



OUTDOOR IR NETWORK CAMERA Series



User Manual

Please read instructions thoroughly before operation and retain it for future reference.

IMPORTANT SAFEGUARD



All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly "lead-free" and without the hazardous substances cited in the directive.



The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste. Contact your local dealer for procedures for recycling this equipment.

Disclaimer

We reserve the right to revise or remove any content in this manual at any time. We do not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of this manual. The content of this manual is subject to change without notice.

Grounding

This is a Safety Class 1 Product (provided with a protective earthing ground incorporated in the power cord). The mains plug shall only be inserted in a socket outlet provided with a protective earth contact. Any interruption of the protective conductor inside or outside of the instrument is likely to make the instrument dangerous. Intentional interruption is prohibited.

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This product contains codes which are developed by Third-Party-Companies and which are subject to the GNU General Public License ("GPL") or the GNU Lesser Public License ("LGPL").

The GPL Code used in this product is released without warranty and is subject to the copyright of the corresponding author.

Further source codes which are subject to the GPL-licenses are available upon request.

We are pleased to provide our modifications to the Linux Kernel, as well as a few new commands, and some tools to get you into the code. The codes are provided on the FTP site, and please download them from the following site or you can refer to your distributor:

http://download.dvrtw.com.tw/GPL/076D_Series/arm-linux-2.6.tar.gz

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1. OVERVIEW

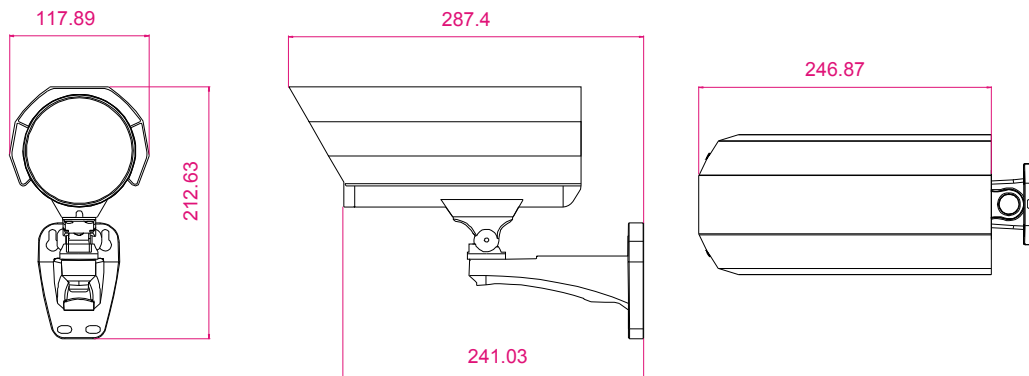
1.1 Product features

- Powerful Remote Surveillance on Multiple Mobile Platforms
 - For mobile device platforms, iPad®, iPod®, iPhone®, BlackBerry®, Nokia® Symbian, Windows® Mobile & Android™ (with their built-in web browsers or EagleEyes)
 - For web browsers, Internet Explorer®, Mozilla Firefox®, Safari®, Google Chrome™ and Opera
 - For operating systems, Windows & Mac
 - For multiple device control, our CMS software, Video Viewer, is provided for free
- Smart Zoom: zoom in on the object that triggered the event
- The best cost / performance outdoor solution with IP67
- IR effective distance up to 40 meters with 56 IR LEDs
- Smart Light Control to avoid overexposure
- Excellent outdoor ID design with cable management
- Low-latency video streaming with H.264 compression format
- Free CMS software with E-Map for multiple devices control & surveillance
- Motion detection and event notification functions
- (AVN263V Only) ONVIF standard supported to simplify system integration

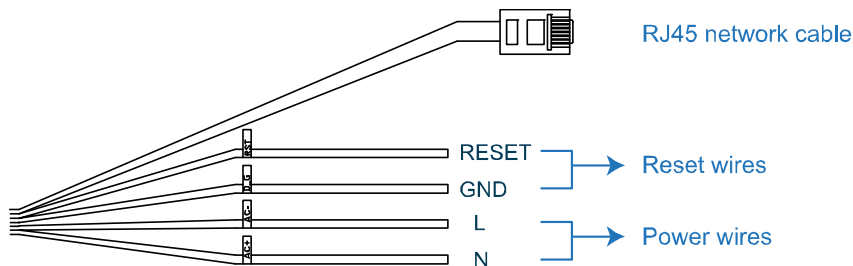
1.2 Package content

<input type="checkbox"/> Network camera	<input type="checkbox"/> Installation Sticker
<input type="checkbox"/> Installation Guide	<input type="checkbox"/> RJ45 cable extender adapter
<input type="checkbox"/> Ground Wire	
<input type="checkbox"/> CD-ROM disc (including user manuals & CMS software "Video Viewer")	

1.3 Dimensions



1.4 Cable overview



CABLE	DESCRIPTION
RJ45 network cable	Connect it to the supplied RJ45 cable extender adapter for cable extension, and prepare another RJ45 network cable with suitable length for your connection.
Reset wires	Remove the insulating coating of these two wires, and twist them together to reset default. This will reset all parameters, including the IP address to factory default settings. Note: Disconnect power before twisting these two wires together, and connect to power again for reset default. When the reset is done, disconnect these two wires.
Power wires	Connect to AC power supply. For details, please refer to the installation guide.

2. BEFORE USING YOUR NETWORK CAMERA

This network camera can be accessed via our supplied CMS software “Video Viewer”, the web browser (such as “Microsoft Internet Explorer” or “Mozilla Firefox”), and smart phones with our self-developed program “EagleEyes” installed depending on different using situations.

Note: For details about accessing network cameras via smart phones, please refer to <http://www.eagleeyesccv.com>.

