

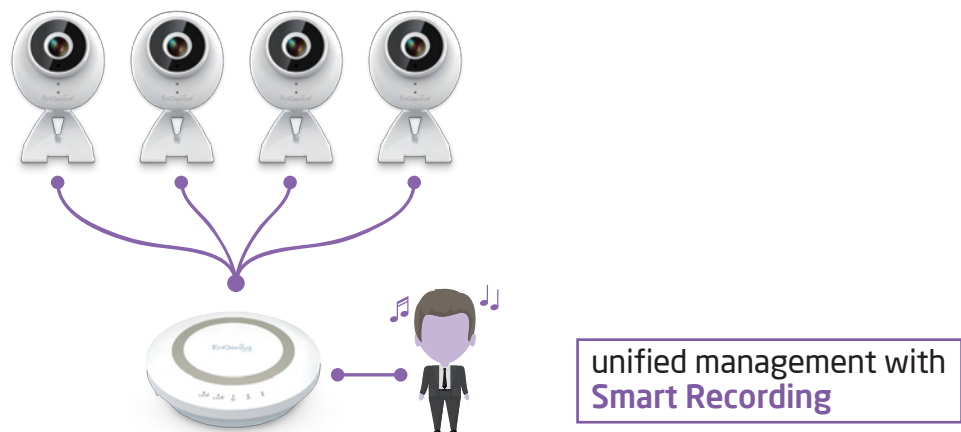
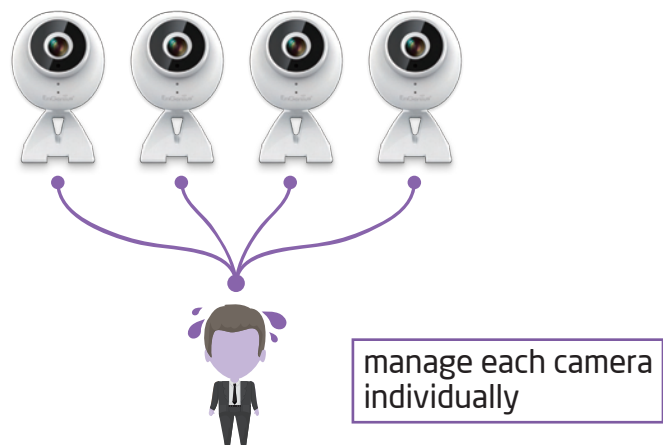
## Chapter 6

# Camera Connecting to EnGenius Gateway/ Router

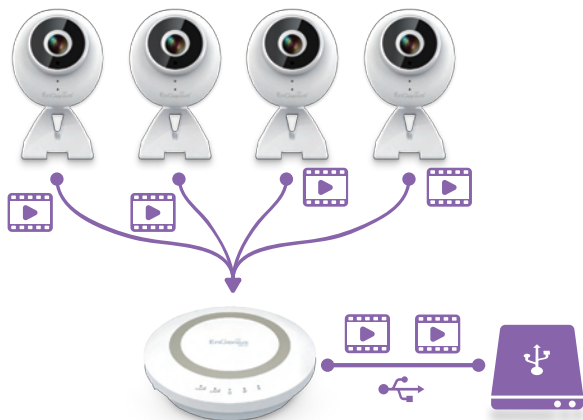


**Smart Recording** is an intelligent camera management technology that allows EnGenius users to manage cameras collectively with ease. EnGenius bundles cameras with **IoT gateway** and **Intelligent Router** series that provides a single entrance for integrated management. Traditionally, if you have 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

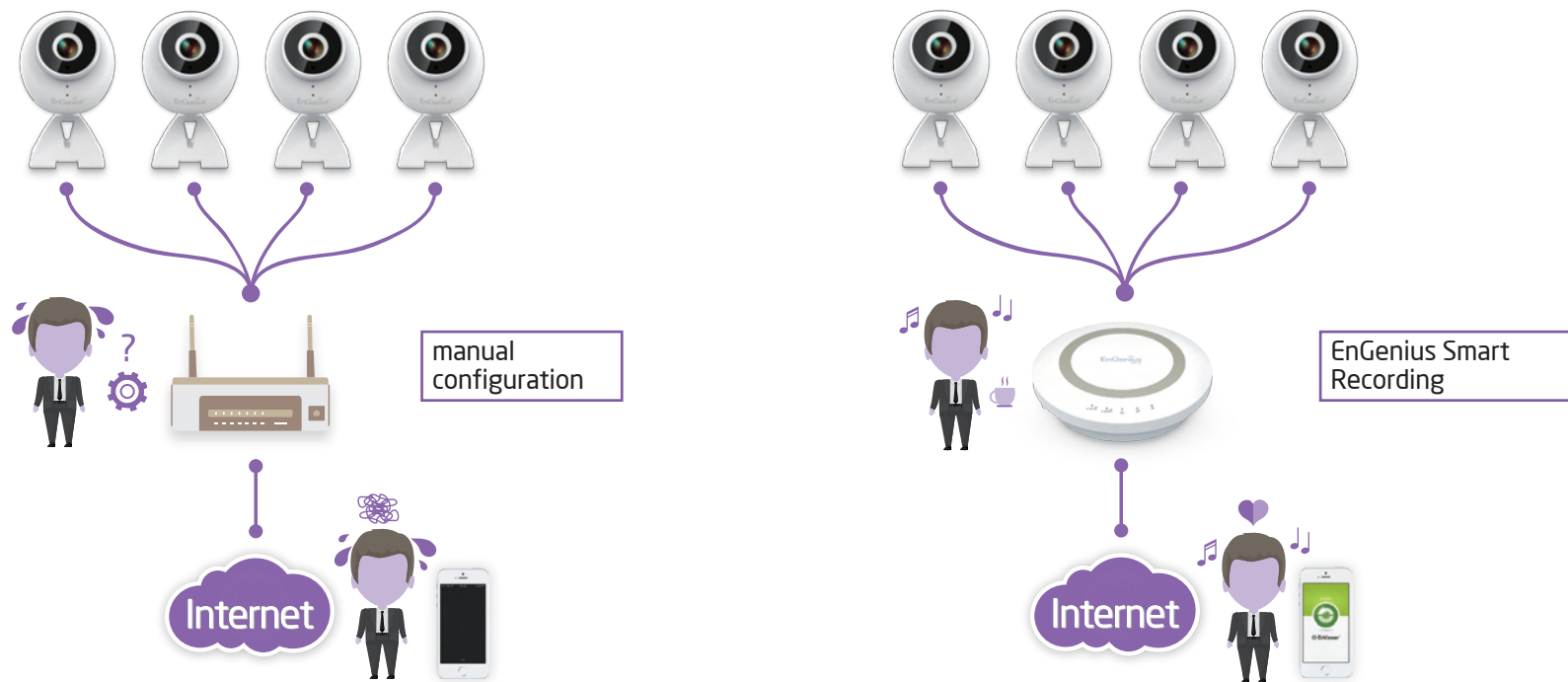


### Integrated Storage



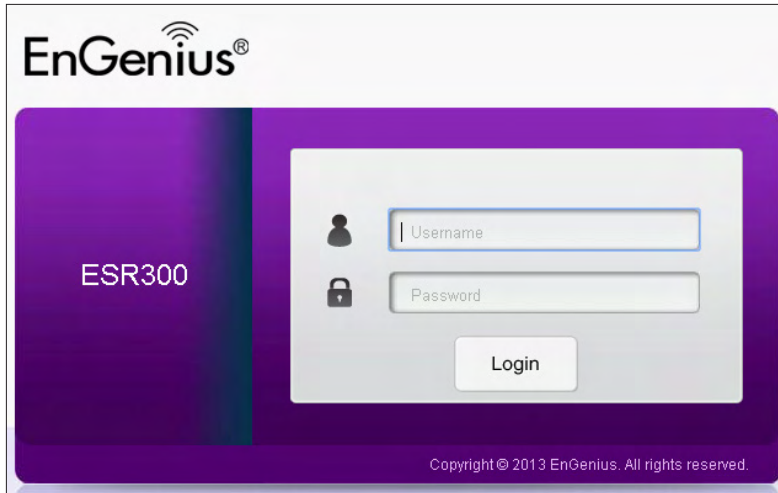
## Easy Remote Access over Internet

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.

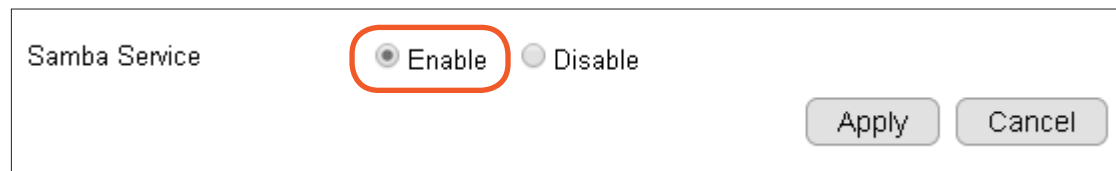
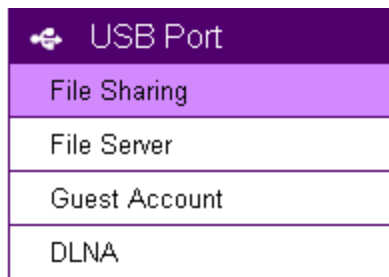


## Enable Gateway/Router Storage Function

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.

The screenshot shows the EnGenius management interface. On the left, there are two sidebars. The top sidebar is under 'Device Management' and has 'System' selected. The bottom sidebar is under 'Device Management' and has 'IP Camera' selected. The main content area is titled 'IP Camera Client Table' and shows a table with one entry: IP Address 192.168.0.101, MAC 88DC9622C9E4, Profile Name EDS1130. Below the table is a 'Refresh' button. Underneath is the 'Current IP-Camera Profile' section, which contains a table with one profile: Profile Name Entrance, IP Address 192.168.0.101, MAC 88DC9622C9E4, Schedule Recording unchecked, Motion Detection checked, Overwrite checked, Folder Name Entrance, and Storage Size 0 GB. Below this table are buttons for 'Edit', 'Delete Selected', 'Delete All', and 'Sync with IP-Camera'.

**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.

This screenshot shows a detailed view of the 'IP Camera Client Table'. It contains a table with four rows of camera information. Each row has a 'Connect' button and an 'Add Profile' button. Below the table is a 'Refresh' button.

IP Address	MAC	Profile Name	Connect	Add Profile
192.168.1.107	88DC9604CEE1	EDS3200Lobby	Connect	Add Profile
192.168.1.105	88DC9604CF38	EDS5200ParkingEntrance	Connect	Add Profile
192.168.1.106	88DC96025E7B	EDS5200SecuritySideWalk	Connect	Add Profile
192.168.1.113	004270003077	EDS1130	Connect	Add Profile

**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.

192.168.1.107	88DC9604CEE1	EDS3200Lobby	Connect	Add Profile
192.168.1.105	88DC9604CF38	EDS5200ParkingEntrance	Connect	Add Profile
192.168.1.106	88DC96025E7B	EDS5200SecuritySideWalk	Connect	Add Profile
192.168.1.113	004270003077	EDS1130	Connect	Add Profile

Refresh

Profile Name  ( 1 ~ 20 characters )

Schedule Recording  Disable  Enable

Motion Recording  Disable  Enable

Folder Name  ( 1 ~ 20 characters )

USB Storage Size  1.60 GB ( 1.60 / 7.78, 21% used )

Folder Size  GB (Integer only.0 is no limit)

Overwrite  Disable  Enable

Profile Name  ( 1 ~ 20 characters )

Schedule Recording  Disable  Enable

Motion Recording  Disable  Enable

Folder Name  ( 1 ~ 20 characters )

USB Storage Size  1.60 GB ( 1.60 / 7.78, 21% used )

Folder Size  GB (Integer only.0 is no limit)

Overwrite  Disable  Enable

**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.

Current IP-Camera Profile									
Select	No.	Profile Name	IP Address	MAC	Schedule Recording	Motion Detection	Overwrite	Folder Name	Storage Size (GB)
<input type="checkbox"/>	1	Entrance	192.168.0.101	88DC9622C9E4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Entrance	0
<input type="checkbox"/>	2	Lobby	192.168.0.101	88DC9622C9E4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lobby	0

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.

192.168.1.107	88DC9604CEE1	EDS3200Lobby	<b>Connect</b>	Add Profile
192.168.1.105	88DC9604CF38	EDS5200ParkingEntrance	Connect	Add Profile
192.168.1.106	88DC96025E7B	EDS5200SecuritySideWalk	Connect	Add Profile
192.168.1.113	004270003077	EDS1130	Connect	Add Profile









Refresh

## 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/Entrance**. Please **do not change the settings** because it only works if the setting matches the connected gateway/router.

