



## SmartCube 300W

Intelligent 3MP Wireless Cube  
IPCAM with Temperature and  
Humidity Sensor

User's Manual



[www.airlive.com](http://www.airlive.com)



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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 A 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 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. For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

### FCC 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.

### WEEE Marking Warning:

The crossed out wheeled bin indicates the product must not be disposed together with household waste. For the sake of the environment, the product should only be given to entities involved in the reception of waste electronic and electrical equipment. The lists of entities entitled to receive used equipment can be found on the websites of municipalities. Some components of devices such as external wiring, circuit boards and liquid crystal displays have a negative impact on the environment.



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## Table of Contents

<b>1. Overview .....</b>	<b>1</b>
1.1 Introduction .....	1
1.2 Features .....	2
1.3 Product Specification .....	2
1.4 System Requirement .....	5
<b>2. Package Contents and Installation.....</b>	<b>7</b>
2.1 Package Contents.....	7
2.2 WiFi Connections.....	7
2.3 Connect to IP Camera .....	10
<b>3. Using IP Camera via Web Browser.....</b>	<b>12</b>
3.1 Windows Web Browser.....	12
<b>4. AirLive APPCAM via iOS/Android device .....</b>	<b>15</b>
4.1 Using AirLive APPCAM via iOS/Android device.....	15
<b>5. Operating the Network Camera .....</b>	<b>25</b>
5.1 Live View.....	25
5.2 Setup Wizard .....	27
5.3 Configuration .....	33
<b>6. Configuration .....</b>	<b>34</b>
6.1 Network.....	35
6.2 Video.....	43
6.3 Audio.....	51
6.4 Event.....	52
6.5 Storage .....	60
6.6 System.....	62
6.7 Status.....	68
<b>7. Appendix A .....</b>	<b>71</b>
7.1. Video Analytics .....	71

7.2. Face Recognition:.....	73
7.3. iMotion Detection (Intelligent Motion Detection) .....	75
7.4. Trip Zone.....	76
7.5. Object Counting .....	77
7.6. e-Fence.....	79
<b>8. Appendix B .....</b>	<b>81</b>
8.1. How to create App for Dropbox.....	81

# 1

## Overview



This user's manual explains how to operate this camera from a computer. A user should read this manual completely and carefully before you operate the device.

### 1.1 Introduction

AirLive SmartCube 300W is a high-end 3 Megapixels H.264/MPEG4/MJPEG Cube Type WiFi Network Camera, a standalone system that can be connected directly to an Ethernet, Fast Ethernet or Wireless network. The elegant design makes it an ideal solution for offices, shops and homes. Moreover, the camera are equipped with IR LEDs and IR-cut filter, providing clear video in completely dark environments.

The camera boasts high-definition video resolution, allowing for the delivery of extremely detailed images and coverage 6 or more times or larger than a VGA camera. To maximize the benefit of the high-definition sensor, the camera employs several innovative technologies for optimized bandwidth efficiency. Users can also receive only the portions of the images they are interested in via the cropping function. Furthermore, multiple video streams can be delivered simultaneously in different resolutions, frame rates, and image qualities for viewing on different platforms so as to meet different needs or bandwidth constraints. The camera also offers activity adaptive streaming support that dynamically allocates bandwidth according to the video content and trigger state.

Moreover, the cameras boast 802.11b/g/n compatible wireless connection, making installation easier and more cost-efficient. The WPS function of camera makes wireless configuration easy and straightforward.

With other advanced features such as tamper detection, Micro SDHC/SDXC card onboard storage, and two-way audio, the camera is a full-fledged surveillance solution for indoor environments. The simple installation procedures and web-based interface allow you to integrate it into your network easily. With comprehensive applications supported, the camera is your best solution for remote monitor, high quality, and high performance video images.

## 1.2 Features

This manual will illustrate the steps of how to setup and operate this IP camera, so you'll also soon be enjoying the benefits of these product features:

- 3 Megapixel Resolution
- Temperature and Humidity Sensor
- Door Cam Mode
- Store Entrance Mode
- Built-in Audio and Speaker
- PIR Sensor
- Intelligent Video Analytics
- Corridor Mode
- ICR Night vision
- Micro SDXC Card slot and Cloud Recording Backup

## 1.3 Product Specification

Model		SmartCube 300W
Camera	Camera Type	Smart Cube Type
	Max Resolution	2048x1536
	Image Sensor	1/3" CMOS sensor
	Sensor Resolution	2048x1536
	Lens Type	3.6 mm
		F= 2.0
Night Vision	Yes	

	Max IR Distance	15m
	Minimum Illumination	0.1 LUX
	Mechanical IR-Cut Filter	Yes
	Viewing Angle	80°(D) 72 °(H) 47 °(V)
	Analog Video Out	None
<b>Video</b>	Video Compression	H.264 MPEG-4 MJPEG
	Video Profile	Yes
	Resolution and Frame Rate	20 fps @ 2048 X 1536
		30 fps @ 1920 X 1080
		30 fps @ 1280 x 1024
		30 fps @ 1280 X 720
		30 fps @ 720 X 480
		30 fps @ 640 X 480
		30 fps @ 320 X 240
	30fps @ 176 X 144	
	Streaming	Streaming over UDP, TCP, or HTTP
		3GPP mobile view
		Configurable frame rate and bandwidth
		Support both CBR and VBR
Region of Interest	Yes	
Image Processing	AE, AW, BLC,WDR, 3DNR, Fog Compensation	
	Brightness, Sharpness, Contrast, Saturation	
	Mirror/Flip, NTSC/PAL	
	Privacy Masks	
	Text, time date and image OSD	
Digital Zoom	10X	
<b>Audio</b>	Audio Encoder	G.711
	Audio Streaming	Two-way
	Audio Input/ Output	Built-in speaker & microphone
<b>Network</b>	Ethernet	Ethernet (10/100 Base-T), RJ-45

	Wireless	802.11n
	Supported Protocols	TCP/IP, IPV6, UDP, ICMP, DHCP, NTP, DNS, DDNS, SMTP, FTP, HTTP, HTTPS, Samba, PPPoE, UPnP, Bonjour, RTP, RTSP, RTCP, DLNA, iSCSI, Onvif Profile S
	Security	Password protection
		IP filter, HTTPS encrypted data transmission
Users	Up to 10 users simultaneous	
<b>LED and Button</b>	Power LED	Red Color
	Link/Act. LED	Green Color/Flash Green
	Reset Button	Power the camera and push and hold Reset button for 10 seconds
<b>General</b>	Network Processor	DSP Base
	System ROM	128M byte NAND Flash
	System RAM	128M byte DDR SDRAM
	Power Supply	DC 5V/1A
	Power Consumption	4 Watts Max.
	Connector	RJ-45 10BaseT/100BaseTX
		DC 5V power jack
	Environment	Operation: Temp: -5°C ~ 55°C Humidity: 20% ~ 85% non-condensing
Storage: Temp: -15°C ~ 60°C Humidity: 0% ~ 90% non-condensing		
SD card slot	Micro SDXC	
Dimension	H x W x D: 94 x 64 x 40 mm	
<b>System Integration</b>	Software	Search & Installation-IP Wizard II
		CamPro Express 64, Campro Professional, CamPro VMS
		APPCAM, AirLive CamPro Mobile
	Event Triggers	Motion detection
		Tamper Detection
		Periodically Time
		SD Card Read/Write Fail Detection
		Network Disconnect
		Audio Detection
		Face Detection
iMotion Detection		

		Trip Zone
		Object Counting
		Face recognition
		e-Fence
	Motion Detection	3
	Event handler	FTP, Samba Server, SD card file upload, Dropbox
		E-mail notice
		Push Notification
		HTTP and TCP notification
		Audio File Playback
	UPNP	Yes
	Application Programming Interface	Onvif Profile S
		Open API for software integration
SDK		
Video Buffer	Pre- and post- alarm buffering	
Alarm Triggers	Motion detection, Tamper Detection, Periodically Time, SD Card Read/Write Fail Detection, Network Disconnect, Audio Detection, Face Detection, iMotion Detection, Trip Zone, Object Counting, Face recognition, e-Fence.	
continuous Recording	Yes	
<b>Viewing System</b>	OS	Windows VISTA / Windows XP / Windows 7 / Windows 8, Windows 10
	Browser	Internet Explorer (8.0+) / Chrome / Firefox / Safari, Opera
	Cell Phone	CamPro Mobile
	Video Player	VLC, Quick Time, Real Player, Core Player

## 1.4 System Requirement

For normal operation and viewing of the network camera, it's recommended that your system meets these minimum requirements for proper operation:

Item	Requirements
CPU	Inter i5 430M or higher

VGA Monitor	ATI Mobility Radeon HD5145 or higher
RAM	2 GB or more
Operating System	Windows VISTA / Windows XP / Windows 7/ Windows 8/ Windows 10
Web Browser	Internet Explorer 8 or later; Apple Safari 2 or above; Firefox 2.00 or above; Google Chrome

**Note:** Please keep updating the latest Windows software and service package.  
(Ex: Net Framework, Windows Media Player, Enhance ActiveX Security)

# 2

## Package Contents and Installation

### 2.1 Package Contents

User can find the following items in the package as below:

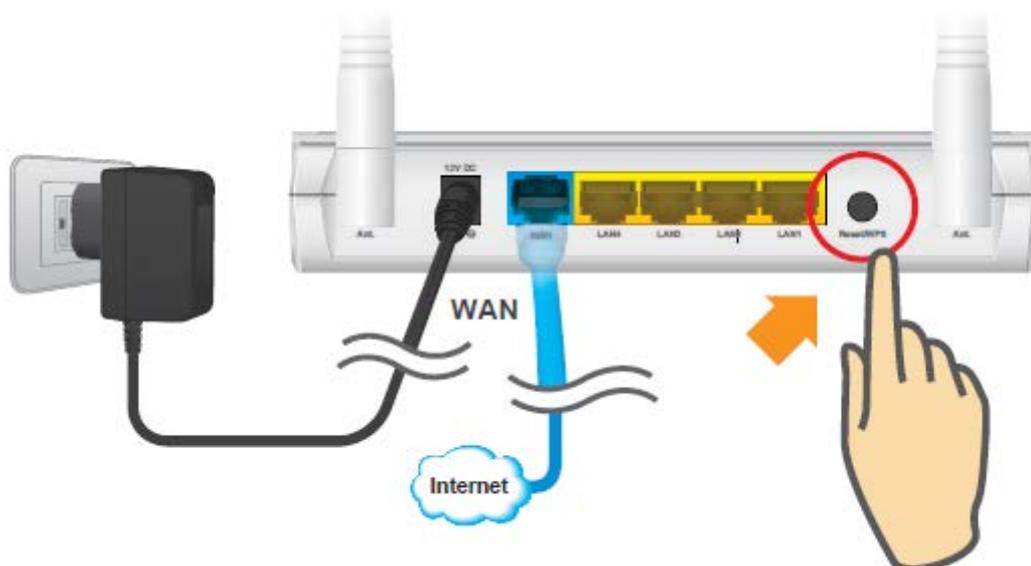
1. AirLive SmartCube 300W is the main element of the product.
2. UID QR code card
3. Quick Setup Guide.
4. The drill sticker
5. 5V 1A adapter
6. Accessory Package (Screws/ Plastic Anchors)

### 2.2 WiFi Connections

There are two ways to connect to WiFi.WPS connection or set up the camera by Ethernet port

#### 2.2.1. WPS connection

1. Click WPS button on the router first.



2. Click Reset/WPS button on SmartCube 300W then the green led will be on for 2 minutes. When SmartCube 300W connects to the router successfully, the green led will be flashing.



**Note:** The WPS function only works when the router is in WPA2 AES security protocols or has no protected password.

### 2.2.2. Set up the camera by Ethernet port

1. Please skip this step if your camera has made successful wireless connection to your router. However, if your wireless router does not have a WPS button. You can configure the camera by connecting the SmartCube's LAN port to your router's LAN port by Ethernet cable. Then use your PC or Notebook to setup the camera's WiFi setting.



**Note:** If you want to connect your PC directly to the camera by Ethernet cable, the IP camera's default LAN port IP address is 192.168.1.100.

### 2.2.3. Interface





1. MicroSD Card Slot: MicroSD Card Slot allows you to insert a memory card for local storage.
2. WPS and Reset Button: Power the camera and push and Hold Reset button for 10seconds .This button is used to restore all the factory default settings. Sometimes, restarting the device will make the system back to a normal state.
3. Power Input: 5V DC,1A

## 2.3 Connect to IP Camera

Install the AirLive IP Wizard on your PC.

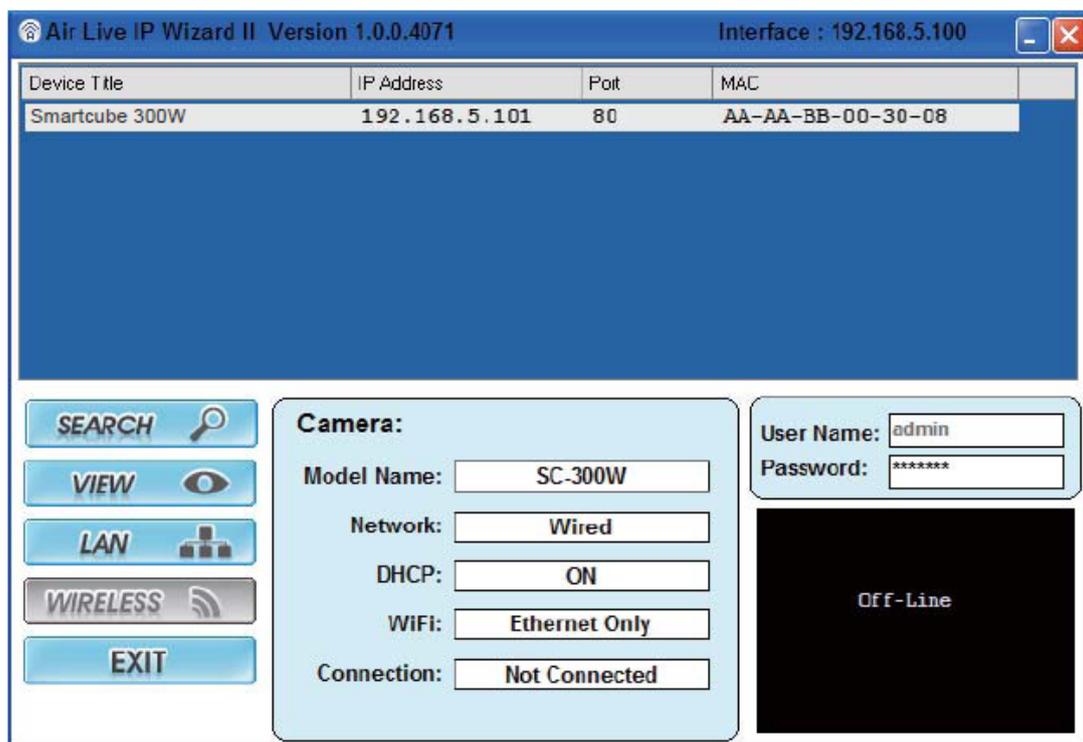
Please download IP wizard II from AirLive SmartCube 300W support page

<http://www.airlive.com/product/SmartCube-300W>



### 2.3.1. Find the Camera using IP Wizard

Install and start the AirLive IP Wizard. The program will automatically search for all cameras on your network. Double click on the camera you want to configure and the program will open your web browser to configure the camera.



**Important Note:** Please make sure you have made Internet Explorer as your default browser first.

# 3

## Using IP Camera via Web Browser

### 3.1 Windows Web Browser

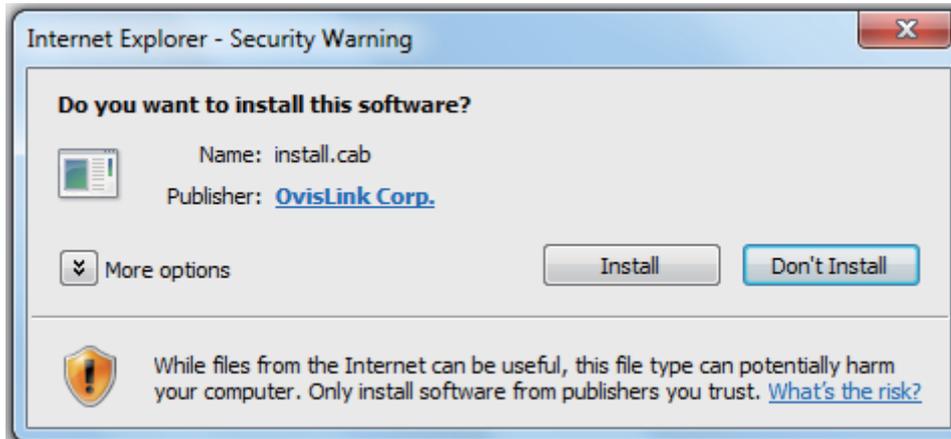
1. Open your web browser and enter the IP address or host name of the IP camera in the Location / Address field of your browser.
2. Use the default account “**admin**” and default password “**airlive**”.



**Note:** The default user name “**admin**” and the password “**airlive**” are the default values. You can change them in the Account Menu. (Please check “System → Account”)

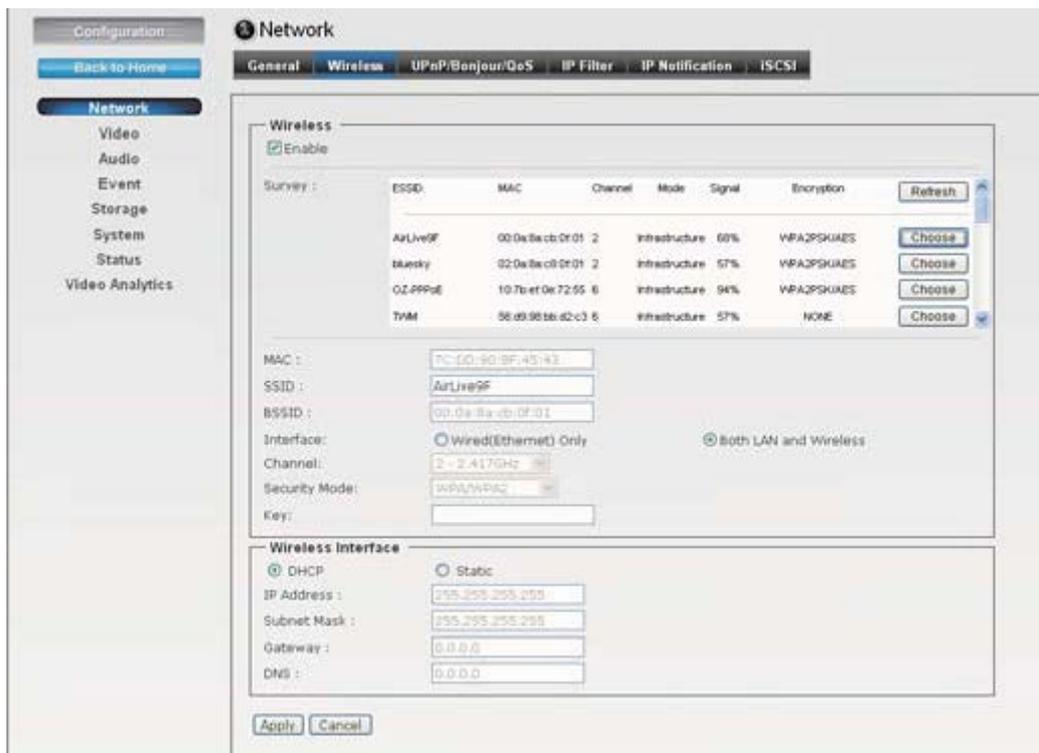
3. You need to install the ActiveX on your PC when you first access to the camera web UI.

This website wants to install the following add-on: 'install.cab' from 'OvisLink Corp.'.



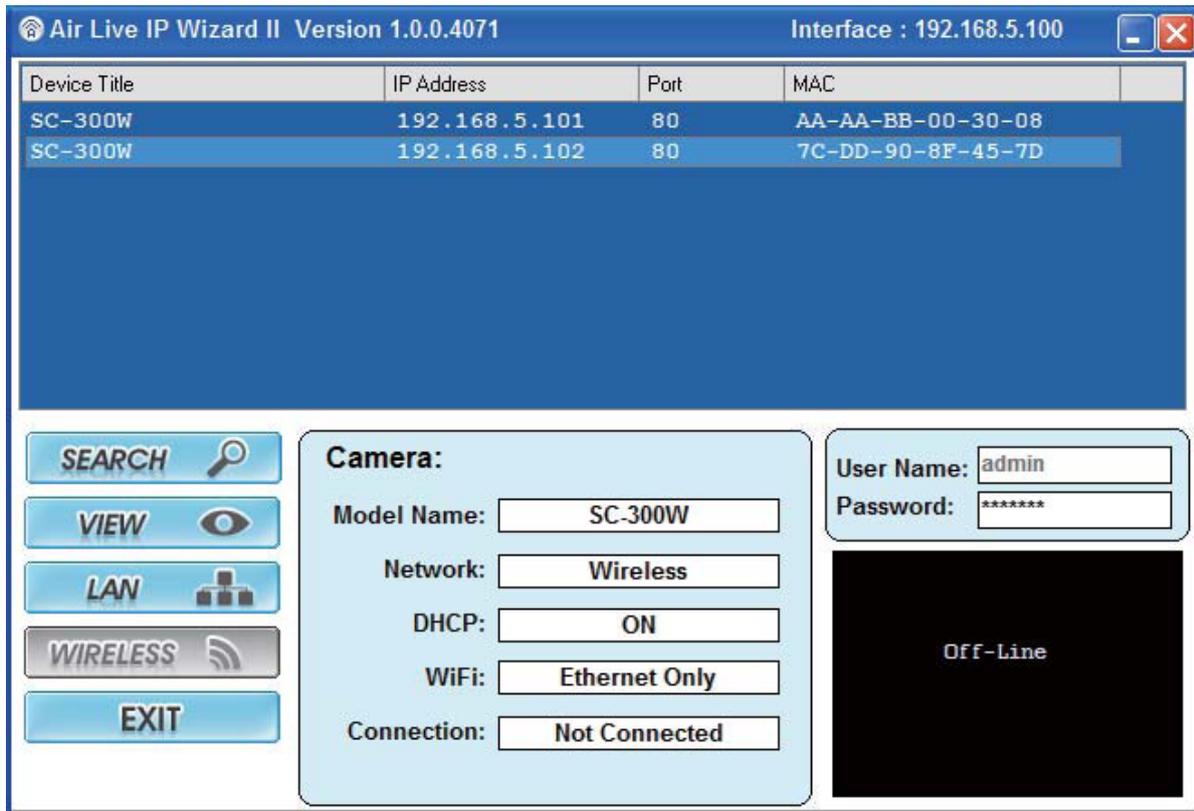
#### 4. Configure the camera's wireless setting

On the camera's web UI, please click on the "Configuration" icon to go into the configuration page. Then click on "Network"->"Wireless" page. Select your wireless router's SSID and key in the security key. Then click on "Apply" button.



#### 5. Check wireless connection

Please open the AirLive IP Wizard program and click on search icon. You should see 2 "SmartCube 300W" on the list if the camera has made successful wireless connection to your router. Now, please disconnect the Ethernet cable between the camera and the router. You should be able to access the camera using wireless connection from now on.



- The monitor image will be displayed in your browser. In the left side of main window, you can configure the settings you want. For more details, please refer to the following chapters.

# 4

## AirLive APPCAM via iOS/Android device

### 4.1 Using AirLive APPCAM via iOS/Android device

When the camera connects to the internet, user can use AirLive APPCAM to connect the camera.

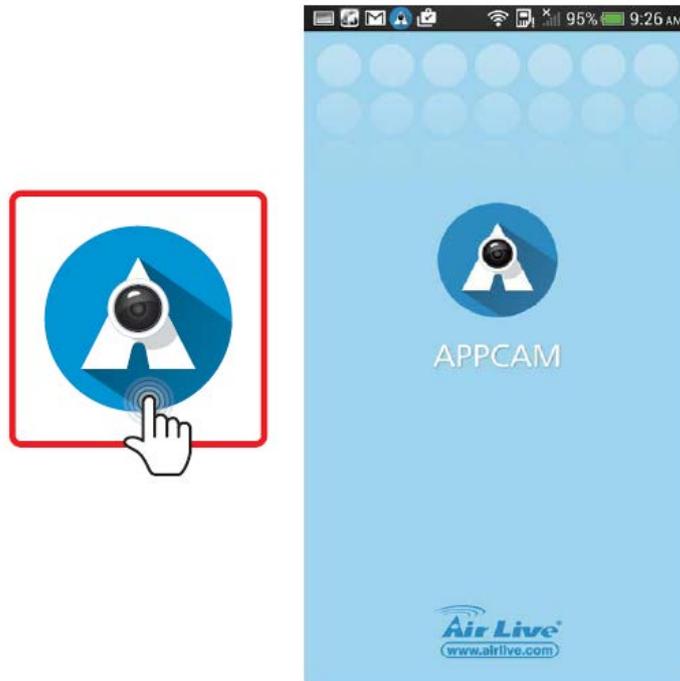
#### 4.1.1. Download the AirLive APPCAM APP

Please visit App Store or Google Play to download AirLive APPCAM . You can use QR code scanner software directly or simply search the "AirLive APPCAM".



