
Tap on **Done** to save the changes.

Remove Camera

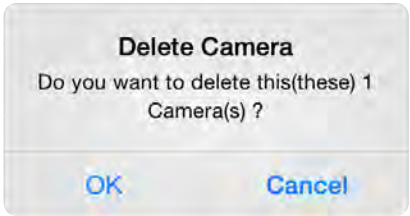
Tap on **Edit** to enter edit mode



Select the camera and tap **Delete**.

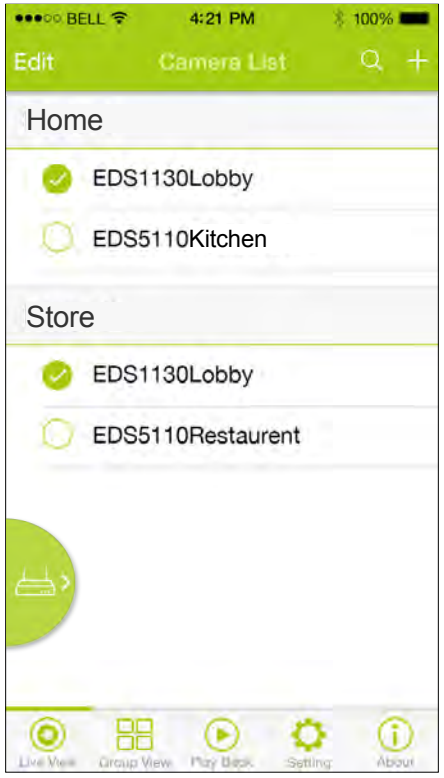


Answer **OK** to confirm the deletion



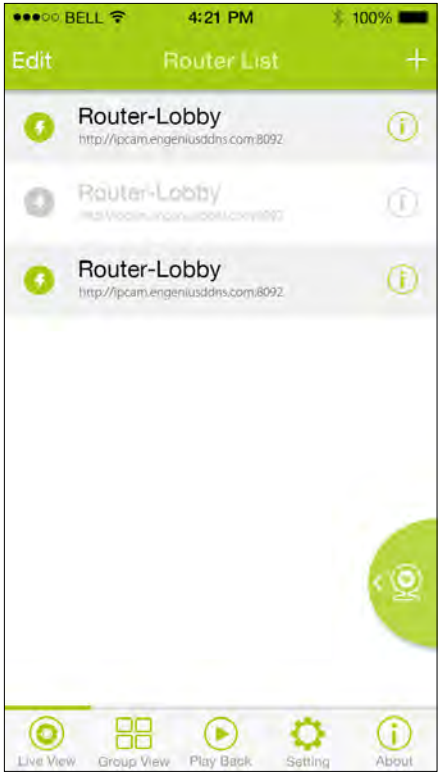
Why Adding Routers

If you are monitoring 2 sites at two different locations say, home and store, you will need one router at each site. That is, you will have two routers. Under each router, you may have multiple cameras and it becomes difficult for you to manage many cameras under different domains. Adding routers allows you to manage these cameras of different domains easily. In such scenario, you need to add each router to EnViewer and let EnViewer to discover all the cameras under each router site. After adding routers, the cameras will be grouped by its connecting router when you perform **camera search** and **live view**. You can also add cameras of different under different router into the same group view.

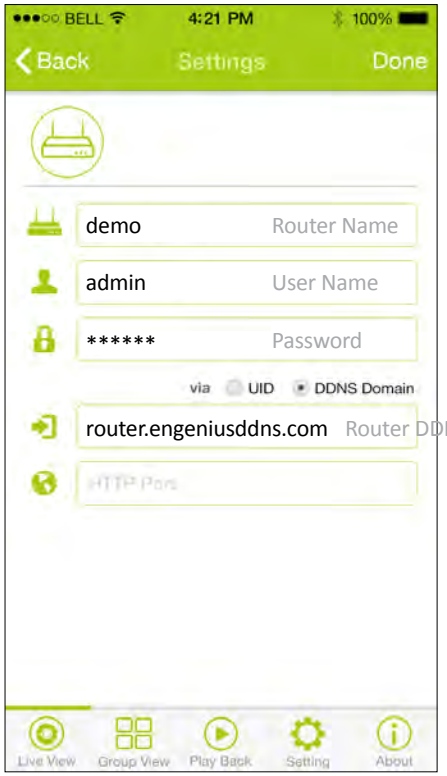


Adding new Router

You may manage multiple routers on your **EnViewer**. Also, each Router can have multiple cameras under it.



Tap on the " + " icon. On the Add menu, select Router to proceed.



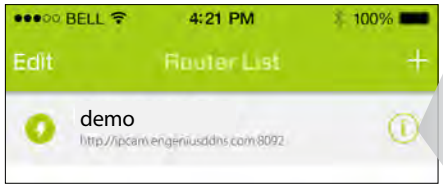
Assign a router name; in this example, we call it **demo**.

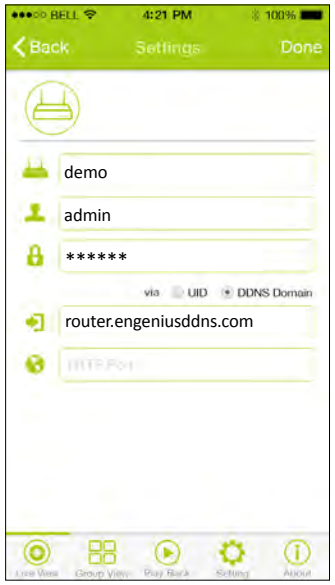
On the settings page, enter router's information as in the example shown below.

Tap **Done** when finished.

Edit Router

Tap on the " ⓘ " icon of the router you would like to modify.

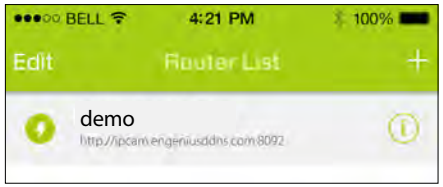




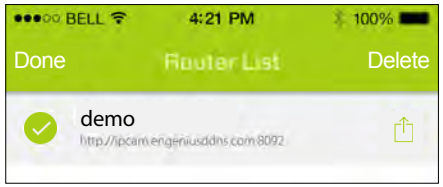
Tap on **Done** to save the changes.

Remove Router

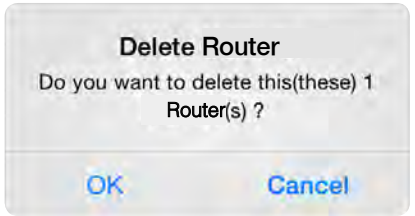
Tap on **Edit** to enter edit mode



Select the camera and tap **Delete**.

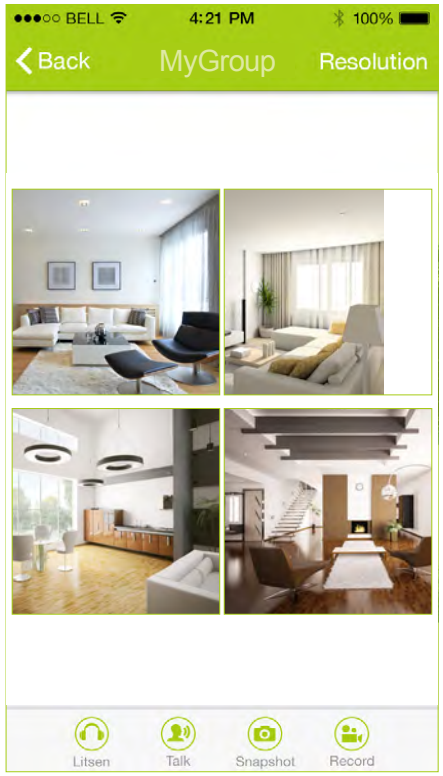


Answer **OK** to confirm the deletion

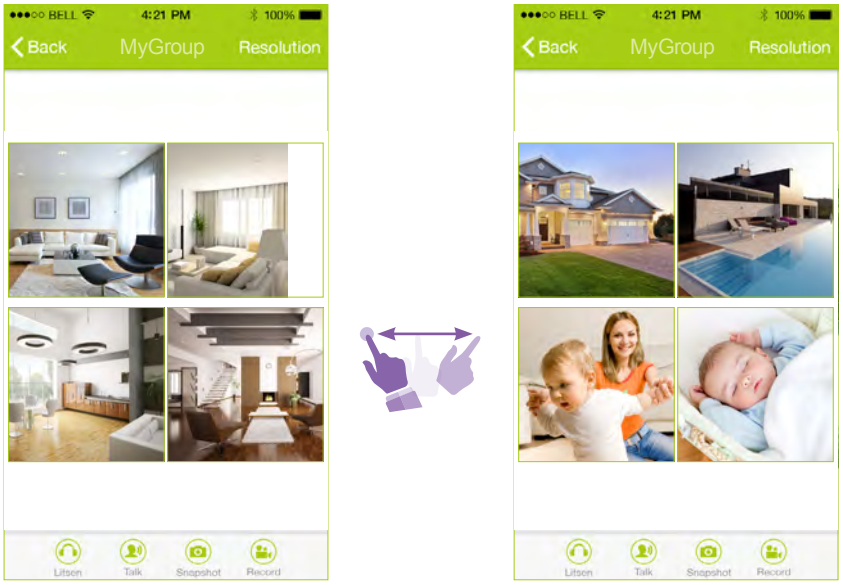


Group View

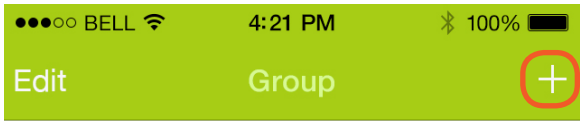
EnViewer supports **Group View**, which allows you to monitor multiple cameras at the same time.