 System	
 Network	
 Wireless	
 Media	
 Event Management	
 <b>Event Server</b>	
Network Storage	<b>Network Storage Settings</b>
FTP	Status <input checked="" type="radio"/> Enable <input type="radio"/> Disable
E-Mail	Protocol <input type="text" value="SAMBA"/>
 SD Card	Server <input type="text" value="192.168.0.1"/>
 User Management	Path <input type="text" value="/sda1/IP_Camera/Entrance"/> <small>(insert / if the path contains the subfolder, i.e. folder/subfolder)</small>
	Username <input type="text" value="admin"/>
	Password <input type="password" value="....."/>
	Folder Size <input type="text" value="0"/> GB (Integer only. 0 is no limit.)
	<input checked="" type="checkbox"/> Overwrite

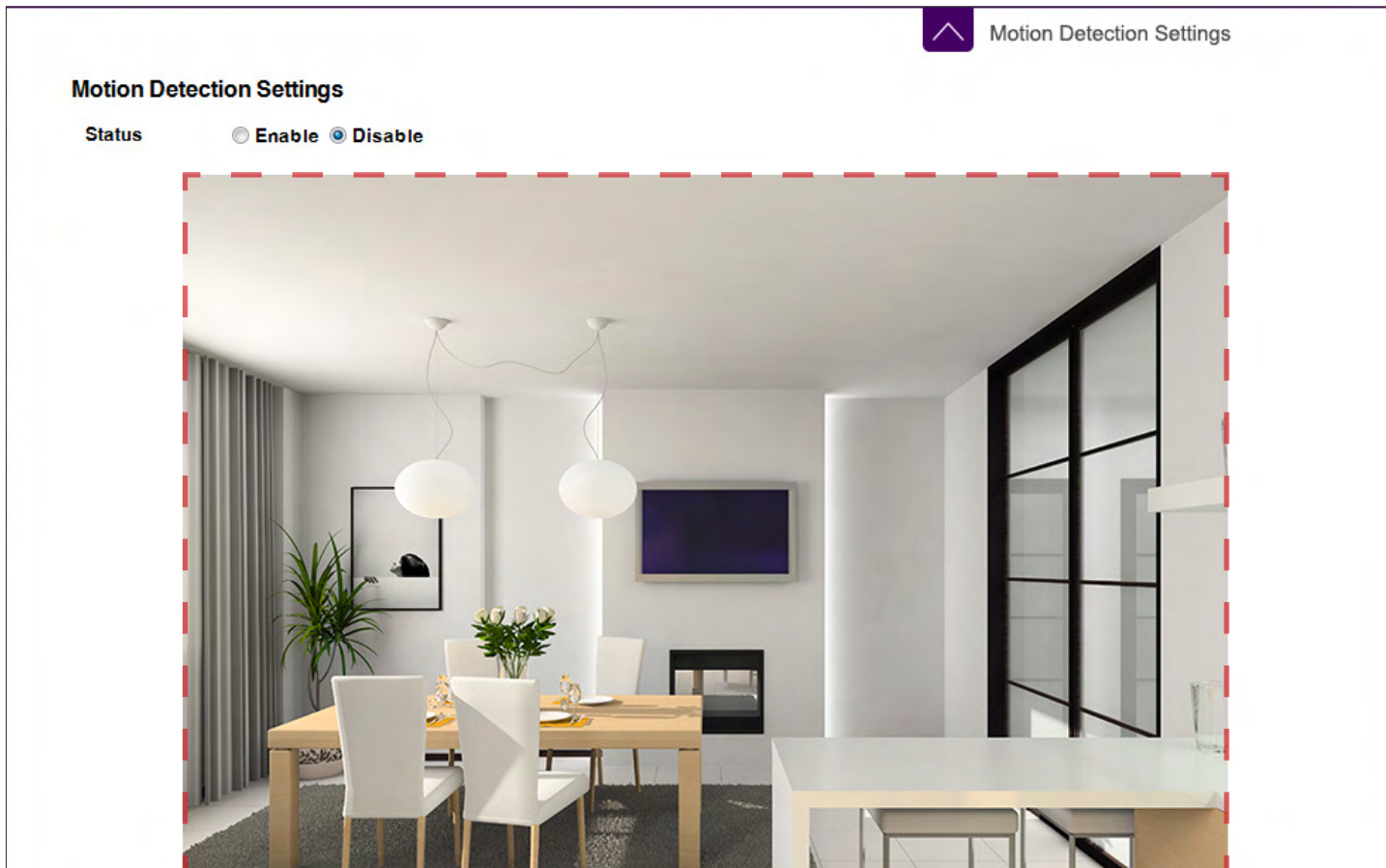
## Camera Event/Alarm Setting

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.

Event Type	<input type="text" value="Record"/>
Storage Destination	<input type="text" value="Network Storage"/>
Event Duration	<input type="text" value="1 min(s)"/>
Pre-event	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Pre-event Buffer	<input type="text" value="1 sec(s)"/>
Post-event	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Post-event Buffer	<input type="text" value="1 sec(s)"/>
<b>Event Recording</b>	
Video Format	AVI
Stream Type	<input type="text" value="H.264 (1280 x 720)"/>
Video Length	<input type="text" value="10 sec(s)"/>
<b>Alarm Audio Play Settings</b>	
Note: The device is equipped with external audio connector. Please attach to the speaker for using the function properly.	
Play Audio	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Alarm Audio Files	<input type="text" value="alarm_1"/> <input type="button" value="Play"/>

## 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.

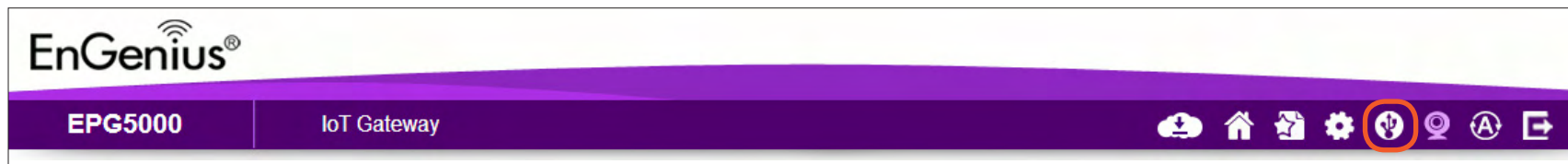


# Access the Media files on the Gateway/Router

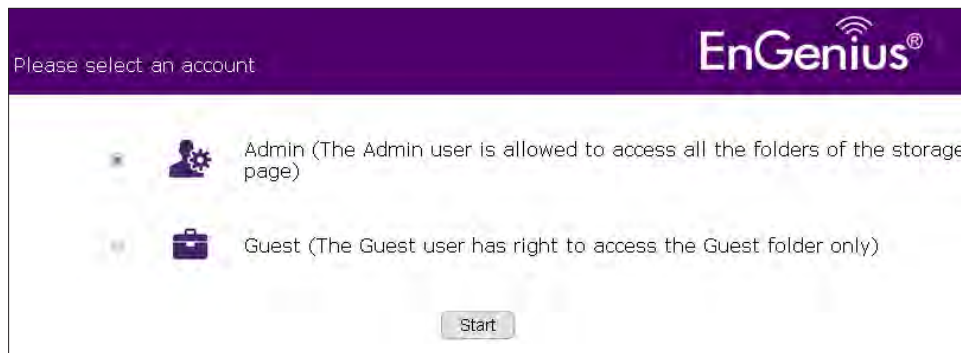
## Using web browser

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.

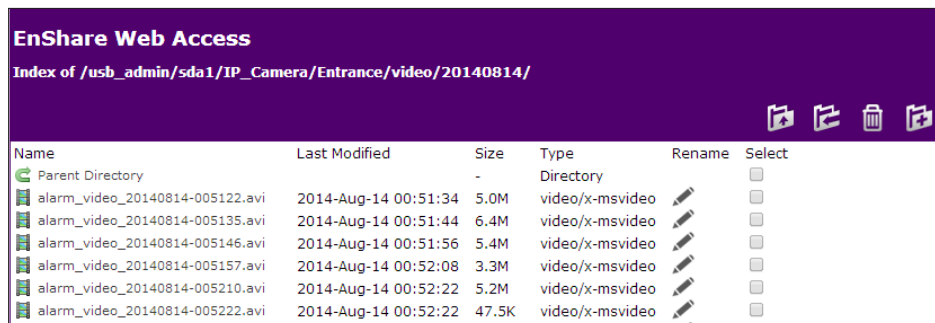
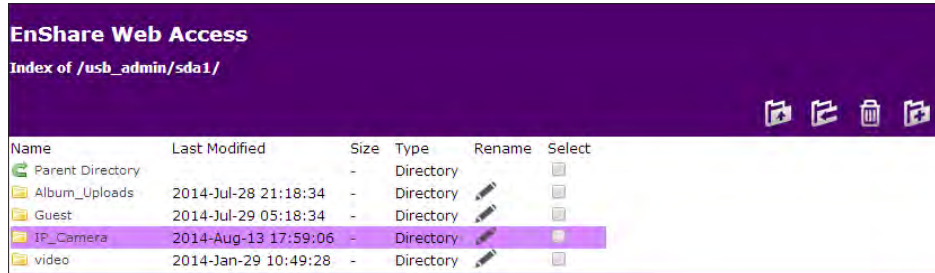


Choose the storage device to access the file.



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

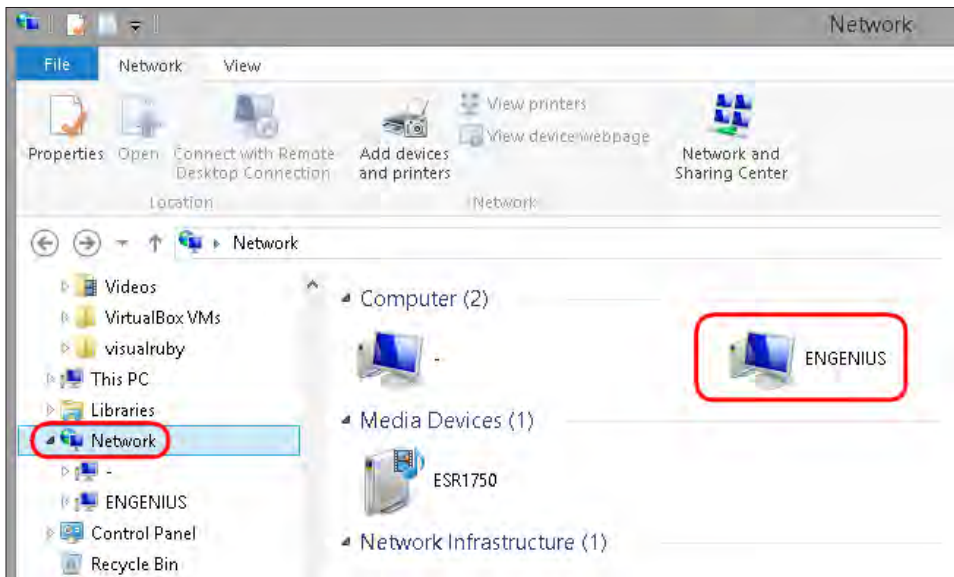
The media files will be stored as shown below.



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

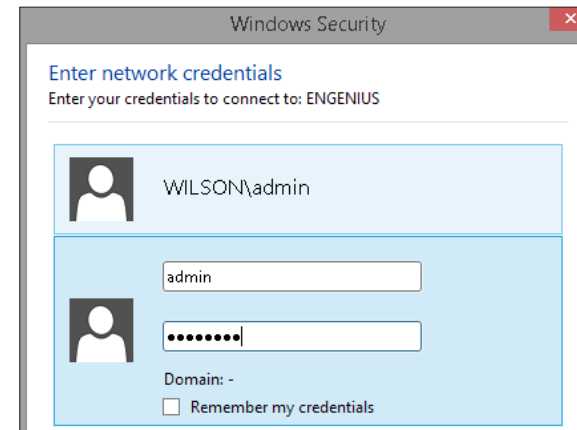
## Using Windows File Explorer

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

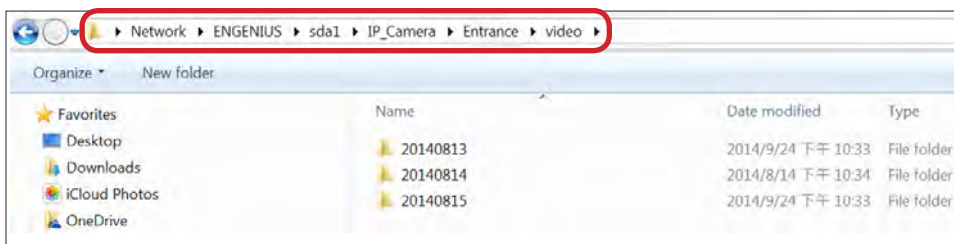


Double click on **ENGENIUS** to get access to the storage space.

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





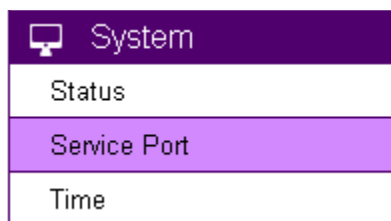
Normally, you do not need to make any changes to your router setting to be able to use the camera. However, in case if you experience issues in connecting the camera, you should probably check for the following settings. UPnP, UPnP Traversal and Firewall.

### UPnP and UPnP Traversal:

Universal Plug and Play (UPnP) allows the other device to detect the presence of the camera so that communication become possible. 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.