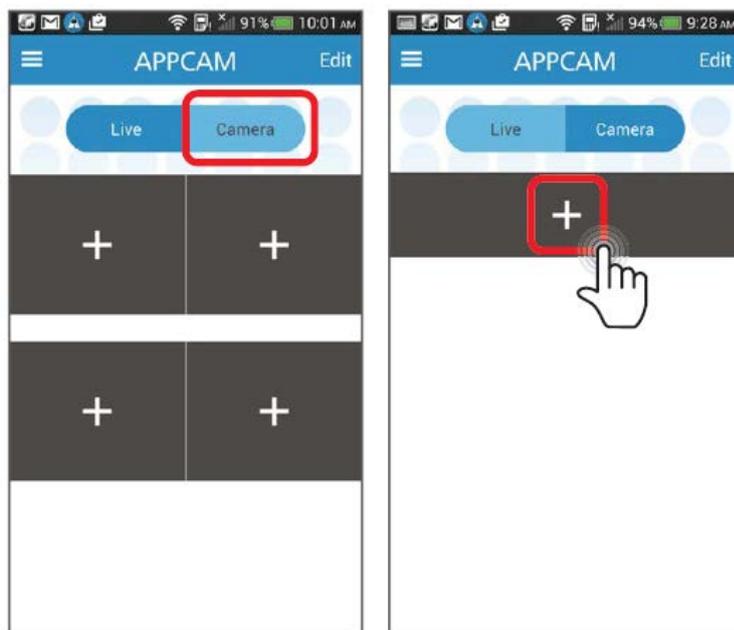
### 4.1.2. Start the AirLive APPCAM

Click the "AirLive APPCAM" icon on your device.



### 4.1.3. Search and Add the Camera

Click "Camera" to add SmartCube 300W



#### 4.1.4. Scan the QR code

Please scan the camera's UID QR Code to add the camera. You can find the camera's UID QR code on the "QR Code card" or in the back of the camera.



#### 4.1.5. Key in the password

Key in the password to link the camera. The default password is "airlive".

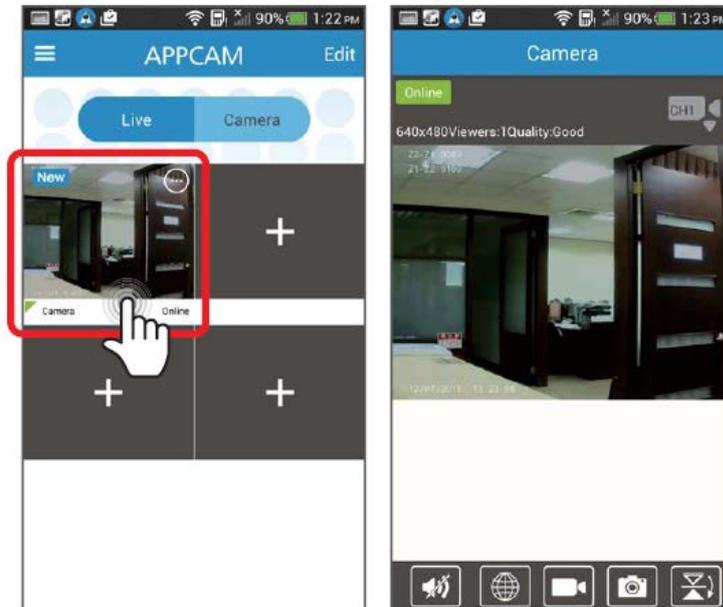


#### 4.1.6. Change the password

Please change the password when logging to the camera at the first time. Please do not forget this password as you will be asked to enter this new password when setting up the camera.

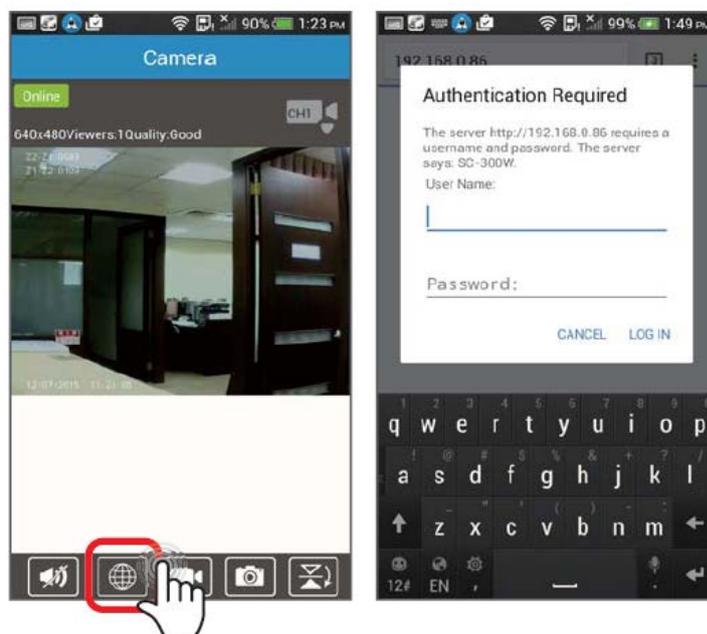


#### 4.1.7. Live View



#### 4.1.8. Setup the Camera

Please click on the "Web UI" button to setup the camera via Mobile Web Wizard. When prompted for username and password, please enter "admin" as the username and enter your new password as password.



**Important:** The Web UI function only works when the SmartCube 300W and the smart phone is on the same local network. For example, if you install the camera at home, the function only works when your smart phone is connected to your home's network.

#### 4.1.9. Mobile Web Wizard

1. Click the buttons to switch the page.



2. For first time configuration, click on the "Setup- Wizard" and follow through and finish the process.



3. Please change the default password and click "Next" button.



4. Adjust the time and date of the camera and click "Next" button.



5. It requires E-mail information to send the

6. You can adjust the sound volume in

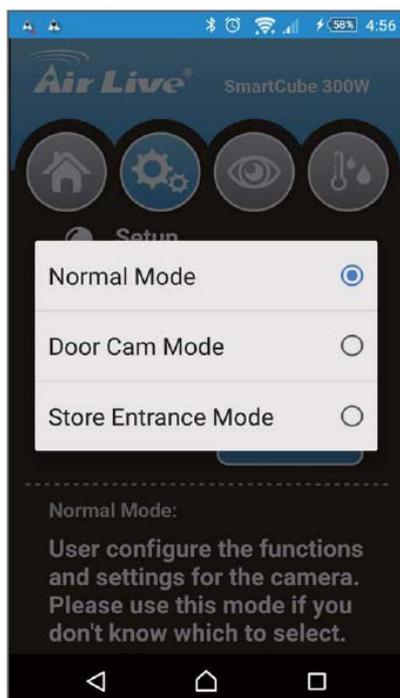
counting report.



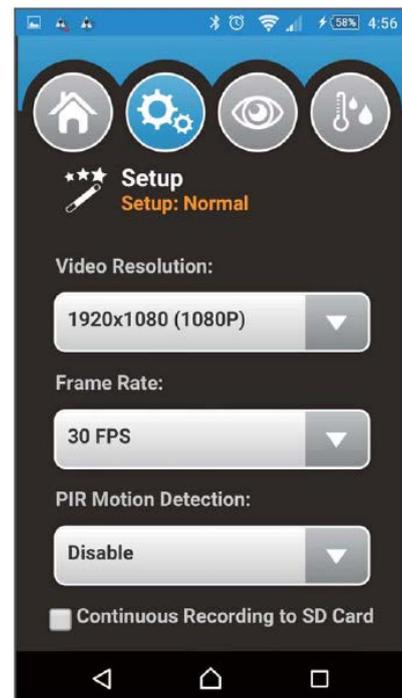
sounds page.



7. There are three scenarios. Normal Mode, Door Cam Mode and Store Entrance Mode. Please select the scenario to fit your environment and click "Next" button.



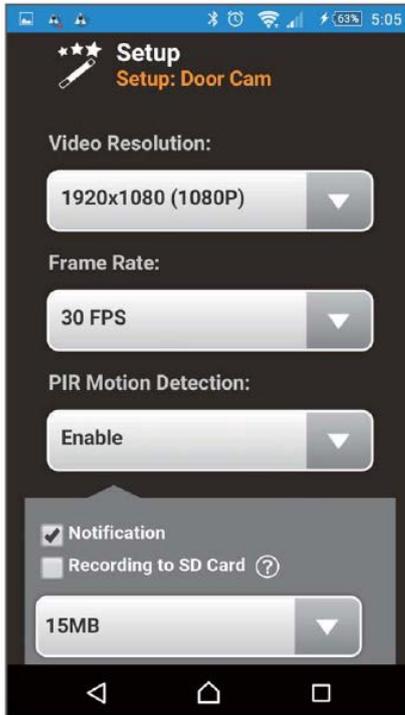
8. You can adjust resolution, frame rate and PIR motion detection in normal mode.



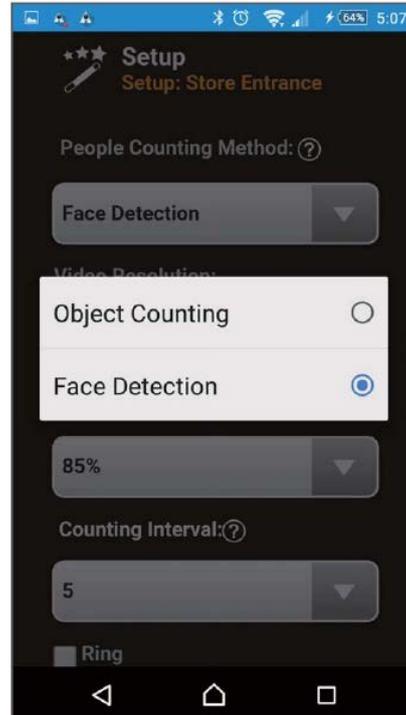
9. In door cam mode, SmartCube

10. You can choose between face

300W will detect people, send the notification to the smartphone.

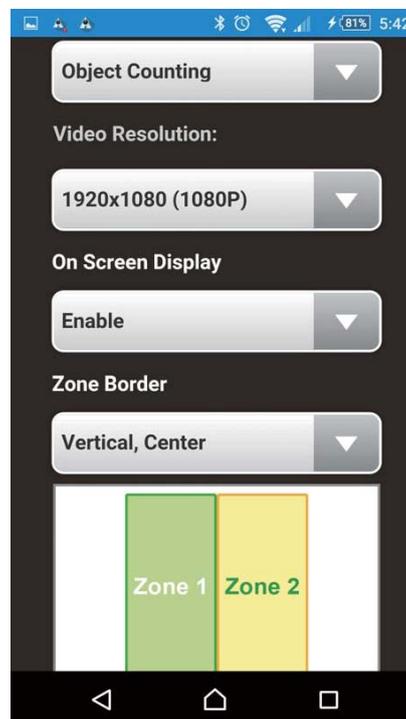
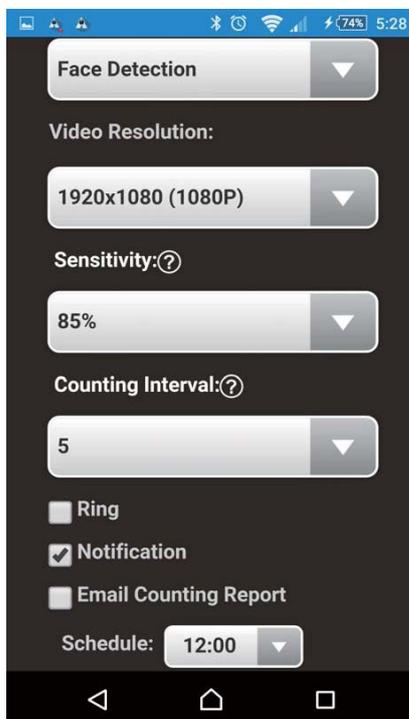


detection or object counting to count the number of customers.



11. You can adjust Face Detection settings to fit the environment.

12. You can adjust Object Counting settings to fit the environment.



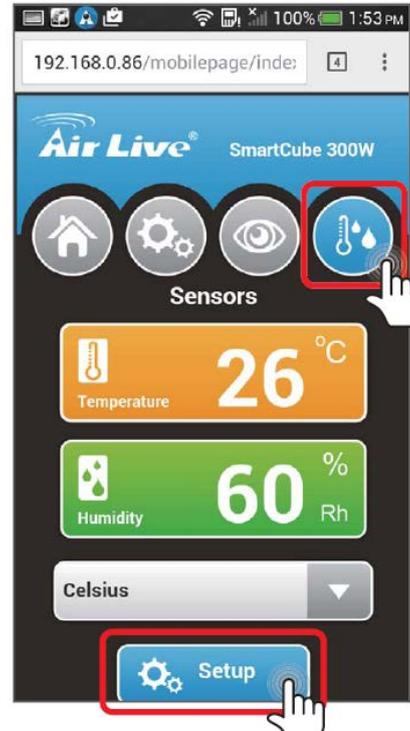
13. In the Live View page, you can see Live

14. Temperature and humidity values

View from this page..



on this page. Click "Setup" button for more alarm settings.



#### 4.1.10. Face Detection vs. Object Counting

Please check the comparison table below choose between Face Detection and Object Counting. If you are not sure which one to choose, please select Face Detection. Please pay attention to the ceiling height requirement.

	Face Detection	Object Counting
Face View	Yes	No
Installation Orientation	Facing the Entrance	Over the top or Side View
Ceiling Height Requirement	Less than 3.2 meter	More than 3.2 meter
Advantage	Get face shots, easy-to-setup	Higher accuracy, separate greeting voices for entry and exit.
Disadvantage	Voice greeting for entry only	Harder to setup. No front face shot.
Recommend Environments	For store and shop entrance	For shopping mall and super market entrance

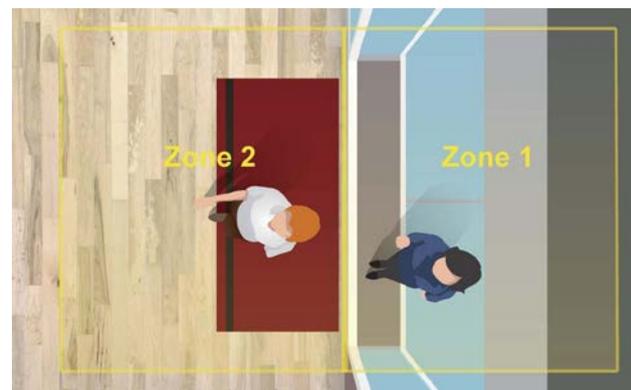
#### 4.1.11. Face Detection

Face detection works by counting faces as people walk by. Please install it on the ceiling facing the front entrance about 4 to 5 meter away from the door. Please make sure the camera can see the faces of people clearly as they walk in. In addition, make sure the camera is not shooting at areas where people will stay instead of walking by. Otherwise, the same faces might be counted many times.



#### 4.1.12. Object Counting

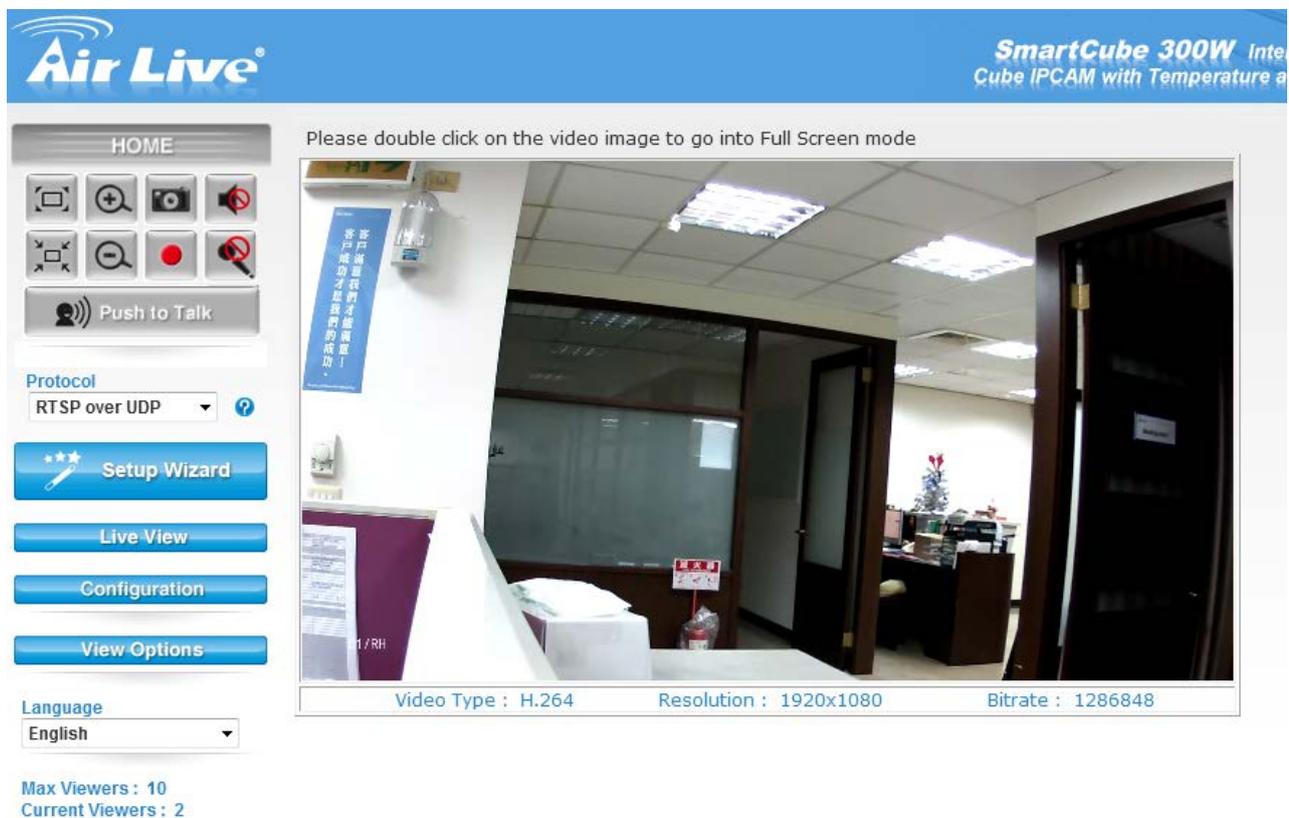
Object Counting register a count when people cross from zone 1 to zone 2 or vice versa. It can have independent count for entry and exit. Object Counting require ceiling of higher 3.2 meters for installation. The higher it is, the more accurate counting result is. It can be installed side way or over the top.



# 5

## Operating the Network Camera

Start-up screen will be shown once you access into the IP camera. In the left side, you can control Live View function as below:



### 5.1 Live View

1. **Protocol:** Select the protocol type:  
**RTSP over UDP/ TCP/ RTSP over TCP/ RTSP over HTTP.**  
 Please select **RTSP over HTTP** when connecting to the camera remotely.
2. **Setup Wizard:** Easy to configure the functions and settings for the camera.
3. **Live View:** Switch to Live View page
4. **Configuration:** Click for configuring the detail camera settings.
5. **View Options:** The device supports multi-profile function for H.264, MPEG4 and JPEG simultaneously. User can choose the proper and/or preferred profile which is listed here.

- 6. **Language:** AirLive SmartCube 300W provide multiple languages to meet customer's requirement.
- 7. **2-Way Audio:** The device supports 2-way audio function. User can choose to enable or disable this function by toggling the icon below.



: Computer speaker function is disabled.



: Computer speaker function is enabled.



: Computer microphone function is disabled.



: Computer microphone function is enabled.



**Volume:** Click Speaker/ Microphone button to activate this function. Scroll the control bars to adjust the audio attribute.

- 8.  **Original size** /  **Preview Size:** Switches live image view between original size and preview size (smaller size).

- 9.   **Digital Zoom:** From 1X to 10X. Click  to full screen first.

Click  to enable this function. Click  to disable it.



*Note: Digital zoom uses computer algorithm to enlarge the video and may lose some details.*

10.  **Snapshot:** Take a snapshot. Browse the folder in your computer and save the image.

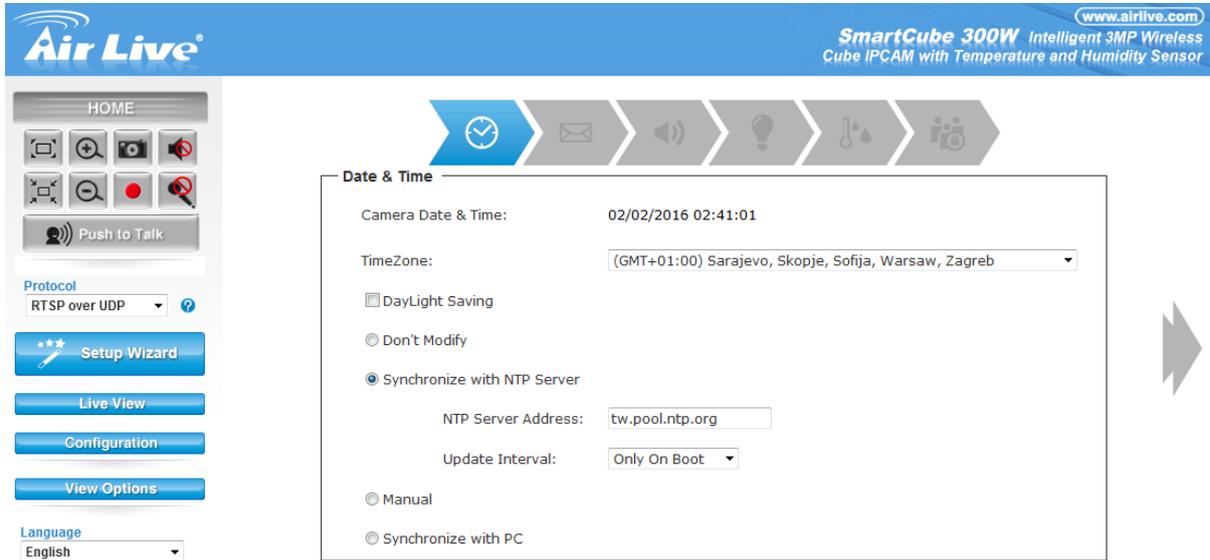
11.  **Record:** Click it to start recording an AVI file in the local storage. Press  to stop the recording process.

## 5.2 Setup Wizard

The Smart Cube is designed for easy setup. Click “Setup Wizard” for easy setup and operation with mobile devices. The camera’s Setup Wizard can automatically detect when accessed from smart phone, then load a different setup wizard formatted for mobile devices..

### 1. Date & Time setting

Please set up the Data and Time and click "Next" button.



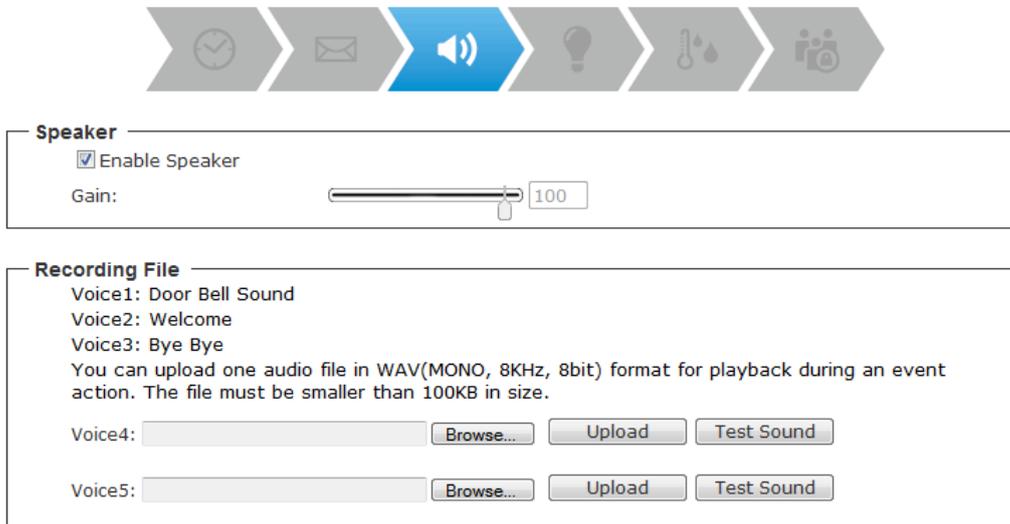
### 2. Mail Server

User can set up the mail settings to send the report or snapshot.