Before using the network camera, make sure:

- 1) You have installed the supplied CMS software, “Video Viewer”, or a web browser.
- 2) You have configured the network settings, and the network connection is fine.

For Video Viewer installation, please refer to “3.1 Installing Video Viewer” at page 3.

For network configurations, please refer to your installation guide.

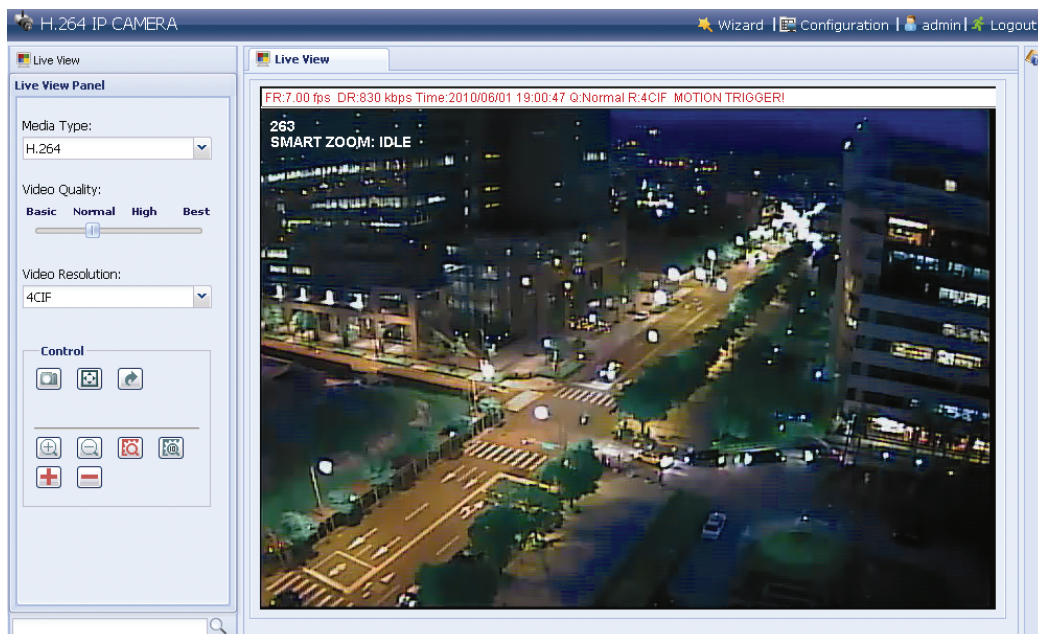
- To check or configure up to 16 surveillance devices simultaneously with the record function, please use “Video Viewer”.

For details about using Video Viewer, please refer to “3. ACCESSING THE CAMERA VIA VIDEO VIEWER” at page 3, and “4. CAMERA CONFIGURATION” at page 12.



- To check or configure this network camera only, it's recommended to use a web browser, such as “Microsoft Internet Explorer” or “Mozilla Firefox”.

For details about using the web browser, please refer to “4. CAMERA CONFIGURATIONS VIA WEB BROWSER” at page 12.

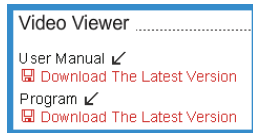



3. ACCESSING THE CAMERA VIA VIDEO VIEWER

3.1 Installing Video Viewer


Step1: Place the supplied CD into your CD-ROM or DVD-ROM drive. The program will be automatically run.


Step2: Click “Program” in the “Video Viewer” section to install Video Viewer, or click “Download The Latest Version” under “Program” to download the latest version of Video Viewer from the Internet (if your PC is connected to Internet).






Step3: Follow the on-screen instructions to finish the installation. When the installation is completed, a shortcut icon  will be placed on your PC desktop.

3.2 Accessing the camera

Step1: Double-click  on your PC desktop to open Video Viewer. By default, the “Address Book” panel will be displayed on the right side of the control panel.

Step2: In “Address Book”, click  to key in the IP address, user name, password, and port number of the camera you intend to connect.

OR

Click  →  to search the available IP address(es) of other camera(s) under the same domain as your PC's IP address. The found address(es) will be listed, and can be added into the address book by clicking .

Step3: Double-click the IP address you just added into the address book to log in. The live view is displayed in the Video Viewer.



3.3 Control panel overview

Two control panels are available and can be switched depending on your using habit.