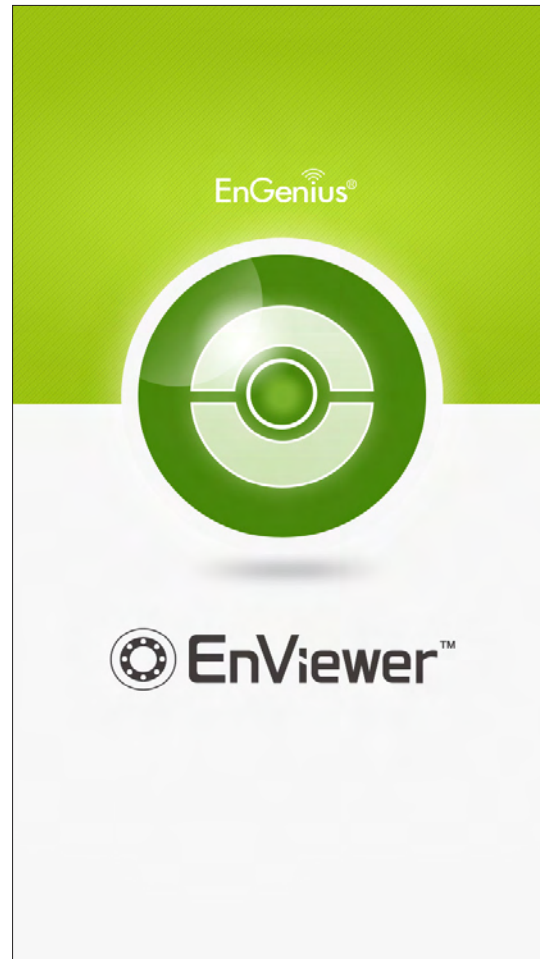
System
Status
Service Port
Time

# 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

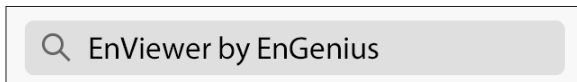
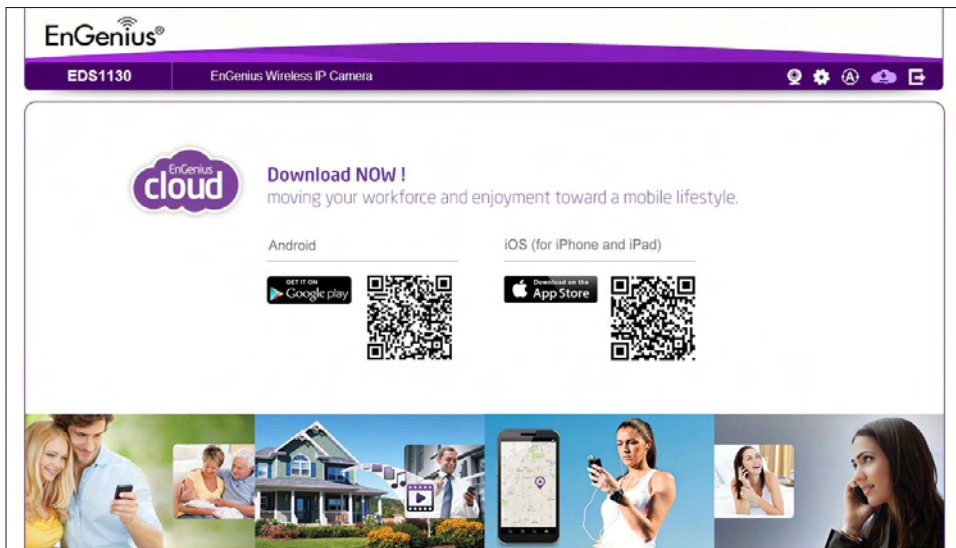
Download the **EnViewer** APP by scanning the QR code shown on the management page using your mobile phone. Both Android and iOS version are supported, please scan the corresponding QR code to download and install the APP.

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.

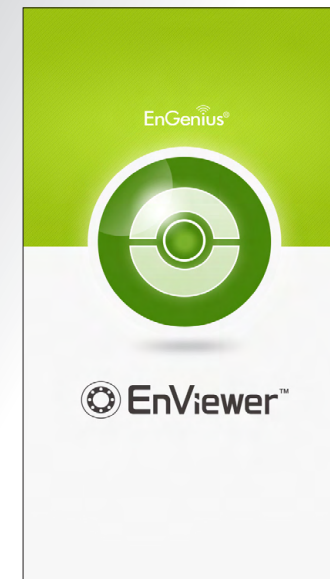
## Note:

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.



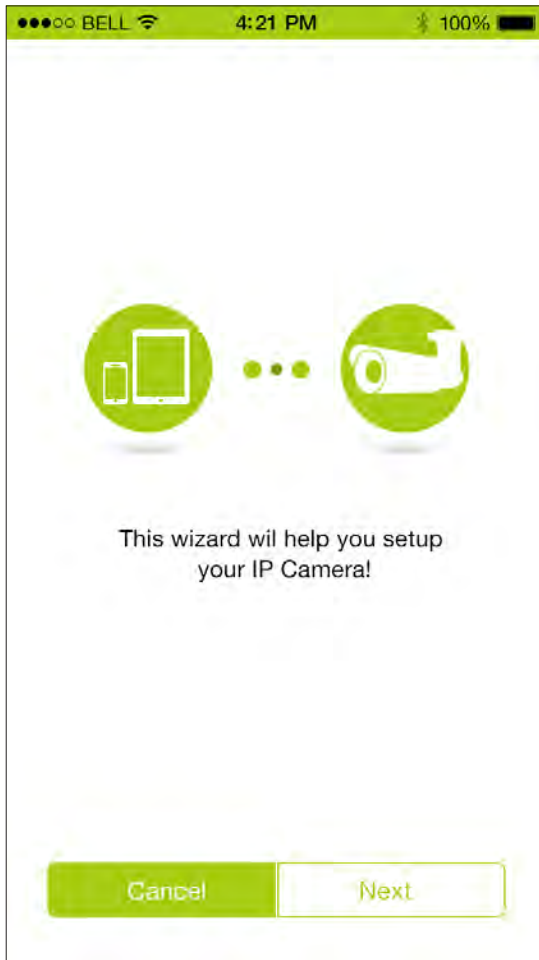
Start the EnViewer. You will be guided to Wizard for the first time using this APP.



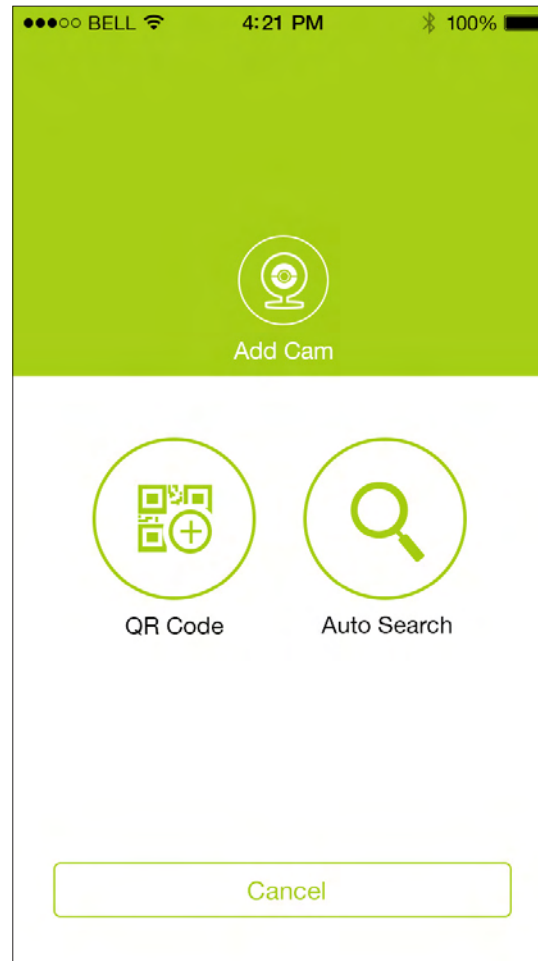
Welcome for using EnViewer.

# EnViewer Wizard

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

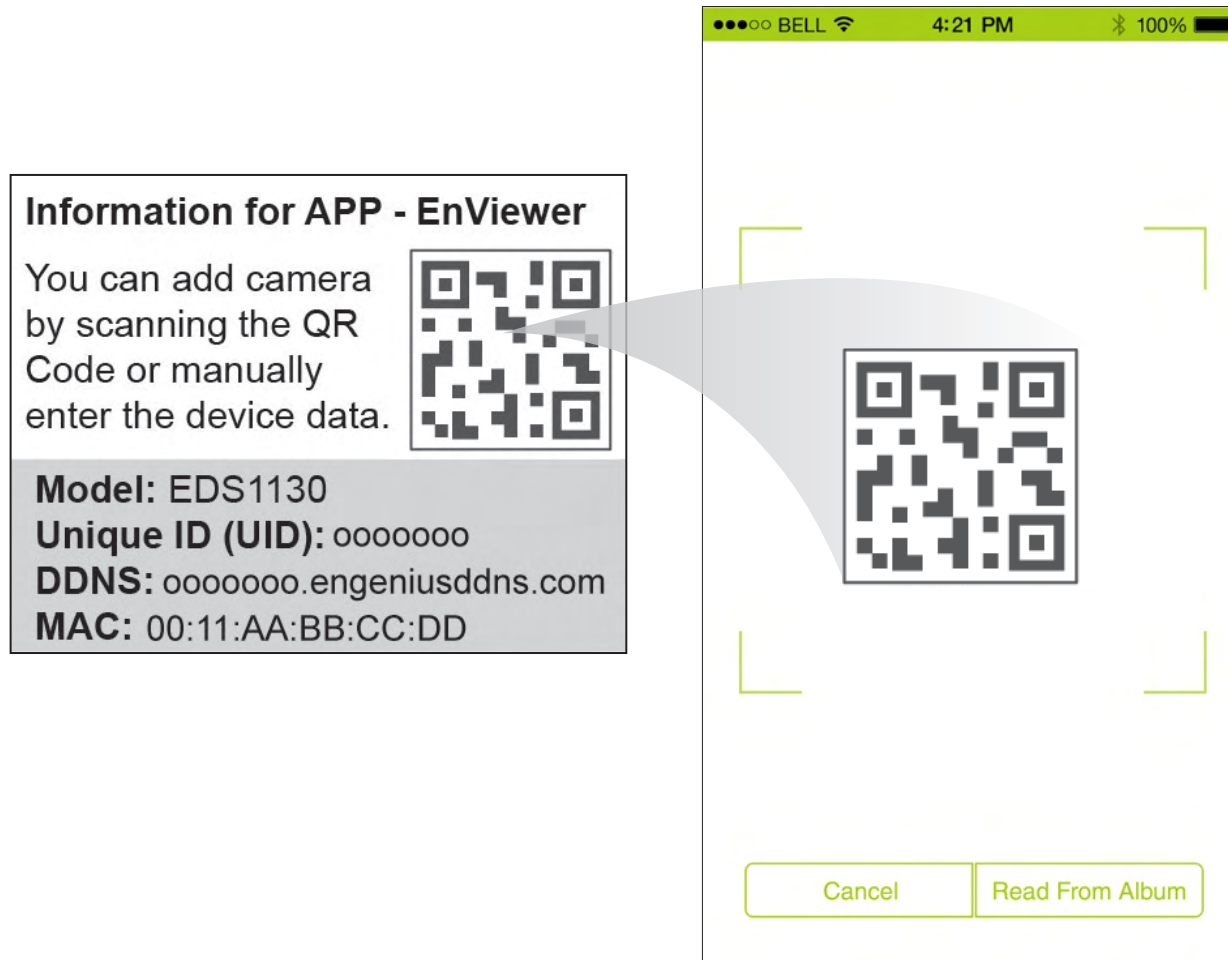


There are two ways to add new camera to EnViewer: **QR Code** and **AUTO SEARCH**.



## 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**.

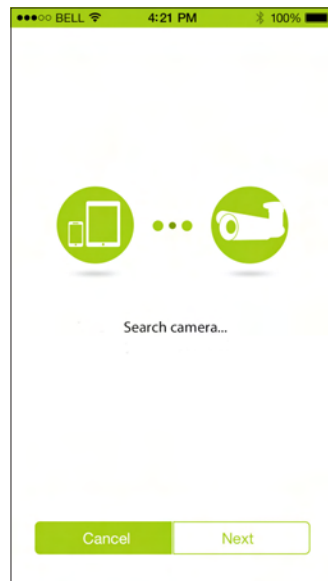


# Auto Search

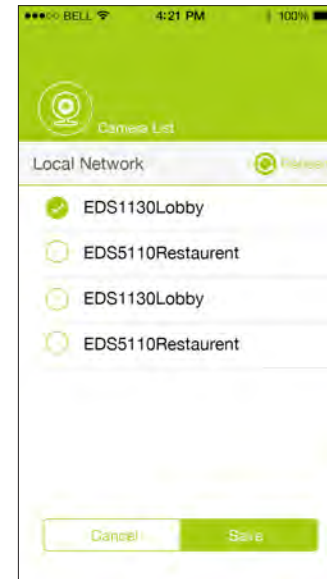
Through Auto Search, EnViewer scans the local network for cameras. Click **Next** to start searching.



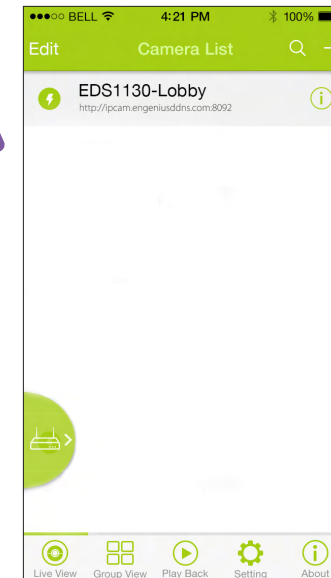
Please wait while EnViewer scans the network. In case if none were found, you can press **Try Again** to re-scan.



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

The screenshot shows the 'Camera List' screen in the EnViewer app. The status bar at the top displays 'BELL', signal strength, Wi-Fi, time '4:21 PM', Bluetooth, and 100% battery. The app header is green with 'Edit' on the left, 'Camera List' in the center, a search icon, and a plus icon on the right. A camera entry 'EDS1130-Lobby' is shown with a green lightning bolt icon and the URL 'http://ipcam.engeniusddns.com:8092'. A bottom navigation bar contains icons for Live View, Group View, Play Back, Setting, and About. A router icon is also visible on the left side of the screen.