### 3. Audio settings

You can adjust the sound volume in this page. There are three default sounds in the camera. User can save another two audio files in WAV Mono 8KHz format.

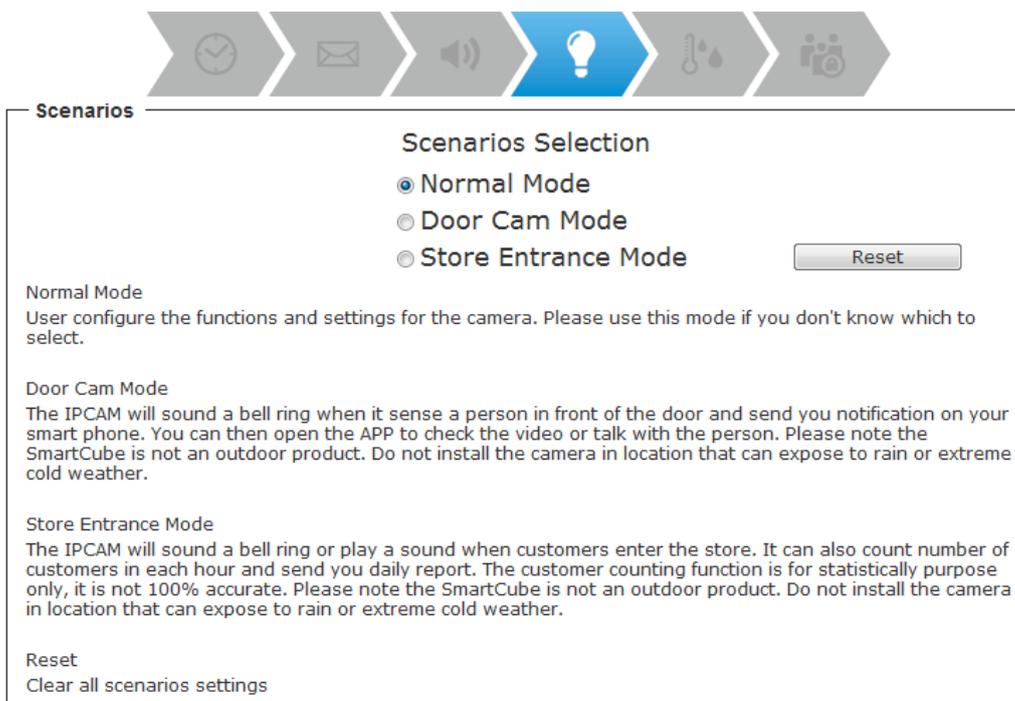


The interface shows a navigation bar with icons for various settings. The 'Speaker' icon is highlighted in blue. Below the navigation bar, there are two main sections:

- Speaker:** Includes a checkbox for 'Enable Speaker' (checked) and a 'Gain' slider set to 100.
- Recording File:** Lists three default voices: 'Voice1: Door Bell Sound', 'Voice2: Welcome', and 'Voice3: Bye Bye'. It includes a note: 'You can upload one audio file in WAV(MONO, 8KHz, 8bit) format for playback during an event action. The file must be smaller than 100KB in size.' Below this, there are two rows for 'Voice4' and 'Voice5', each with a 'Browse...' button, an 'Upload' button, and a 'Test Sound' button.

### 4. Scenarios Selection

Users can choose three scenarios to fit their own applications: Normal Mode, Door Cam mode, Store Entrance Mode



The interface shows a navigation bar with icons for various settings. The 'Scenarios' icon (lightbulb) is highlighted in blue. Below the navigation bar, there is a 'Scenarios Selection' section with three radio buttons: 'Normal Mode' (selected), 'Door Cam Mode', and 'Store Entrance Mode'. A 'Reset' button is located to the right of these options.

Below the selection options, there are three detailed sections:

- Normal Mode:** 'User configure the functions and settings for the camera. Please use this mode if you don't know which to select.'
- Door Cam Mode:** 'The IPCAM will sound a bell ring when it sense a person in front of the door and send you notification on your smart phone. You can then open the APP to check the video or talk with the person. Please note the SmartCube is not an outdoor product. Do not install the camera in location that can expose to rain or extreme cold weather.'
- Store Entrance Mode:** 'The IPCAM will sound a bell ring or play a sound when customers enter the store. It can also count number of customers in each hour and send you daily report. The customer counting function is for statistically purpose only, it is not 100% accurate. Please note the SmartCube is not an outdoor product. Do not install the camera in location that can expose to rain or extreme cold weather.'

At the bottom, there is a 'Reset' section: 'Reset' followed by 'Clear all scenarios settings'.

**5.2.1. Normal Mode:** User configure the functions and settings for the camera. Please use this mode if you don't know which to select.



**Scenarios**

Normal Mode:

Video Resolution:

Frame Rate:

PIR Motion Detection:  ON  OFF

Continuous Recording to SD card:  ON  OFF

**5.2.2. Door Cam mode:** The IPCAM will sound a bell ring when it sense a person in front of the door and send you notification on your smart phone. You can then open the APP to check the video or talk with the person. Please note the SmartCube 300W is not an outdoor product. Do not install the camera in location that can expose to rain or extreme cold weather.



**Scenarios**

Door Cam:

Video Resolution:

Frame Rate:

PIR Motion Detection:  ON  OFF

Notification:  ON  OFF

Recording to SD card:  ON  OFF File Size:

Send Snapshot by E-mail:  ON  OFF

Ring:  ON  OFF

Schedule:  Always

From  :  To  :  hh:mm

Continuous Recording to SD card:  ON  OFF

**5.2.3. Store Entrance mode:** The IPCAM will sound a bell ring or play a sound when customers enter the store. It can also count number of customers in each hour and send you daily report. The customer counting function is for statistically purpose only, it is not 100% accurate. Please note the SmartCube 300W is not an outdoor product. Do not install the camera in location that can expose to rain or extreme cold weather.



**Scenarios**

Store Entrance:

People Counting Method:  ?

Video Resolution:

Notification:  ON  OFF

Ring:  ON  OFF

Sensitivity:  ?

Counting Interval:  seconds ?

Email Counting Report:  ON  OFF  : hh:mm

PIR Motion Recording to SD Card:  ON  OFF File Size:  ?

Continuous Recording to SD card:  ON  OFF

**5.2.4. Face detection** works by counting faces as people walk by. Please install it on the ceiling facing the front entrance about 4 to 5 meter away from the door. Please make sure the camera can see the faces of people clearly as they walk in. In addition, make sure the camera is not shooting at areas where people will stay instead of walking by. Otherwise, the same faces might be counted many times.

**5.2.5. Object Counting** register a count when people cross from zone 1 to zone 2 or vice versa. It can have independent count for entry and exit. Object Counting require ceiling of higher 3.2 meters for installation. The higher it is, the more accurate counting result is. It can be installed side way or over the top. You can adjust the settings to fit the environment.

**5.2.6. Sensors**

In the sensor page, user can set up temperature and humidity range to send the alarm.



**Sensors**

On Screen Display

Current Temperature: 21 °C  
 Current Humidity: 61 %RH  
 Temperature:  °C  °F

Alarm:  ON  OFF

Temperature Range  
 High ~ Low  
 35 ~ 25

Humidity Range  
 High ~ Low  
 90 ~ 80

Send Notification:  ON  OFF  
 Email Daily Report:  ON  OFF  
 Schedule: 00:00 : hh:mm

### 5.2.7. Admin and Wireless

User can change admin password and enable wireless setup.



**Admin**

Password:   
 Confirm Password:

**Wireless**

Enable

Survey :	ESSID	MAC	Channel	Mode	Signal	Encryption	
	AirLive9F	00:0a:8a:cb:0f:01	2	Infrastructure	68%	WPA2PSK/AES	<input type="button" value="Choose"/>
	bluesky	02:0a:8a:c8:0f:01	2	Infrastructure	73%	WPA2PSK/AES	<input type="button" value="Choose"/>
	OZ-PPPoE	10:7b:ef:0e:72:55	6	Infrastructure	83%	WPA2PSK/AES	<input type="button" value="Choose"/>
	1200UR_longtime	00:4f:6a:0c:43:8d	8	Infrastructure	89%	WPA1PSKWPA2PSK/TKIPAES	<input type="button" value="Choose"/>

MAC :   
 SSID :   
 BSSID :

Interface:  Wired(Ethernet) Only  Both LAN and Wireless

Channel:   
 Security Mode:

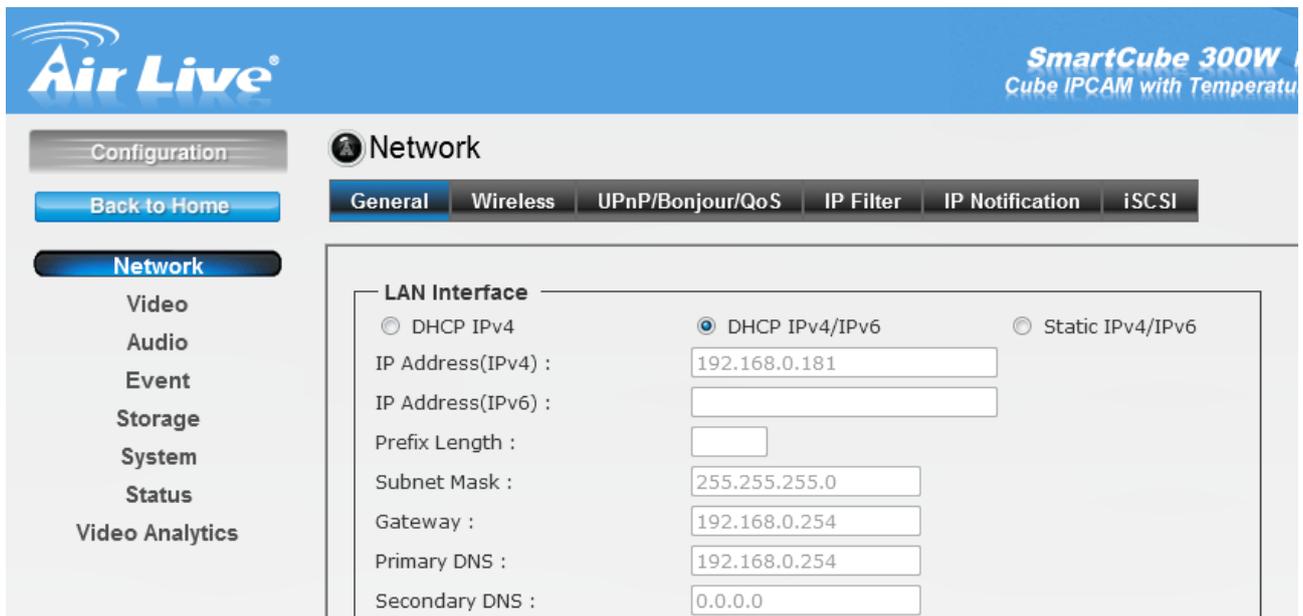
## 5.3 Configuration

Click “Configuration” for the camera detail settings. For more information, please refer to Chapter 6.

# 6

## Configuration

Click the “**Configuration**” to display sub-menus included  
**Network / Video / Audio / Event / Storage / System / Status / Video Analytics.**



**Air Live** SmartCube 300W  
Cube IPCAM with Temperature

Configuration

Back to Home

**Network**

Video

Audio

Event

Storage

System

Status

Video Analytics

**Network**

General | Wireless | UPnP/Bonjour/QoS | IP Filter | IP Notification | iSCSI

**LAN Interface**

DHCP IPv4       DHCP IPv4/IPv6       Static IPv4/IPv6

IP Address(IPv4) : 192.168.0.181

IP Address(IPv6) :

Prefix Length :

Subnet Mask : 255.255.255.0

Gateway : 192.168.0.254

Primary DNS : 192.168.0.254

Secondary DNS : 0.0.0.0

## 6.1 Network

### 6.1.1. General

Network

General
Wireless
UPnP/Bonjour/QoS
IP Filter
IP Notification
iSCSI

**LAN Interface**

DHCP IPv4
  DHCP IPv4/IPv6
  Static IPv4/IPv6

IP Address(IPv4) :

IP Address(IPv6) :

Prefix Length :

Subnet Mask :

Gateway :

Primary DNS :

Secondary DNS :

HTTP Port :

RTSP Port :

RTP Data Port :

**Multicast**

Enable Multicast

**PPPoE**

Enable PPPoE

User Name :

Password :

**DDNS**

Enable DDNS

- **LAN Interface:** This field allows you to setup the IP network protocol.
  - **DHCP IPv4:** Select this option when your network uses the DHCP server. When the camera starts up, it will be assigned an IP address from the DHCP server automatically.

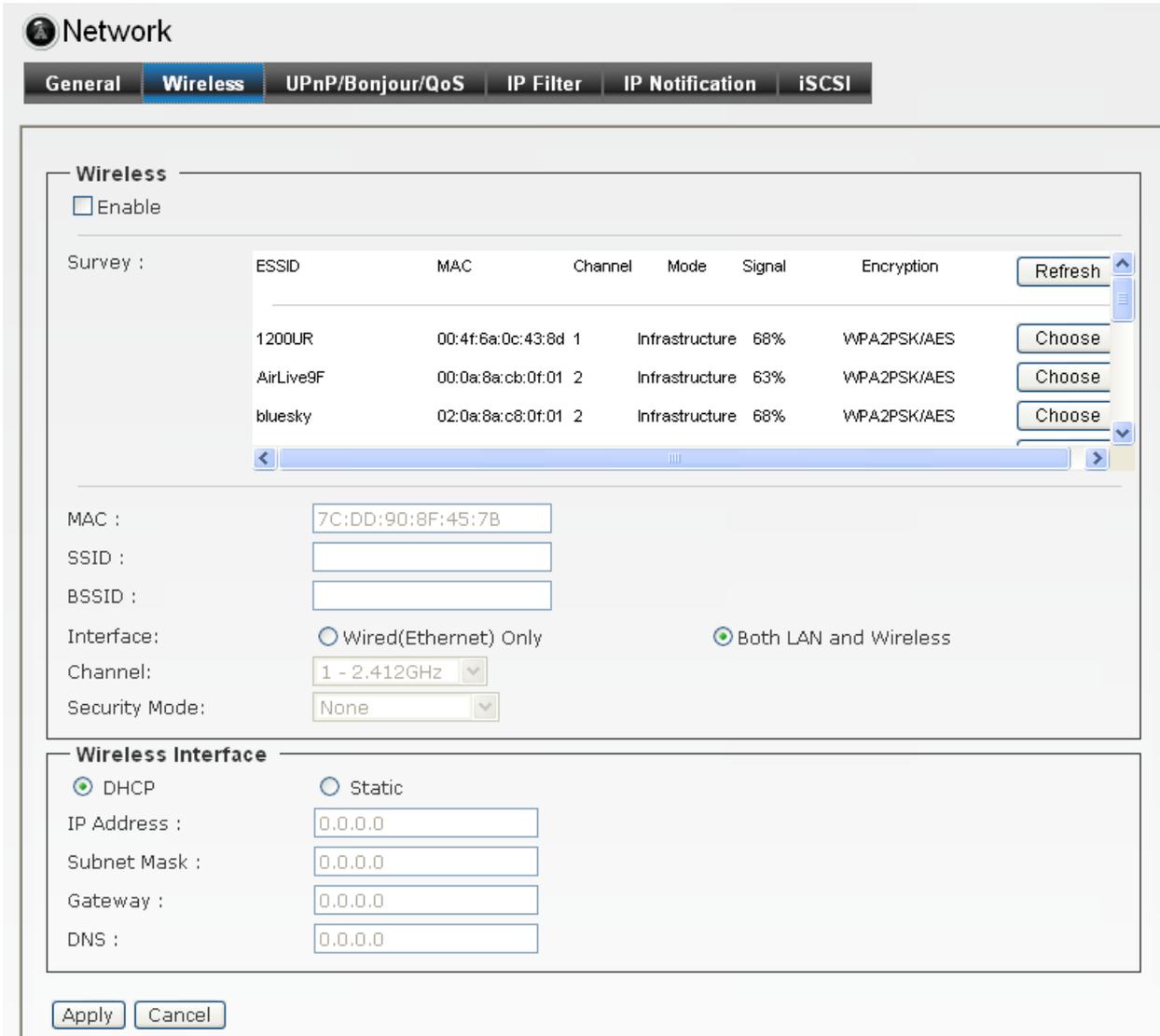
- **DHCP IPv4/IPv6:** DHCP for IPv6 enables the DHCP server to pass the configuration parameters (e.g. the IPv6 network address) to the IPv6 nodes, which offers the capability of automatic allocation of reusable network addresses and additional configuration flexibility. Select this option if your network supports DHCP IPv6 protocol. When the camera starts up, it will be assigned an IP address from the DHCP server automatically.
- **Static IPv4/IPv6:** Select this option to assign the IP address to the camera directly. You can use “AirLive IP Wizard II” to obtain the related setting values.

<b>IP Address (IPv4/IPv6)</b>	Enter the IP address of the camera. The default setting is <b>192.168.1.100</b> .
<b>Subnet Mask</b>	Enter the Subnet Mask of the camera. The default setting is <b>255.255.255.0</b> .
<b>Default Gateway</b>	Enter the Default Gateway of the camera. The default setting is <b>192.168.1.254</b> .
<b>Primary/Secondary DNS</b>	DNS (Domain Name System) translates domain names into IP addresses. Enter the Primary and Secondary DNS provided by ISP.
<b>HTTP Port</b>	The default HTTP port is <b>80</b> .
<b>RTSP Port</b>	The default RTSP Port (Real Time Streaming Protocol) is <b>554</b> .
<b>RTP Data Port</b>	RTP (Real-time Transport Protocol) is a data transfer protocol defined to deliver live media to the clients at the same time, it defines the transmission of video and audio files in real time for Internet applications. The default RTP Data Port is <b>5556</b> .

- **Enable Multicast:** Select this option to enable the multicast function of the camera. Complete the following settings so that you can deliver information from your camera to multi receivers.
  - **Multicast Group Address:** Assign a category of IP addresses to receive the information from the camera.
  - **Multicast Video Port:** Assign a multicast port for video in the text box. The default port is **5560**.
  - **Multicast RTCP Video Port:** Assign a multicast port for RTCP (real-time transport control protocol) video in the text box. The default port is **5561**.
  - **Multicast Audio Port:** Assign a multicast port for audio in the text box. The default port is **5562**.

- **Multicast RTCP Audio Port:** Assign a multicast port for RTCP (real-time transport control protocol) audio in the text box. The default port is **5563**.
- **Multicast TTL:** Set the value from 1 to 255. TTL (time to live) is used to specify the time to live in the IP header so that the system is able to decide whether or not the packet has been in the network too long and should be discarded.
  
- **Enable PPPoE:** Select this option when you use a direct connection via the ADSL modem. You need the User Name and Password of the PPPoE account to complete the setting. The camera will get an IP address from the ISP as starting up.  
*Note: Once the camera get an IP address from the ISP as starting up, it automatically sends a notification email to you. Therefore, when you select PPPoE as your connecting type, you have to set up the email or DDNS configuration in advance.*
  
- **Enable DDNS:** Select this option to enable DDNS service. With the Dynamic DNS feature, you can assign a fixed host and domain name to a dynamic Internet IP address. To set up the DDNS, select the Provider from the pull-down menu and then enter the required information in the Host Name, User Name and Password text boxes.  
*Note: You have to sign up for DDNS service with the service provider before configuring this feature.*

### 6.1.2. Wireless



**Network**

General **Wireless** UPnP/Bonjour/QoS IP Filter IP Notification iSCSI

**Wireless**

Enable

Survey :

ESSID	MAC	Channel	Mode	Signal	Encryption	
1200UR	00:4f:6a:0c:43:8d	1	Infrastructure	68%	WPA2PSK/AES	Refresh Choose
AirLive9F	00:0a:8a:cb:0f:01	2	Infrastructure	63%	WPA2PSK/AES	Choose
bluesky	02:0a:8a:c8:0f:01	2	Infrastructure	68%	WPA2PSK/AES	Choose

MAC :

SSID :

BSSID :

Interface:  Wired(Ethernet) Only  Both LAN and Wireless

Channel:

Security Mode:

**Wireless Interface**

DHCP  Static

IP Address :

Subnet Mask :

Gateway :

DNS :

To activate WPS connection, please follow the steps below:

1. Power on your wireless router first and make sure it working.
2. Power on the Camera.
3. Respectively press WPS buttons of wireless router and Camera within a short time. Then, wait a while and the wireless router will configure this camera WLAN setting automatically.

There are 3 easy steps to complete the Wireless connection. Please follow the instructions on the screen.

Step1: Click Enable to enable Wireless.

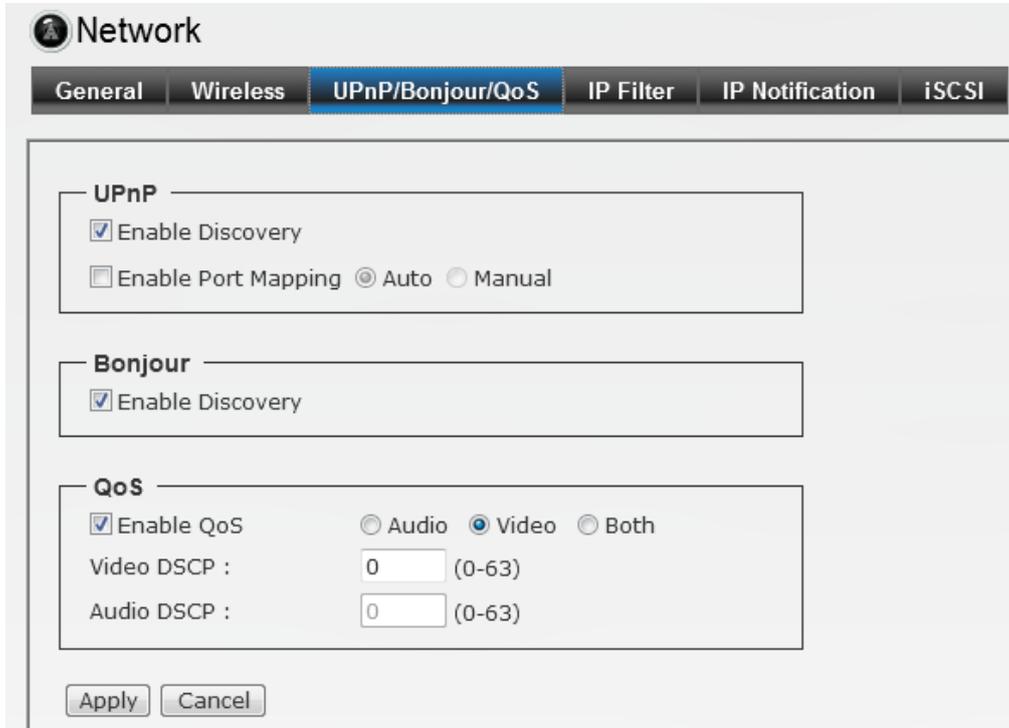
Step2: Please choose the SSID from the Survey table.

Step3: Enter the Encryption key based on the security mode you choose and click Apply to active the wireless setting.

Site Survey:

It will list all the available access point and click Refresh to refresh the information. Access points with a disabled SSID Broadcast will not appear unless the camera is associated with it.

### 6.1.3. UPnP/Bonjour/ QoS



**Network**

General | Wireless | **UPnP/Bonjour/QoS** | IP Filter | IP Notification | iSCSI

**UPnP**

Enable Discovery

Enable Port Mapping  Auto  Manual

**Bonjour**

Enable Discovery

**QoS**

Enable QoS  Audio  Video  Both

Video DSCP :  (0-63)

Audio DSCP :  (0-63)

Apply Cancel

- **UPnP:** The camera supports UPnP (Universal Plug and Play), which is a set of computer network protocols that enable the device-to-device interoperability. Select the **Enable Discovery** option to enable the feature.