Group View is useful when you have multiple cameras. You can monitor them simultaneously and magnify the view by simply selecting one of them on the screen. To use the group view, you need to add a new **Group** first. You can view 4 cameras on the screen on a single page. If you have more than 4 cameras, you can **swipe** the screen left and right to flip the pages.

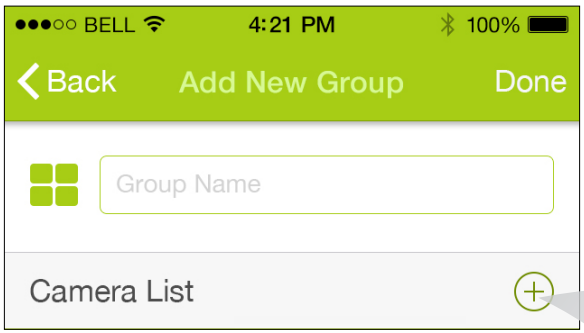


Add new Group

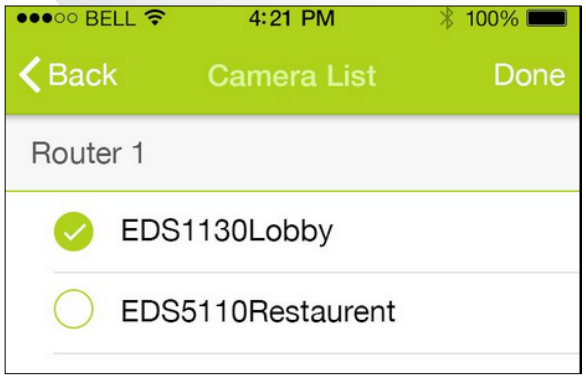


Enter the group name and then tap on " ⊕ " icon to add camera to this group.

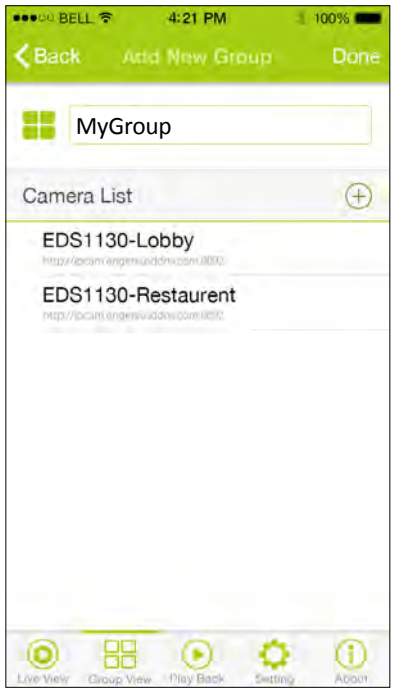
Note: You may add cameras of different sites (routers) into the same group.



All the cameras will be shown on the Camera list, tick the camera name to add into the group and tap **Done** to add the camera.

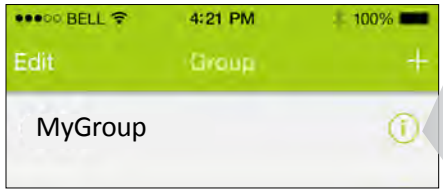


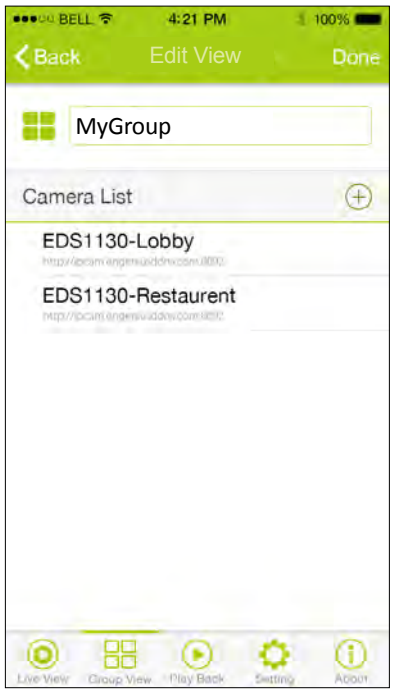
When all cameras are added into the group tap on **Done** to finish.



Edit Group

Tap on the " ⓘ " icon of the group you would like to modify the profile.

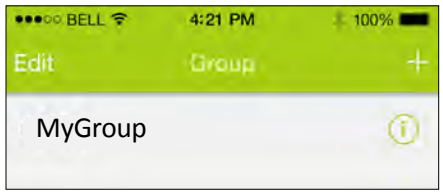




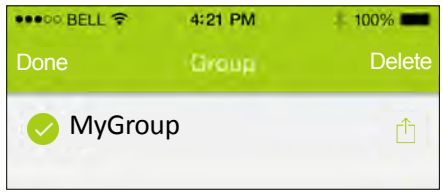
Tap **Done** to save the changes.

Remove Group

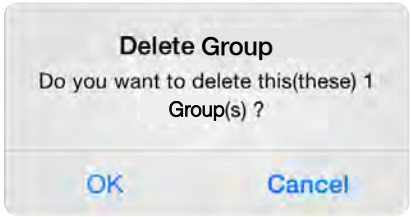
Tap on **Edit** to enter edit mode.



Select the camera and tap **Remove**.

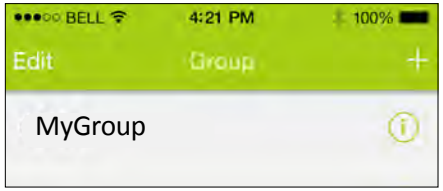


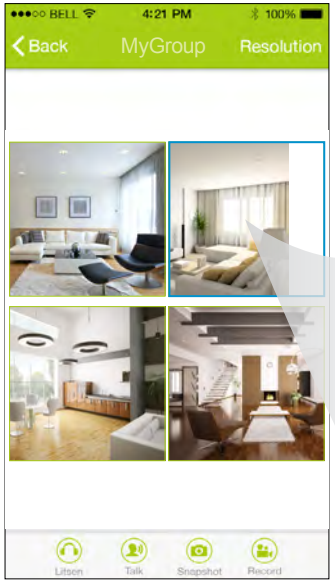
Answer **OK** to confirm the deletion



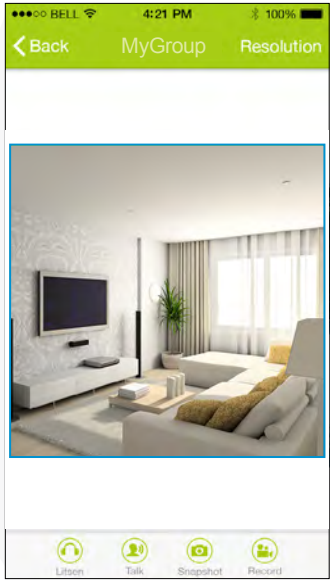
Using Group view

Tap on the group name to view its associated cameras.





Double-Tap on the camera to magnify the view.

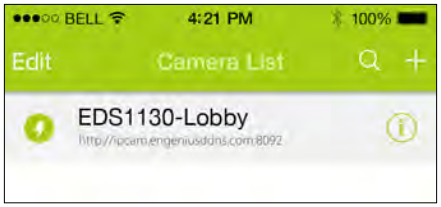


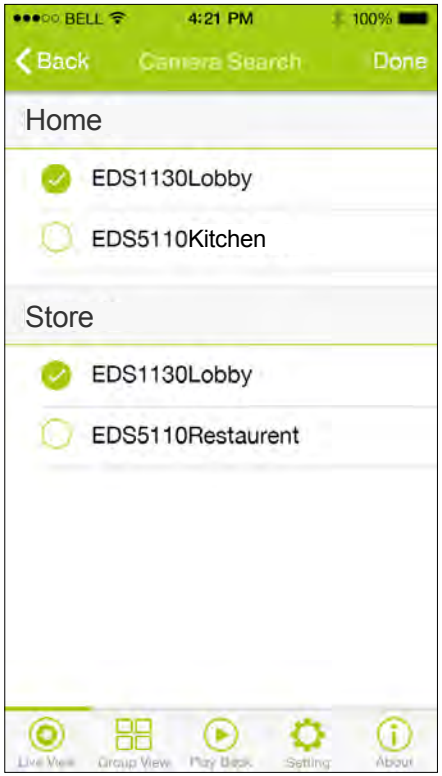
The camera control panel works the same as in Live View. Please refer to the **Camera Control Panel** section for detail.

Search Local Camera

Tap on "  " to search existing camera if not found on the list.

The search process may take a while, please wait patiently.



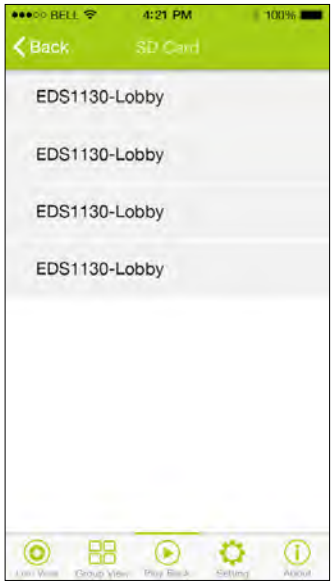


If you have several routers, your cameras will be grouped under each router which they belong to.