- Add new Camera / Router or Enter Wizard Mode
- Search existing camera
- View the selected camera
- Switch to router list
- Live View list
- Group View list
- Play Back
- Camera Setting
- About

Connected  
 Disconnected



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?**

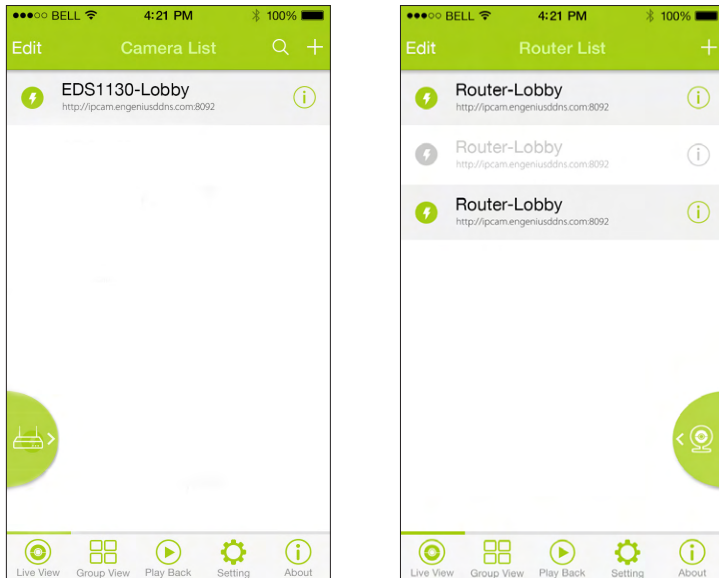
- + If you only have one camera connected to your gateway/router, Live View is your best choice.
- + If you have multiple cameras connected to your router, Group View enables you to view multiple cameras at once if you grouped them.
- + You can still choose to use Live View if you have several cameras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



# Live View

Tap on Live View on the panel.



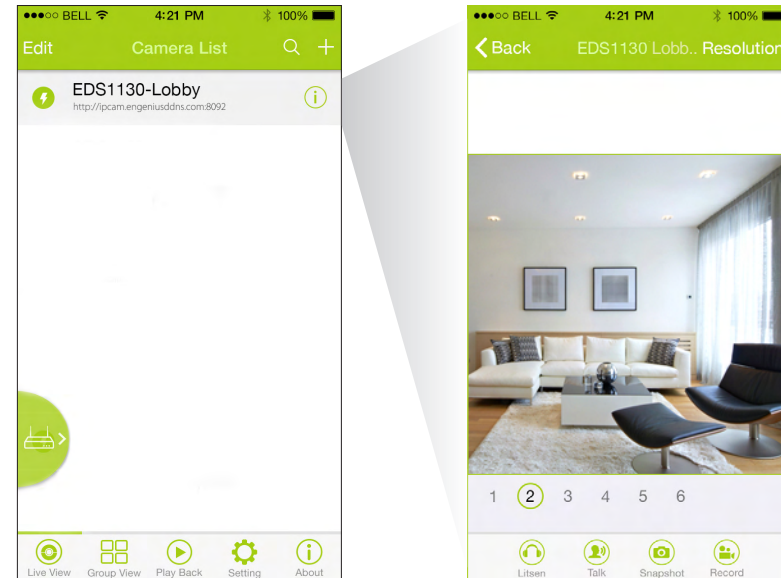
You can switch between **Router List** and **Camera List** by tapping on the tab on the sides shown.



-  Change to **Camera List**
-  Change to **Router List**

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

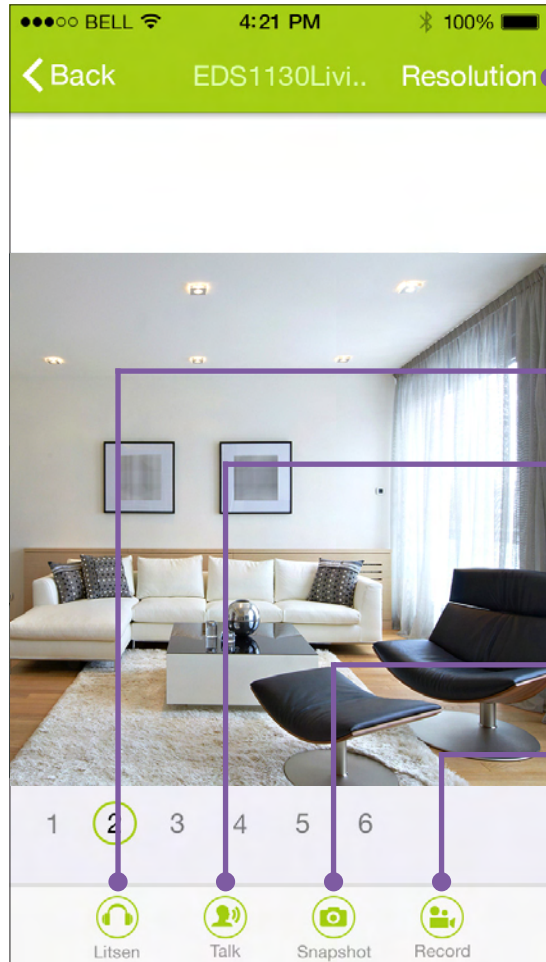
On the list, please **tap** on the **camera name** that you would like to view.



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.

- H264 (1280x720)
- H264 (448x256)

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.

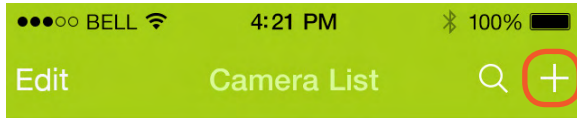
Takes a snapshot at real time.

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.

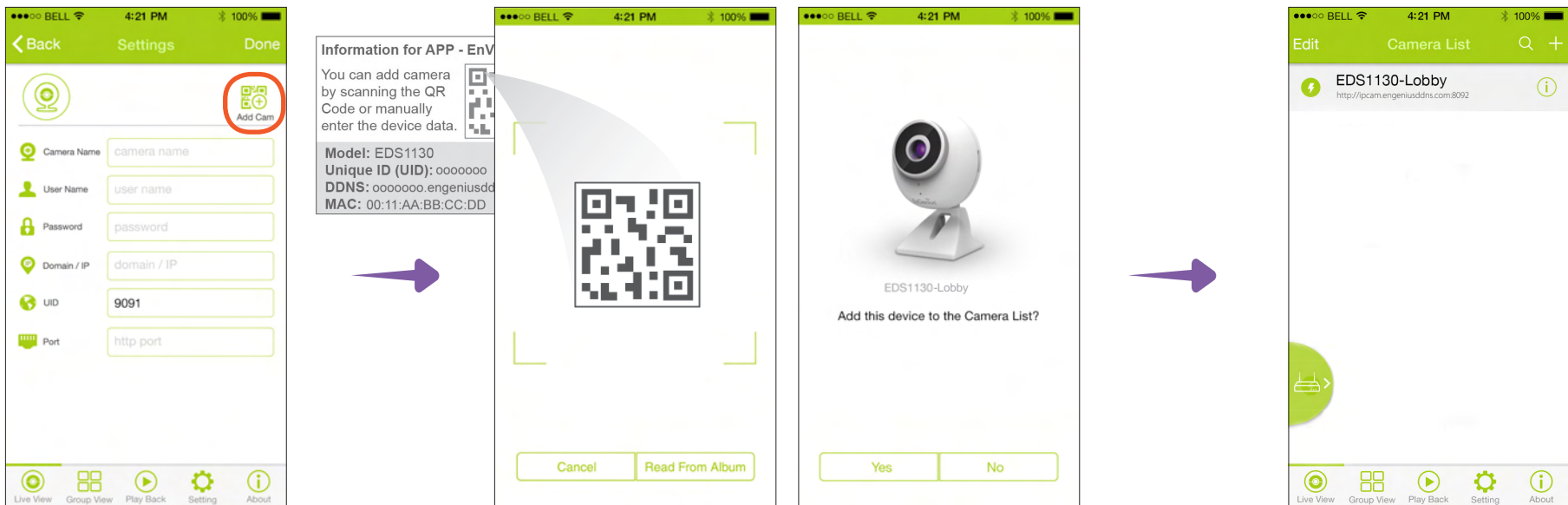


You can manually enter the camera information or scan the camera QR code.

Click on **Add Cam**

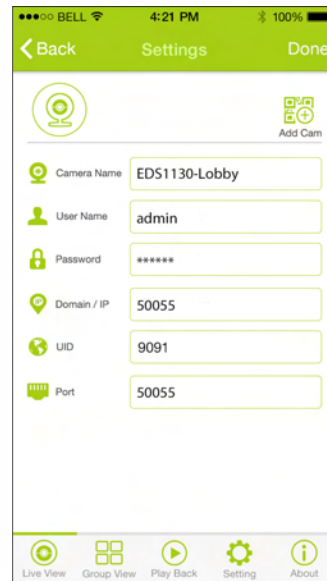
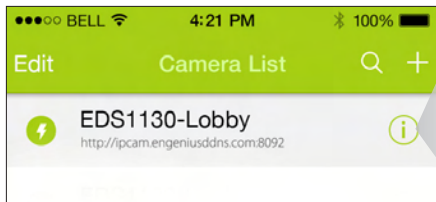
**Scan** the Camera QR code

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



## Edit Camera

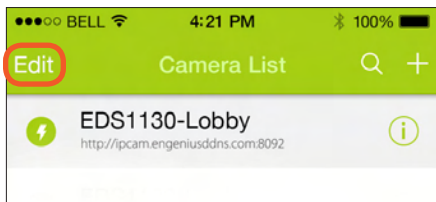
Tap on the “i” icon of the camera you would like to modify.



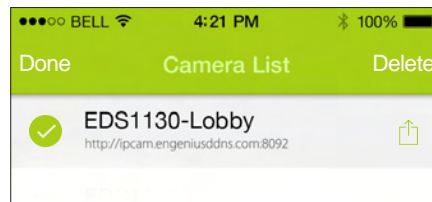
Tap on **Done** to save the changes.

## Remove Camera

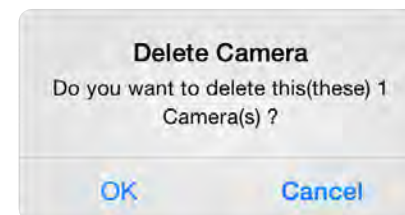
Click on **Edit** to enter edit mode



Select the camera and click **Delete**.

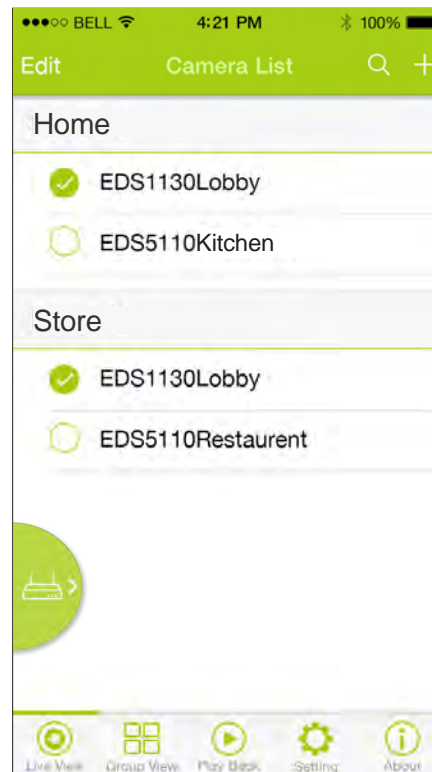


Answer **OK** to confirm the deletion



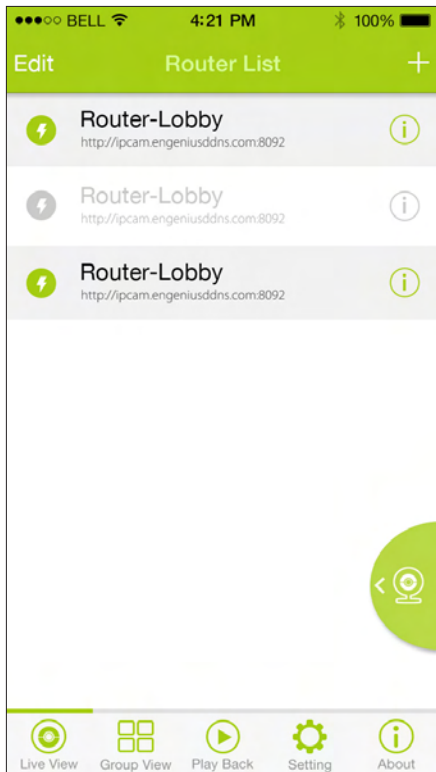
## Why Adding Routers

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.

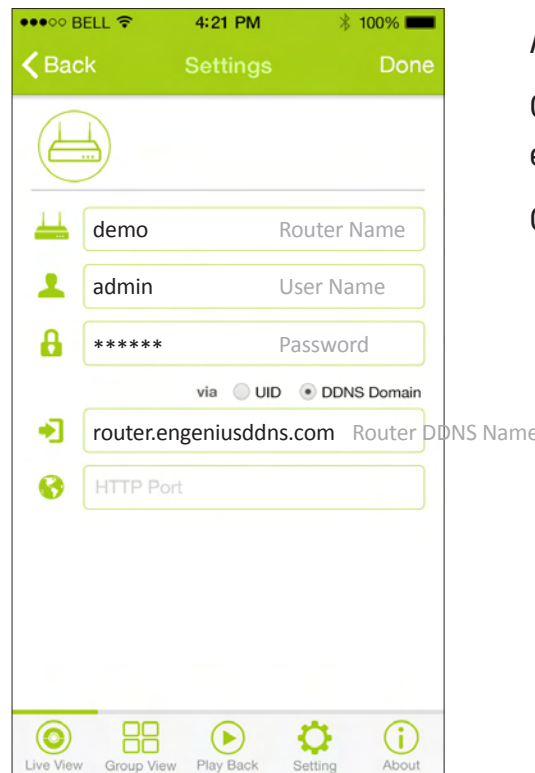


## Adding new Router

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.