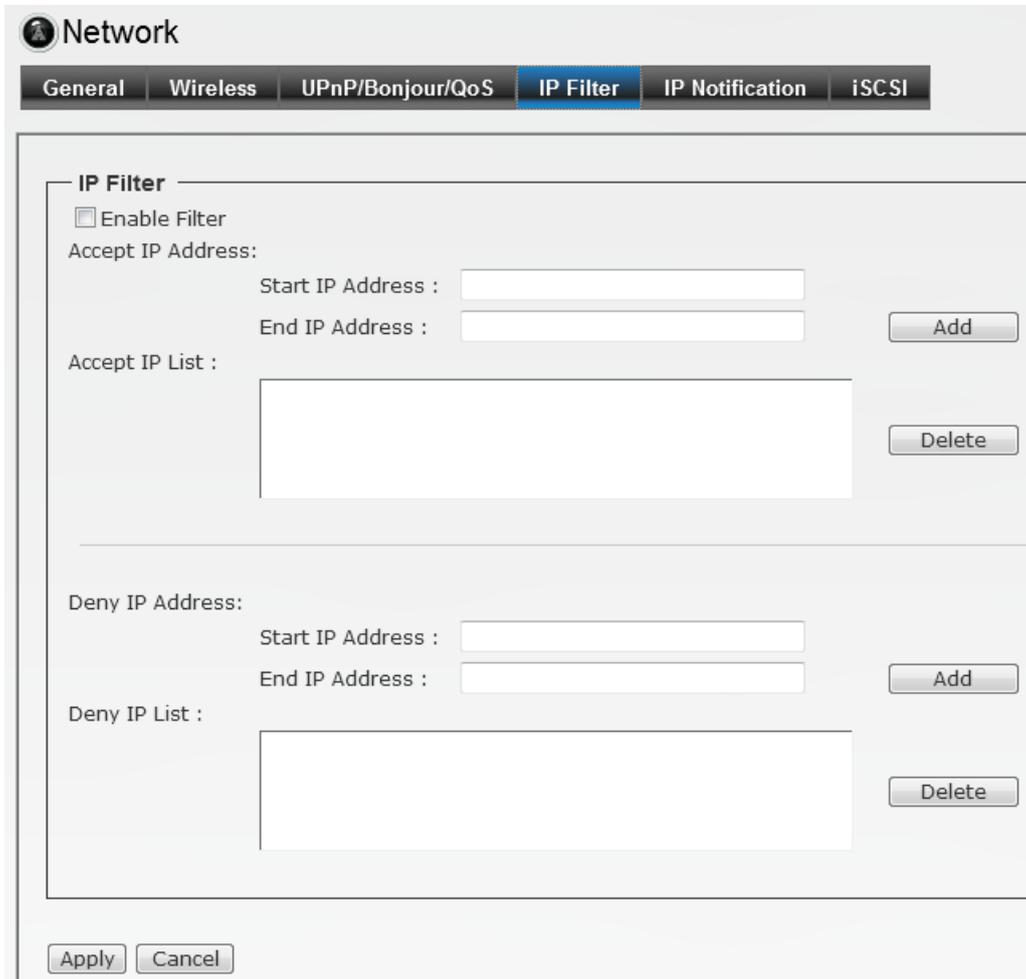
In addition, it supports port auto mapping function so that you can access into the camera if it behind an NAT router or firewall. Select the **Enable Port Mapping** option to enable the feature.
- **Bonjour:** The devices with Bonjour will automatically broadcast their own services and listen for services being offered for the use of others. Select the **Enable Discovery** option, you can find the camera through the browser with Bonjour and no need to know the IP address.

The Apple Safari is already with Bonjour. You can download the complete Bonjour for Internet Explorer browser from Apple's website by visiting:  
<http://www.apple.com/bonjour/>
- **QoS** (quality of service): It is the ability to provide different priority to different applications or data flows.

  - **Video DSCP:** Assign the DSCP (Differentiated services code point) of the stream video from the camera by setting the value from 0 to 63.

- **Audio DSCP:** Assign the DSCP (Differentiated services code point) of the stream audio from the camera by setting the value from 0 to 63.

#### 6.1.4. IP Filter



The screenshot shows the 'Network' configuration page with the 'IP Filter' tab selected. The 'IP Filter' section contains the following elements:

- Enable Filter
- Accept IP Address:
  - Start IP Address : [text input]
  - End IP Address : [text input]
  - [Add button]
- Accept IP List : [text area] [Delete button]
- Deny IP Address:
  - Start IP Address : [text input]
  - End IP Address : [text input]
  - [Add button]
- Deny IP List : [text area] [Delete button]

At the bottom of the page are 'Apply' and 'Cancel' buttons.

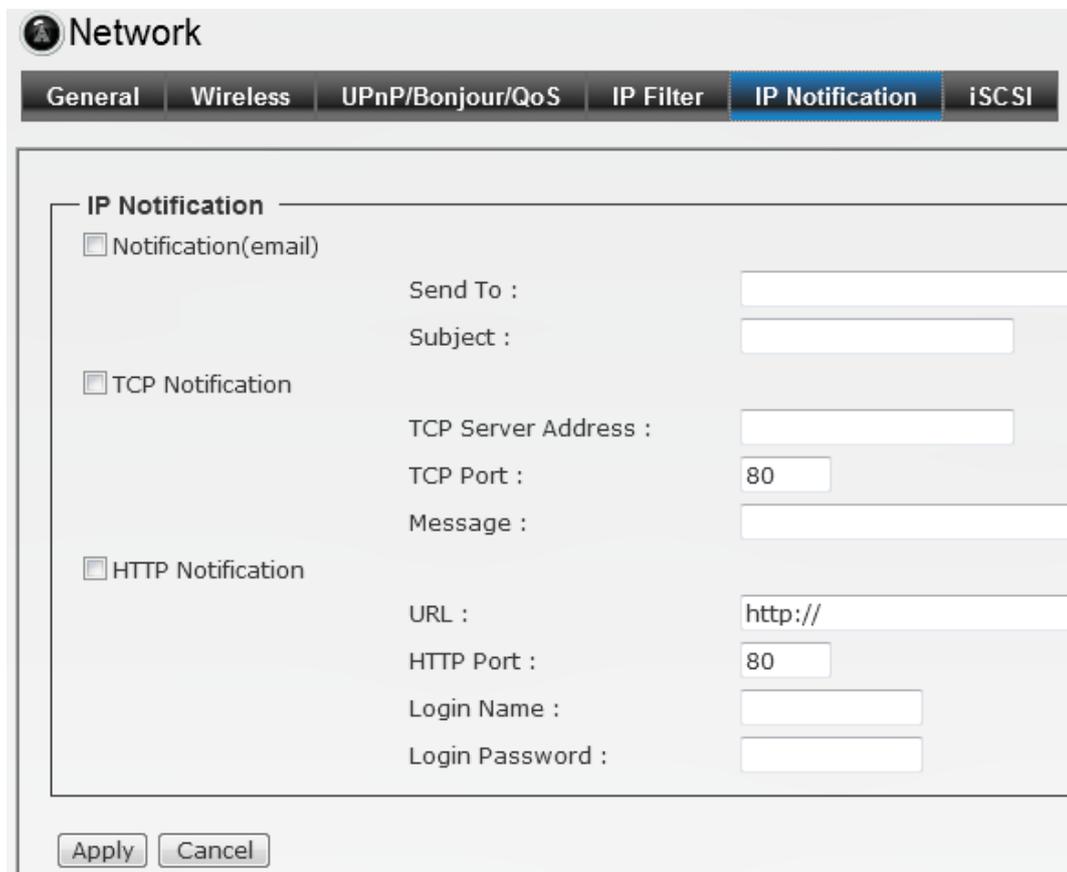
The IP Filter allows the administrator of the camera to restrict the users within a certain range of IP addresses to access into the camera. Select the **Enable Filter** option and assign the range of IP addresses that are allowed to access into the camera in the **Accept IP Address** field; or assign the range of IP addresses that are blocked to access into the camera in the **Deny IP Address** field.

For example, when you enter *192.168.0.50/192.168.0.80* in **Start/End IP Address** of **Accept IP Address** and then click **Add**, the user whose IP address located within *192.168.0.50 ~ 192.168.0.80* will be allowed to access into the camera. On the other hand, if you enter the IP range in **Start/End IP Address** of **Deny IP Address** and then click **Add**, the user whose IP address located within the range will not be allowed to access into the camera.

To remove the assigned range of IP addresses for IP Filter, select the setting in the **Accept/Deny IP List** and then click **Delete**.

### 6.1.5. IP Notification

To prevent from the IP address been changed, system is able to send out an alarm. Configure the email setting first if the function is enabled.



**Network**

General | Wireless | UPnP/Bonjour/QoS | IP Filter | **IP Notification** | iSCSI

**IP Notification**

Notification(email)

Send To :

Subject :

TCP Notification

TCP Server Address :

TCP Port :

Message :

HTTP Notification

URL :

HTTP Port :

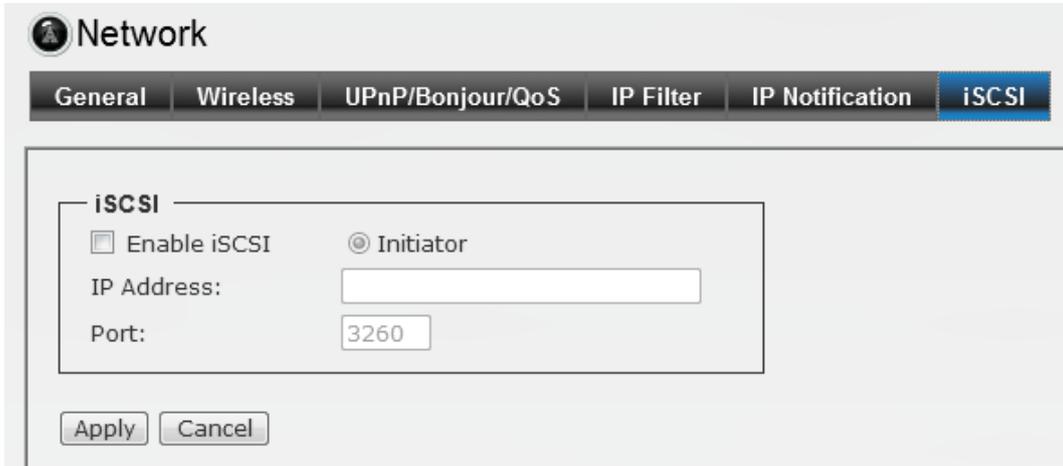
Login Name :

Login Password :

Apply Cancel

- **Notification (email):** Select to enable this function.  
Send To: Type the receiver's E-mail address.  
Subject: Type the subject/title of the E-mail.
- **TCP Notification:** Select to enable this function.  
TCP Server Address: Type the server name or the IP address of the TCP server.  
TCP Port: Set port number of TCP server.  
Message: The message will be sent to FTP server.
- **HTTP Notification:** Select to enable this function.  
URL: Type the server name or the IP address of the HTTP server.  
HTTP Port: Change it only when needed.  
HTTP Login name: Type the user name for the HTTP server.  
HTTP Login Password: Type the password for the HTTP server.

### 6.1.6. iSCSI



**Network**

General | Wireless | UPnP/Bonjour/QoS | IP Filter | IP Notification | **iSCSI**

**iSCSI**

Enable iSCSI       Initiator

IP Address:

Port:

Enable the iSCSI and key-in server IP address and Port number. The disk of the server will be the storage in IP camera setting.

## 6.2 Video

### 6.2.1. Video Profile

**Video**

Video Profile
Exposure
Image
WDR
Overlay
Privacy Masks

Intelligent Analysis Mode: Disable ?  
 ROI: Disable ?

**Main Stream**

Video Resolution: 1920x1080 (1080P)  
 Main Stream: H264 High Profile  
 Frame Rate:  Auto  25 fps  
 Rate Control:  Video Quality (VBR) Very High  
                    Bitrate (CBR) 1500 kbps ?  
 GOV: 30

**Second Stream**

Enable Second Stream  
 Video Resolution: 640x480 (VGA)  
 Second Stream: MJPEG  
 Video Quality: Very High  
 Frame Rate:  Auto  10 fps

**Mobile View**

Video Resolution: 640x480 (VGA)  
 Disable  
 3GPP without Audio  
 3GPP with Audio

Apply
Cancel

- **Intelligent Analysis Mode:** You can select Enable or Disable to switch the IVS function.
- **Main Stream & Second Stream:** It enables the encoder to deliver two totally independent streams of video, separately configured for different frame rates and video resolutions.

- **Video Resolution:** Select the resolution that you want to see the image on screen from the pull-down menu. It supports several resolution as below:

1. 2048 x 1536 (3M)
2. 1920 x 1080 (1080P)
3. 1280 x 1024 (SXGA)
4. 1280 x 960 (960P)
5. 1280 x 720 (720P)
6. 720 x 480 (D1)
7. 640 x 480 (VGA)
8. 320 x 240 (QVGA)
9. 176 x 144 (QCIF)

You also need to select a proper **Frame Rate** setting.

In Intelligent Analysis Mode:

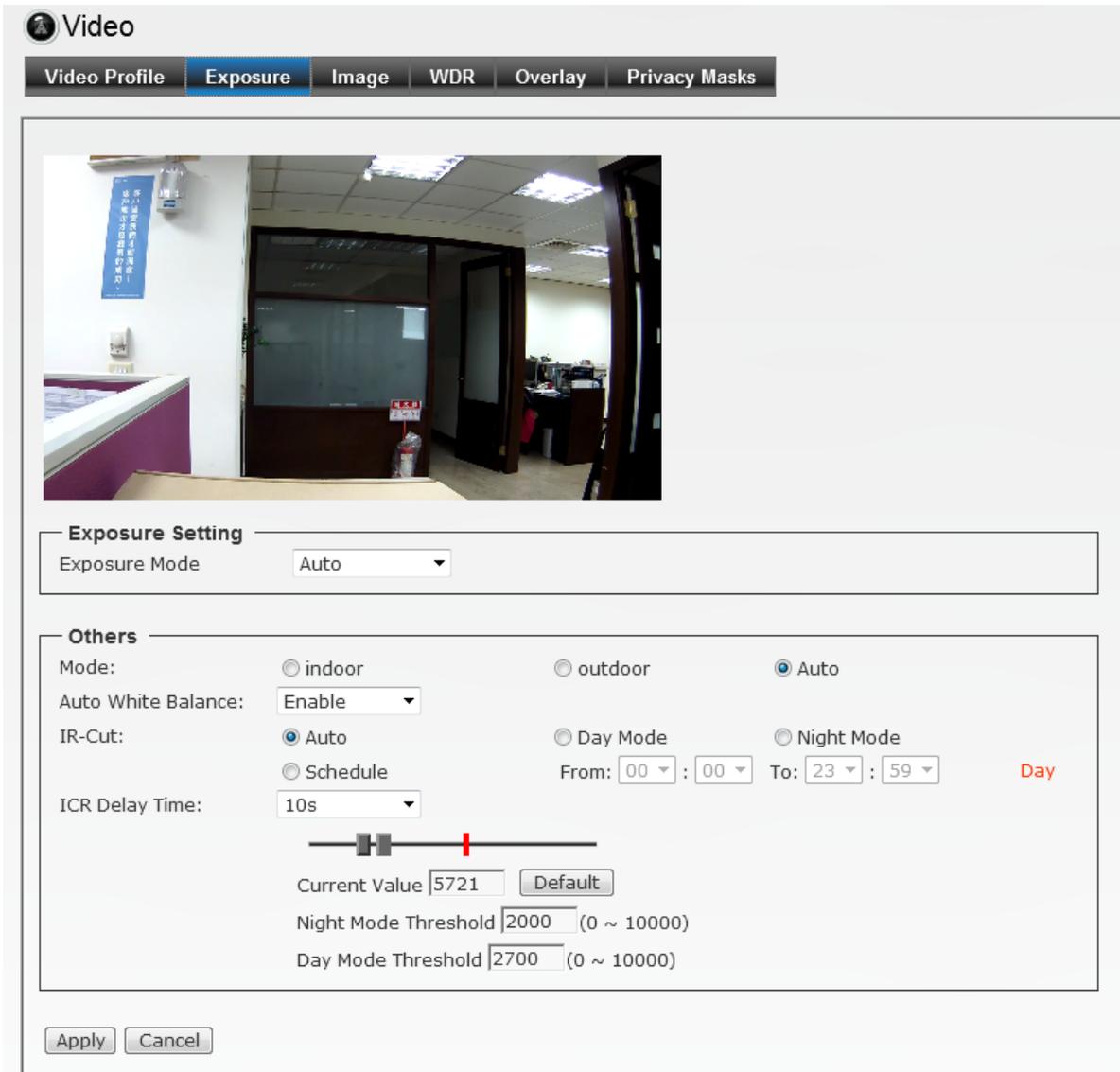
1. 2048 x 1536 (3M)
2. 1920 x 1080 (1080P)
3. 1280 x 1024 (SXGA)
4. 1280 x 960 (960P)
5. 1280 x 720 (720P)

Please select 1920x1080 or 1280x720 resolution when IVS is enable.

*Please be noted that higher resolution and frame rate gets better video quality but larger network bandwidth.*

- **Main Stream / Second Stream:** Select the streaming format as H.264 (High/Main/Baseline Profile) / MPEG4 / MJPEG.
  - **Rate Control:** Set the proper image quality by selecting **Video Quality (VBR)** or **Bitrate (CBR)** and then select the desired settings from the pull-down menu. Select Very Low, Low, Normal, High or Very High for VBR. Input a bitrate range from 384Kbps to 6Mbps for CBR.
  - **GOV:** Set the GOV value by 1~100 frames.
- **Mobile View** (Not supported by MPEG4): The camera supports 3GPP specification. Select the **Disable** option to disable this feature. Otherwise, select **3GPP Without Audio** or **3GPP With Audio** to transfer the video clips without or with audio. If you use a mobile phone that supports 3GPP, you can also view the real-time streaming image captured by the camera on your phone (with the default player on the phone) by entering the RTSP link:  
[rtsp://\(IP address of the camera\)/3gp](rtsp://(IP address of the camera)/3gp)  
*Note: Your mobile phone and the service provider must support 3GPP function. Please contact your service provider when you are failed to use this service.*

## 6.2.2. Exposure



**Video**

Video Profile | **Exposure** | Image | WDR | Overlay | Privacy Masks

**Exposure Setting**

Exposure Mode: Auto

**Others**

Mode:  indoor  outdoor  Auto

Auto White Balance: Enable

IR-Cut:  Auto  Day Mode  Night Mode

Schedule From: 00 : 00 To: 23 : 59 Day

ICR Delay Time: 10s

Current Value: 5721

Night Mode Threshold: 2000 (0 ~ 10000)

Day Mode Threshold: 2700 (0 ~ 10000)

- **Exposure Setting:** There are three options (Auto / Manual / Clear Motion). When you select Manual mode, you can adjust Exposure Value, Exposure Time and Gain value of the day and night mode.
  - **Mode:** There are three modes (Indoor / Outdoor / Auto) to fit your environment.
  - **Auto White Balance:** You can enable or disable the function.
  - **IR-Cut:** The camera can automatically or manually remove the IR-cut filter to let IR light into the sensor during low light conditions.
    - Auto:**  
Photo Sensor: The camera automatically removes the filter based on the photo sensor.
    - Manual: User can use this function to determine the threshold, and the camera switches between day mode and night mode based on this specified threshold.

**Always ON:**

The camera switches on the IR cut filter at all times to block infrared light.

**Always OFF:**

The camera switches off the IR cut filter at all times for the sensor to accept infrared light.

**Schedule:**

The camera switches between day mode and night mode based on a specified schedule. Enter the start and end time for day mode.

- **Smart IR mode:** The camera can automatically adjust IR lighting intensity and ensures that the camera captures usable video in dark conditions, even when the object of interest is located close to the IR LEDs.
- **ICR Delay Time:** Select from 5s to 30s.

### 6.2.3. Image

**● Image Setting:**

- **Brightness:** Adjust the brightness level from 0~255.
- **Contrast:** Adjust the contrast level from 0~255.
- **Saturation:** Adjust the colors level from 0~255.
- **Sharpness:** Adjust the sharpness level from 0~255.
- Click **Default** to restore the default value.

 Video

Video Profile
Exposure
Image
WDR
Overlay
Privacy Masks

### Image Setting



**Day Mode Setting**

Brightness:  128 [0..255]

Contrast:  128 [0..255]

Saturation:  128 [0..255]

Sharpness:  128 [0..255]

**Night Mode Setting**

Brightness:  128 [0..255]

Contrast:  128 [0..255]

Saturation:  128 [0..255]

Sharpness:  180 [0..255]

### Others

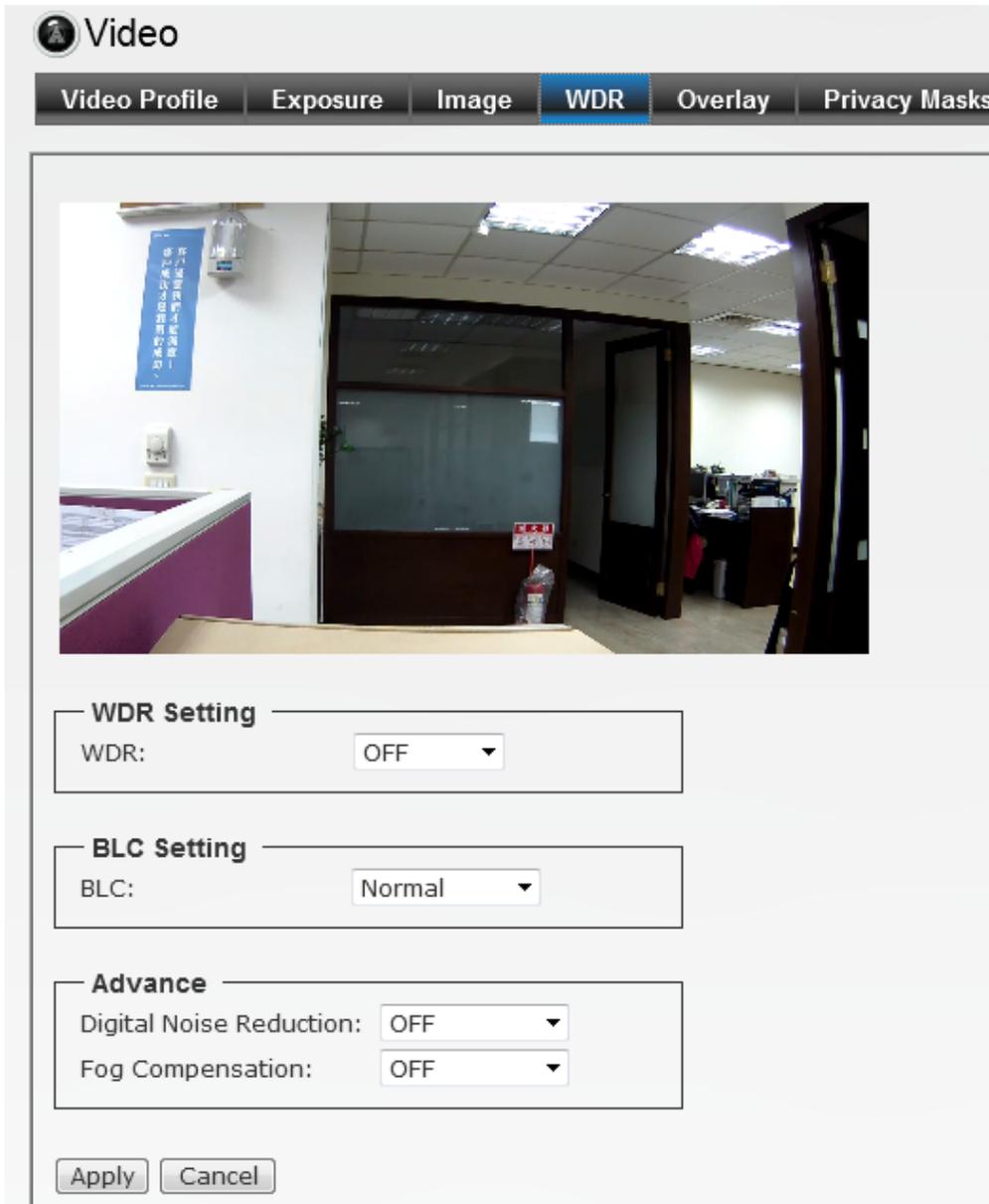
Mirror:  Vertical  Horizontal

Power Line Frequency:  NTSC/60Hz  PAL/50Hz

● **Others:**

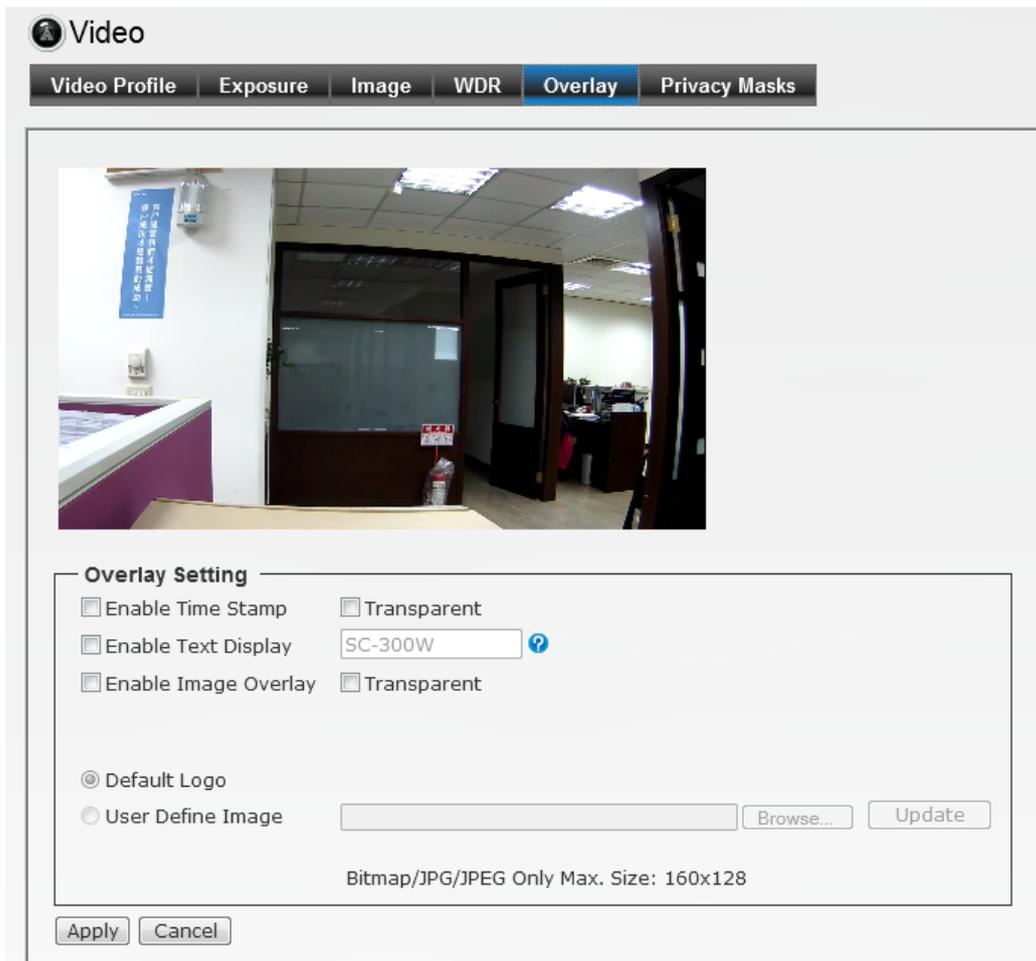
- **Mirror:** Select **Vertical** to mirror the image vertically, or select **Horizontal** to mirror the image horizontally.
- **Power Line Frequency:** Select the proper frequency according to the camera's location to reduce the flicker: **NTSC/60Hz** or **PAL/50Hz**.