Using Play Back

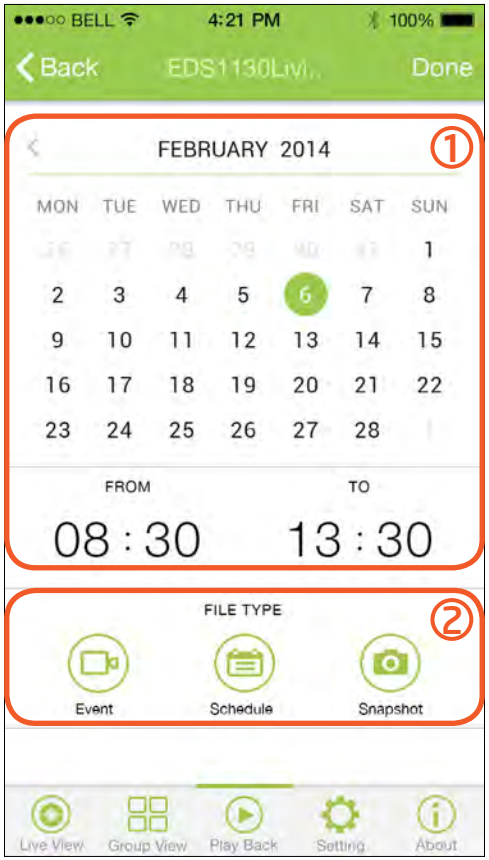
Choose the **Storage** you would like to search for playback files. It depends on where you store your media files for schedule recording or alarm media files. Choose either one to proceed to next screen. Choose SD Card if you have the files stored locally on the camera SD card or EnGenius Storage if applicable.

Note: Ensure that you have added a router to use playback from EnGenius Storage.



You will be guided to a camera list. Here, you need to choose the camera that you want to retrieve the playback files from.

Tap on the **camera name** to proceed to the next step.

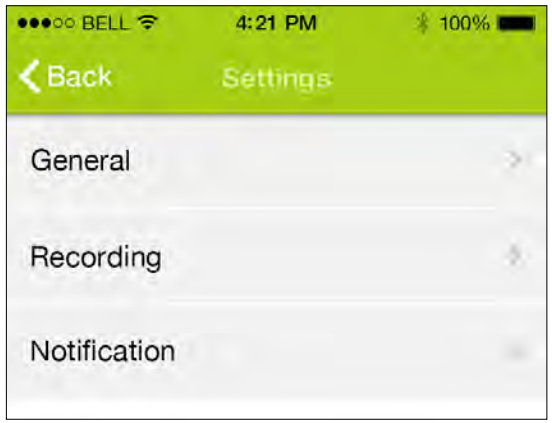


First, choose the **Date** and **Time** for playback.

Then, choose the **FILE TYPE** (Video Event, Video Schedule or Snapshot) by tapping on the icon.

EnViewer will start searching for the associated media files that fall within the time range.

Settings



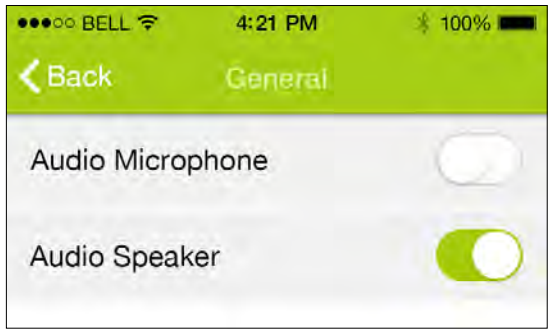
Tap on Settings and then choose the camera you would like to configure.

On the Settings Menu, choose the item you would like to configure. The supported settings types are: **General** ,**Recording** ,**Notification.**

Audio

Under **Audio** Settings, you may turn **ON** or **OFF**:

Audio Microphone
Audio Speaker



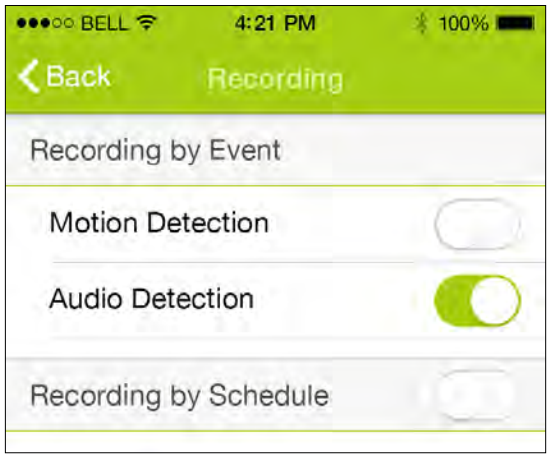
The settings will be applied automatically to your camera.

Recording

Under **Recording** Settings, you may turn **ON** or **OFF**:

Recording by Event : Motion Detection / Audio Detection

Recording by Schedule



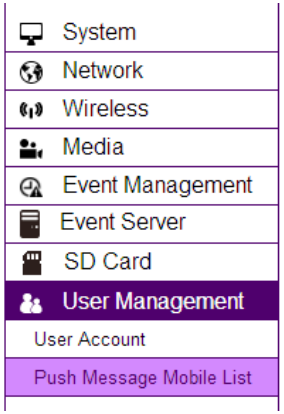
The settings will be applied automatically to your camera.

Notification

Notification is a feature that sends message to your mobile devices when your camera detected predefined events (alarms). You can register your mobile device by entering a name and turn set **Push Message "ON"**. EnViewer will registered your device immediately.

Note1: Alarm message will be sent to your mobile device ONLY if you have configured your camera with at least one of the event types: **motion detection** or **audio detection**.

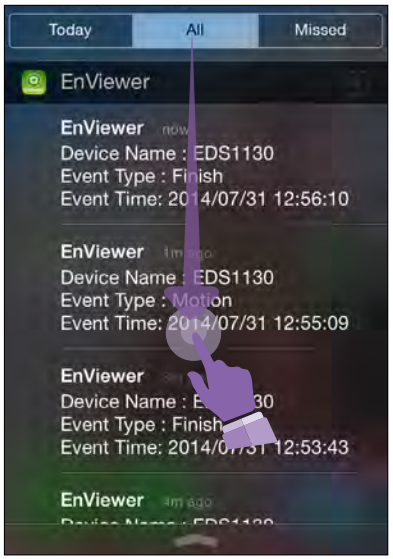
Note2: A mobile device can only register itself to the service. That is, if you need both your tablet and mobile phone be notified about the alarms, each device must have EnViewer installed and registered for notification individually. As long as your EnViewer AP is running the alarm messages can be received even if the devices operate in idle mode.



On your camera setting **User Management → Push Message Mobile List**, you can find out what device has been registered.

The alarm message may appear differently on various platforms. The following example shows the alarm message on an iphone.

The messages appeared on top of the screen. Since the events may occur in series; therefore, it is normal that you got several messages for a single event.



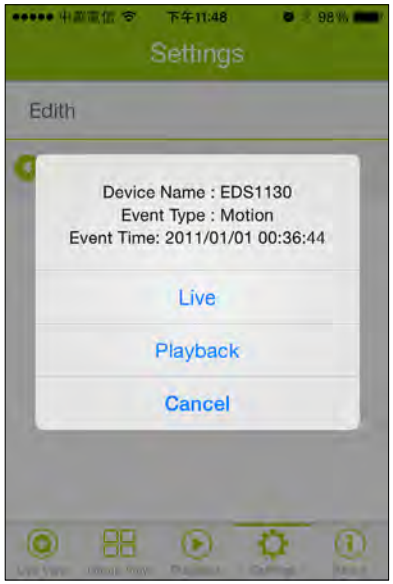
By sliding down the message row on the top, the details will appear similar to the following.

Tap on one of them to open the message.

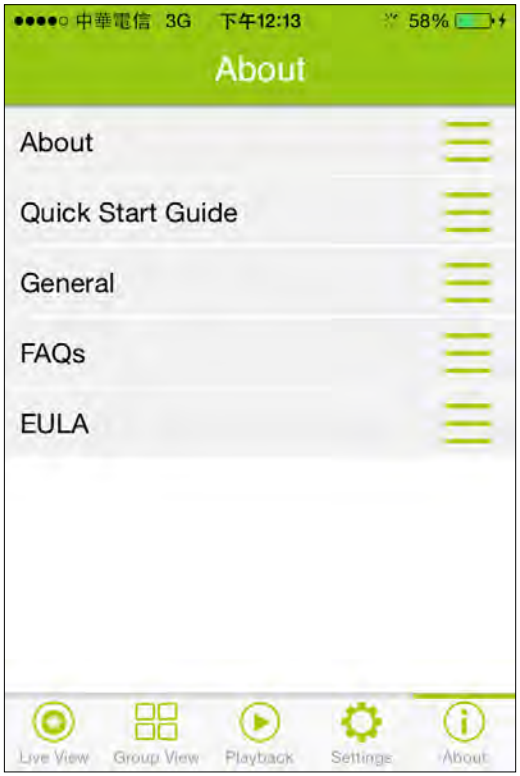
Note: The **Device Name** shown could be changed on **Chapter 5- Network - UPnP**.

Upon receiving the alarm, you can choose to view the camera in Live or Playback the recorded media files.

Note: You need to keep EnViewer stay in the device memory so that alarm can be received by your phone upon event occurrence. The alarm message below shows an example of an alarm event.