3.3.1 Simplified version (Default)



3.3.2 Full function version






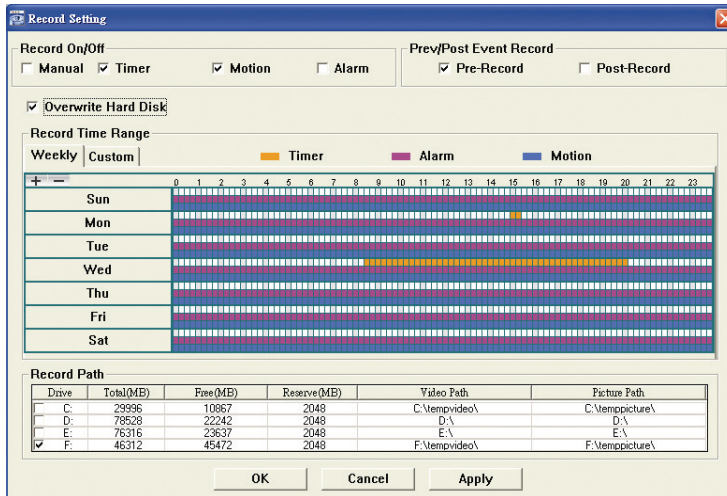
3.3.3 Main button overview

Button		Function	Description	
Simplified	Full Function			
		Address Book	Click to show the predefined IP address(es). You can add, remove or search the IP address to log in the DVR remotely.	
		Miscellaneous Control		Remote Config Click to go to the detailed system configuration.
				Record Setting Click to go to the detailed record setting. For details, please refer to "3.4.1 Record" at page 6.
				Custom Setting Click to choose the language of this program, or set the password when activating this program. The changes will take effect when this program is closed and executed again.
		Log	Click to view all event and recording logs, search the desired log(s) by date, or playback the recording of the selected log.	
		Record / Record Stop	Click to start / stop the manual recording. The record button will be disabled when the reserved disk capacity set in "Record Setting" is larger than the current disk capacity. For details, please refer to "3.4.1 Record" at page 6.	
		Snapshot	Click to take a snapshot of the current view. The snapshot will be saved in the path you specified in "Record Setting".	
		Information	Click to show the current network connection details.	
		PTZ Control	Click to enter the PTZ control panel for the smart zoom function.	

3.4 Frequently-used functions

3.4.1 Record

To record remotely, click  or  →  to go to the “Record Setting” page.



The "Record Setting" dialog box contains the following sections:



- Record On/Off:**
 - Manual Timer Motion Alarm
 - Prev/Post Event Record:** Pre-Record Post-Record
- Overwrite Hard Disk**
- Record Time Range:**
 - Weekly | Custom
 - Legend: Timer (orange), Alarm (pink), Motion (blue)
 - Calendar grid showing recording schedules for Sun-Sat.
- Record Path:**

Drive	Total(MB)	Free(MB)	Reserve(MB)	Video Path	Picture Path
C:	29996	10867	2048	C:\tempvideo\	C:\tempicture\
D:	78638	22242	2048	D:\	D:\
E:	78316	23837	2048	E:\	E:\
<input checked="" type="checkbox"/> F:	46312	45472	2048	F:\tempvideo\	F:\tempicture\

In the “Record Setting” page, you can set the following items:



- Record type
- Pre- / post-event record time (0~10 seconds)
- Record time setting
- Record path

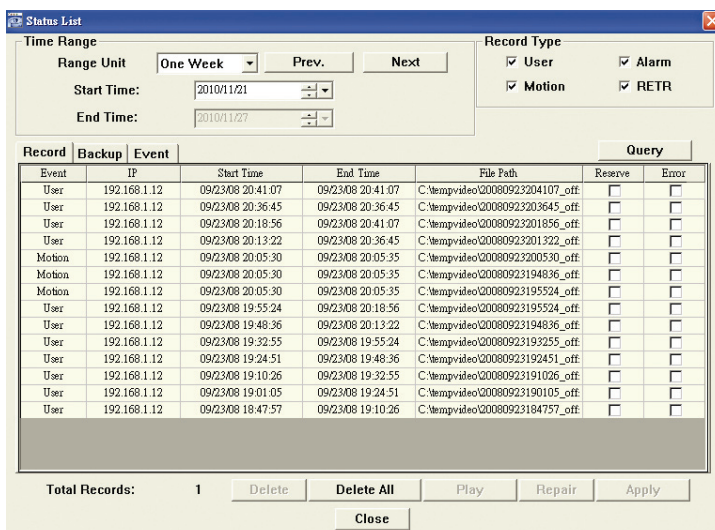
Note: The record function will be disabled when the reserved disk capacity in “Reserved(MB)” is larger than the current disk capacity in “Free(MB)”.

When “Manual” is checked, click  or  on the main control panel to start the manual recording immediately, and the recordings will be saved in the location specified in “Record Path”.

When “Motion” and / or “Alarm” are checked, the recording function will be enabled for any motion or alarm event, and the recordings will be saved in the location specified in “Record Path”.

3.4.2 Playback

To play a recording, click  or , and select the “Record” tab. A list of all the recordings will be shown by defaults, and you can also sort out the logs you want to speed up the search time.



The "Status List" dialog box contains the following sections:


- Time Range:**
 - Range Unit: One Week | Prev. | Next
 - Start Time: 2010/11/21
 - End Time: 2010/11/27
- Record Type:**
 - User Alarm
 - Motion RETR
- Record | Backup | Event | Query**
- Table:**


Event	IP	Start Time	End Time	File Path	Reserve	Error
User	192.168.1.12	09/23/08 20:41:07	09/23/08 20:41:07	C:\tempvideo\00080923204107_off	<input type="checkbox"/>	<input type="checkbox"/>
User	192.168.1.12	09/23/08 20:36:45	09/23/08 20:36:45	C:\tempvideo\00080923203645_off	<input type="checkbox"/>	<input type="checkbox"/>
User	192.168.1.12	09/23/08 20:18:56	09/23/08 20:41:07	C:\tempvideo\00080923201856_off	<input type="checkbox"/>	<input type="checkbox"/>
User	192.168.1.12	09/23/08 20:13:22	09/23/08 20:36:45	C:\tempvideo\00080923201322_off	<input type="checkbox"/>	<input type="checkbox"/>
Motion	192.168.1.12	09/23/08 20:05:30	09/23/08 20:05:35	C:\tempvideo\00080923200530_off	<input type="checkbox"/>	<input type="checkbox"/>
Motion	192.168.1.12	09/23/08 20:05:30	09/23/08 20:05:35	C:\tempvideo\00080923194836_off	<input type="checkbox"/>	<input type="checkbox"/>
Motion	192.168.1.12	09/23/08 20:05:30	09/23/08 20:05:35	C:\tempvideo\00080923195524_off	<input type="checkbox"/>	<input type="checkbox"/>
User	192.168.1.12	09/23/08 19:55:24	09/23/08 20:18:56	C:\tempvideo\00080923195524_off	<input type="checkbox"/>	<input type="checkbox"/>
User	192.168.1.12	09/23/08 19:48:36	09/23/08 20:13:22	C:\tempvideo\00080923194836_off	<input type="checkbox"/>	<input type="checkbox"/>
User	192.168.1.12	09/23/08 19:32:55	09/23/08 19:55:24	C:\tempvideo\00080923193255_off	<input type="checkbox"/>	<input type="checkbox"/>
User	192.168.1.12	09/23/08 19:24:51	09/23/08 19:48:36	C:\tempvideo\00080923192451_off	<input type="checkbox"/>	<input type="checkbox"/>
User	192.168.1.12	09/23/08 19:10:26	09/23/08 19:32:55	C:\tempvideo\00080923191026_off	<input type="checkbox"/>	<input type="checkbox"/>
User	192.168.1.12	09/23/08 19:01:05	09/23/08 19:24:51	C:\tempvideo\00080923190105_off	<input type="checkbox"/>	<input type="checkbox"/>
User	192.168.1.12	09/23/08 18:47:57	09/23/08 19:10:26	C:\tempvideo\00080923184757_off	<input type="checkbox"/>	<input type="checkbox"/>
- Total Records:** 1 | Delete | Delete All | Play | Repair | Apply | Close