### 6.2.4. WDR



- **WDR Setting:** WDR is intended to provide clear images even under backlighting, where the intensity of illumination varies a lot.
- **BLC Setting:** Backlight compensation can get ideal exposure of object which is in front of the strong luminance background
- **Advance:**
  - Digital Noise Reduction: A digital filter designed to reduce visible noise for improving visibility of images.
  - Fog Compensation: Improve visibility of images in fog or smoke by using the Fog compensation function.

**6.2.5. Overlay:** This option is used to set the image overlay and mask feature of the camera.



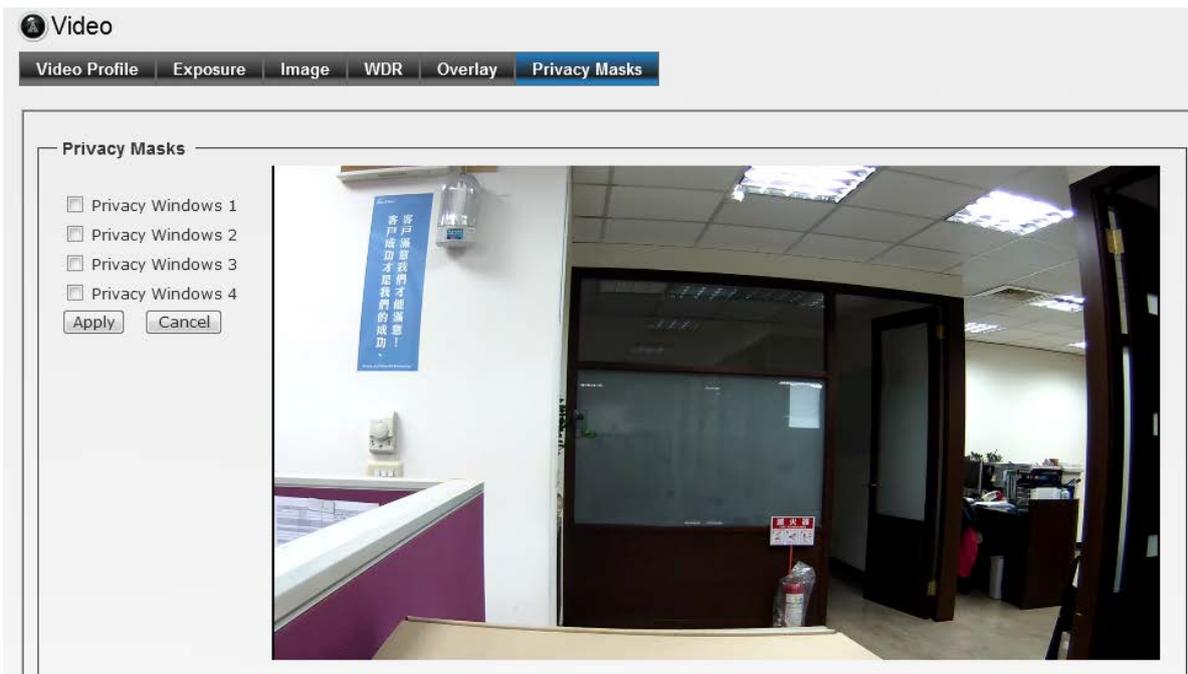
- **Enable Time Stamp:** Select this option to display the date & time information on the live view image.
- **Enable Text Display:** Select this option and enter your heading text in the box to display the text information on the live view image.
- **Enable Image Overlay:** Select **Default Logo** or **User Define Image** to display the image overlay on the live view image.

You can set the displayed image in transparent mode by selecting the **Transparent** option and select the background color as white or black.

When you select **User Define Image**, you can click **Browse** to select the image file from your computer and then click **Update** to apply the setting.

*Note: JPG/JPEG file with maximum 65536 bytes.*

**6.2.6. Privacy Masks:** Click Privacy Mask to open the settings page. On this page, user can block out sensitive zones to address privacy concerns. User can use the mouse cursor to size and drag-drop the window, which is recommended to be at least twice the size of the object (height and width) you want to cover. Up to 4 private mask windows can be set up on the same screen.



## 6.3 Audio



### 6.3.1. Microphone:

- Enable Microphone: Select the option to enable the camera's audio in function, so that you can receive the on-site sound and voice from the camera.

### 6.3.2. Speaker

- Enable Speaker: Select the option to enable the camera's audio out function, so that the connected speaker can play the sound and voice through the camera.

**6.3.3. Recording File:** During an event action, you can upload one audio file in WAV (mono, 8KHZ, <100KB in size) for playback.

## 6.4 Event

### 6.4.1. Event

ⓘ
Event

Event

Event Schedule

Motion Detection

Audio Detection

Tamper Detection

Sensor Detection

**Media Format**

One Snapshot

H.264 Video

Pre Event:

0

Second

Post Event:

5

Second

**FTP Server**

Enable

**Mail Server**

Enable SMTP ▼

**Samba Server**

Enable

**TCP Server**

Enable

**HTTP Server**

Enable

**Dropbox**

Enable Create App

Apply

Cancel

- **Media Format:** Select **One Snapshot** to send the alarm message with one still image captured by the camera, or select **H264 Video** to send the alarm message with one video clip recorded by the camera.  
You can set the attachment that is captured in **Pre Event** or **Post Event** time when the event has been triggered.
- **FTP Server:** Select “Enable” to enable the FTP server function.
  - **FTP Server:** Enter the IP address of the target FTP server.
  - **User Name:** Enter the user name to login into the FTP server.

AirLive SC-300W User’s Manual

52

- **Password:** Enter the password to login into the FTP server
- **File Path Name:** Enter the port number used for the FTP server.
- **Test FTP:** You can test the FTP server function first here.  
*Note: Due to the network environment, the camera may not upload number of images that you set.*
  
- **Mail Server:** Select “**Enable**” to enable the Mail server function.
  - **SMTP Mail Server:** Enter the mail server address. For example, [mymail.com](http://mymail.com).
  - **Port:** Assign the SMTP port in the text box. The default SMTP port is **25**.
  - **Sender Email Address:** Enter the email address of the user who will send the email. For example, [airlive@mymail.com](mailto:airlive@mymail.com).
  - **Receiver #1/#2 Email Address:** Enter the first/second email address of the user who will receive the email.
  - **Subject:** Enter the subject of the message for the event.
  - **Authentication:** Select the option according to the mail server configuration.
  - **User Name:** Enter the user name to login the mail server.
  - **Password:** Enter the password to login the mail server.
  - **Test SMTP:** When done, click the button to test the SMTP server function.
  - **Requires SSL Encryption:** If the mail server requires an encrypted connection, you should select the SSL option.
  - **STARTTLS:** Select it if the server needs the STARTTLS encryption.  
*Note: Due to the network environment, the camera may not upload number of images that you set.*
  
- **Samba Event Server:** Select “**Enable**” to enable the Network Storage server for the camera.
  - **Samba Server Address:** Enter the IP address of the Network Storage server.
  - **Path:** Assign the path for uploading the files on the Network Storage server.
  - **User Name:** Enter the user name to login into the Network Storage server.
  - **Password:** Enter the password to login into the Network Storage server.
  - **Test SMB:** When done, click the button to test the network storage server function.  
*Note: The recorded video files in Network Storage are enclosed by MP4/AVI format without audio.*
  
- **TCP Server:** Select “**Enable**” to enable the TCP Server function.
  - **TCP Server Address:** Enter the TCP server address.
  - **TCP Port:** 80. Revise it only needed.
  - **Message:** Enter the message here.
  - **Test TCP:** Click to test the TCP server function.

- **HTTP Server:** Select “**Enable**” to enable the HTTP Server function.
  - **URL:** Enter the URL path of the HTTP server.
  - **HTTP Port:** 80. Revise it only needed.
  - **Login Name:** Enter the login name of the HTTP server.
  - **Login Password:** Enter the login password of the HTTP server.
  - **Message:** Enter the message here.
  - **Test HTTP:** Click to test the HTTP server function.
- **Dropbox:** Select “**Enable**” to enable the Dropbox function.
  - **See Appendix B for the detailed setup.**

#### 6.4.2. Event Schedule

Click “Add” for more detail settings.



The screenshot shows a web interface for configuring an event. At the top, there is a header with a camera icon and the word "Event". Below this is a navigation bar with several tabs: "Event", "Event Schedule" (which is highlighted in blue), "Motion Detection", "Audio Detection", "Tamper Detection", and "Sensor Detection". The main content area is titled "Event List" and contains a table with two columns: "Event Name" and "Status". Below the table are three buttons: "Add", "Edit", and "Delete".

**Event**
**Event Schedule**
Motion Detection
Audio Detection
Tamper Detection
Sensor Detection

**Event List**

Event Name	Status

! Please remember to save settings after you add or edit event.

**Event Settings**

Event Name:   Enable

**Schedule**

Always

From  :  To  :  hh:mm

Sun
  Mon
  Tue
  Wed
  Thu
  Fri
  Sat

**Trigger** ?

Motion Detection 
 Tamper Detection

Video Analytics  ?
 Periodically time  seconds

SD Card Read/Write Fail Detection  Minute

Network Disconnect ?

Audio Detection

PIR

Temperature Detection
  Humidity Detection

**Action**

Enable FTP
  Enable SD CARD

Enable EMAIL
  Enable TCP
  Audio File Playback

Enable Samba( Net Storage )
  Enable HTTP

Dropbox

- Follow the steps below to set up the Event Schedule for the camera:
  1. Select “**Enable**” and enter the **Event Name**.
  2. **Schedule:** Select to always trigger the event or on specific time period and date.
  3. Select the **Trigger** by: **Motion Detection / Digital Input 1 / Digital Input 2 / Tamper Detection / Video Analytics / Periodically time/ SD Card Read/Write Fail Detection / Network Disconnect / Audio Detection**.

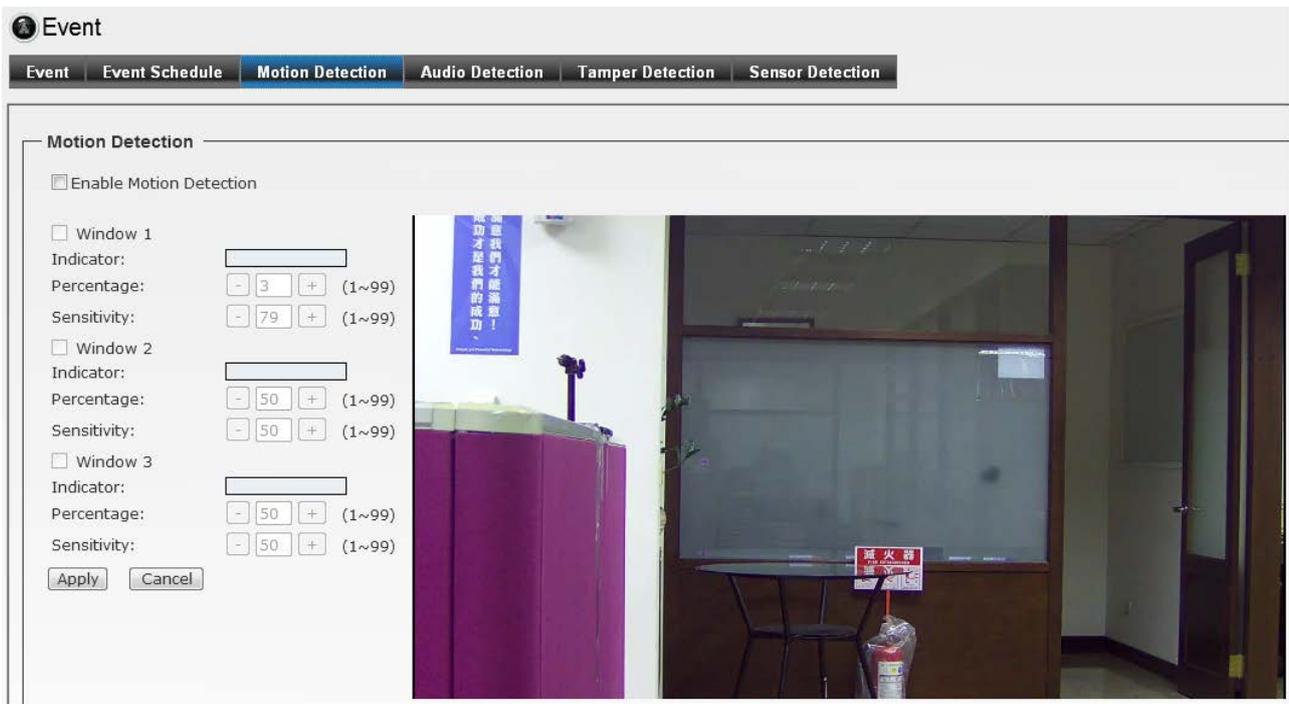
**4. Action:** Select the trigger method.

- **Enable FTP:** The camera will upload the attachment to FTP when triggered.
- **Enable EMAIL:** The camera will send the attachment to the assigned receiver when triggered.
- **Enable Samba:** The camera will transfer the attachment to the network storage when triggered.
- **Enable SD CARD:** Image will be saved into local MicroSD Card when triggered.
- **Enable TCP:** The camera will send instant message when triggered.
- **Enable HTTP:** Camera will send the attachment to HTTP server.
- **Google Drive:** The camera will send the attachment to the Google Drive when triggered.
- **Trigger digital output:** The camera will trigger the connected device on the camera's output for 1~60 seconds.
- **Audio File Playback:** Playback a recorded audio file when triggered.
- **Modify/Delete:** To change/remove the event profile, select the file on the list and click **Modify/Delete**.

*Note: To enable the FTP/Email/Samba/TCP/HTTP services, the required settings of must be completed in Event section.*

### 6.4.3. Motion Detection

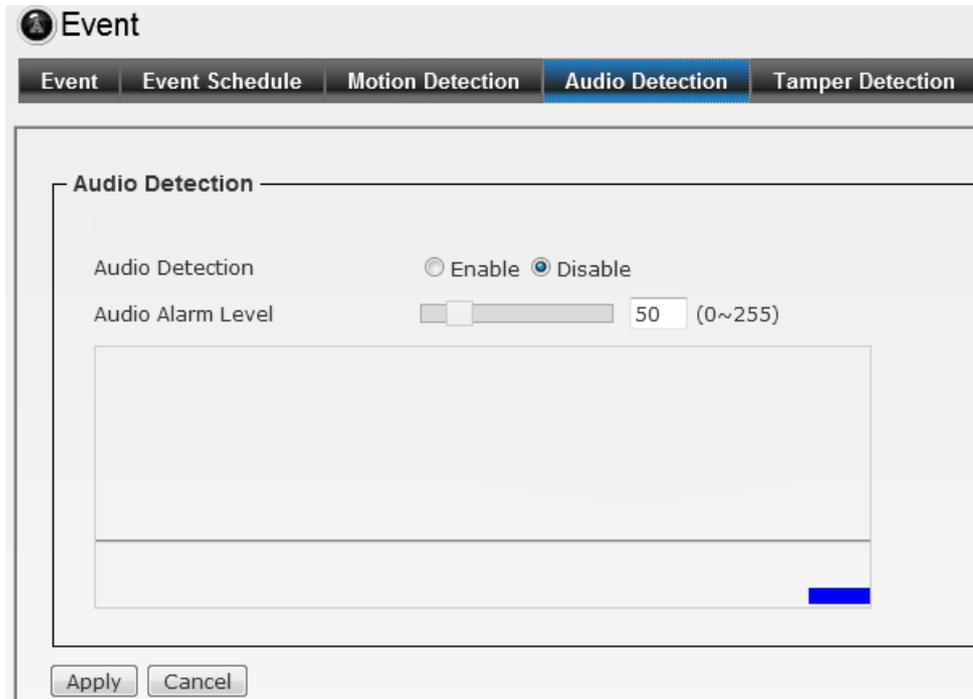
The Motion Detection option contains the commands and settings that allow you to enable and set up the motion detection feature of the camera. The camera provides three detecting areas.



- Follow the steps below to set up the Motion Detection function for the camera:
  1. Select **Enable Motion Detection**.
  2. **Window 1/2/3**: When the detecting area is enabled, you can use the mouse to move the detecting area and change the coverage.
  3. Set the **Percentage** and **Sensitivity** (1~99) for detecting motion to record video.
  4. When done, click **Apply** to save the settings and activate the motion detection function.

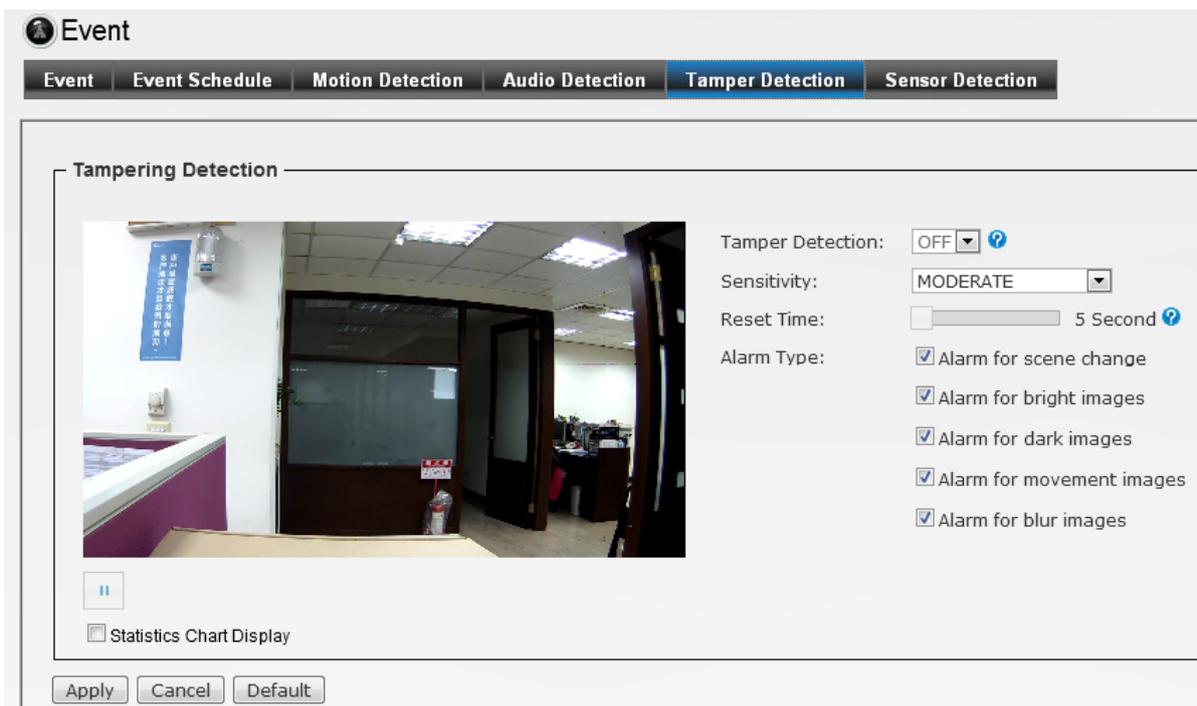
### 6.4.4. Audio Detection:

- **Audio Detection**: Select to enable or disable the audio detection function.
- **Audio Alarm Level**: The higher level means need higher volume to trigger the event.



### 6.4.5. Tamper Detection

Camera Tamper Detection (CTD) detects tampering events in surveillance cameras that may compromise the integrity of the video content. Examples of camera tampering include obstructing the lens with paint or a foreign object, adjusting the lens' focus or aperture settings, pointing the camera in a different direction, and turning off the lights (if indoors with no major change in ambient illumination expected). CTD can tolerate the effects of automatic camera gain, camera shaking that causes mild image jitter (less than +/- 4 pixels in any direction), and dimly lit scenes.



- Select ON/OFF to enable/disable the Tamper Detection.
- Select **Sensitivity** to set the sensitivity level.  
The higher the sensitivity, detects the minutest tampering attempts.
- Select **Reset Time**. Once a tampering is detected, the camera will resume a normal operating after a certain stability time (**Reset Time**) during which no detection will be performed.
- Select **Alarm Type** to specify the activation condition.
- **Statistics Chart Display**: You can see the test result of alarm type here.

#### 6.4.6. Sensor Detection

The camera provides the display of temperature and humidity in real-time. Alert the user when temperature and humidity exceed or bellow certain value.

##### Temperature Detection

- Check **Enable Temperature Detection** to enable the Temperature Detection.
- **High/ Low Temperature**: You can set High and Low temperature
- Check **Enable Temperature Detection** to display current temperature

##### Humidity Detection

- Check **Enable Humidity Detection** to enable the Humidity Detection.
- **High/ Low Humidity**: You can set High and Low Humidity
- Check **Enable Humidity Detection** to display current humidity

##### Calibration

Always you to calibrate the Temperature and Humidity for both day and night

\*note only do the calibration after the camera has been powered on for at least 1 hour, And no day/night mode switch has been made within 1 hour.

- Temperature Day / Night select the value you need to add to your temperature to display the correct one.
- Humidity Day / Night select the value you need to add to your temperature to display the correct one.

Event

Event
Event Schedule
Motion Detection
Audio Detection
Tamper Detection
Sensor Detection

**Temperature Detection**

Enable Temperature Detection

Temperature :  °C  °F

Current Temperature : 25 °C

Temperature Range

High      ~      Low

Enable Temperature Overlay

**Humidity Detection**

Enable Humidity Detection

Current Humidity : 63 %RH

Humidity Range

High      ~      Low

Enable Humidity Overlay

**Calibration**

Temperature :

Day :       Night :  Degree

Humidity :

Day :  %      Night :  %

**Note :**  
 Please do temperature and humidity calibration after camera powers on more than one hour and no day & night mode switch in one hour.