About

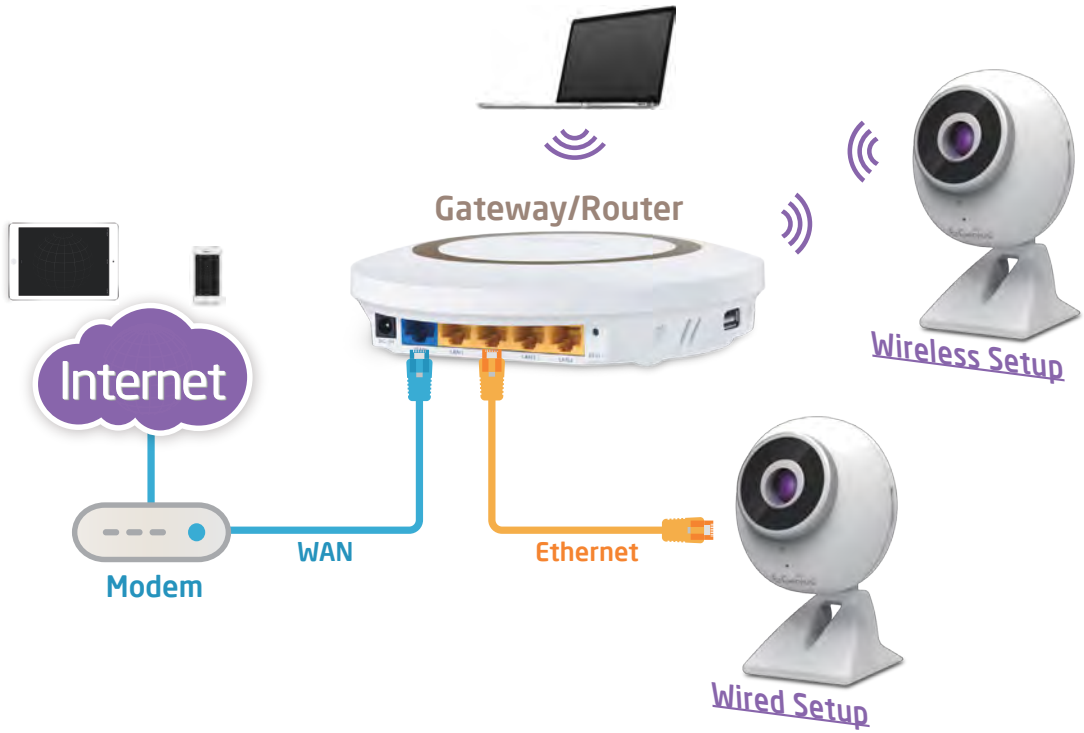


The About page provide some helpful hints about EnViewer.

Check out the **FAQs** for some common questions.

Chapter 9
Application Guide

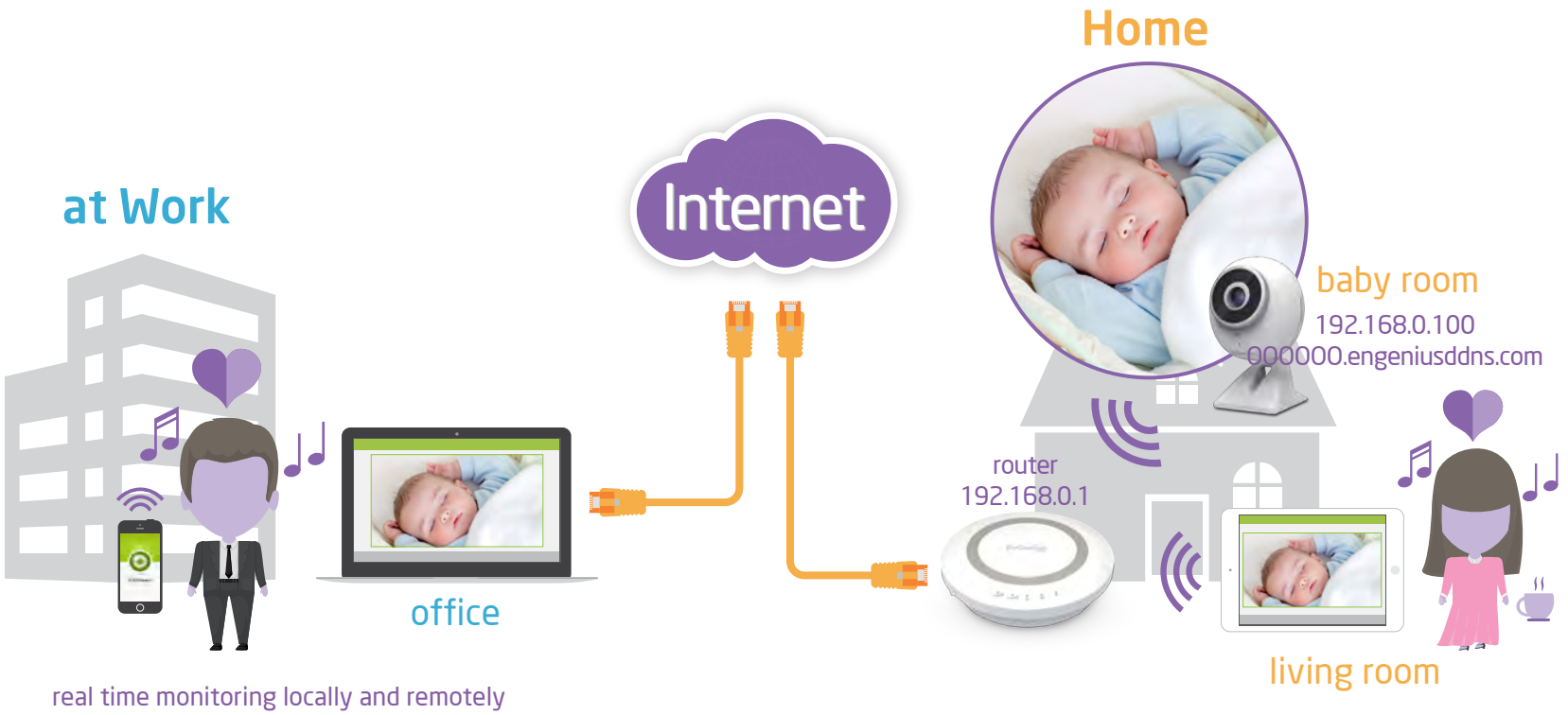
This chapter demonstrates some common applications using EnGenius Camera. The examples assume that the camera is already connected to a gateway/router that has Internet accessibility.



Note: Please ensure that your gateway/router supports UPnP Traversal and has it enabled. Most of the modern wireless gateway/router today supports this feature. If you can't find the related settings, they are most likely enabled by default. UPnP Traversal makes camera remote access over the Internet possible using camera DDNS name (ooooooo.engeniusddns.com).

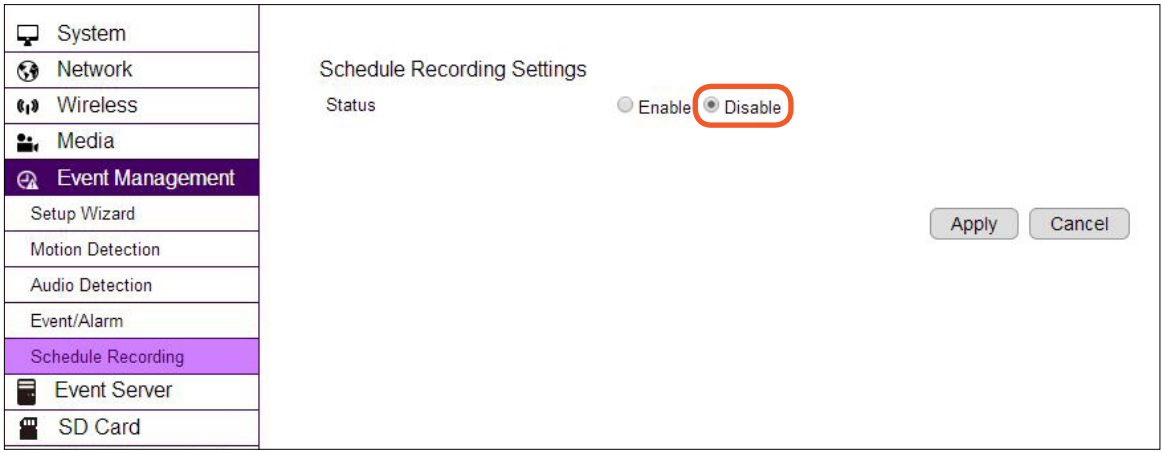
Example1 : Baby Monitoring

The application concept diagram shows a camera monitoring the baby room. The parents can locally and remotely view the camera in real time. Please follow the instructions below for detail setup. The camera is configured with video detection on so that the mother can be alarmed when the baby cries.