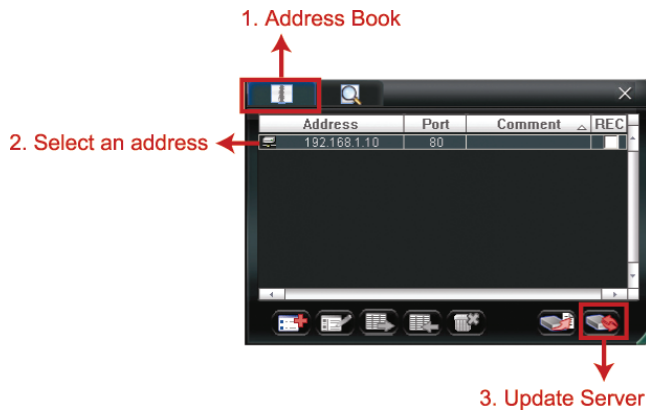
3.4.3 Firmware upgrade

This function is used when users need to upgrade the network camera for function scalability.

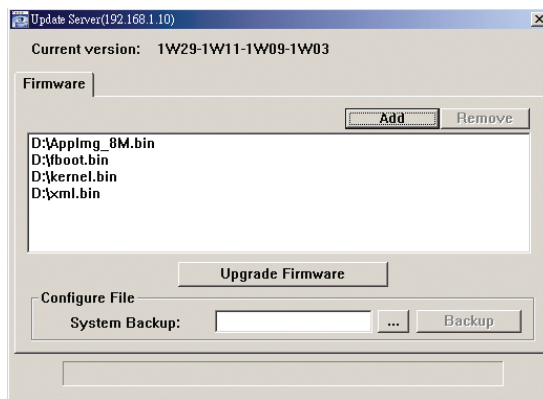
Note: Before using this function, make sure you have the correct upgrade files provided by your installer or distributor.

Step1: Click , and select the IP address of your network camera in the address book.

Step2: Click  to show the upgrade page, "Update Server".



Step3: Click "Add" to browse to the upgrade files.



Step4: Click "Upgrade Firmware" to start firmware upgrade.

Note: It takes a few minutes to finish the upgrade process. Do not disconnect the power during firmware upgrade, or the upgrade may be failed. The camera will reboot after the upgrade.

Step5: Select the IP address of the camera and click  again to check if the firmware is upgraded.



3.4.4 E-Map

Video Viewer is also a Central Management System (CMS) software, which allows network device control & management for up to 16 devices simultaneously.

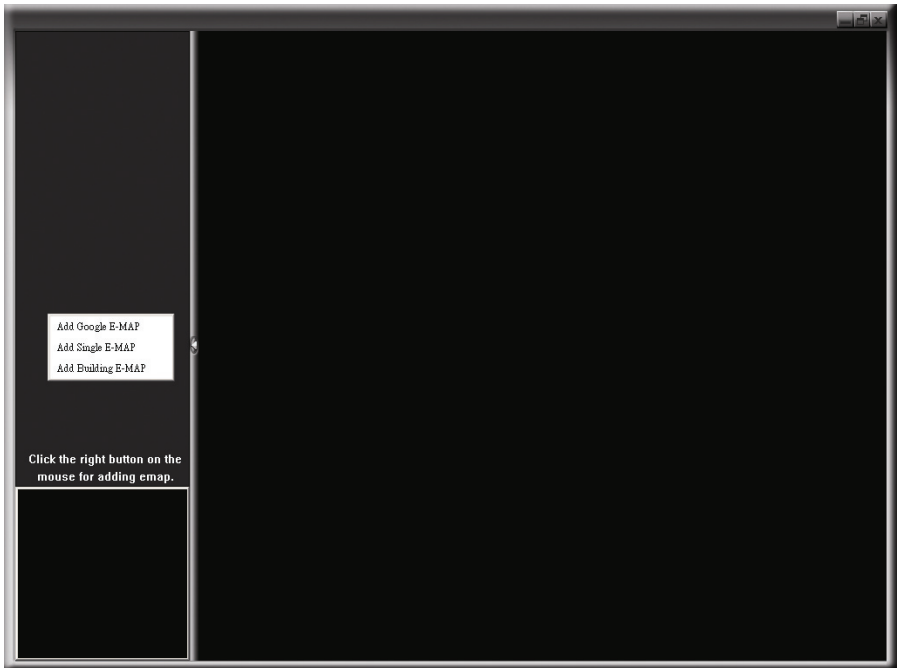
Note: Before using this function, make sure Video Viewer is connected to all the devices (up to 16) you want to monitor.

E-Map is **ONLY** available when the control panel is switch to the full function version.