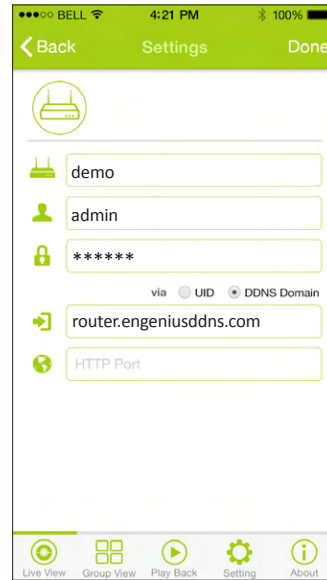
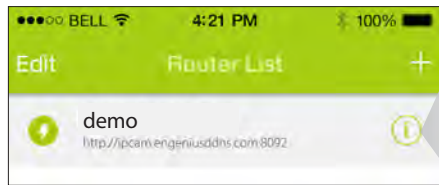
Assign a router name; in this example, we call it **demo**.

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

Click **Done** when finished.

## Edit Router

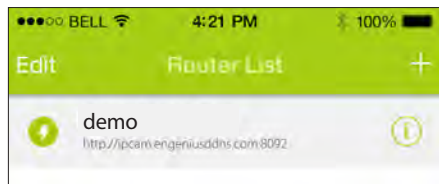
Tap on the "i" icon of the router you would like to modify.



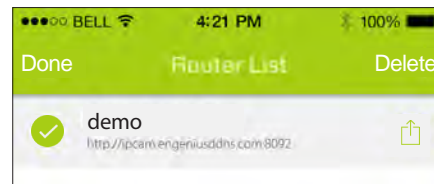
Tap on **Done** to save the changes.

## Remove Router

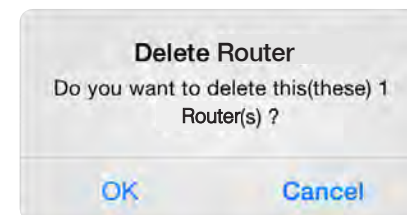
Click on **Edit** to enter edit mode



Select the camera and click **Delete**.



Answer **OK** to confirm the deletion



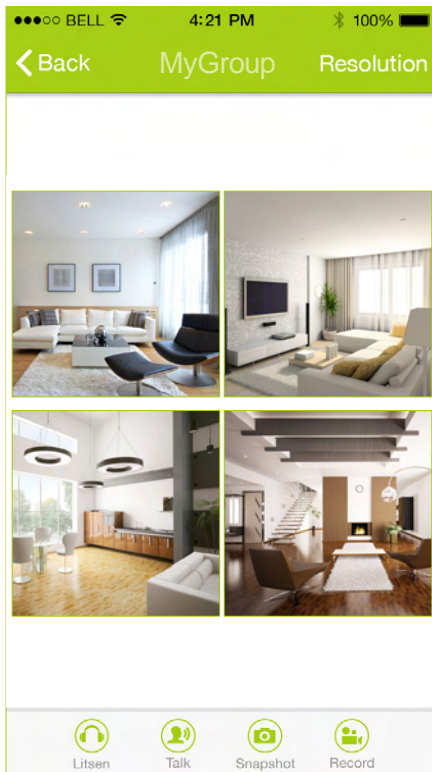


# Group View

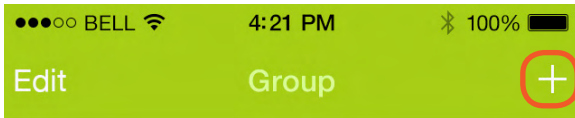
EnViewer supports **Group View**, which allows you to monitor multiple cameras at the same time.



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.



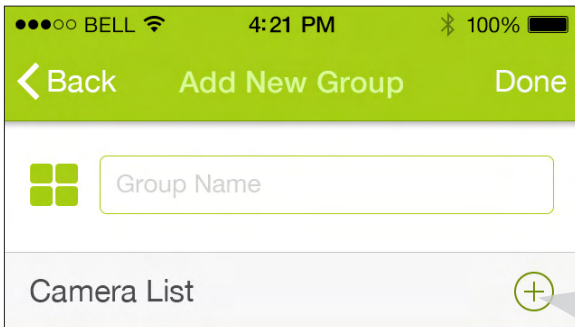
## Add new Group



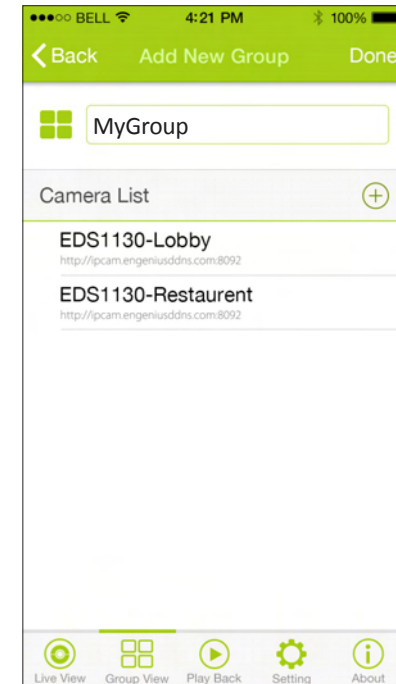
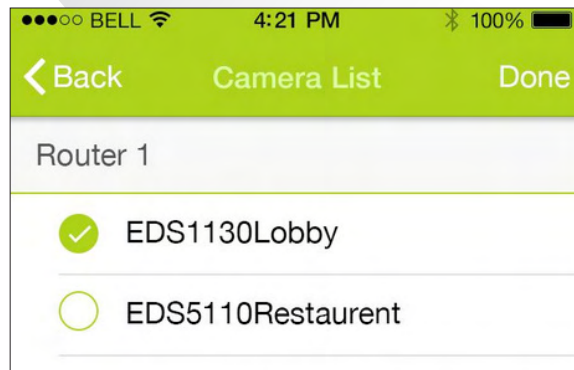
Enter the group name and then click on “+” icon to add camera to this group.

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


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

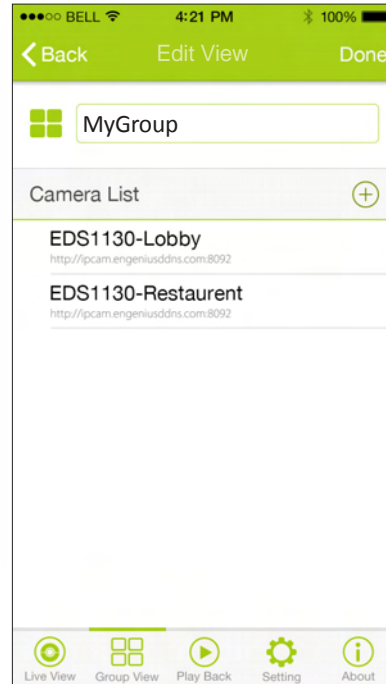
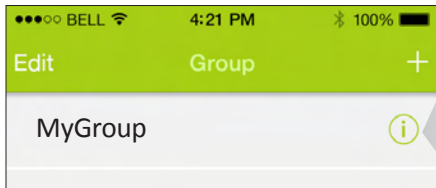


All the cameras will be shown on the Camera list, tick the camera name to add into the group and click **Done** to add the camera.



## Edit Group

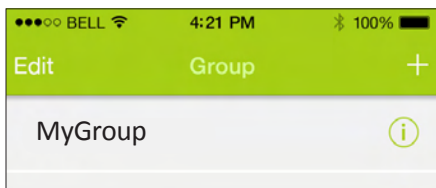
Tap on the “” icon of the group you would like to modify the profile.



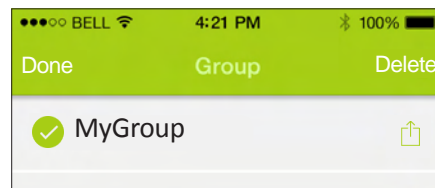
Click **Done** to save the changes.

## Remove Group

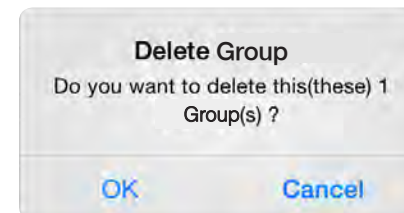
Click on **Edit** to enter edit mode.



Select the camera and click **Remove**.

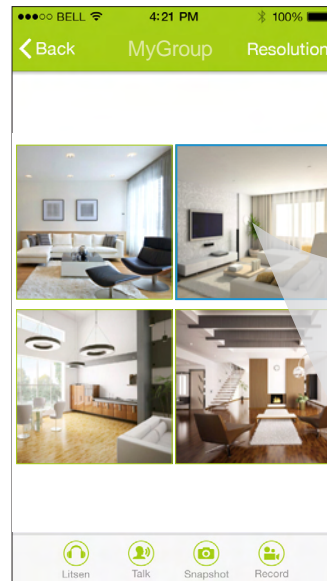
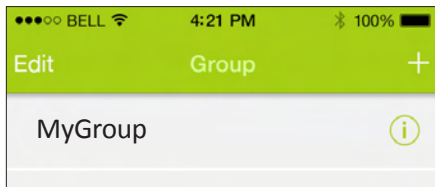


Answer **OK** to confirm the deletion



## Using Group view

Tap on the group name to view its associated cameras.



Double-Tap on the camera to magnify the view.

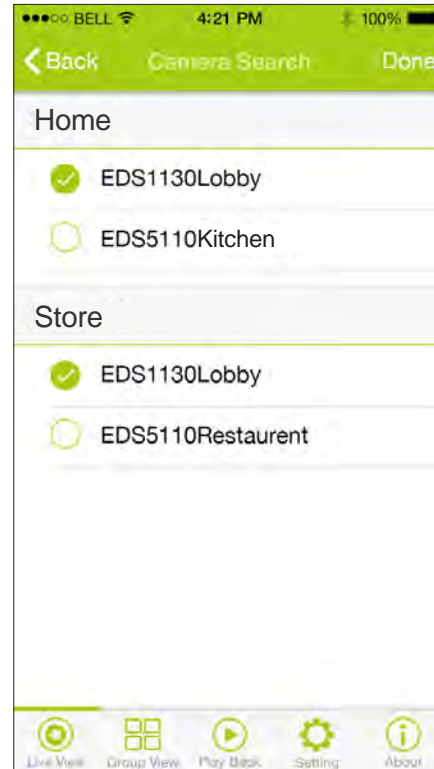
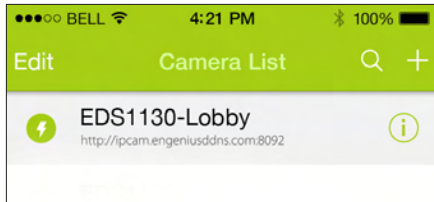


The camera control panel works the same as in Live View. Please refer to the [Camera Control Panel](#) section for detail.

## Search Local Camera

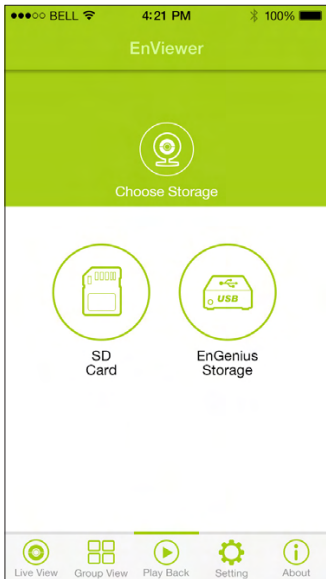
Click on "🔍" to search existing camera if not found on the list.

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



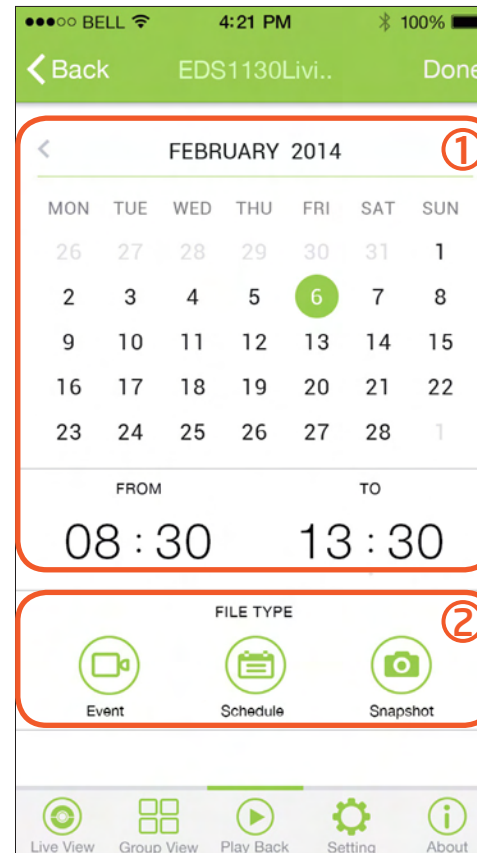
Choose the **Storage** you would like to search for playback files. It depends on where you store your media files for schedule recording or alarm media files. Choose either one to proceed to next screen. Choose SD Card if you have the files stored locally on the camera SD card or EnGenius Storage if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

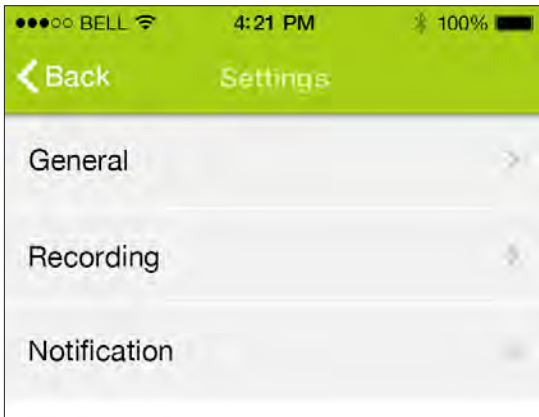


First, choose the **Date** and **Time** for playback.