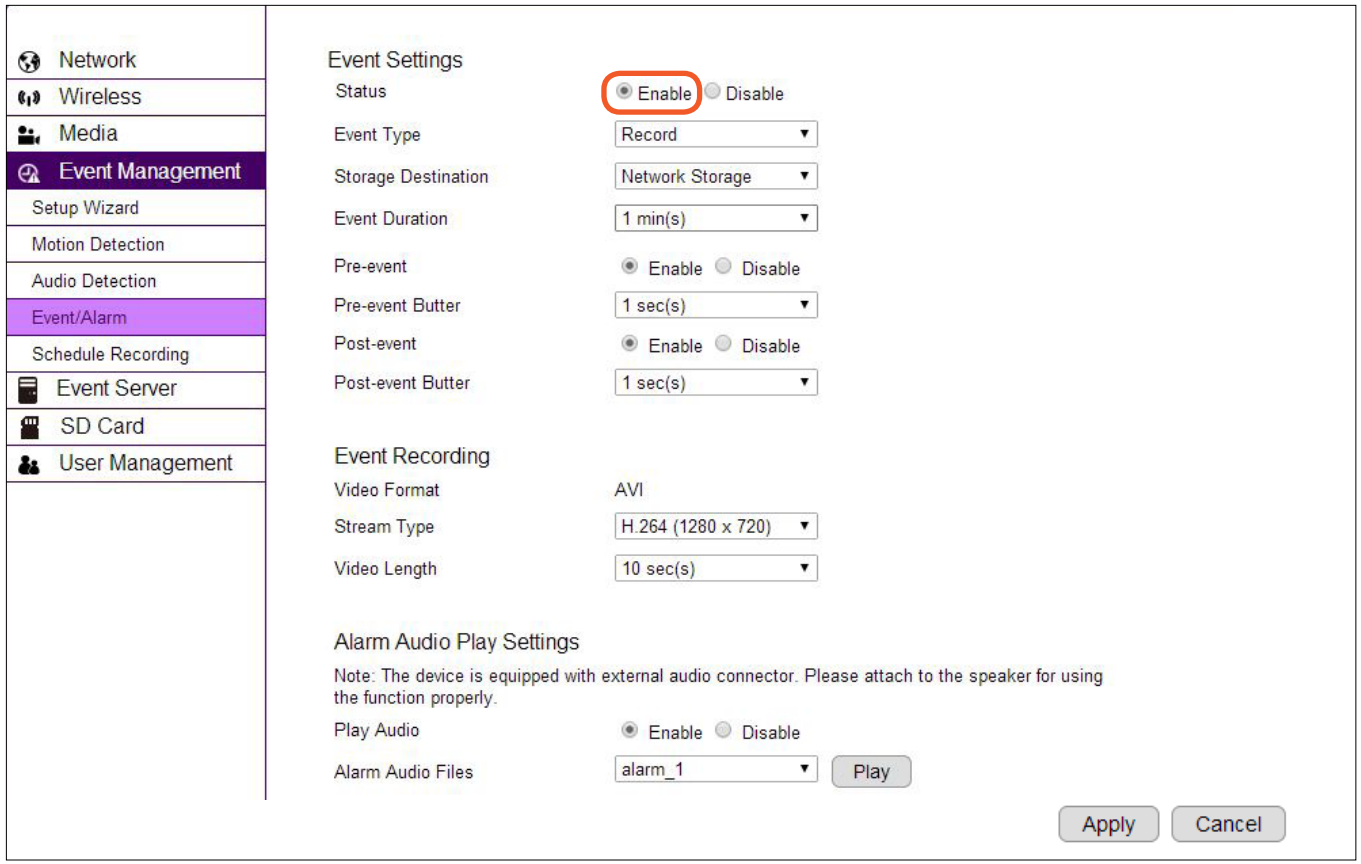
Step 1: Disable Schedule Recording

Please **Disable** Schedule Recording so that Event Recording can be configured.



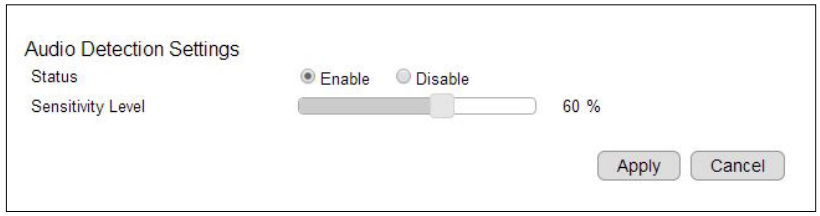
Step 2: Configure Event/Alarm

Event Management → Event/Alarm set event and alarm settings to **Enable** and click **Apply**.



Step 3: Configure Audio Detection

Event Management → Audio Detection enable auto detection. Make changes to the settings and click **Apply**.

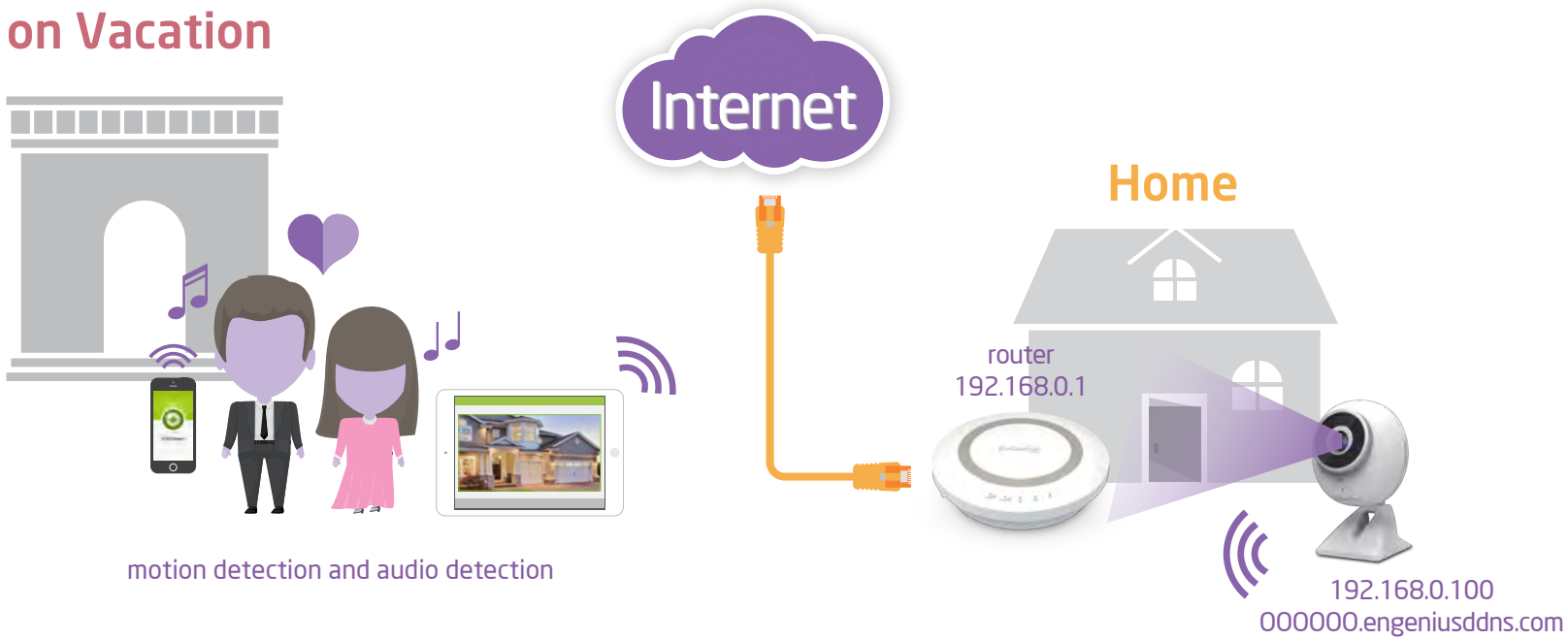


Step 4: Setting EnViewer Notification

Set Push Message **ON** and enter the device name.

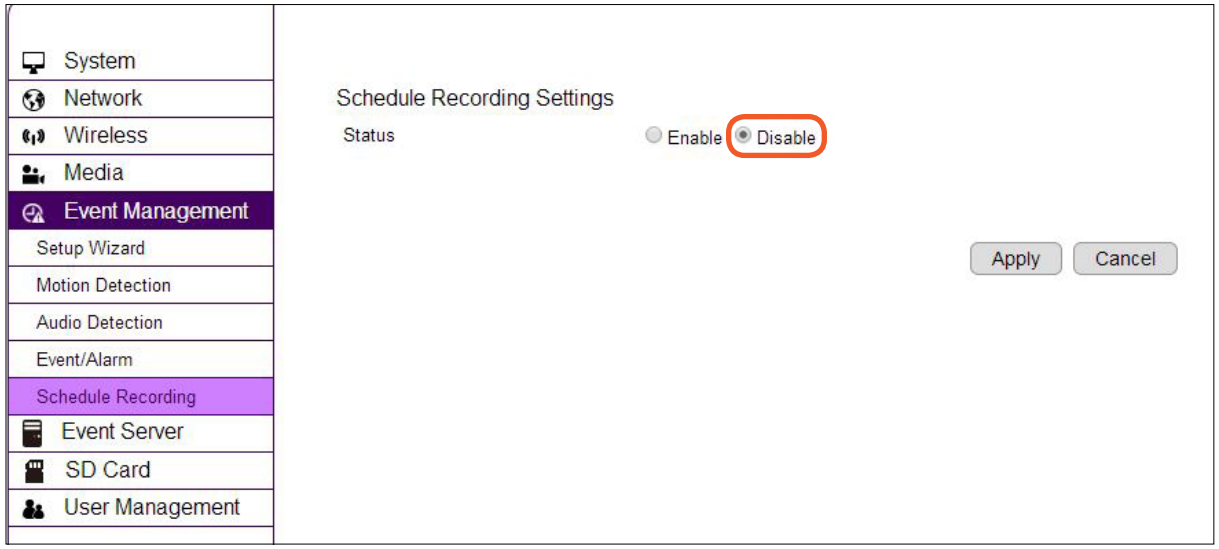
Example 2: Remote Surveillance and Motion Detection

The application concept diagram shows a camera monitoring the living room and entrance of their home. The couple wants to remotely monitor their home and needs to be alarmed when motion (intrusion) or sound is detected.

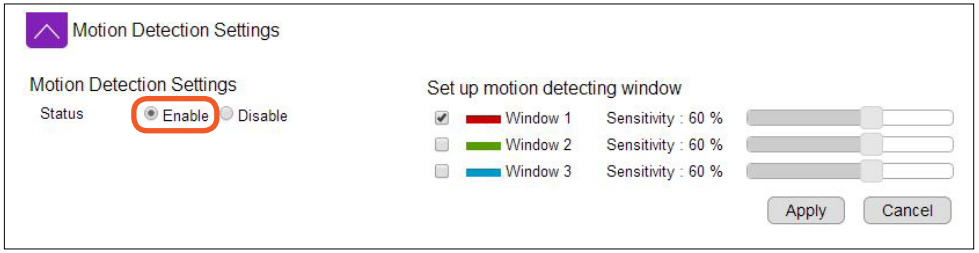


Step 1: Disable Schedule Recording

Make sure that the Schedule Recording is **DIsabled** ahead so that the Event Recording can be configured.



Step 2: Configure Motion Detection



Enable motion detection

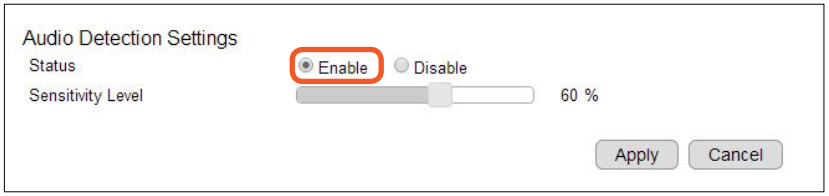
Select Window 1 and adjust the Sensitivity to higher percentage.