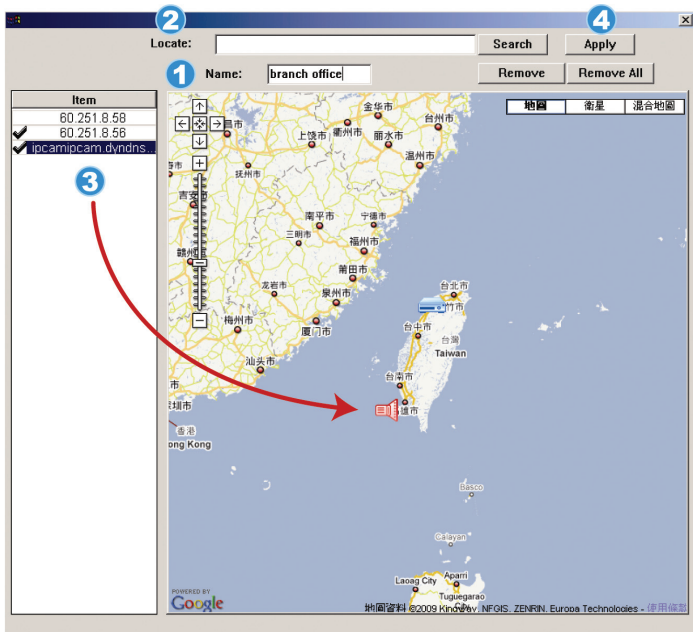
How to add an E-Map group

STEP1: In the simplified version, click  to switch the control panel to the full function version, and click  to enter the E-Map page as follows.

Note: To know where the buttons are, please refer to "3.3.1 Simplified version (Default) at page 4, and "3.3.2 Full function version" at page 5.

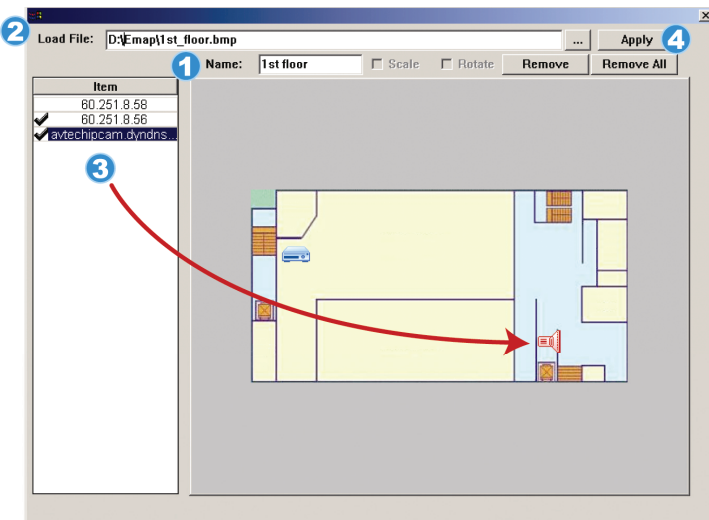


STEP2: Right-click to show the shortcut menu on the top-left panel, and select the E-Map group you want to add. There are three E-Map groups you can add: Google E-MAP, Single E-MAP, and Building E-MAP.



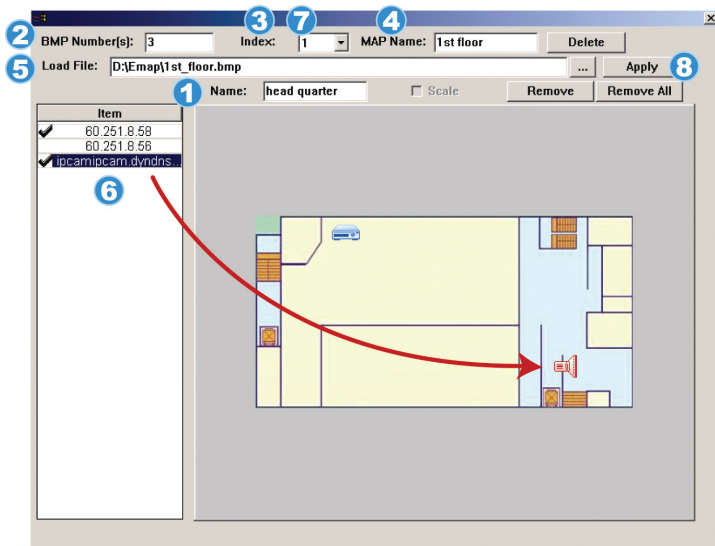
How to add a Google E-Map group:

- 1 Enter the name of this Google E-Map group.
- 2 Enter a specific address or landmark, and click "Search".
OR
Move to the map and drag to the location you want.
- 3 Click and drag the IP address to where it's located in the current level.
- 4 Click "Apply" to save and finish.



How to add a single E-Map group:

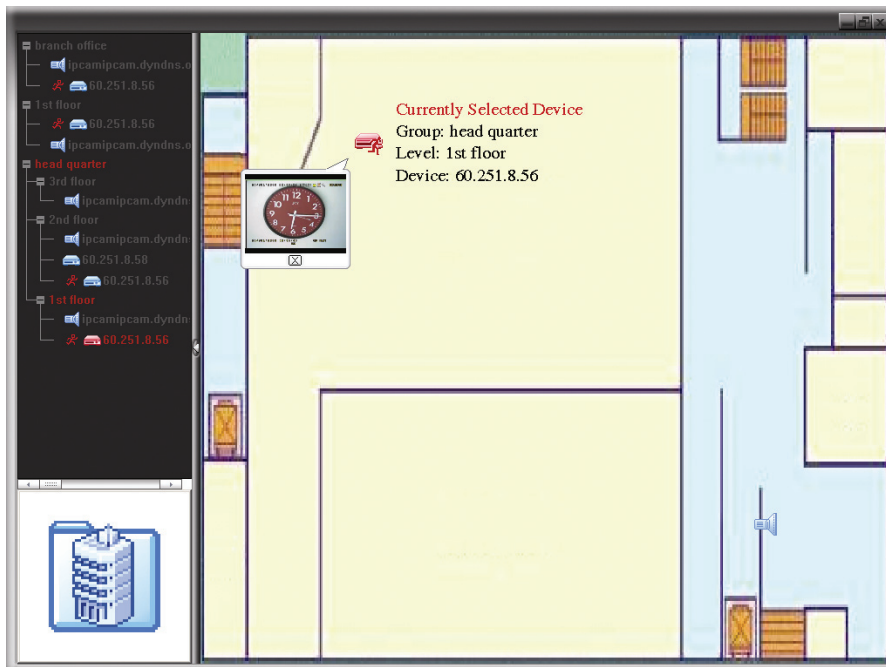
- 1 Enter the name of this single E-Map group.
- 2 Click ".." to browse the map file in BMP or JPEG.
- 3 Click and drag the IP address to where it's located in the current level.
- 4 Click "Apply" to save and finish.






How to add a building E-Map group:

- 1 Enter the name of this building E-Map group.
- 2 Enter the total levels of this building.
- 3 Select the level of the building from the drop-down list.
- 4 Enter the name of the level.
- 5 Click “...” to browse the map file in BMP or JPEG.
- 6 Click and drag the IP address to where it's located in the current level.
- 7 Go back to STEP 3 to select other level of the building, and repeat from STEP 3 to 6 until the setup for all levels are finished.
- 8 Click “Apply” to save and finish.

STEP3: When the E-Map group is created, you will see the tree on the top-left panel, showing all the devices you've added to this group.



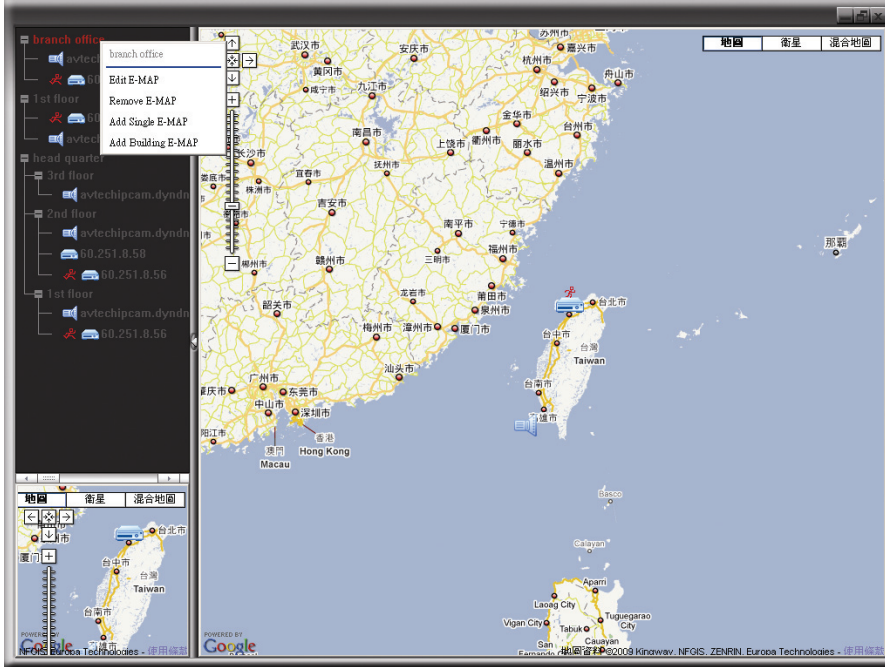
Icon	Description
	The connected device is camera. When it's selected, it will become red.
	The connected device is DVR. When it's selected, it will become red.
	For any motion or alarm event, it will appear on the screen to catch your attention. To know what's happening quickly, double-click the device icon on the E-Map to show the live view.

How to edit / remove an existing E-Map group

➤ For Google E-Map Group

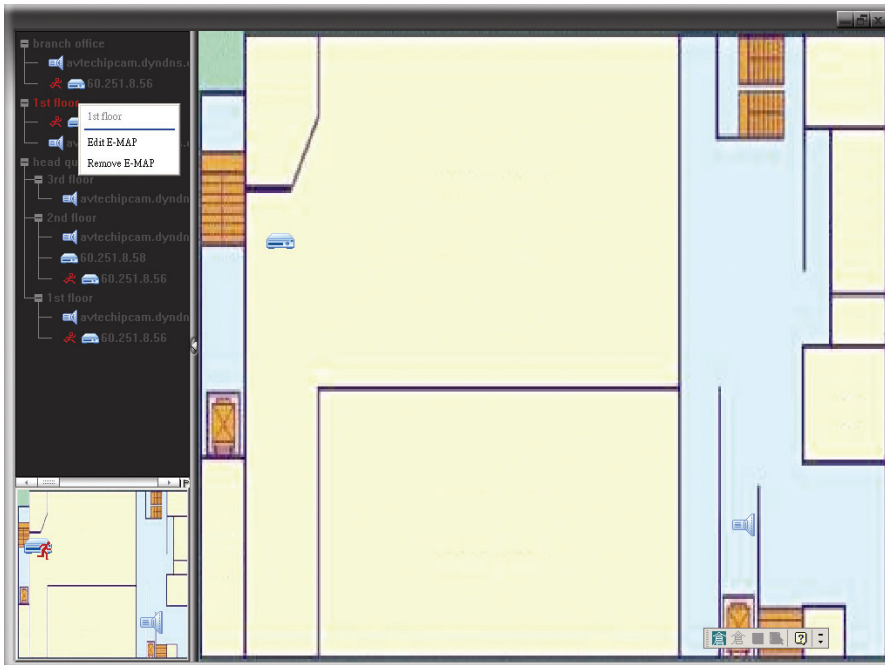
Right-click on the group name to show the shortcut menu list, and select “Edit E-MAP” or “Remove E-MAP” as needed.