## 6.5 Storage

### 6.5.1. Recording

### Storage

Recording
Recording List

#### Recording

Enable Recording

NAS/File Server     
  SD CARD     
  iSCSI     

Maximum Size of Each File :  MB

Enable adding timestamp to files

#### Schedule

Sun  
  Mon  
  Tue  
  Wed  
  Thu  
  Fri  
  Sat

Time:

Always  
 From  :  To  :  hh:mm  
 PIR

- **Recording:** Select the option to enable the recording to storage function.
  - **NAS/File Server:** Enter the IP address of the Network Storage/CIFS server.
  - **Upload Path:** Assign the path for uploading the files on the Network Storage/CIFS server.
  - **Login Name:** Enter the user name to login into the Network Storage/CIFS server.
  - **Password:** Enter the password to login into the Network Storage/CIFS server.
  - **Maximum Size of Each File:** This option allows you to limit the file size to be uploaded to the server.
  - **Timestamp:** Select this option to add the date & time information on the attachment.
  
- **Schedule:**
  - **NAS/File Server:** Enter the IP address of the Network Storage/CIFS server.
  
- **Schedule:** Select “**Always**” to enable recording continuously or select specific time period and date to record. When done, click **Apply** to save the settings.

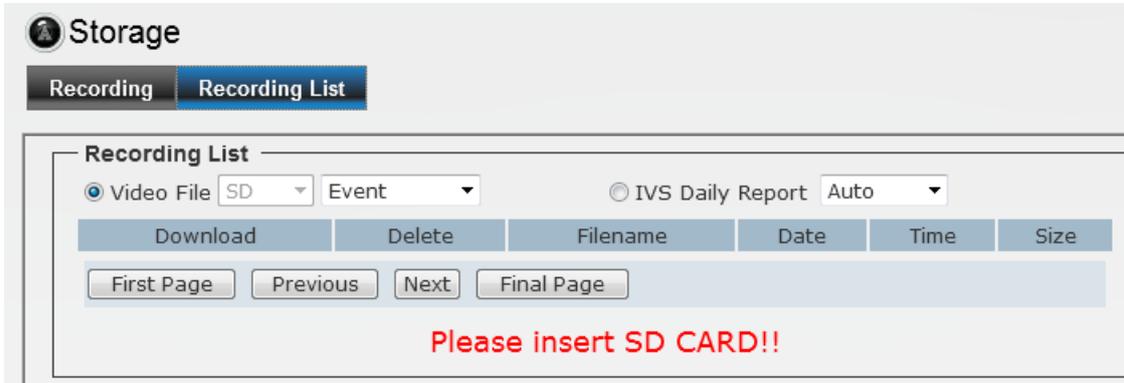
### 6.5.2. Recording List

This page shows the files list information. User may play or delete the selected file.

*Note: Please remember to insert a MicroSD card before you start to use this*

*function.*

*You can format MicroSD card in System=> Maintenance.*



The screenshot shows the 'Storage' configuration page. It has two tabs: 'Recording' and 'Recording List'. The 'Recording List' tab is active. Below the tabs, there are two radio buttons: 'Video File' (selected) and 'IVS Daily Report'. The 'Video File' option has a dropdown menu set to 'SD' and an 'Event' dropdown. The 'IVS Daily Report' option has a dropdown menu set to 'Auto'. Below these options is a table with columns: 'Download', 'Delete', 'Filename', 'Date', 'Time', and 'Size'. Below the table are four buttons: 'First Page', 'Previous', 'Next', and 'Final Page'. At the bottom of the page, there is a red error message: 'Please insert SD CARD!!'.

## 6.6 System

The System menu contains sub-menus as below. When completed, click **Apply** to save the settings.

### 6.6.1. Device Settings

ⓘ
System

Device Settings
Account
Management Ports
Firmware
Maintenance

**DIPS**

DIPS (Dynamic IP Service):       Enable       Disable

Device ID (for DIPS):

**Information**

Camera Name:     

Location:

**Indication LED**

Control:       ON       OFF

**Date & Time**

Camera Date & Time:      02/02/2016 03:59:14

TimeZone:       ▼

DayLight Saving

Don't Modify

Synchronize with NTP Server

NTP Server Address:     

Update Interval:       ▼

Manual

Synchronize with PC

- **DIPS:**
  - **DIPS (Dynamic IP Service):** To enable or disable the DIPS® (Dynamic IP Service) function.
  - **Device ID (for DIPS):** It's a unique number of each device for identification.

- **Information:** This item allows you to assign the camera name and location information.
  - **Camera Name:** Enter a descriptive name for the camera, which is helpful to identify the camera easily while multiple cameras are connected within the network.
  - **Location:** Enter a descriptive name for the location where is monitored by the camera.
  
- **Indication LED:** This item allows you to set the LED illumination as desired. The available options include: **ON** and **OFF**.
  
- **Date and Time:** Enter the correct date and time for the system.
  - **Camera Date & Time:** It shows the current date and time.
  - **Time Zone:** Select the proper time zone for the region from the pull-down menu.
  - **Day Light Saving:** Select this option if the Daylight Saving Time is used in your location.

Daylight Saving means a period from late spring to early fall, and during the period many countries will set their clocks ahead of normal local time by one hour to give more daytime light in the evening.
  - **Don't Modify:** Select this option to set the date and time as system's default settings.
  - **Synchronize with NTP Server:** Select this option and the time will be synchronized with the NTP Server. You need to enter the **NTP Server Address** of the server and set the **Update Interval**.
  - **Manual:** Select this option to set the date and time manually.
  - **Synchronize with PC:** Select this option and the date & time settings of the camera will be synchronized with the connected computer.

### 6.6.2. Account

**System**

Device Settings
Account
Management Ports
Firmware
Maintenance

Viewer Login     Anonymous     Only users in database    Save

**Admin**

Password:  Modify

Confirm Password:

**Users**

User Name :  Add

Password :

Confirm Password:

User List : Delete

**Guest**

User Name :  Add

Password :

Confirm Password:

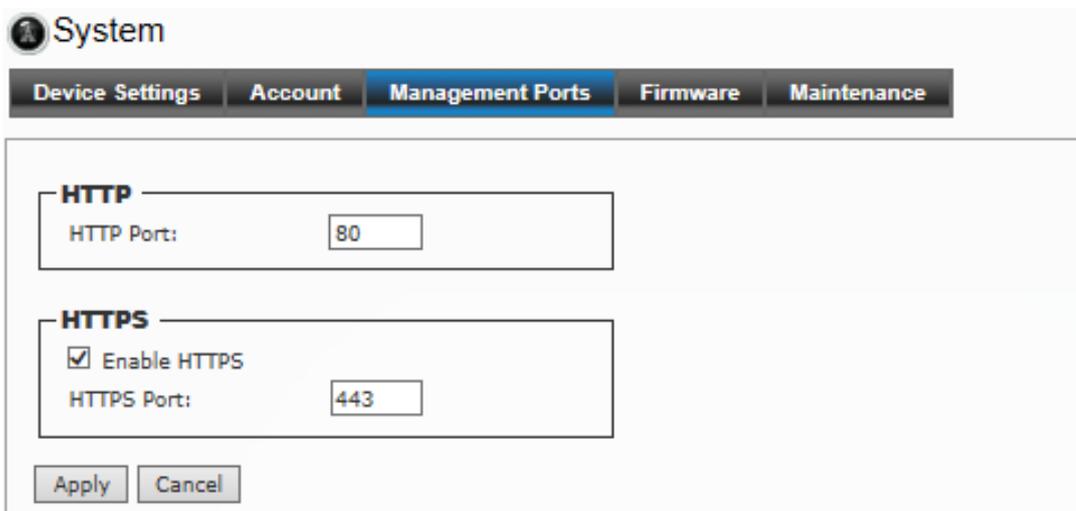
Guest List : Delete

- **Viewer Login:** Anonymous means user can login without user name and password. Or select “**Only users in database**” to limit the authentication.
- **Admin:** To prevent unauthorized access to the camera’s Web Configuration, you are strongly recommend to change the default administrator password. Type the administrator password twice and then click **Modify** to set and confirm the password.
- **Users**
  - **User Name/Password/Confirm Password:** Enter the user’s name you want to add to use the camera. Then, enter the password twice for the new user. When done, click Add to add the new user for the camera.
  - **User List:** Display the existing users of the camera. To delete a user, select the one you want to delete and click **Delete**.
- **Guest**

- **User Name/Password/Confirm Password:** Enter the user’s name you want to add to use the camera. Then, enter the password twice for the new user. When done, click Add to add the new user for the camera.
- **Guest List:** Display the existing guests of the camera. To delete a guest, select the one you want to delete and click **Delete**.

*Note: The “Users” can access the camera and control the Function buttons of the camera’s Web Configuration; the “Guest” can only view the live view image from the Main screen of the Web Configuration while accessing the camera. Only the “Admin” is allowed to configure the camera through the Web Configuration.*

### 6.6.3. Management Ports



**System**

Device Settings | Account | **Management Ports** | Firmware | Maintenance

**HTTP**

HTTP Port:

**HTTPS**

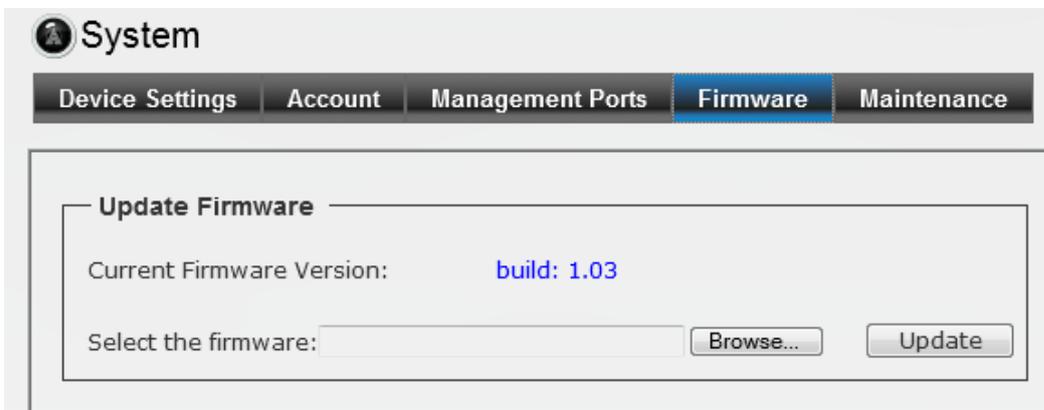
Enable HTTPS

HTTPS Port:

Apply | Cancel

- **HTTPS:** Select the **Enable HTTPS** option to enable HTTPS which is a secure protocol to provide authenticated and encrypted communication within your network.
  - **HTTPS Port:** Assign a HTTPS port in the text box. The default HTTPS port is **443**.

### 6.6.4. Firmware



**System**

Device Settings | Account | Management Ports | **Firmware** | Maintenance

**Update Firmware**

Current Firmware Version: **build: 1.03**

Select the firmware:

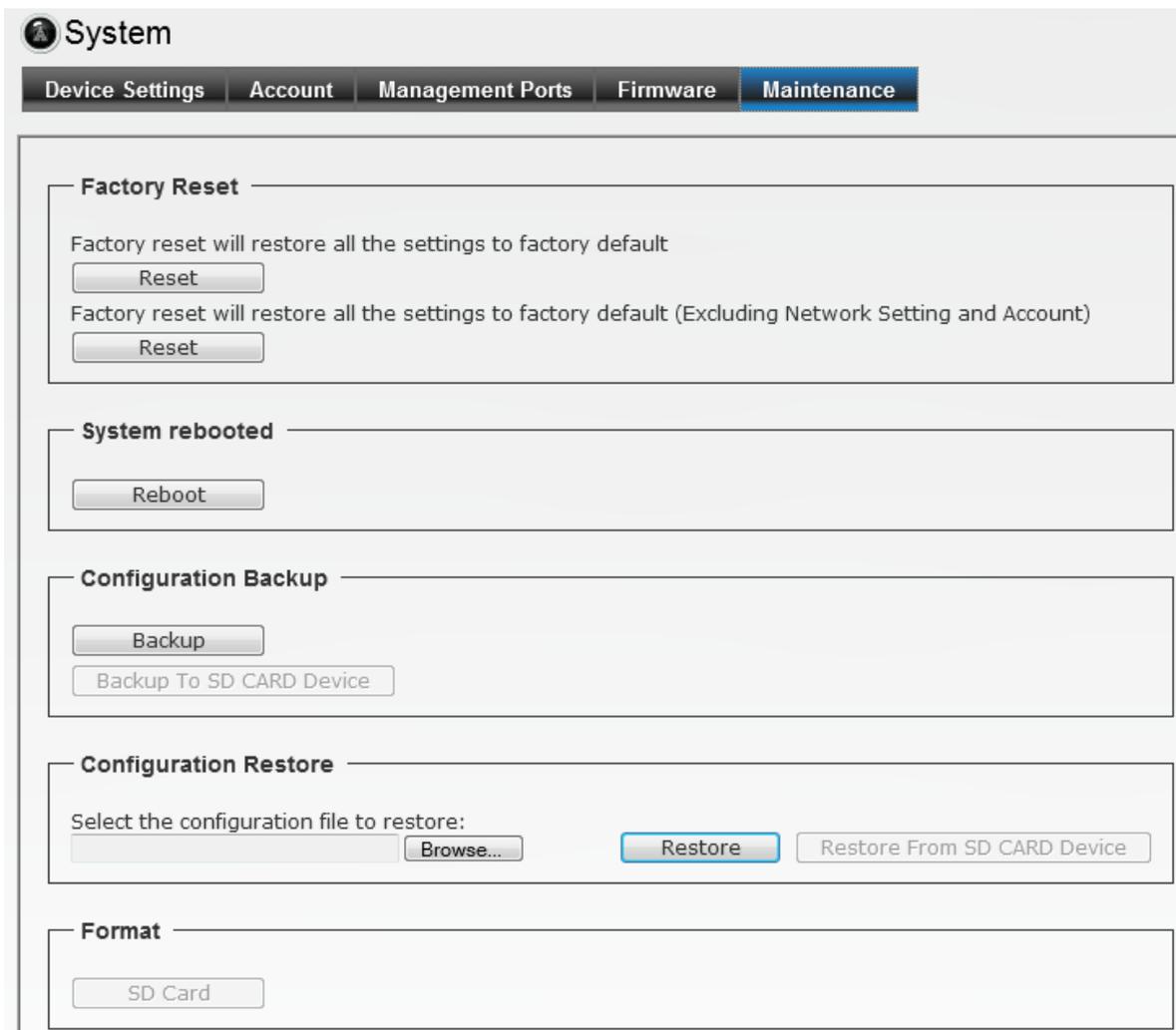
- **Update Firmware:** You can upgrade the firmware for your camera once you obtained a latest version of firmware.

- **Current Firmware Version:** It displays the current firmware version.
- **Update:** Click **Browse** to locate the firmware file and then click **Update**.

**Warning!!!**

*The download firmware procedure cannot be interrupted. If the power and/or network connection are broken during the download procedure, it might possibly cause serious damage to the device. Strongly suggest that DO NOT upgrade firmware via Wireless LAN due to high error rate possibly and don't allow any other clients to access this unit during updating procedure. Be aware that you should not turn off the power during updating the firmware and wait for finish message. Furthermore, the firmware upgrade procedure always is risk and do not try to upgrade new firmware if it's not necessary.*

**6.6.5. Maintenance**



- **Factory Reset:** Click **Reset** to restore all factory default settings for the camera.

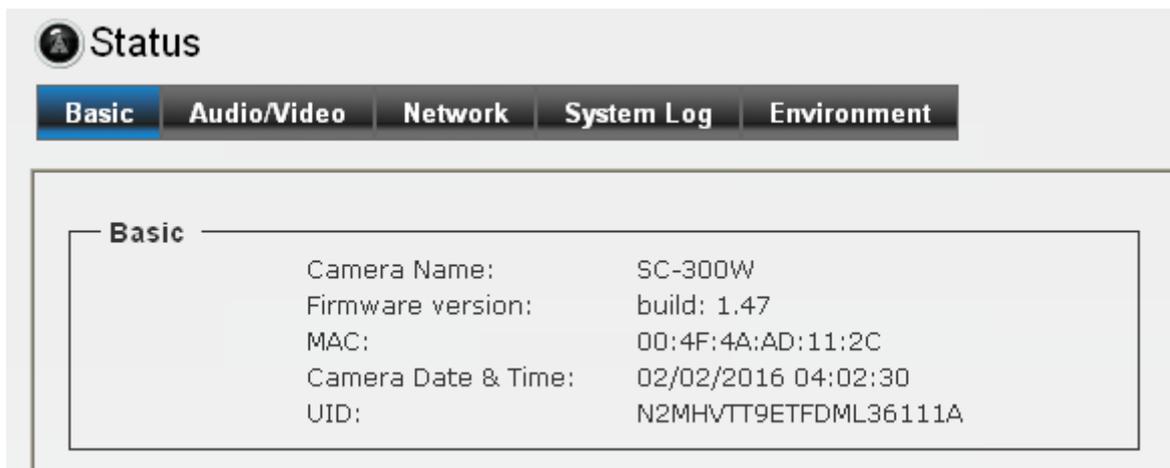
- **System rebooted:** Click **Reboot** to restart the camera just like turning the device off and on. The camera configuration will be retained after rebooting.
- **Configuration Backup:** You can save your camera configuration as a backup file on your computer. Whenever you want to resume the original settings, you can restore them by retrieving the backup file.
  - **Backup:** Click the button to save the current configuration of the camera.
  - **Backup to MicroSD CARD Device:** Click to save the configuration file to MicroSD card.
- **Configuration Restore:** click **Browse** to locate the backup file on your PC and then click **Restore**.
  - **Restore From MicroSD CARD Device:** Restore the backup file from MicroSD card.
- **Format:** Click to format the MicroSD card.

## 6.7 Status

The Status menu shows the current status of the camera, including the basic information, audio/video settings, networking configuration, and system logs.

### 6.7.1. Basic

It provides the basic information as above.



The screenshot shows the 'Status' menu with a navigation bar containing 'Basic', 'Audio/Video', 'Network', 'System Log', and 'Environment'. The 'Basic' tab is selected, displaying the following information:

Basic	
Camera Name:	SC-300W
Firmware version:	build: 1.47
MAC:	00:4F:4A:AD:11:2C
Camera Date & Time:	02/02/2016 04:02:30
UID:	N2MHVTT9ETFDML36111A

### 6.7.2. Audio/Video

It provides the information including H.264/MJPEG/Mobile View/Audio as below.

**Status**

Basic | **Audio/Video** | Network | System Log | Environment

---

**H.264**

Video Resolution:	1920x1080 (1080P)
Video Quality:	Very High
Frame Rate:	25 fps

**MJPEG**

Video Resolution:	640x480 (VGA)
Video Quality:	Very High
Frame Rate:	10 fps

**Mobile View**

3GPP Enable:	3GPP with Audio
--------------	-----------------

**Audio**

Microphone In:	Disable
Microphone Gain:	+10 dB
Speaker Out:	Disable

**6.7.3. Network:** It provides the information including IP/LAN as below.

**Status**

Basic | Audio/Video | **Network** | System Log | Environment

---

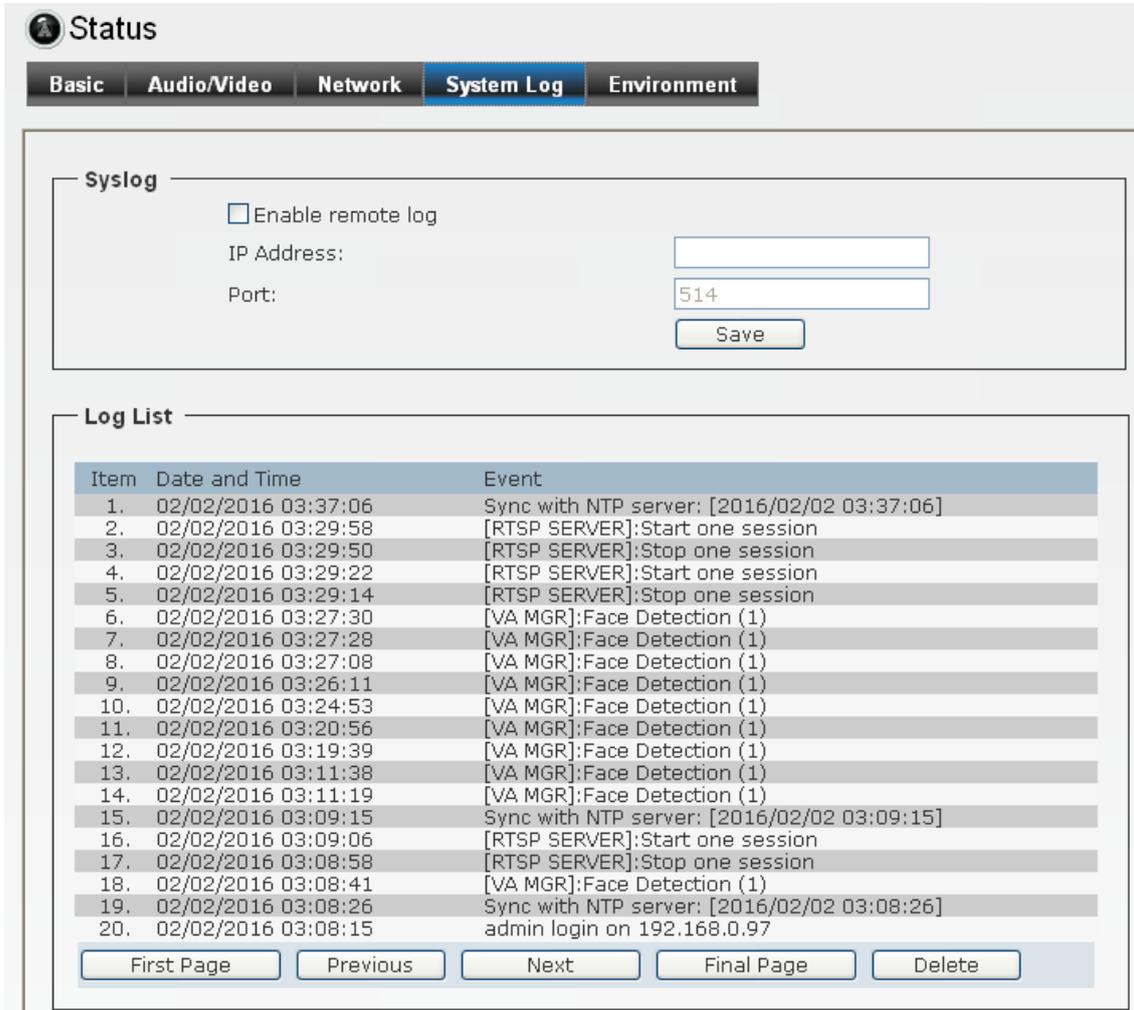
**Wired Interface**

IP MODE:	DHCP IPv4/IPv6
IP Address(IPv4):	192.168.0.78
IP Address(IPv6):	
Subnet Mask:	255.255.255.0
Gateway:	192.168.0.254
Primary DNS:	192.168.0.254
Secondary DNS:	0.0.0.0
MAC:	00:4F:4A:AD:11:2C
Status:	Connect

**Wireless Interface**

Status:	Both LAN and Wireless
IP Address:	255.255.255.255
Subnet Mask:	255.255.255.255
Gateway:	0.0.0.0
MAC:	00:4F:4A:AD:09:E9

**6.7.4. System Log:** It provides the log information as below.

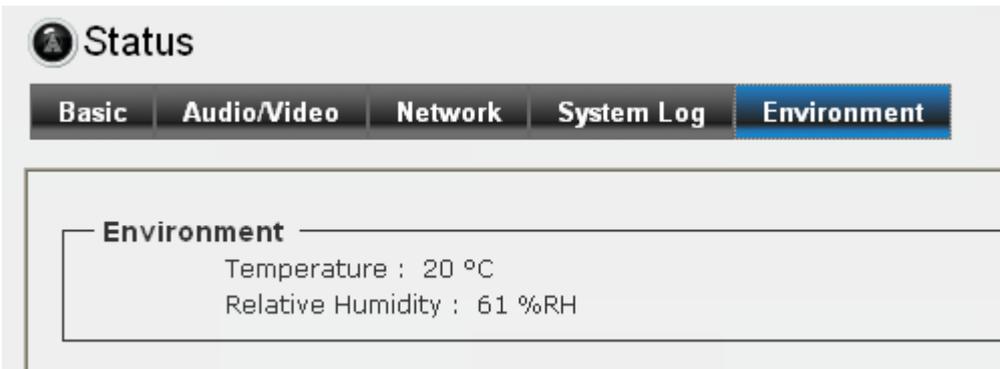


The screenshot shows the 'Status' page with the 'System Log' tab selected. It includes a 'Syslog' section with an 'Enable remote log' checkbox, an 'IP Address' field, a 'Port' field (set to 514), and a 'Save' button. Below is a 'Log List' table with 20 entries.