By default, the window 1 is set as full range as the detecting area. You may keep the window as it is or resize it to focus on the objects that you intend to monitor.

Click on **Apply** to activate the setting.

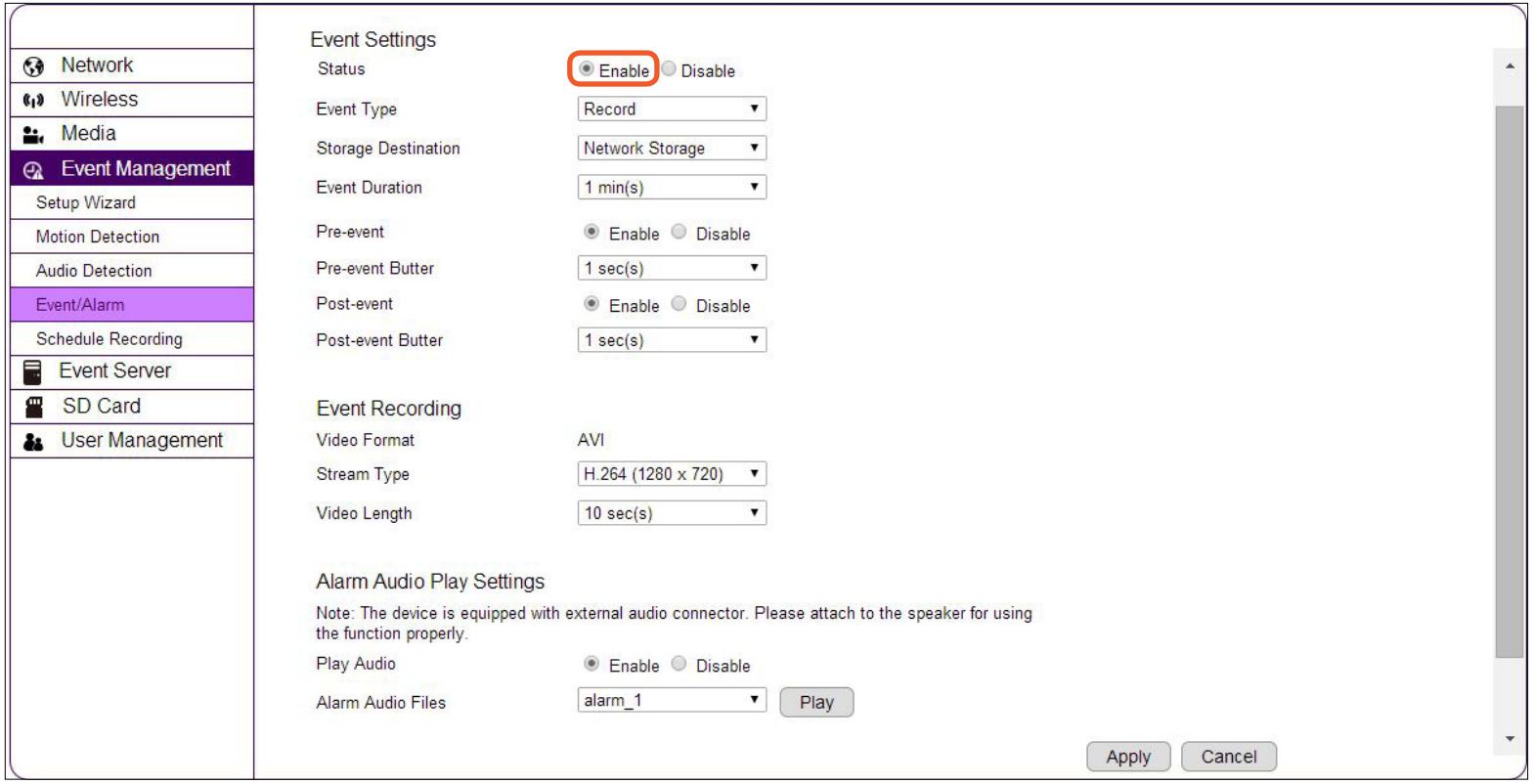
Step 3: Configure Audio Detection

Event Management → Audio Detection enable auto detection. Make changes to the settings and click **Apply**.



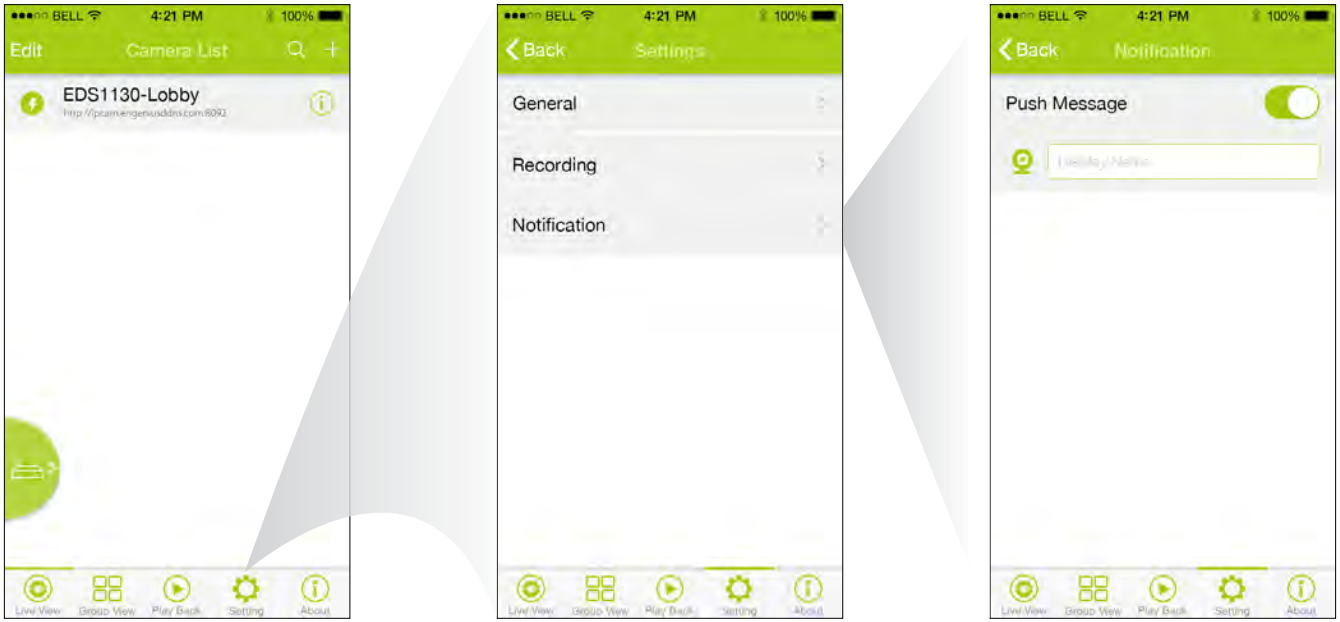
Step 4: Configure Event/Alarm

Event Management → Event/Alarm set event and alarm settings to **Enable** and click **Apply**.



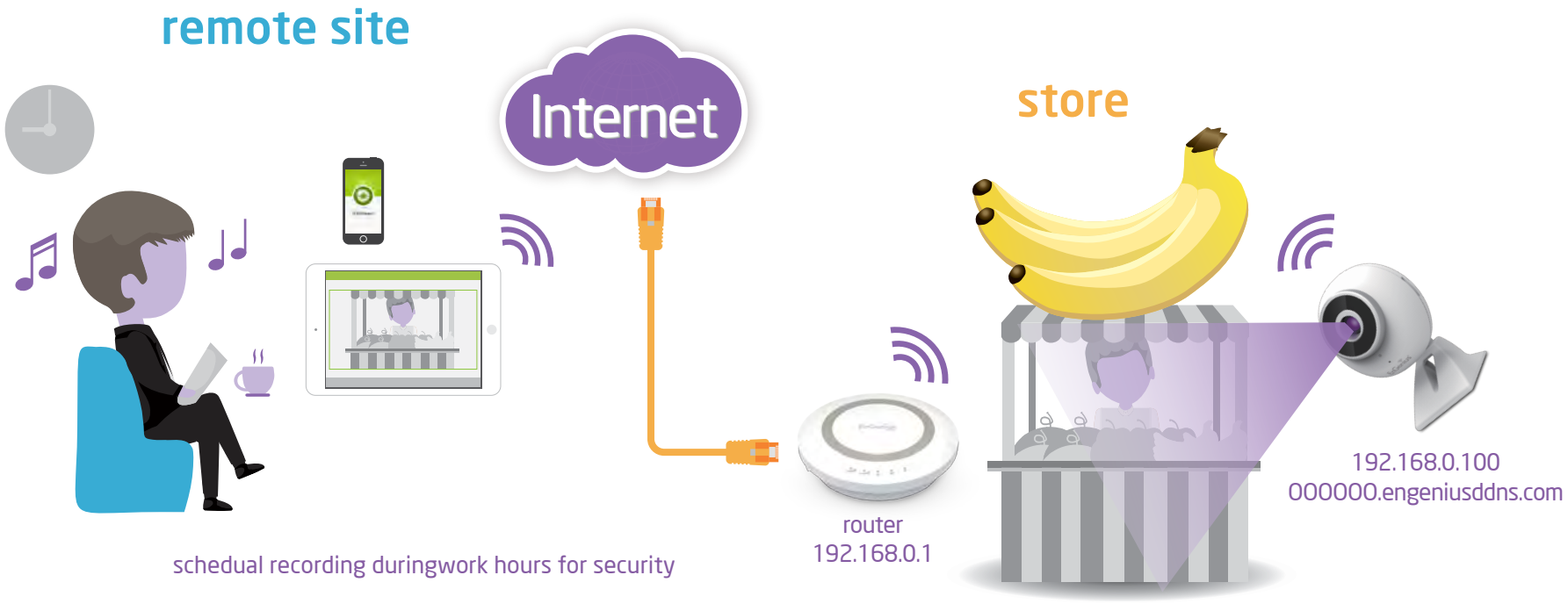
Step 5: Setting EnViewer Notification

Set Push Message **ON** and enter the device name.