You can also add a single E-Map group (Add Single E-MAP) or Building E-Map group (Add Building E-MAP) into the existing Google E-Map group.



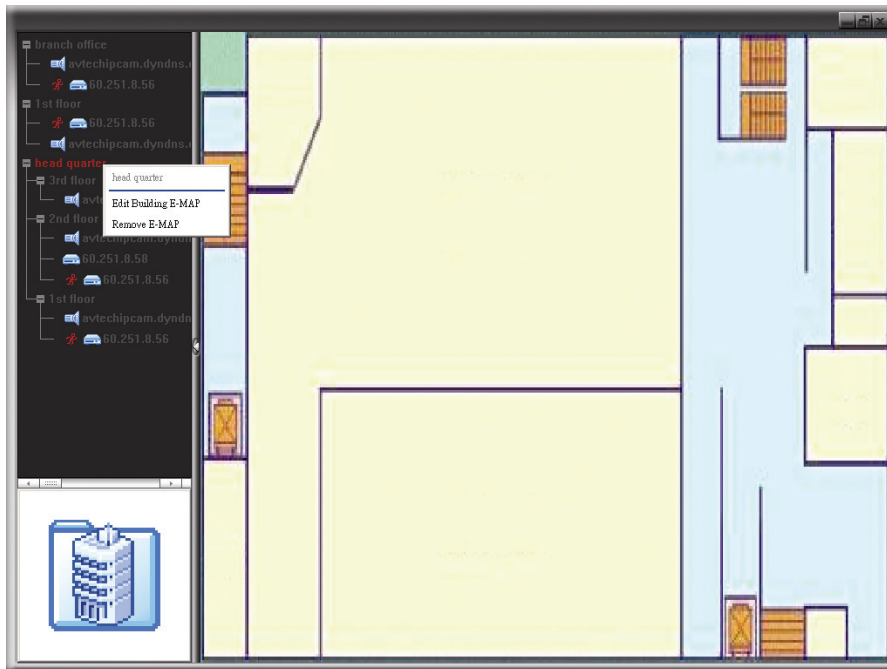
➤ For Single E-Map Group

Right-click on the group name to show the shortcut menu list, and select “Edit E-MAP” or “Remove E-MAP” as needed.



➤ For Building E-Map Group

Right-click on the group name to show the shortcut menu list, and select “Edit Building E-MAP” or “Remove E-MAP” as needed.



4. CAMERA CONFIGURATIONS VIA WEB BROWSER

Users can also access the network camera via a web browser, such as Microsoft Internet Explorer, Mozilla Firefox, Google Chrome or Safari.

Note: It's recommended to consult with your installer before changing system configurations.

Note: You need to be the supervisor to enter the system configuration page. If not, please re-log into the camera with the supervisor user level.

However, the web browser is only available for single device access. If users want to access more than two devices through one interface, it's recommended to use our supplied CMS software, Video Viewer. For details, please refer to "3. ACCESSING THE CAMERA VIA VIDEO VIEWER" at page 3.

Before using the network camera, make sure you have configured the network settings and have the IP address, user name and password used for accessing the camera in hand. If not, please refer to the installation guide.

4.1 Accessing the camera

Step1: Open your web browser, and key in <http://ipaddress:portnum> in the URL address box.

For example, for IP address 60.121.46.236 and port No. 888, please key in "<http://60.121.46.236:888>" into the URL address box, and press "Enter".

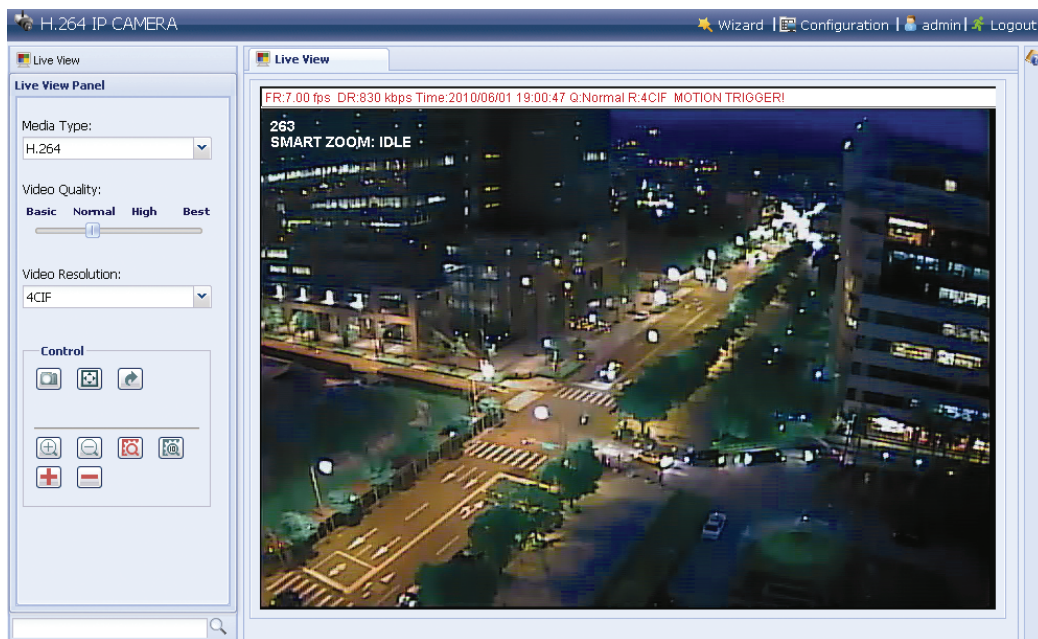
Step2: In the login page, key in the user name and password, and enter the security code from the image below if any. Then, click "LOGIN".