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.

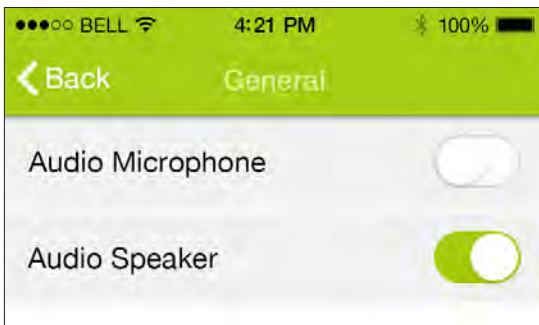
On the Settings Menu, choose the item you would like to configure. The supported settings types are: **General** ,**Recording** ,**Notification**.

## Audio

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

**Audio Microphone**

**Audio Speaker**



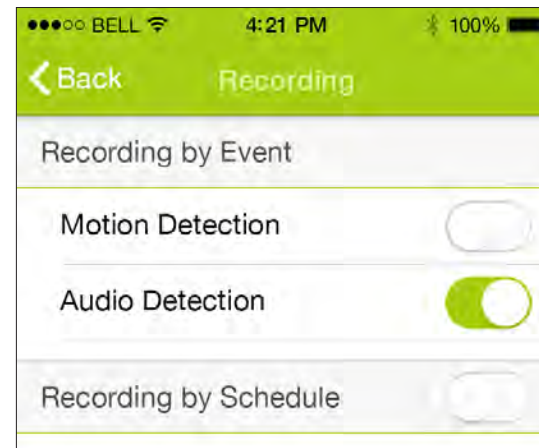
The settings will be applied automatically to your camera.

## Recording

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

**Recording by Event : Motion Detection / Audio Detection**

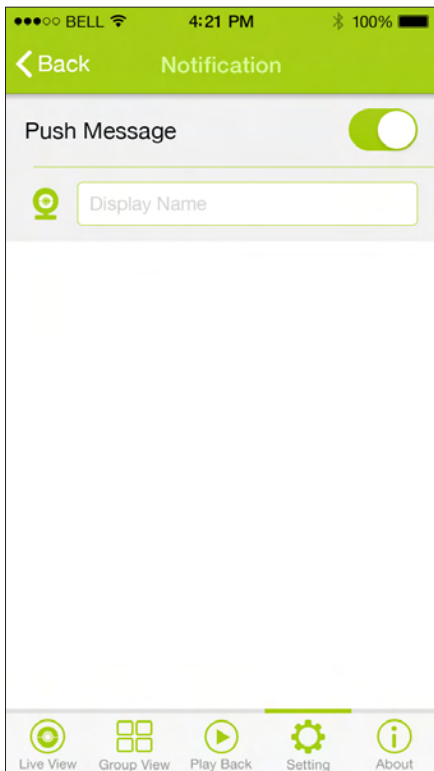
**Recording by Schedule**



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**.

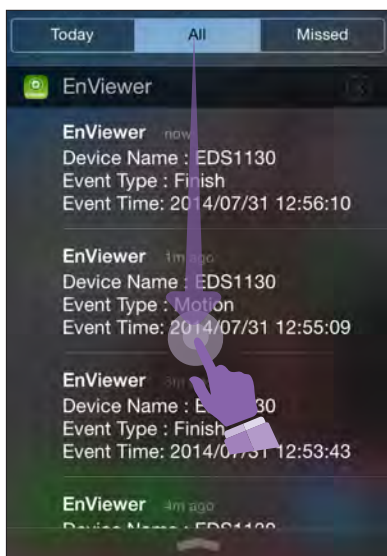
**Note2:** A mobile device can only register itself to the service. That is, if you need both your tablet and mobile phone be notified about the alarms, each device must have EnViewer installed and registered for notification individually. As long as your EnViewer AP is running the alarm messages can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

Mobile List			
Description	Platform	Device Token	Action
YC	iOS	ddc8490ee4...	Delete



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.



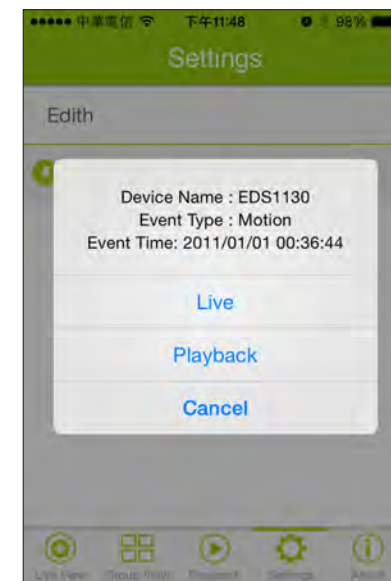
By sliding down the message row on the top, the details will appear similar to the following.

Tap on one of them to open the message.

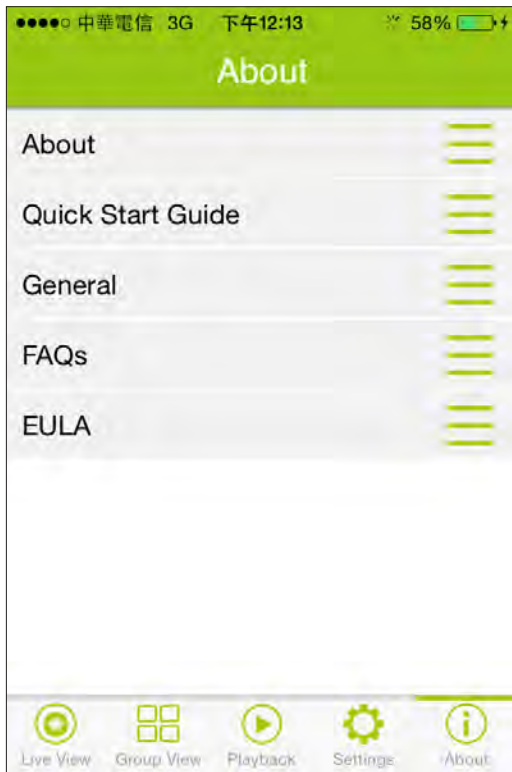
**Note:** The **Device Name** shown could be changed on **Chapter 5- Network - UPnP**.

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



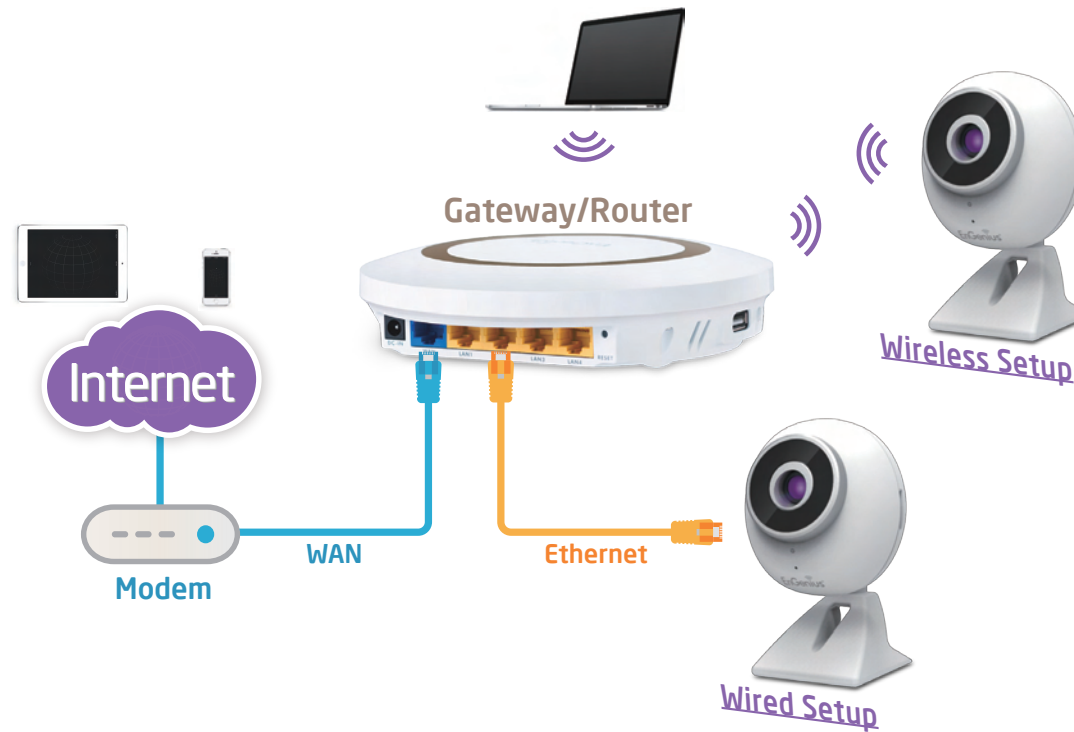
The About page provide some helpful hints about EnViewer.  
Check out the [FAQs](#) for some common questions.

# Chapter 9

## **Application Guide**



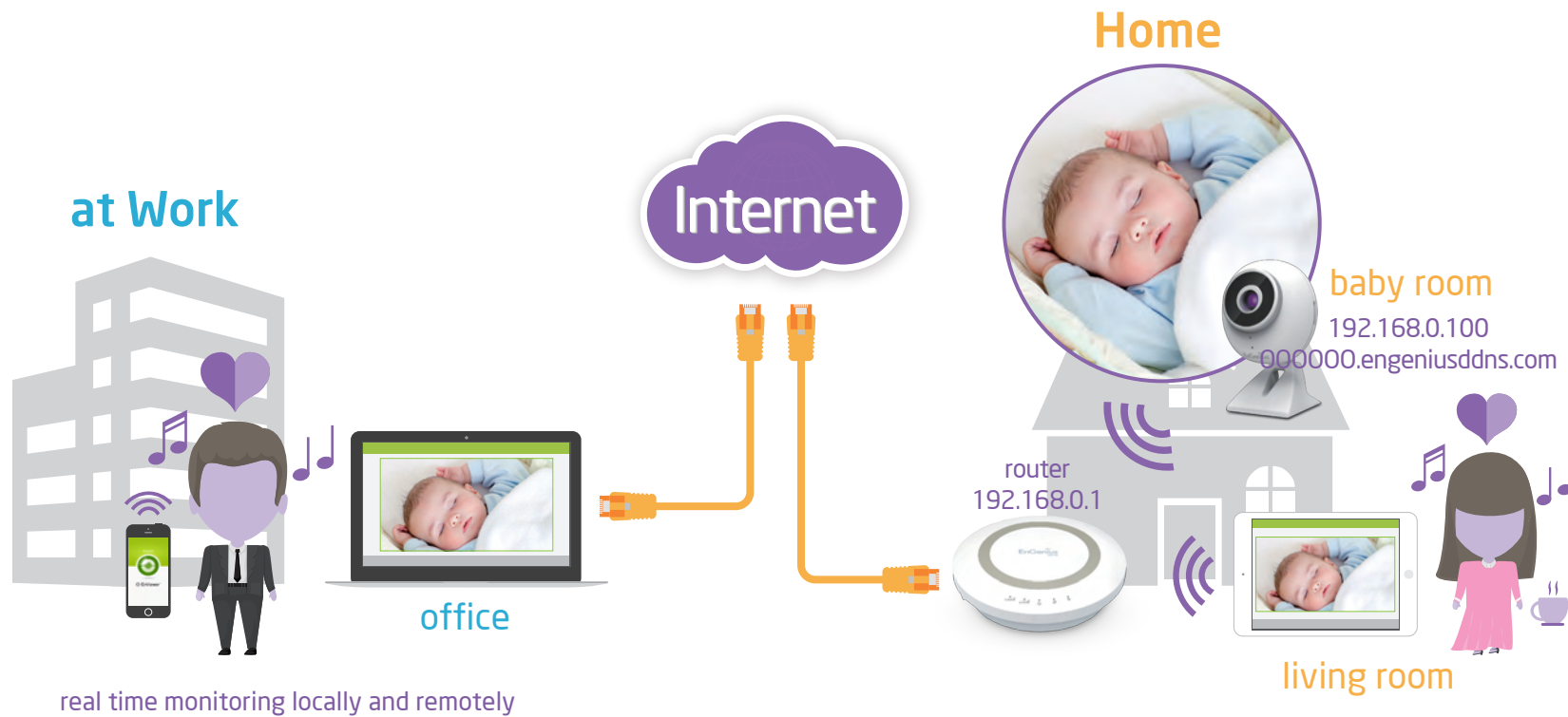
This chapter demonstrates some common applications using EnGenius Camera. The examples assume that the camera is already connected to a gateway/router that has Internet accessibility.