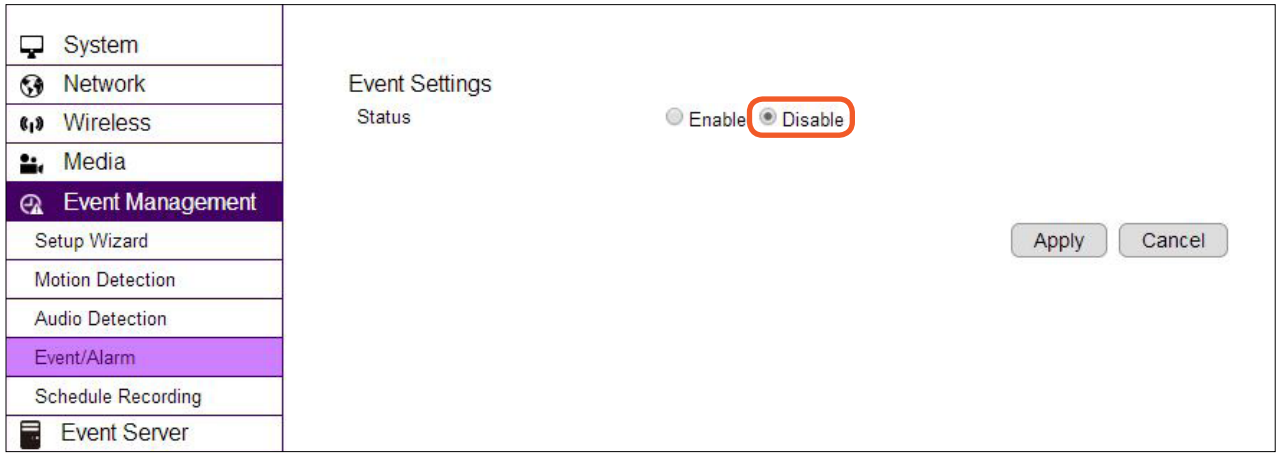
Example 3: Schedule Recording

A business owner can remotely monitor his store at home in live or playback the previously recorded video. The camera is configured with schedule recording for working hours from 9 AM to 9 PM.



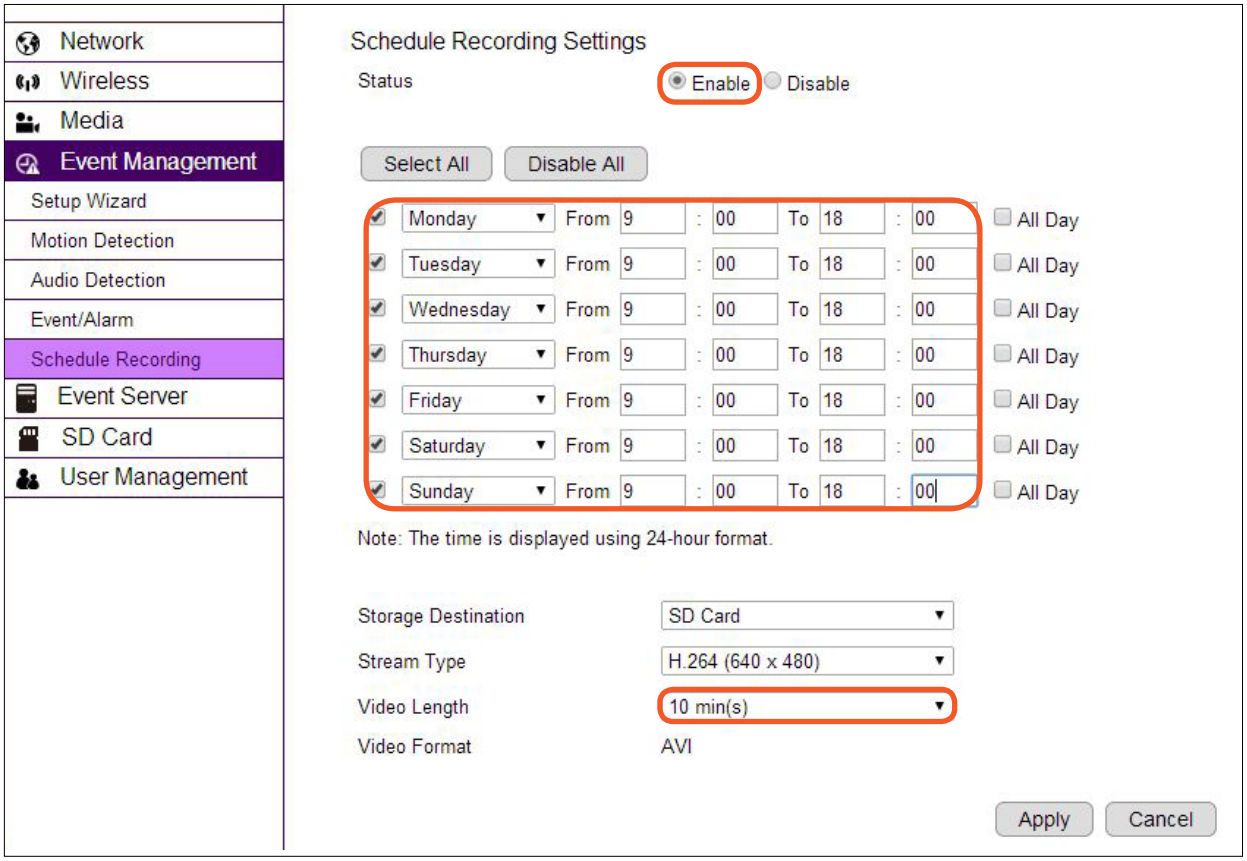
Step 1: Disable Alarm

Disable Event/Alarm so that Schedule Recording can be configured.



Step 2: Configure Schedule Recording

Go to **Event Management → Schedule Recording**



Set Status to **Enable**.

Select all the check boxes and set the week day Monday to Sunday.

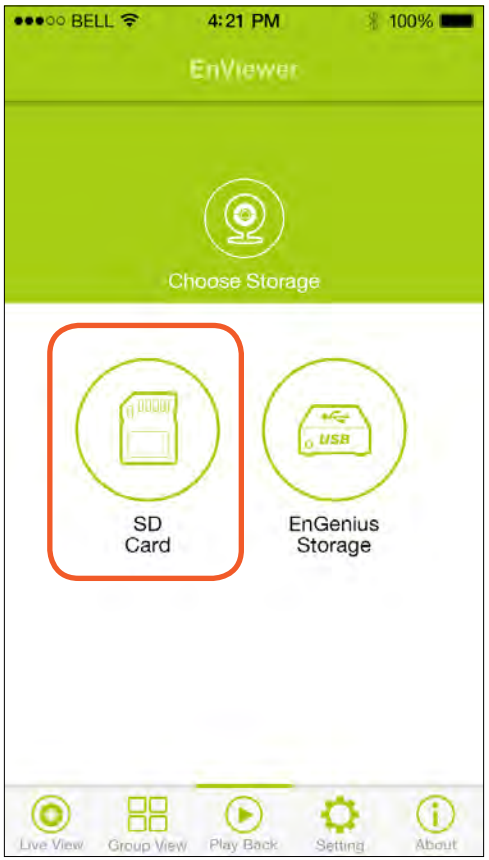
Then, enter time range from 09:00 to 18:00.

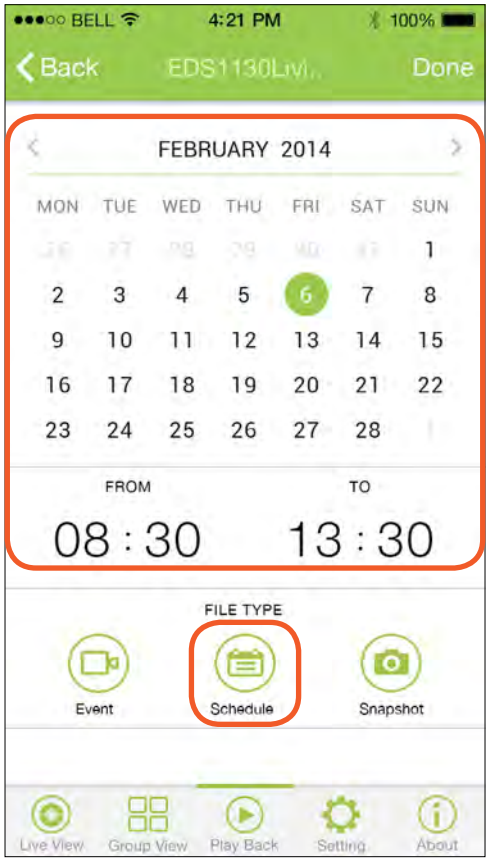
Choose to save the recording to SD Card and confirm the Video Length for each file.

Click **Apply** to activate the settings.

Step 3: Playback on EnViewer

Tap on Playback and then choose SD Card for playback files.