Item	Date and Time	Event
1.	02/02/2016 03:37:06	Sync with NTP server: [2016/02/02 03:37:06]
2.	02/02/2016 03:29:58	[RTSP SERVER]:Start one session
3.	02/02/2016 03:29:50	[RTSP SERVER]:Stop one session
4.	02/02/2016 03:29:22	[RTSP SERVER]:Start one session
5.	02/02/2016 03:29:14	[RTSP SERVER]:Stop one session
6.	02/02/2016 03:27:30	[VA MGR]:Face Detection (1)
7.	02/02/2016 03:27:28	[VA MGR]:Face Detection (1)
8.	02/02/2016 03:27:08	[VA MGR]:Face Detection (1)
9.	02/02/2016 03:26:11	[VA MGR]:Face Detection (1)
10.	02/02/2016 03:24:53	[VA MGR]:Face Detection (1)
11.	02/02/2016 03:20:56	[VA MGR]:Face Detection (1)
12.	02/02/2016 03:19:39	[VA MGR]:Face Detection (1)
13.	02/02/2016 03:11:38	[VA MGR]:Face Detection (1)
14.	02/02/2016 03:11:19	[VA MGR]:Face Detection (1)
15.	02/02/2016 03:09:15	Sync with NTP server: [2016/02/02 03:09:15]
16.	02/02/2016 03:09:06	[RTSP SERVER]:Start one session
17.	02/02/2016 03:08:58	[RTSP SERVER]:Stop one session
18.	02/02/2016 03:08:41	[VA MGR]:Face Detection (1)
19.	02/02/2016 03:08:26	Sync with NTP server: [2016/02/02 03:08:26]
20.	02/02/2016 03:08:15	admin login on 192.168.0.97

- Enable remote log: Enter the IP address to enable the remote log function.

**6.7.5. Environment :** It provides the environment temperature and relative humidity as below.



The screenshot shows the 'Status' page with the 'Environment' tab selected. It displays the current environment conditions:

Temperature : 20 °C  
Relative Humidity : 61 %RH

# 7

## Appendix A

### 7.1. Video Analytics

SmartCube 300W provides multiple intelligent video analytics that helps you to save your human resources and reach the goal of automatic surveillance.

Please go to **Configuration**→**Video Analytics** to experience the entire IVS function.

*Note: Only one Video Analytics function can be executed at same time.*

*When using Video Analytics, we will recommend you to use 2-Megapixel resolution for best performance. If 3-Megapixel resolution is selected, only Face Detection will be available.*

**7.1.1. Face Detection:** Face detection is a precise feature which needs highly accurate rate of recognition on human faces only. The software is able to count how many faces there are in the image and also highlights those faces simultaneously so for the administrator will be easier to look in details on each face at specific environment.

### Video Analytics

Face Detection ?



03/16/2015 17:11:09

⏪ ⏩

Sensitivity:  75% ?

Event Conditions:

Trigger Quantity ?

Interval

Detection Result Overlay:  OFF  Privacy Mask  Rectangle

Calibration (Min. Face Size)  Show

Face Enhancement:

---

Image Capture

Media Format

One Snapshot

H.264 Video

Pre Event

Post Event

---

Statistics Record

Statistics Record

Export Mode  Manual  Auto Daily Report ?

Statistics Period

Export Data

From	Month	Day	Hour	Minute
	<input type="text" value="Jan"/>	<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
To	Month	Day	Hour	Minute
	<input type="text" value="Dec"/>	<input type="text" value="31"/>	<input type="text" value="23"/>	<input type="text" value="59"/>

Statistics Chart Display

**7.1.2. Sensitivity:** Adjust sensitivity 0~100%, the higher sensitivity means more precisely and detailed face detection.

**7.1.3. Event Conditions:** Once you want to change the trigger condition, you have to select the event interval by NONE, Daily, Hourly or User Define **and** Quantity. For example, if you set Trigger Quantity for 5 people and interval with “1 Minute”, IP Camera detects 5 faces will trigger alarm. In the following one minute, camera won’t trigger alarm even though there are more than 5 faces are detected. After one minute, camera will trigger alarm again if it detects 5 faces again.

**7.1.4. Set Event Action:** Go to the Event Schedule to Add or Edit the IVS event.

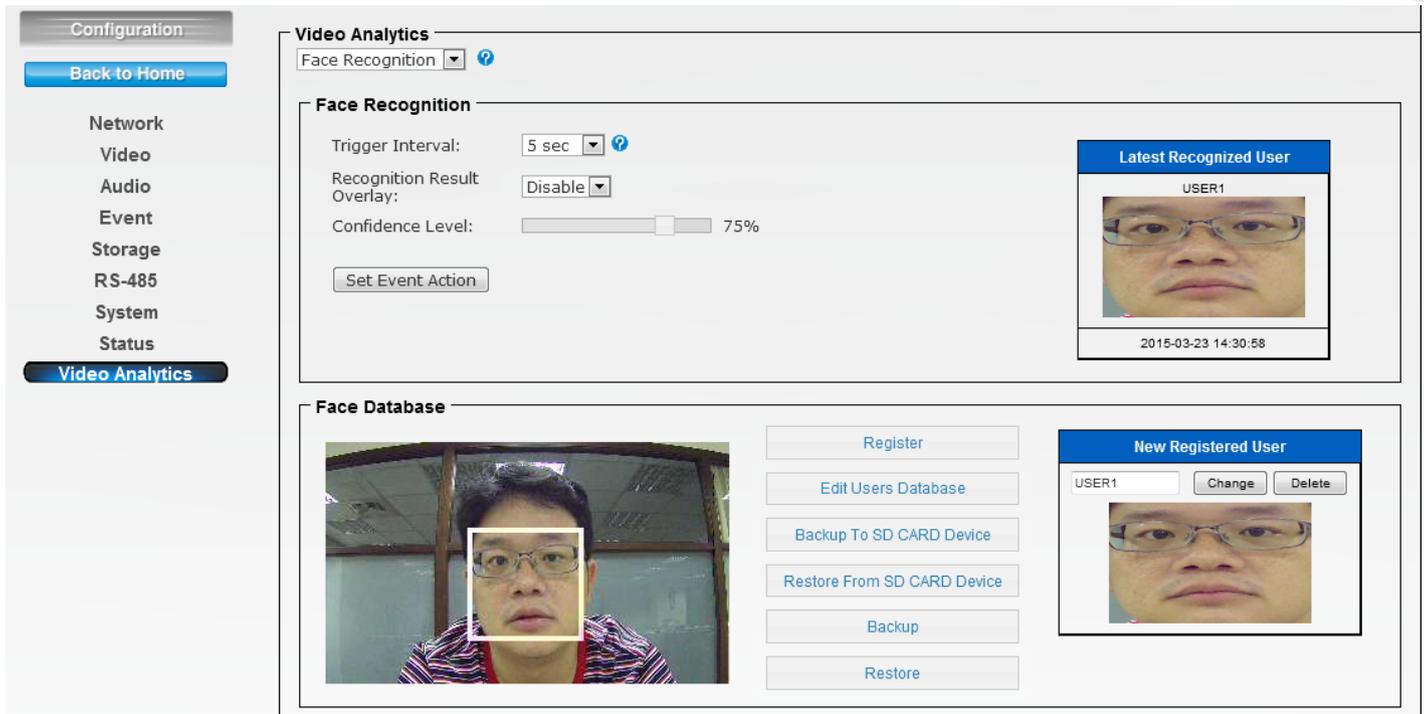
- **Detection Result Overlay:** Select OFF, Privacy Mask or Rectangle to be shown on the face when any face has been detected.
- **Calibration (Min. Face Size):** Face detection requires the min. face size is 20x20 pixels, so you can use this for reference.
- **Face Enhancement:** Enable this function for more accuracy.
- **Image Capture:** Enable this function to save the image to Samba server or MicroSD card.

Note: When you change the media format, it will effect all the existed events.

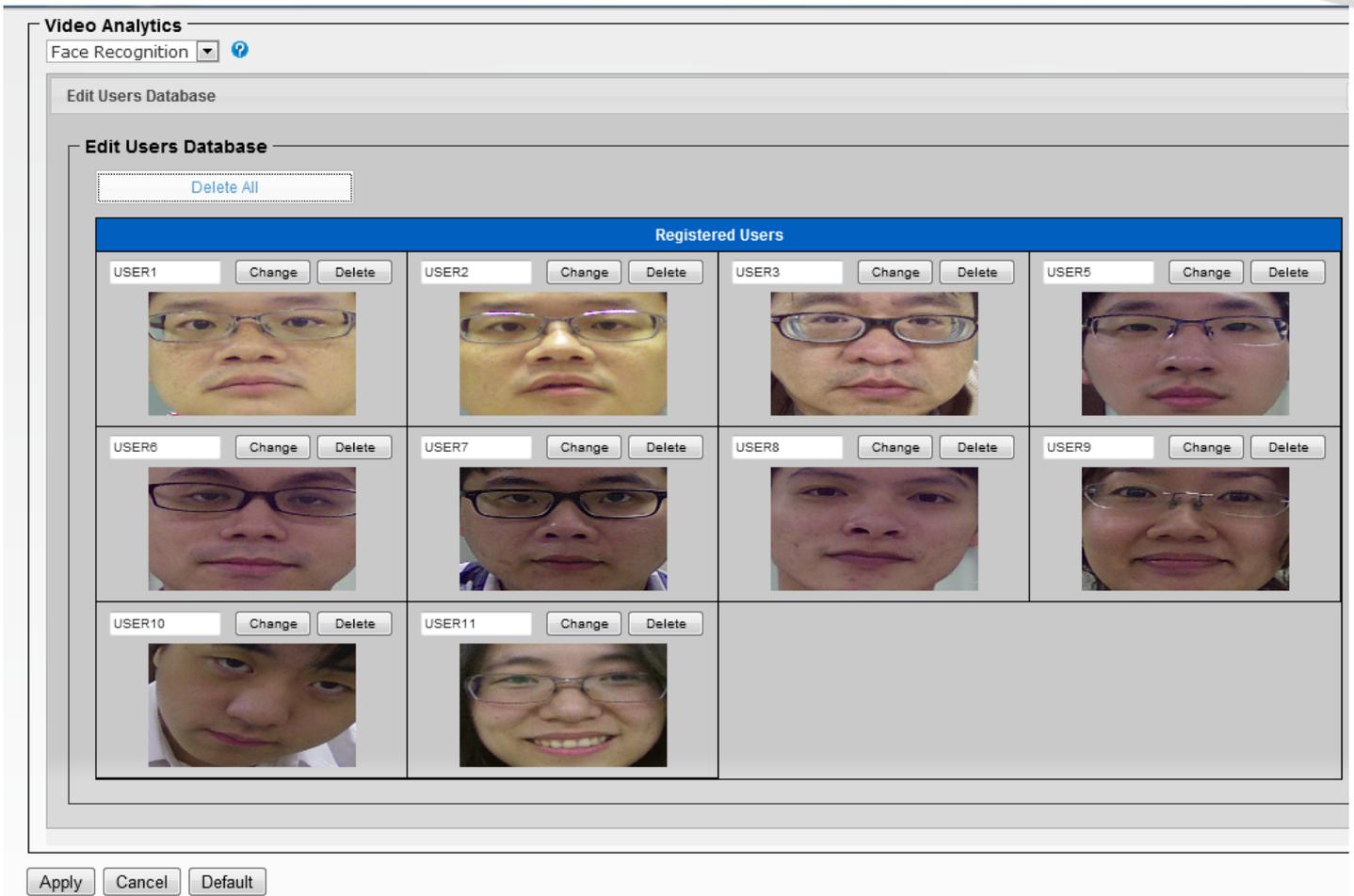
- **Statistics Record:** This function can record how many faces have been detected. You can configure your camera in different ways to generate the statistics you required and statistic data can be exported in csv format file.
  - Select **Auto**, camera can send yesterday report to Samba server or FTP server automatically.
  - Select **Statistics Period** to specify the period you want the data for.
  - Select the range to export the data or press "Reset" to delete it.
- **Statistics Chart Display:** Enable this to see the detection result by chart.

## 7.2. Face Recognition:

The key feature of Face Recognition is to recognize faces for access control or any suspicious persons in camera which match the database. You can save up to 10 face images to the AirLive SmartCube 300W for recognition, so when the camera catch the face which match the database, the camera will trigger related output devices by necessary reaction.

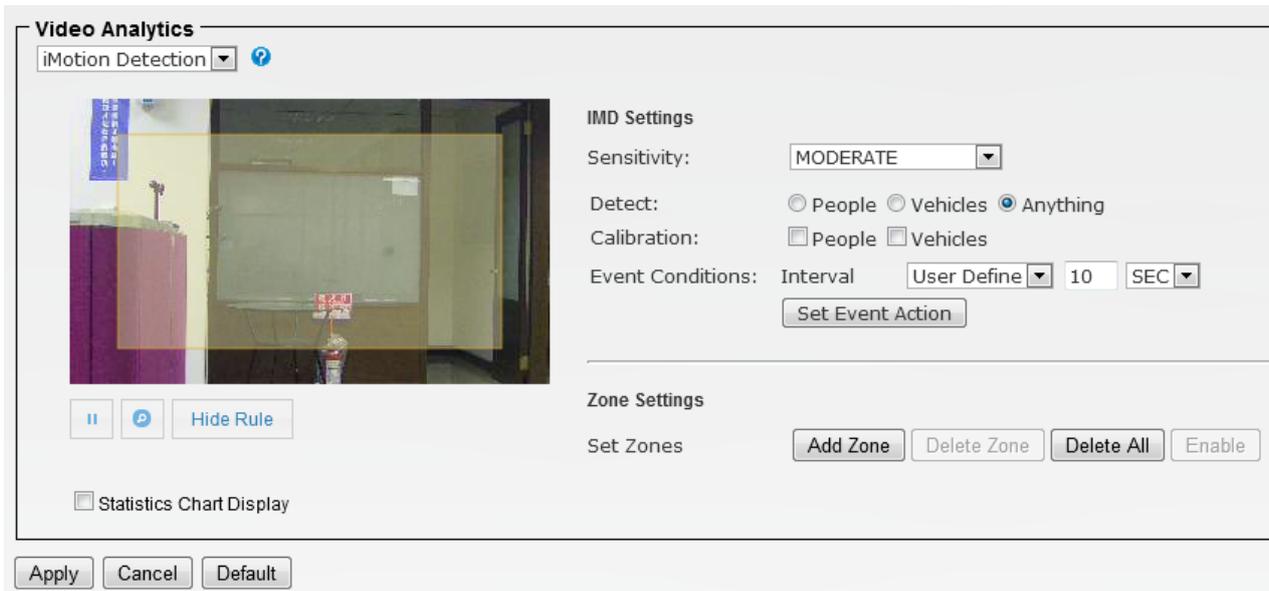


1. Select proper alarm time in **Trigger Interval**.
2. Select to Enable/Disable the overlay in **Recognition Result Overlay**. All the detected face will be shown on the live view screen.
3. Select **Confidence Level** to set the confidence threshold when compared to the faces in the database. Confidence level 40~60 is recommended.
4. **Set Event Action**: Go to the Event Schedule to Add or Edit the IVS event.
5. **Register** function supports memorizing up to **10** results of face recognition into the database. Also you can select to edit the database, backup to or restore from the MicroSD card device.
6. **Edit Users Database**: You can edit the registered database here. (See below)



### 7.3. iMotion Detection (Intelligent Motion Detection)

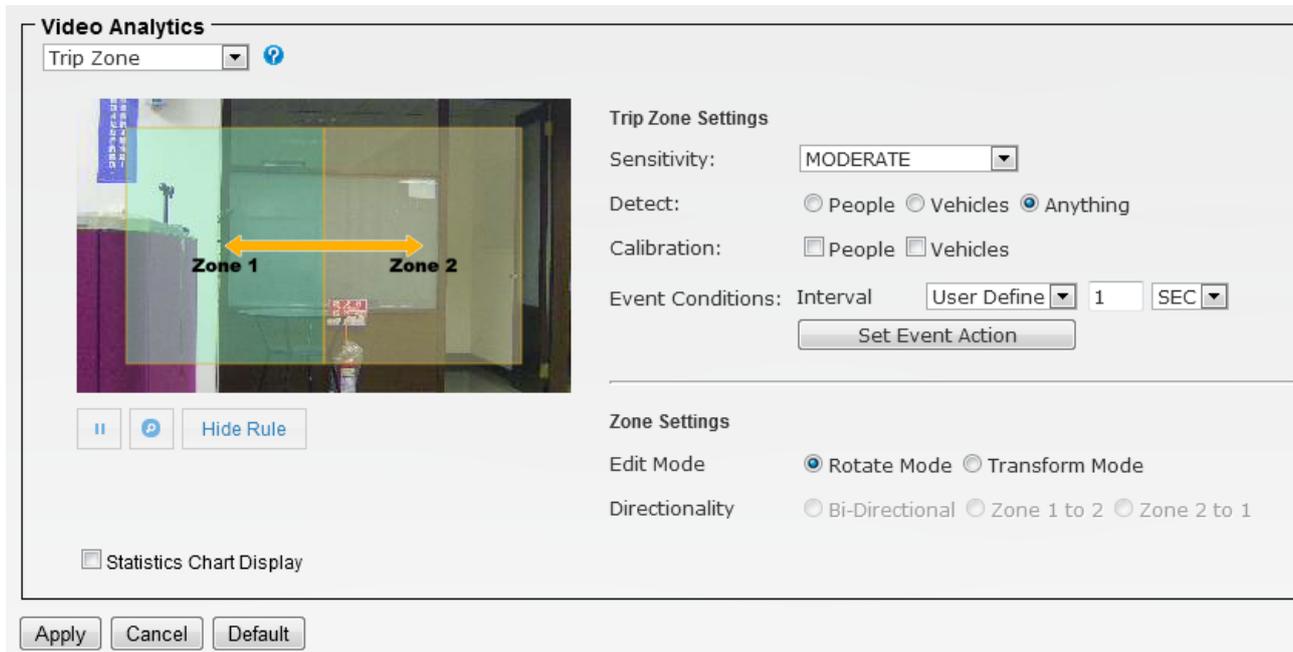
Intelligent Motion Detection is able to increase the accuracy of motion detection and also provides more flexible setting with polygon for the zones. Any moving object in the zone will trigger this alarm. Objects must move and stay within the boundary for at least 100 ms.



1. Select **Sensitivity** to set the detection sensitivity level. Higher sensitivity will make it easier to detect and less objects missing, but more misjudgments.
2. Select **People / Vehicles / Anything** as the detected objects.
3. Select **Calibration (People or Vehicle Object Sizes)**. The minimum and maximum boundary of objects can be specified to improve the detection accuracy. The width and length values must be at least 6 pixels. If any false detection caused by smaller objects, you can try to increase the minimum size.
  - **Min. Size of Calibration:** The width and length values must be 6 pixels at least. If any false detection caused by smaller objects, you can try to increase the minimum size.
  - **Max. Size of Calibration:** It has to be larger than the minimum size and half the frame size is the most.
  - Go to the Event Schedule to Add or Edit the IVS event in the **Set Event Action**.
  - Up to **4** zones can be specified when click the **Add Zone** function. Left click to add the point and **15** points at most can be used in each zone.
  - Select **Delete Zone/All** to delete the zones
  - Select **Enable/Disable** to allow the trigger or not.

## 7.4. Trip Zone

The Trip Zone is an area protection based on two virtual areas with a line in center. Any object moves across the line within 0.5 second at least will trigger the alarm and send out an alert. It can be set to detect one direction or both directions. It is very useful to some surveillance environments like walls, railroad platform, parking lot entrance or any intersection where needs to monitor the "Against Traffic".



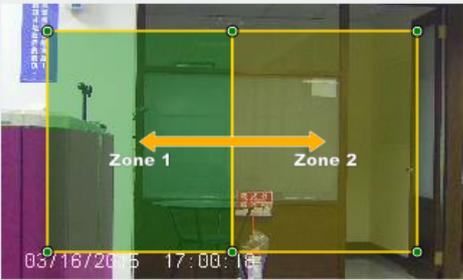
1. Select **Sensitivity** to set the detection sensitivity level. Higher sensitivity will make it easier to detect and less objects missing, but more misjudgments.
2. Select **People / Vehicles / Anything** as the detected objects.
3. Select **Calibration (People or Vehicle Object Sizes)**. The minimum and maximum boundary of objects can be specified to improve the detection accuracy. If any false detection caused by smaller objects, you can try to increase the minimum size.
4. In **Event Conditions**, you can specify the minimum time interval and quantity (500 at most) for each alarm. And go add or edit the IVS event in the **Set Event Action**.
5. Select **Rotate Mode** or **Transform Mode** in **Edit Mode**.
  - **Rotate Mode**: User can rotate the zone at will.
  - **Transform Mode**: User can drag the point of the zone to any shape.
6. **Directionality**: User can select the detected moving direction from one to another or both the directions
7. **Statistics Chart Display**: Here will show the result of Trip Zone.

## 7.5. Object Counting

The Object Counting makes store owners easier to calculate the number of people in and out of the store. You may choose one way or two way directions for counting. The numbers can be displayed on screen and saved to the database. It is also useful to calculate the amount of traffic flow on the highway.

### Video Analytics

Object Counting ?



Zone 1      Zone 2

03/16/2015 17:00:16

#### Object Counting Settings

Sensitivity:

Detect:  People  Vehicles  Anything

Calibration:  People  Vehicles

Event Conditions: Interval

Quantity

Counting Result Overlay:

Detect Line Overlay:

Reset Counter:  NONE  Daily  Hourly  User Define

Now

---

#### Zone Settings

Edit Mode  Rotate Mode  Transform Mode

Directionality  Bi-Directional  Zone 1 to 2  Zone 2 to 1

#### Statistics Record

Statistics Record

Export Mode  Manual  Auto Daily Report ?

Statistics Period

Export Data

	Month	Day	Hour	Minute	
From	<input type="text" value="Jan"/>	<input type="text" value="1"/>	<input type="text" value="0"/>	<input type="text" value="0"/>	
To	<input type="text" value="Dec"/>	<input type="text" value="31"/>	<input type="text" value="23"/>	<input type="text" value="59"/>	

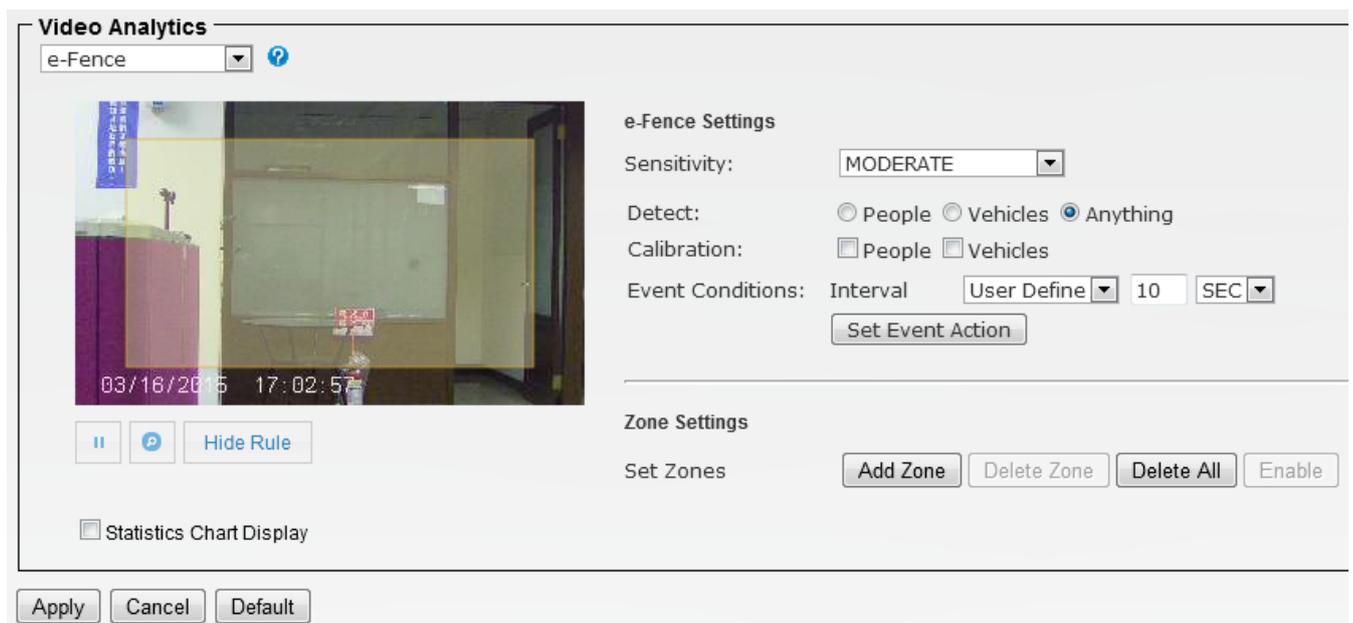
Statistics Chart Display

1. Select **Sensitivity** to set the detection sensitivity level. Higher sensitivity will make it easier to detect and less objects missing, but more misjudgments.
2. Select **People / Vehicles / Anything** as the detected objects.
3. Select **Calibration (People or Vehicle Object Sizes)**. The minimum and maximum boundary of objects can be specified to improve the detection accuracy. If any false detection caused by smaller objects, you can try to increase the minimum size.
  - **Min.Size** of Calibration: The width and length values must be 6 pixels at least. If any false detection caused by smaller objects, you can try to increase the minimum size.
  - **Max.Size** of Calibration: It has to be larger than the minimum size and half the frame size is the most.
4. In **Event Conditions**, you can specify the minimum time interval and quantity for each alarm. And go add or edit the IVS event in the **Set Event Action**.
5. Enable / Disable the **Counting Result Overlay**.
6. Enable / Disable the **Detect Line Overlay**.