**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).

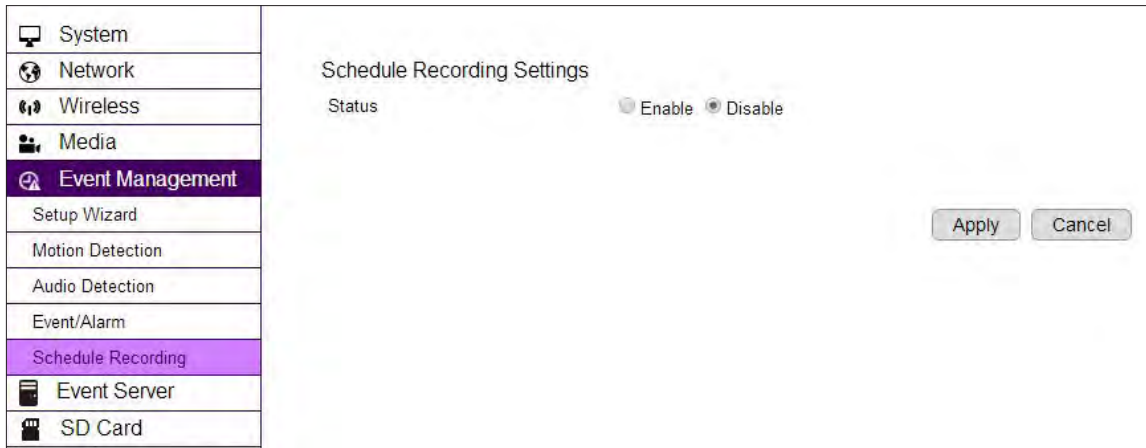
## Example 1 : Baby Monitoring

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.



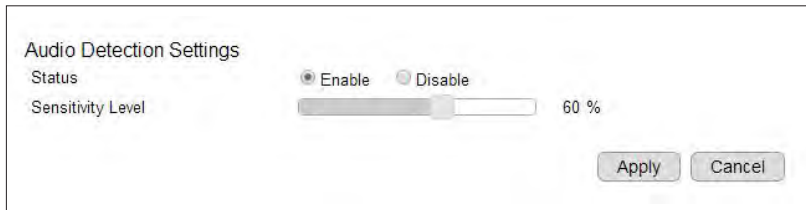
## Step 2: Configure Event/Alarm

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

Network	Event Settings
Wireless	Status <input checked="" type="radio"/> Enable <input type="radio"/> Disable
Media	Event Type <input type="text" value="Record"/>
<b>Event Management</b>	Storage Destination <input type="text" value="Network Storage"/>
Setup Wizard	Event Duration <input type="text" value="1 min(s)"/>
Motion Detection	Pre-event <input checked="" type="radio"/> Enable <input type="radio"/> Disable
Audio Detection	Pre-event Butter <input type="text" value="1 sec(s)"/>
Event/Alarm	Post-event <input checked="" type="radio"/> Enable <input type="radio"/> Disable
Schedule Recording	Post-event Butter <input type="text" value="1 sec(s)"/>
Event Server	Event Recording
SD Card	Video Format <input type="text" value="AVI"/>
User Management	Stream Type <input type="text" value="H.264 (1280 x 720)"/>
	Video Length <input type="text" value="10 sec(s)"/>
	Alarm Audio Play Settings
	Note: The device is equipped with external audio connector. Please attach to the speaker for using the function properly.
	Play Audio <input checked="" type="radio"/> Enable <input type="radio"/> Disable
	Alarm Audio Files <input type="text" value="alarm_1"/> <input type="button" value="Play"/>
	<input type="button" value="Apply"/> <input type="button" value="Cancel"/>

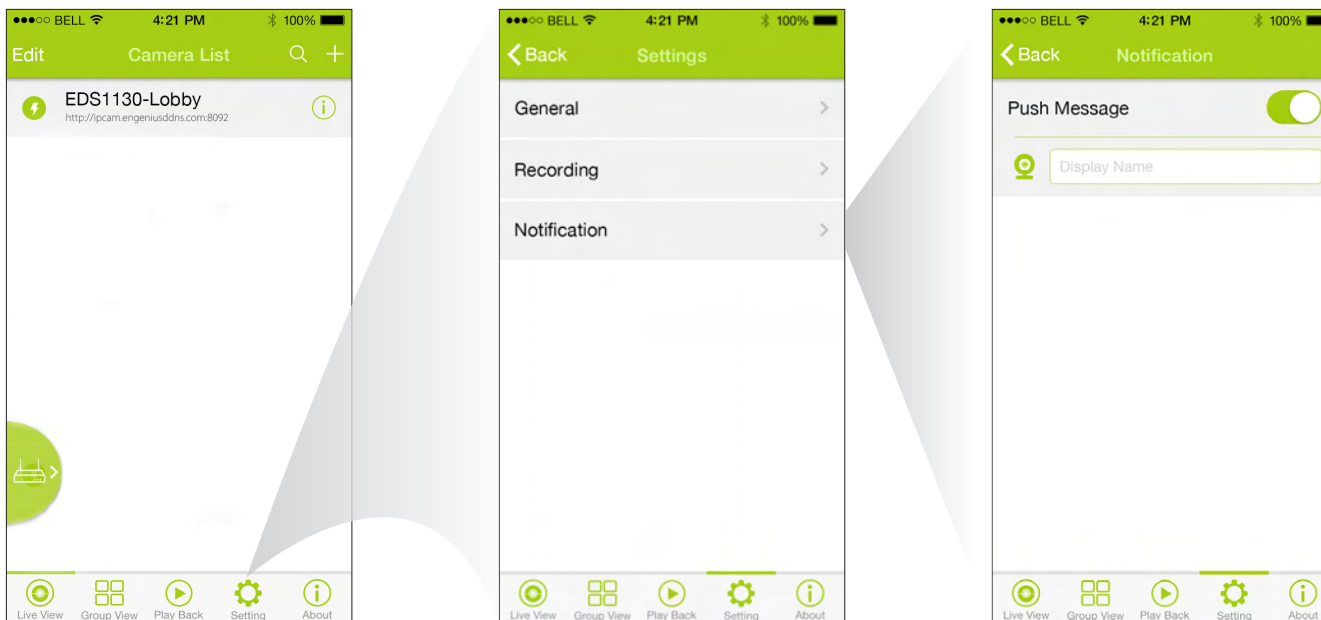
### Step 3: Configure Audio Detection

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.

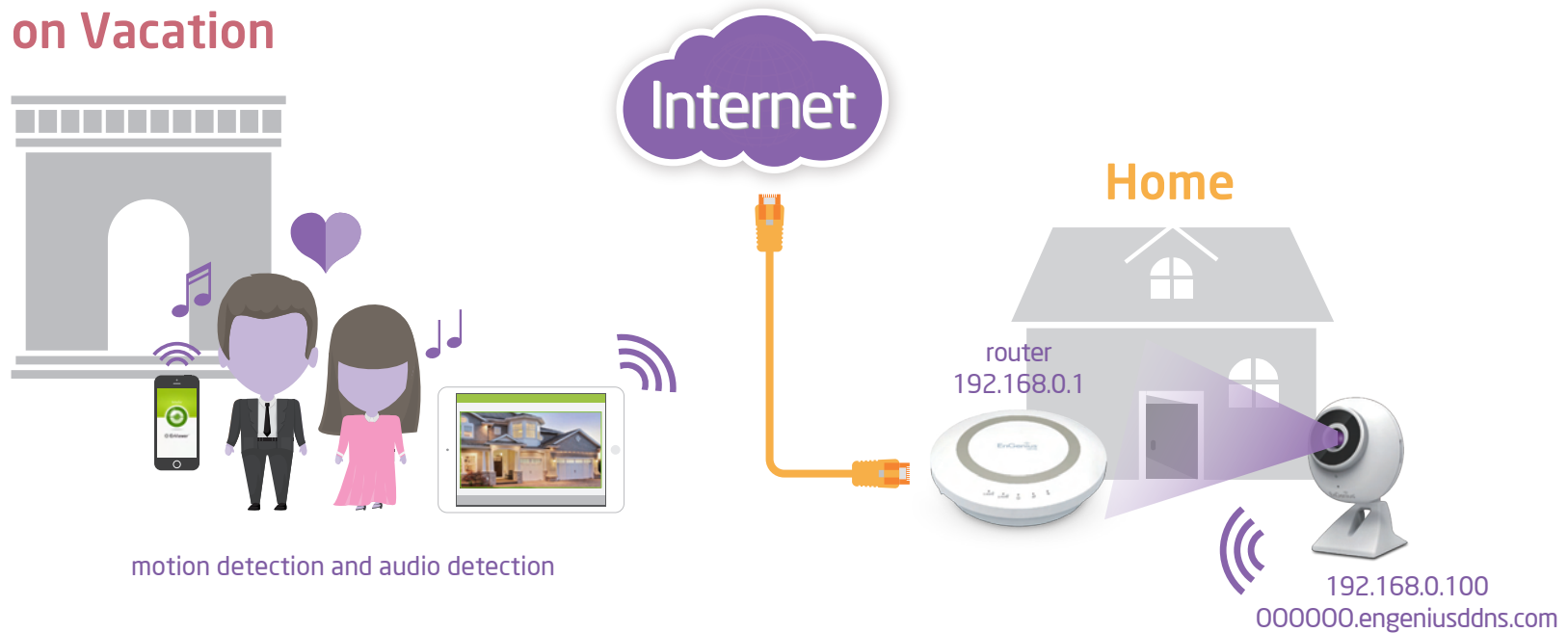




## Example 2: Remote Surveillance and Motion Detection

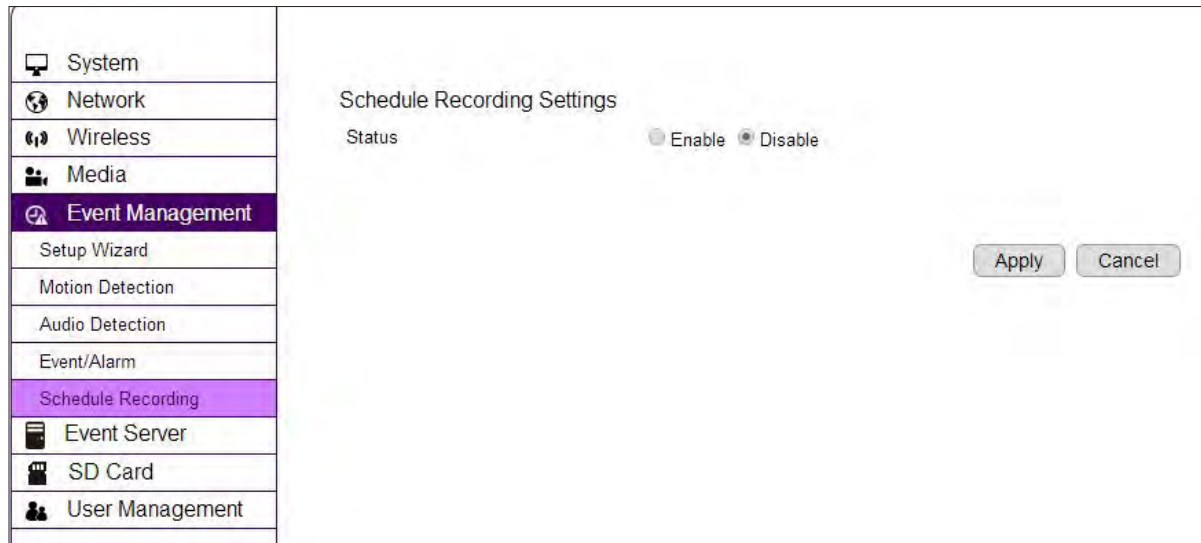
The application concept diagram shows a camera monitoring the living room and entrance of their home. The couple wants to remotely monitor their home and needs to be alarmed when motion (intrusion) or sound is detected.

on Vacation

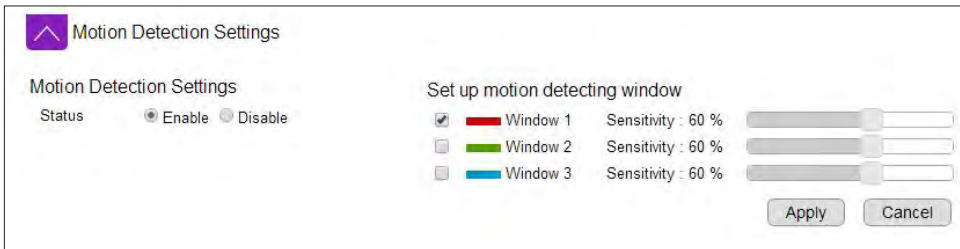


## Step 1: Disable Schedule Recording

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



## Step 2: Configure Motion Detection



Motion Detection Settings

Motion Detection Settings

Status  Enable  Disable

Set up motion detecting window

<input checked="" type="checkbox"/>	Window 1	Sensitivity : 60 %	<input type="text"/>
<input type="checkbox"/>	Window 2	Sensitivity : 60 %	<input type="text"/>
<input type="checkbox"/>	Window 3	Sensitivity : 60 %	<input type="text"/>

Apply Cancel

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**.