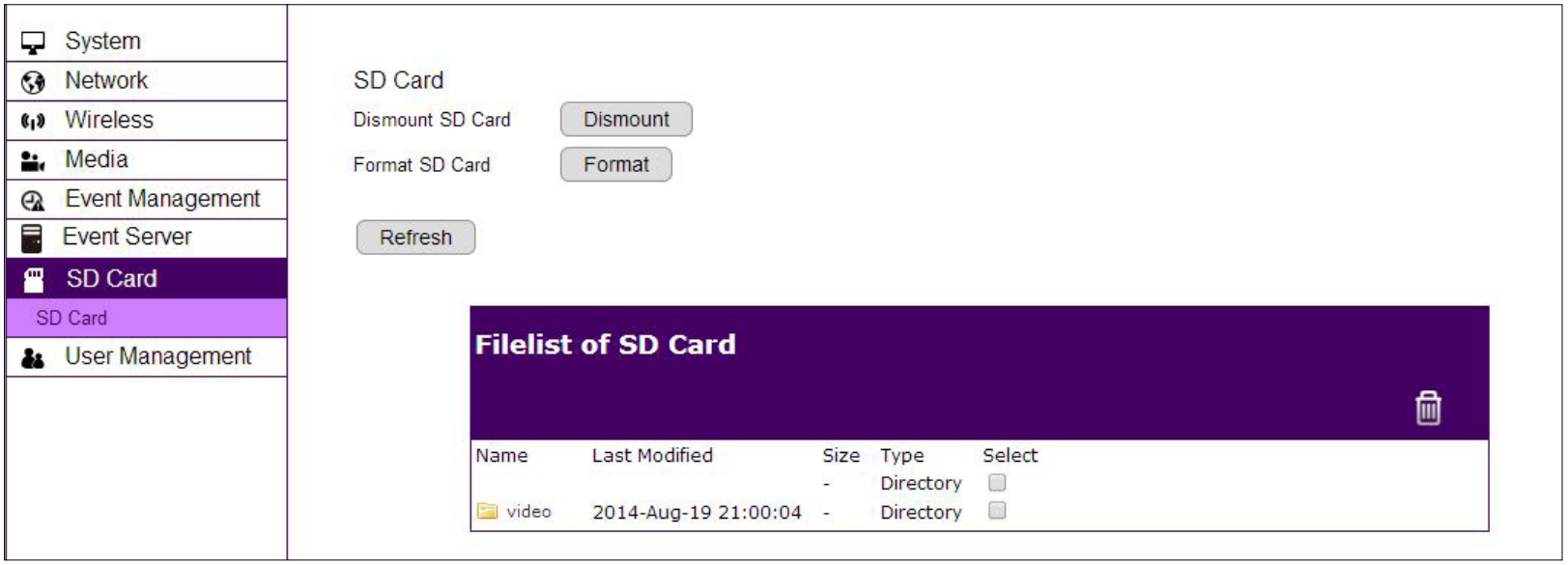
Set the date and time range.

Tap on Video Schedule for playback.

Step 4: Playback on Web Browser

Login to the camera and enter main menu **Storage → SD Card**.

Choose **video** folder and drill down for the recorded media file you would like to playback.



Chapter 10

Troubleshooting

Viewing Your Video

How do I view live streaming using a mobile?

You can view your video on your iPhone, iPad and Android-based phone and tablet by using EnViewer. EnViewer is an App that allows you to view and manage your camera at real time.

Where can I download my app?

You can download it by or searching **APP store** (for iPhone and iPad) or **Google Play**(Android-based mobile devices) for "EnViewer". You can also scan the following QR code to download EnViewer directly.

Google Play
for Android™ Devices

ANDROID APP ON Google play

App Store
for iPhone® and iPad®

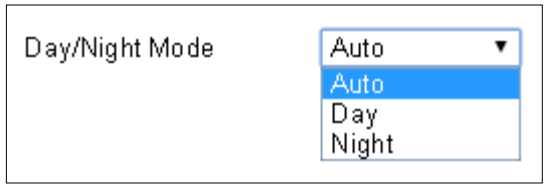
Download on the App Store

How do I use the web viewer on a computer?

You can view the camera at real time using any of popularweb browser, e.g. Chrome, Internet Explorer, Firefox. Given that you have configured your camera properly. You should be able to get access to your camera by entering its DDNS or IP address. If you have trouble finding your camera on your home network. Please use the provided E on your CD, EnViewer Finder, to find out your camera's current IP address.

Why is my live view goes grey?

You camera supports night-vision. When camera detects insufficient light, it will switch to night-vision mode for clearer image. However, you can manually configure this feature under **Media → Camera**. Set the **Day/Night mode** to **Auto**, **Day Mode (color)** or **Night Mode (grey)**.



Why is my recorded video grey?

You camera supports night-vision. When camera detects insufficient light, it will switch to night-vision mode for clearer image. Hence, the recorded video become grey.

Why is the camera having clicking sound?

Your camera supports night-vision. You may hear the clicking sound whenever the camera switches mode. However, you can manually configure this feature under **Media → Camera**. Set the **Day/Night mode** to **Auto**, **Day Mode (color)** or **Night Mode (grey)**.

Why is my image blurred?

When monitored target becomes out of focus the image will be blur. Please check your camera lens, make sure it is clean. Dust or insects may block the view and cause the problem.

Networking

Why does my camera disconnect from my Wi-Fi?

There are various reasons that your camera disconnects from the wireless gateway/router. Usually it is due to weak of Wi-Fi signals or interference from electrical appliances. Therefore, you should bring your camera closer to the gateway/router and verify whether it's caused by weak signal. You should check if gateway/router has just rebooted. The administrator has changed Wi-Fi security settings. If your camera is located far from the gateway/router, the signal strength may be weak; however, there shouldn't be much problem in home settings unless there are many walls or metal obstacles that blocked the wireless signals. Lastly, reboot your camera and router.

How can I minimize interference?

Make sure there is no electrical appliances near the camera, such as microwave or devices that may interfere with the camera. Upon experiencing interference, try to turn off any possible electrical devices that are currently running.

Why my live view lags (latency)?

Since your camera image is transmitted over the network.

If you have wireless configuration for your camera, you may be experiencing wireless interference from other wireless devices or home appliances. If disabling other wireless devices do not resolve the issue. Please use wired setup for your camera to ensure stable video transmission.

Your network bandwidth determines the latency of your live view. If your network is loaded with P2P traffic; you may experience some latency. Please avoid heavy traffic loading applications on the network.

It is normal that you experience latency if you are monitoring with your mobile device from a remote site. The 3G or 4G service provider network bandwidth may vary from location to location.

I have connected the camera to the home router, but how can I access the camera?

There are various ways to scan the network for you camera. If you are under a home network setting. The best way to get access to your camera is by using the enclosed EnViewer Finder. Please refer to Chapter 3 for more detail.

Security and Privacy

Accessing the camera from the Internet is convenient; however, it is also possible for anyone who has your username and password to login into your camera. Therefore, the utmost key is to keep your username and password safe and change them regularly. Your videos or images are stored either locally or in network storage. The images and videos are accessible only when provided with proper security check. Therefore, the media files should be safe.

Can EnGenius employees view my video?

No! No one can view your video or login into your camera without security check. The username and password is stored locally in your camera and it is not accessible by anyone but yourself. Therefore, it is important for you to keep the security information safely.

How do I let other family member to view the camera without giving away administrator account?

Your camera supports two types of users: Administrator and Viewer. The username and password you use to login to the camera for initial setup is your administrator account. Therefore, you should create Viewer account for your family member so that they can view the camera only. Please refer to **User Management** chapter for more detail on creating viewer account.

Cloud Video Services

I can't connect. What's going on?

Check your router's Internet setting. You can first check other devices connecting to the router has Internet connectivity and determine whether the source of the issue. If other connecting devices can connect to the Internet through the router. Then the problem may lies on other router setting. Check wireless security settings. Turn off any firewall rules on the router see if connection gets through.

Appendix

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement:This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

- EN60950-1
  Safety of Information Technology Equipment
- EN50385
  Generic standard to demonstrate the compliance of electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (0 Hz - 300 GHz)
- EN 300 328
  Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
- EN 301 489-1
  Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
- EN 301 489-17
  Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment

CE

Česky [Czech]	[Jméno výrobce] tímto prohlašuje, že tento [typ zařízení] je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Dansk [Danish]	Undertegnede [fabrikantens navn] erklærer herved, at følgende udstyr [udstyrets typebetegnelse] overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
Deutsch [German]	Hiermit erklärt [Name des Herstellers], dass sich das Gerät [Gerätetyp] in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.

Eesti [Estonian]	Käesolevaga kinnitab [tootja nimi = name of manufacturer] seadme [seadme tüüp = type of equipment] vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, [name of manufacturer], declares that this [type of equipment] is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Español [Spanish]	Por medio de la presente [nombre del fabricante] declara que el [clase de equipo] cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ [name of manufacturer] ΔΗΛΩΝΕΙ ΟΤΙ [type of equipment] ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
Français [French]	Par la présente [nom du fabricant] déclare que l'appareil [type d'appareil] est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
Italiano [Italian]	Con la presente [nome del costruttore] dichiara che questo [tipo di apparecchio] è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo [name of manufacturer / izgatavotāja nosaukums] deklarē, ka [type of equipment / iekārtas tips] atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo [manufacturer name] deklaruoja, kad šis [equipment type] atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart [naam van de fabrikant] dat het toestel [type van toestel] in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]	Hawnhekk, [isem tal-manifattur], jiddikjara li dan [il-mudel tal-prodott] jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]	Alulírott, [gyártó neve] nyilatkozom, hogy a [... típus] megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.
Polski [Polish]	Niniejszym [nazwa producenta] oświadcza, że [nazwa wyrobu] jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Português [Portuguese]	[Nome do fabricante] declara que este [tipo de equipamento] está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Slovensko [Slovenian]	[Ime proizvajalca] izjavlja, da je ta [tip opreme] v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	[Meno výrobcu] týmto vyhlasuje, že [typ zariadenia] spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Suomi [Finnish]	[Valmistaja = manufacturer] vakuuttaa täten että [type of equipment = laitteen tyyppimerkintä] tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar [företag] att denna [utrustningstyp] står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.