7. **Reset Counter:** Select the minimum time interval to reset the counter result.
8. **Select Rotate Mode or Transform Mode in Edit Mode:**
  - **Rotate Mode:** User can rotate the zone at will.
  - **Transform Mode:** User can drag the point of the zone to any shape
9. **Directionality:** User can select the detected moving direction from one to another or both the directions.
10. **Statistics Record:** You can configure your camera in different ways to generate the statistics you required and statistic data can be exported in csv format file.
  - Select **Auto**, camera can send yesterday report to Samba server or FTP server automatically.
  - Select and choose the **Statistics Period** that you want and also you can export or reset the result.
  - **Statistics Chart Display:** Here will show the result of Trip Zone.

## 7.6. e-Fence

The e-Fence is an electronic fence protection system which is able to detect and send output alert if any object is entering or leaving the boundaries you set in the camera. This function can be used in many applications, either as a standalone protection system or other protection systems such as airports, power plants, radio towers or even military camps.



**Video Analytics**

e-Fence

**e-Fence Settings**

Sensitivity: MODERATE

Detect:  People  Vehicles  Anything

Calibration:  People  Vehicles

Event Conditions: Interval User Define 10 SEC

Set Event Action

---

**Zone Settings**

Set Zones Add Zone Delete Zone Delete All Enable

Statistics Chart Display

Apply Cancel Default

1. Select **Sensitivity** to set the detection sensitivity level. Higher sensitivity will make it easier to detect and less objects missing, but more misjudgments.

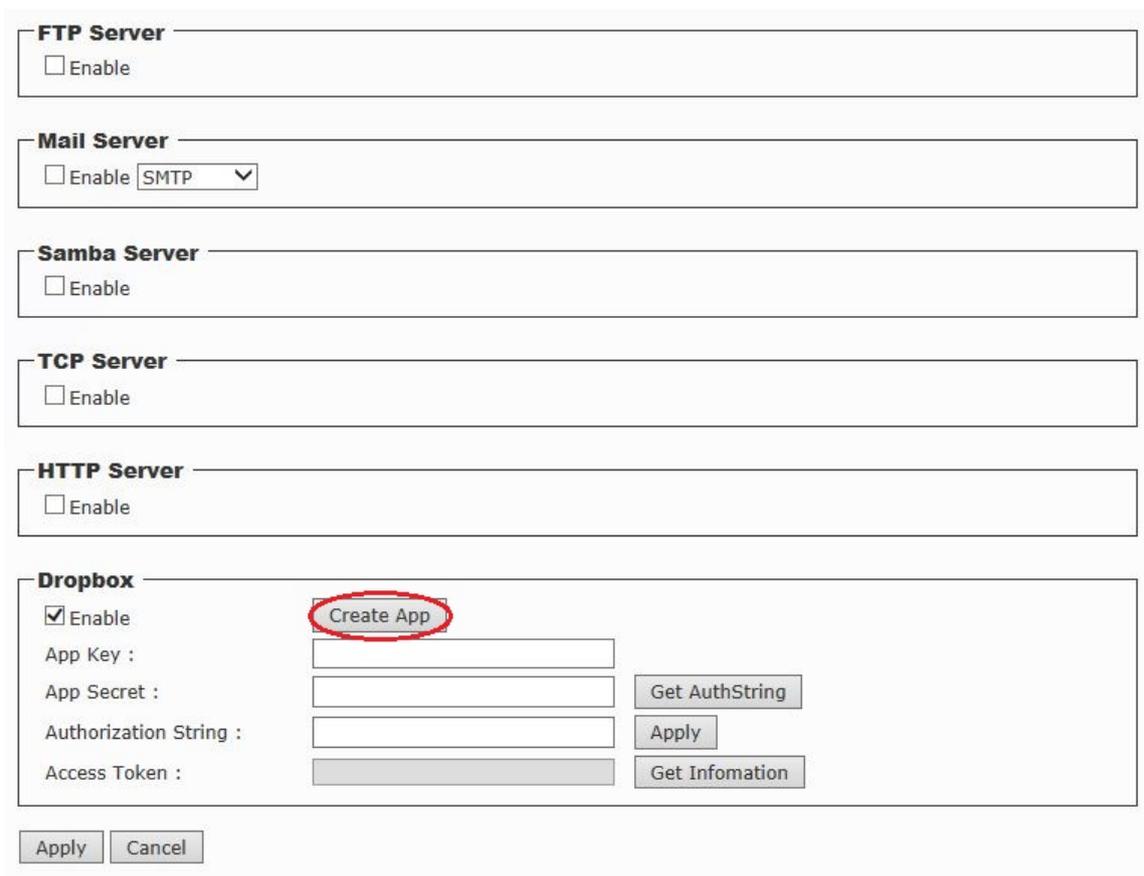
2. Select **People / Vehicles / Anything** as the detected objects.
  - Select **Calibration (People or Vehicle Object Sizes)**. The minimum and maximum boundary of objects can be specified to improve the detection accuracy. The width and length values must be at least 6 pixels. If any false detection caused by smaller objects, you can try to increase the minimum size.
    - **Min. Size** of Calibration: The width and length values must be 6 pixels at least. If any false detection caused by smaller objects, you can try to increase the minimum size.
    - **Max. Size** of Calibration: It has to be larger than the minimum size and half the frame size is the most.
  - **Set Event Action**: Go to the Event Schedule to Add or Edit the IVS event.
  - Up to 4 zones can be specified when click the **Add Zone** function. Left click to add the point and 15 points at most can be used in each zone.
  - Select **Delete Zone/All** to delete the zones.
  - Select **Enable/Disable** to allow the trigger or not.
  - **Statistics Chart Display**: Here will show the detection result of e-Fence.

# 8

## Appendix B

### 8.1. How to create App for Dropbox

1. Enable Dropbox then click 'Create App' button.



The screenshot displays a configuration panel with several server settings and a Dropbox section. The settings are as follows:

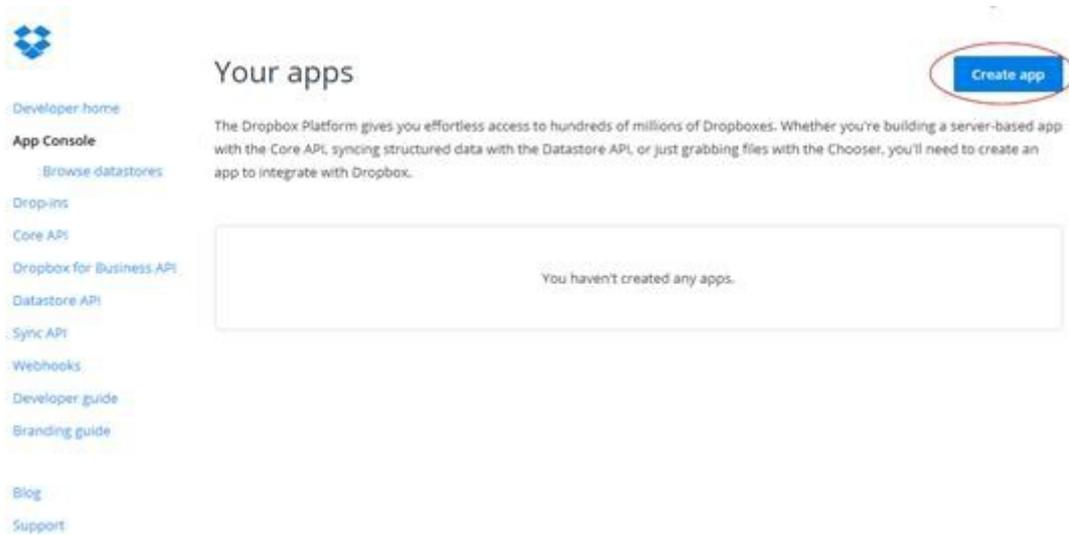
- FTP Server:**  Enable
- Mail Server:**  Enable SMTP (dropdown)
- Samba Server:**  Enable
- TCP Server:**  Enable
- HTTP Server:**  Enable
- Dropbox:**
  - Enable
  - Create App** (button, circled in red)
  - App Key :
  - App Secret :
  - Authorization String :
  - Access Token :
  - Buttons: Get AuthString, Apply, Get Information

At the bottom of the panel are **Apply** and **Cancel** buttons.

- It will pop up “Dropbox Sign in page, please input ID and password then click “**Sign in**” button.



- Click ‘Create app’ **button in** “Your apps” page.



4. Select '**Dropbox API app**' item in "Create a new Dropbox Platform app" page.



5. Select "**Files and datastores**" for 'What type of data does your app need to store on Dropbox?'

Choose "**No**" for "Can your app be limited to its own folder?"

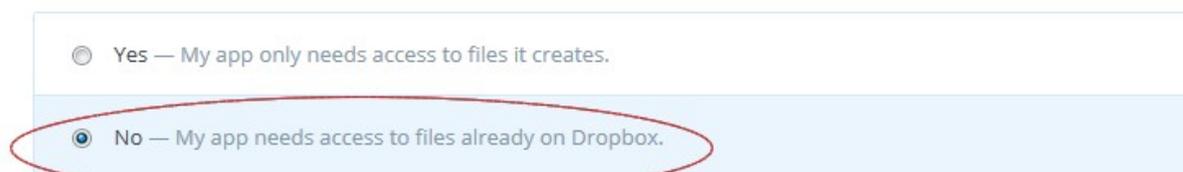
Choose "**All file types**" for "What type of files does your app need access to?"

What type of data does your app need to store on Dropbox?



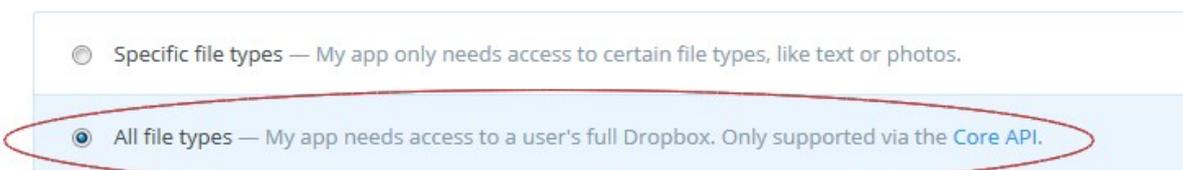
The screenshot shows the question 'What type of data does your app need to store on Dropbox?'. There are two options: 'Files and datastores' and 'Datastores only'. The 'Files and datastores' option is selected and circled in red.

Can your app be limited to its own folder?



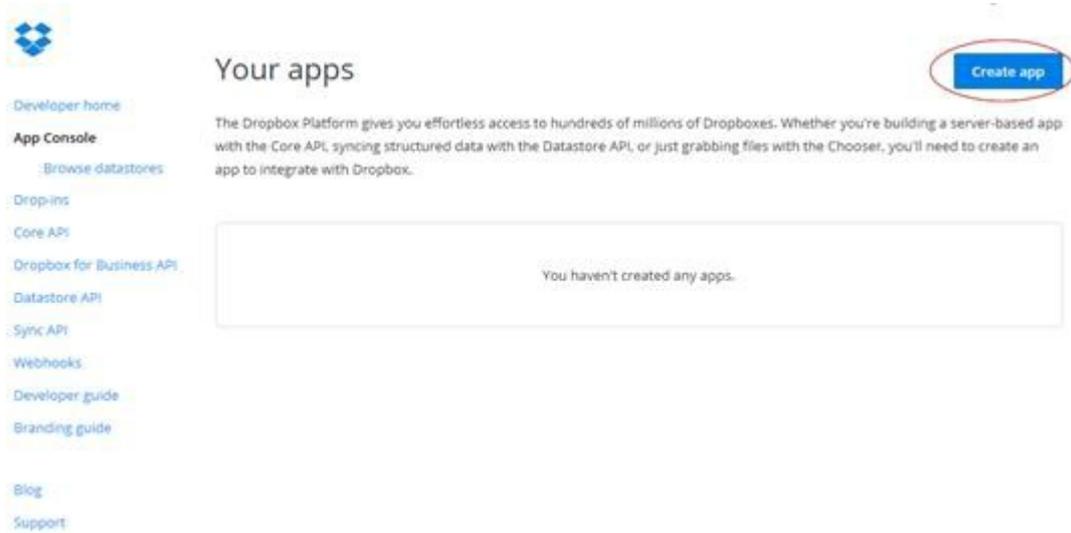
The screenshot shows the question 'Can your app be limited to its own folder?'. There are two options: 'Yes — My app only needs access to files it creates.' and 'No — My app needs access to files already on Dropbox.'. The 'No' option is selected and circled in red.

What type of files does your app need access to?

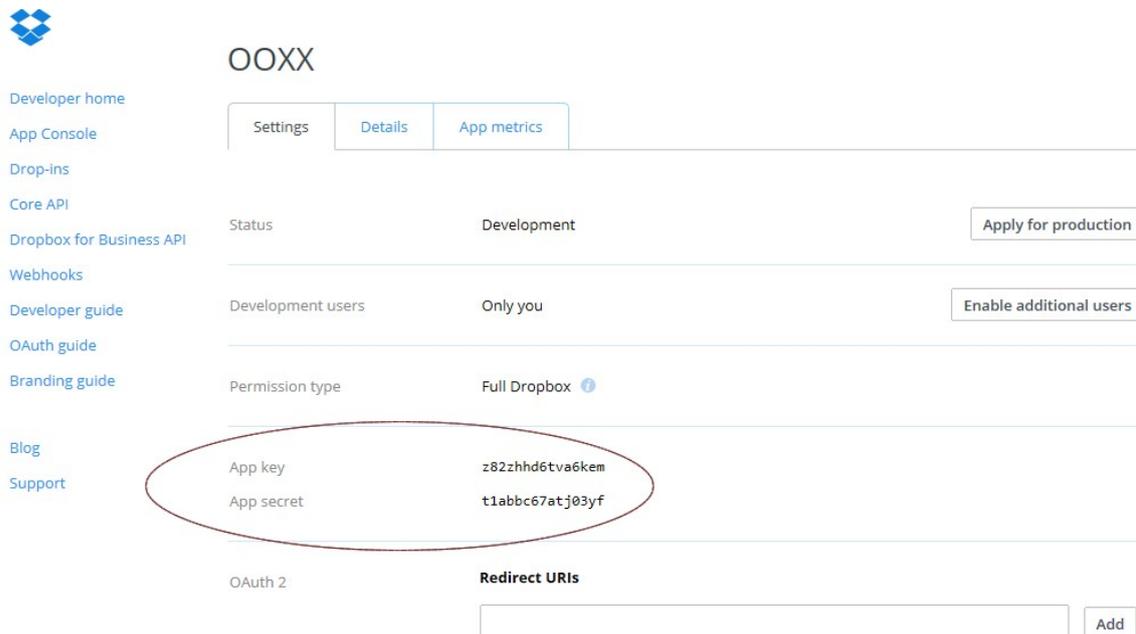


The screenshot shows the question 'What type of files does your app need access to?'. There are two options: 'Specific file types — My app only needs access to certain file types, like text or photos.' and 'All file types — My app needs access to a user's full Dropbox. Only supported via the Core API.'. The 'All file types' option is selected and circled in red.

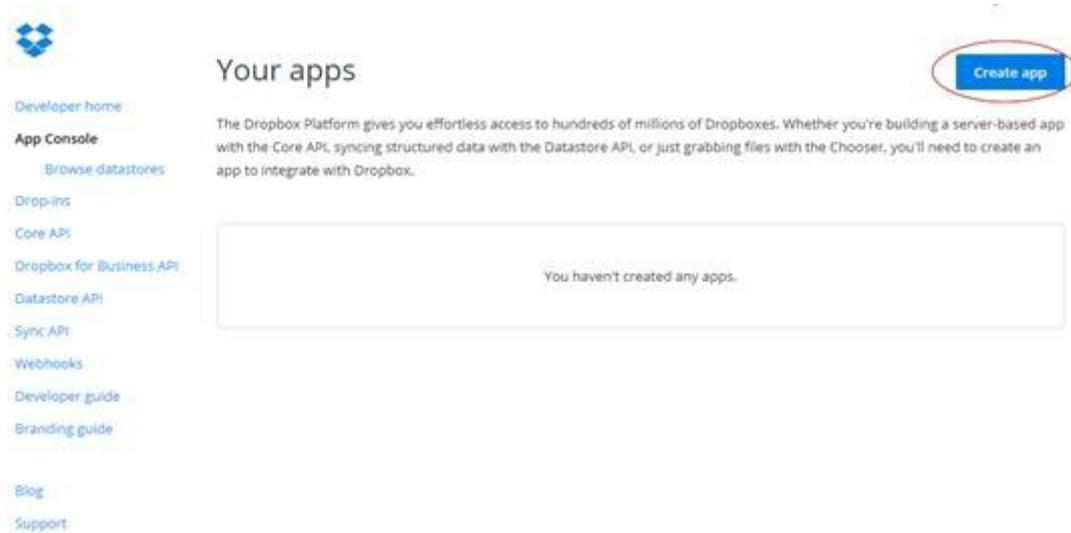
6. Input the app name then click “Create app” button.



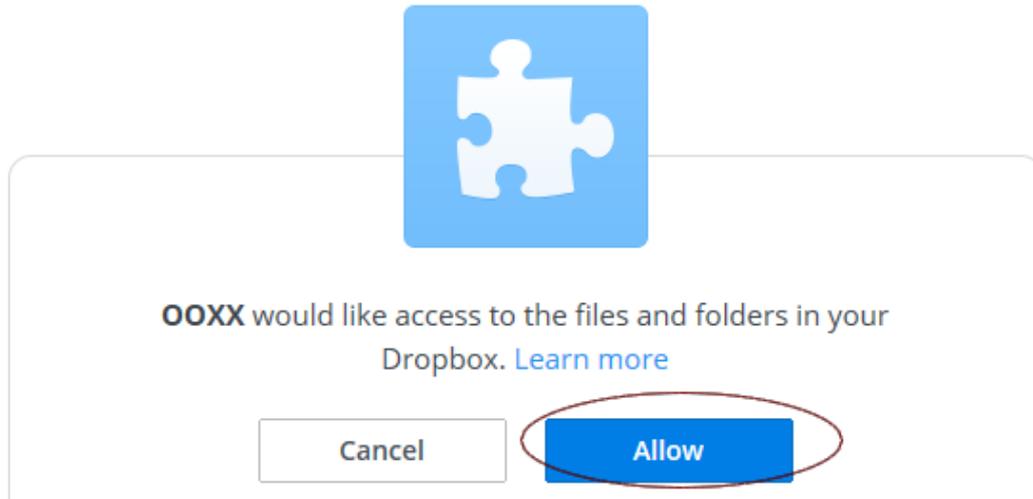
7. Copy “App key” and “APP secret” from App page.



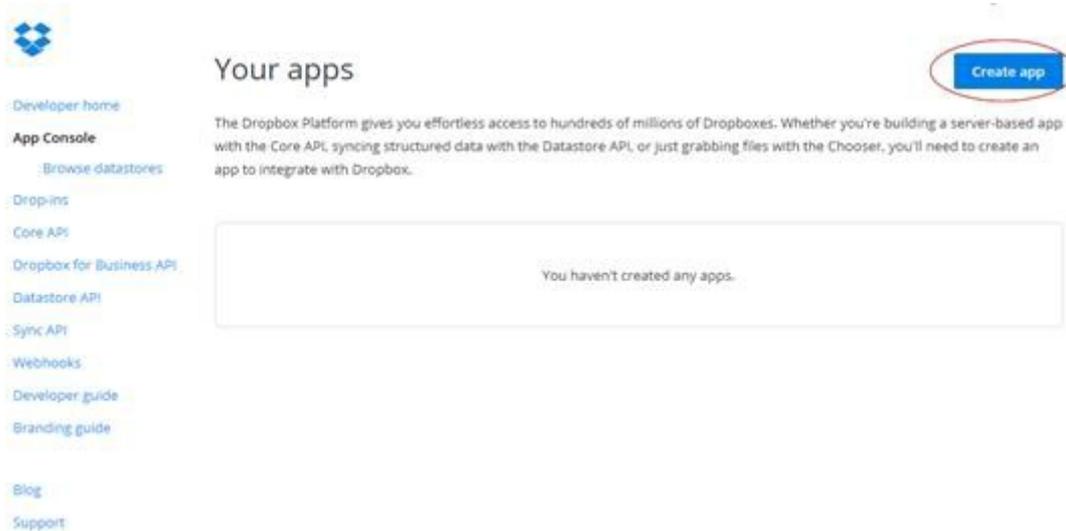
- Paste the “**App key**” and “**APP Secret**” to SmartCube-300W Dropbox settings, then click ‘**Get AuthString**’ button.



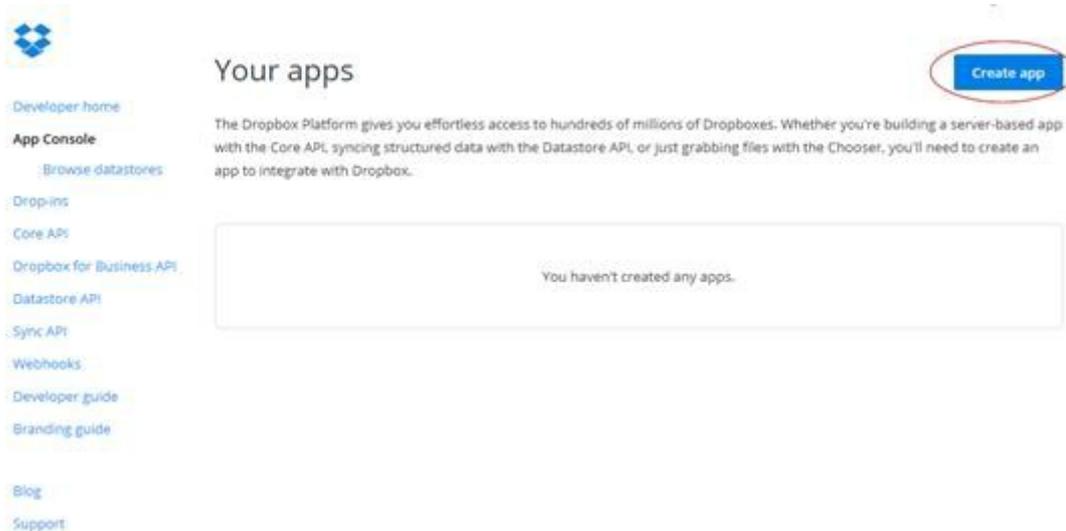
- Click “**Allow**” button for “access to the files and folders in your Dropbox.”.



10. Copy the code



11. Paste the code to SmartCube-300W **Authorization String**, then click “**Apply**” button



12. Wait for a moment, it will create “Access Token’ key automatically



13. Click “**Get Information**” button will pop up “Account, Country, Email” information. Then click “Apply” button to finish Dropbox settings.