Audio Detection Settings

Status  Enable  Disable

Sensitivity Level  60 %

Apply Cancel

## Step 4: Configure Event/Alarm

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

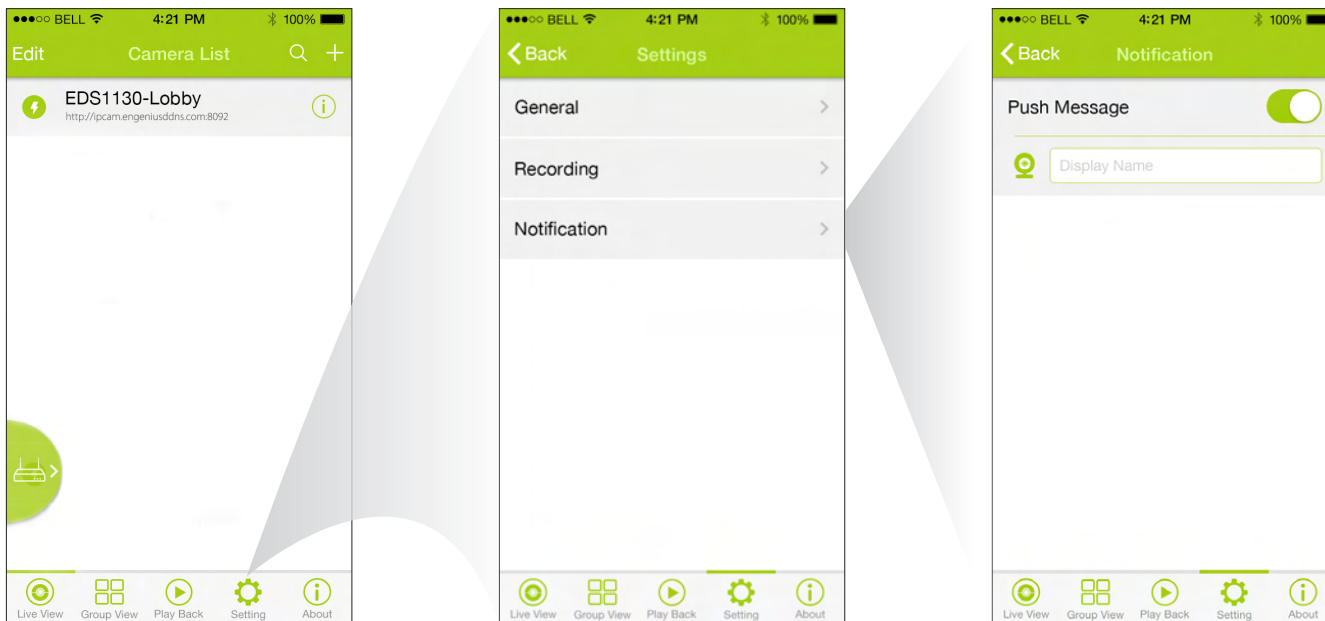
The screenshot displays the 'Event Management' configuration page. On the left is a sidebar menu with the following items: Network, Wireless, Media, **Event Management** (highlighted), Setup Wizard, Motion Detection, Audio Detection, Event/Alarm (highlighted), Schedule Recording, Event Server, SD Card, and User Management. The main content area is divided into three sections:

- Event Settings:**
  - Status:  Enable  Disable
  - Event Type: Record
  - Storage Destination: Network Storage
  - Event Duration: 1 min(s)
  - Pre-event:  Enable  Disable
  - Pre-event Butter: 1 sec(s)
  - Post-event:  Enable  Disable
  - Post-event Butter: 1 sec(s)
- Event Recording:**
  - Video Format: AVI
  - Stream Type: H.264 (1280 x 720)
  - Video Length: 10 sec(s)
- Alarm Audio Play Settings:**
  - Note: The device is equipped with external audio connector. Please attach to the speaker for using the function properly.
  - Play Audio:  Enable  Disable
  - Alarm Audio Files: alarm\_1

At the bottom right of the configuration area are two buttons:  and .

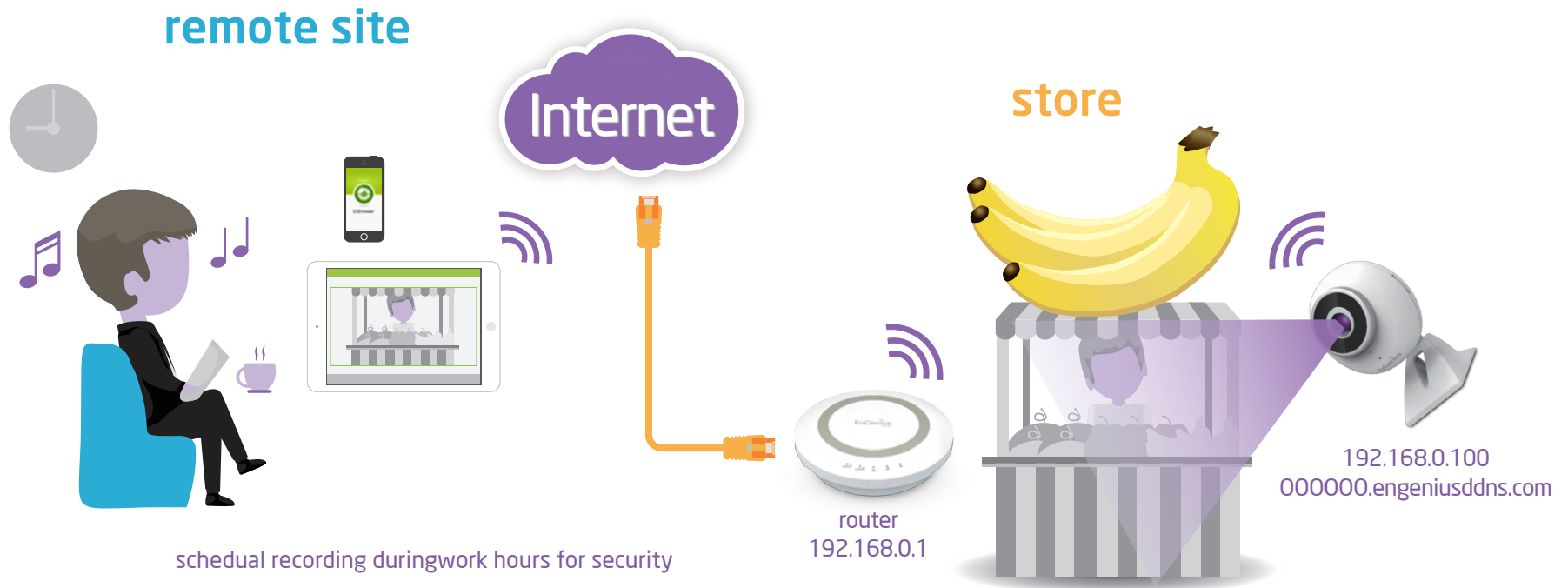
## Step 5: Setting EnViewer Notification

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



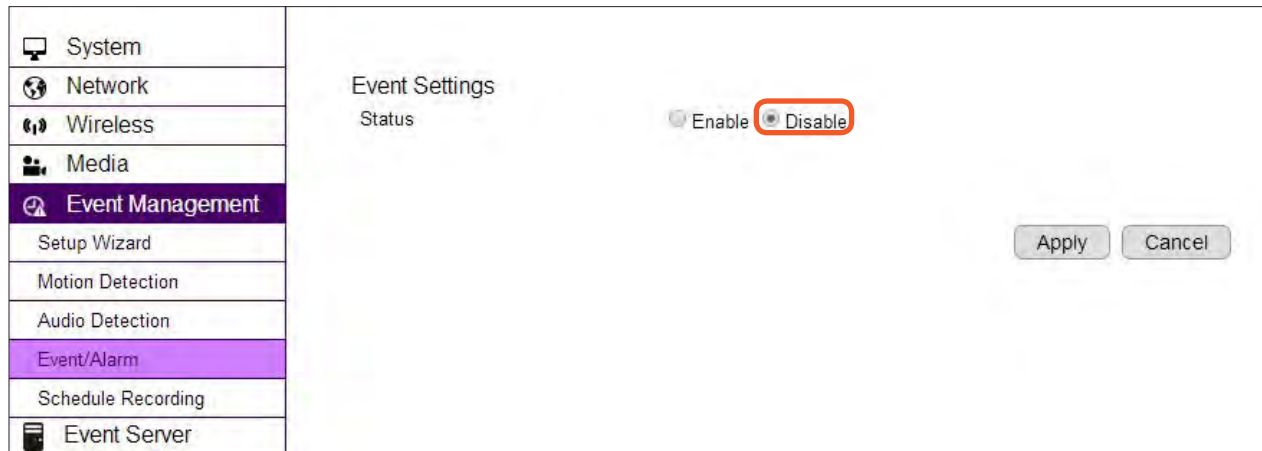
## Example 3: Schedule Recording

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**

Schedule Recording Settings

Status  Enable  Disable

Select All Disable All

<input checked="" type="checkbox"/>	Monday	From 9 : 00 To 18 : 00	<input type="checkbox"/> All Day
<input checked="" type="checkbox"/>	Tuesday	From 9 : 00 To 18 : 00	<input type="checkbox"/> All Day
<input checked="" type="checkbox"/>	Wednesday	From 9 : 00 To 18 : 00	<input type="checkbox"/> All Day
<input checked="" type="checkbox"/>	Thursday	From 9 : 00 To 18 : 00	<input type="checkbox"/> All Day
<input checked="" type="checkbox"/>	Friday	From 9 : 00 To 18 : 00	<input type="checkbox"/> All Day
<input checked="" type="checkbox"/>	Saturday	From 9 : 00 To 18 : 00	<input type="checkbox"/> All Day
<input checked="" type="checkbox"/>	Sunday	From 9 : 00 To 18 : 00	<input type="checkbox"/> All Day

Note: The time is displayed using 24-hour format.

Storage Destination

Stream Type

Video Length

Video Format AVI

Apply Cancel

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.

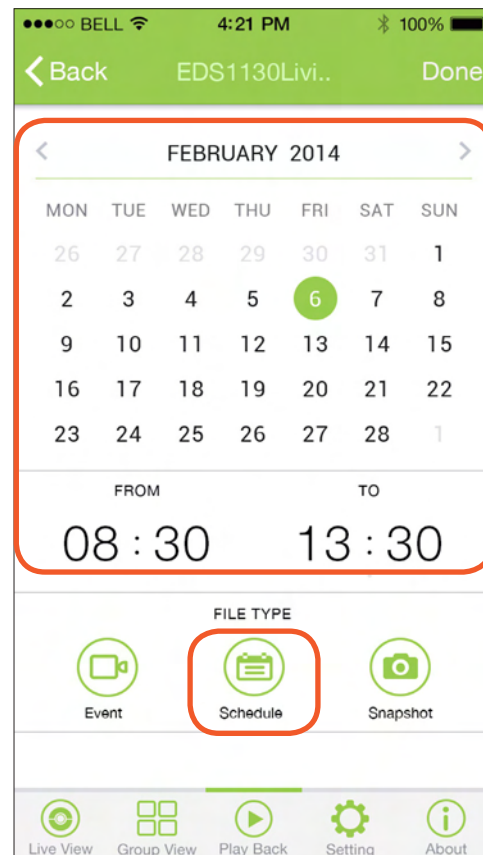
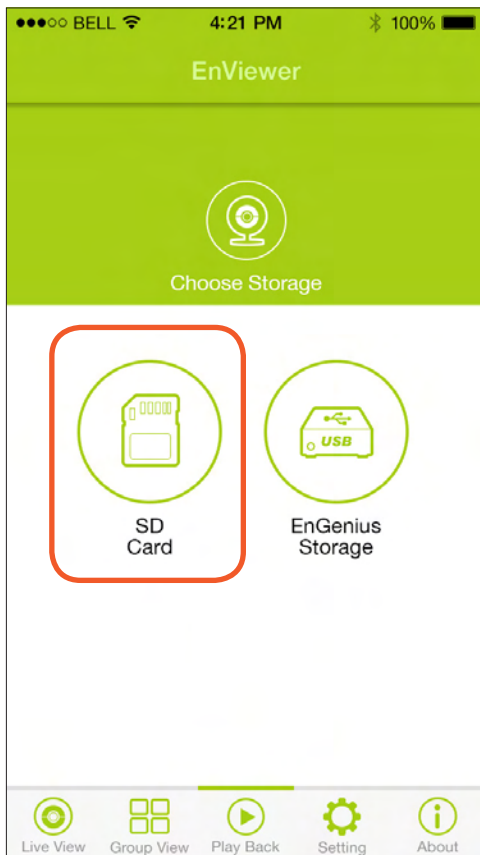
Choose to save the recording to SD Card and confirm the Video Length for each file.

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.

The screenshot shows the EnViewer APP interface for SD Card management. On the left is a navigation menu with the following items: System, Network, Wireless, Media, Event Management, Event Server, SD Card (highlighted), SD Card (sub-item), and User Management. The main content area is titled "SD Card" and includes the following options: "Dismount SD Card" with a "Dismount" button, "Format SD Card" with a "Format" button, and a "Refresh" button. Below these options is a "Filelist of SD Card" section with a trash icon. The filelist table is as follows:

Name	Last Modified	Size	Type	Select
video	2014-Aug-19 21:00:04	-	Directory	<input type="checkbox"/>

# 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



**App Store**  
for iPhone® and iPad®

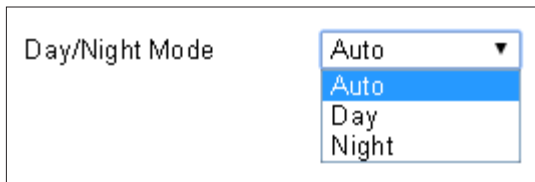


### How do I use the web viewer on a computer?

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?

Your 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?

Your 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 blur?

When object become out of focus the image may become blur. Please check your camera lens, make sure it is clean. Dust or insects may block the view and cause the view become out of focus (blur).

# 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 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 your 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



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 erkläre [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] deklaruoją, 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-mudell tal-prodott] jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fid-Dirrettiva 1999/5/EC.
Magyar [Hungarian]	Alulírott, [gyártó neve] nyilatkozom, hogy a [...] típus] megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Polski [Polish]	Niniejszym [nazwa producenta] oświadczam, 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.