Step3: The wizard is then started.

- To skip the wizard and directly access the camera live view, click "Close".
- To directly access the camera live view without starting the wizard for the login next time, check "Do not start wizard at login".

Step4: When the login is successful, the live view is shown.

4.2 Control panel overview



Function	Icon	User Level	Description
Media Type	--	Supervisor / Power User / Normal User / Guest	Select the web transmission format from the drop-down list: H.264 / MPEG-4 / Motion JPEG / QuickTime For users using Mozilla Firefox, only "QuickTime" is selectable. QuickTime is Apple Inc.'s multimedia software. You need to have QuickTime installed in you operating system before selecting "QuickTime". When it is selected, you will be promoted to enter the user name and password to access the camera.
Video Quality	--	Supervisor / Power User / Normal User	Click & drag the slider to select the video quality: Basic / Normal / High / Best.
Video Resolution		Supervisor / Power User / Normal User	Select the video resolution from the drop list: 4CIF / CIF.
Snapshot		Supervisor / Power User / Normal User	Click to take a snapshot for the current view, and a new browser window will be opened to display the captured image.
Full Screen		Supervisor / Power User / Normal User	Click to display the image in full screen.
Flip		Supervisor / Power User / Normal User	Click to rotate the image 180° counterclockwise when necessary.
Zoom-in / out		Supervisor / Power User / Normal User	Click to zoom in / out the current image.
Max. Zoom-in / out		Supervisor / Power User / Normal User	Click to zoom in the image to the largest / zoom out the image to its original size.
Smart Zoom		Supervisor / Power User / Normal User	Click to activate the smart zoom function.
Smart Zoom 10		Supervisor / Power User / Normal User	Touch to enable consecutive Smart Zoom for 10 minutes and disable the idle mode. Consecutive Smart Zoom will be off after 10 minutes, and auto Smart Zoom will be on instead.

4.3 System configuration menu

Click “Configuration” to enter the configuration page.

Note: You need to be the supervisor to enter the system configuration page. If not, please re-log into the camera with the supervisor user level.

The functions are categorized into three menus: Network, Camera and General.

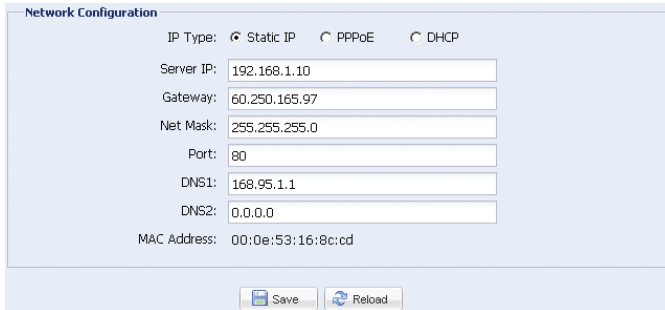
- For details about “Network”, please refer to “4.4 Network” at page 15.
- For details about “Camera”, please refer to “4.5 Camera” at page 19.
- For details about “General”, please refer to “4.6 General” at page 21.

Main Menu	Sub-Menu	Reference
Network	Network	Configure network settings.
	QoS	Limit the data flow for live streaming.
	DDNS	Enter DDNS information when the network type is PPPOE or DHCP.
	SNTP	Synchronize your camera time with the networked computer systems.
	FTP	Enter the FTP information for event notifications when “FTP” is chosen in “General” → “Trigger”.
	Mail	Enter Email information for event notifications when “Email” is chosen in “General” → “Trigger”.
	SMS	Enter text messaging information for SMS notifications when “SMS” is chosen in “General” → “Trigger”.
	Filter	Choose to permit or block the IP address(es) which can access this camera.
	UPnP	<i>*Suitable for Windows-based operating system.</i> Allow this camera to be detected among devices within the same network area for easy and quick usage.
	Bonjour	<i>*Suitable for Apple Mac-based operating system.</i> Allow this camera to be detected among devices within the same network area for easy and quick usage.
Camera	System	Set the camera OSD display.
	Color	Adjust the color performance.
	Time	Set daylight saving time and the current time.
	Advance	Adjust the camera parameters if necessary.
General	General	1. Select the language of the web browser. 2. Check the MAC address of the camera.
	Server Log	Check the system event logs.
	Online	1. Check current online user(s). 2. Set anonymous login 3. Set image code verification at login
	Account	1. Create a new user account with different access privilege. 2. Modify or delete an existing user account.
	Trigger	1. Enable / disable the motion detection. 2. Set the motion detection area. 3. Select the event notification method.
	Video	Select video file size and image quality.
	Google Maps	Allow you to know where the network camera is.
	Upgrade	Check the current firmware version and upgrade.

4.4 Network

4.4.1 Network

You can set the network configuration of the network camera depending on your network type. For details, please refer to your installation guide.



The screenshot shows the 'Network Configuration' page. It features radio buttons for 'Static IP' (selected), 'PPPoE', and 'DHCP'. Below are input fields for 'Server IP' (192.168.1.10), 'Gateway' (60.250.165.97), 'Net Mask' (255.255.255.0), 'Port' (80), 'DNS1' (168.95.1.1), and 'DNS2' (0.0.0.0). A 'MAC Address' field shows '00:0e:53:16:8c:cd'. At the bottom are 'Save' and 'Reload' buttons.

4.4.2 QoS

QoS, Quality of Service, is the ability to control the data flow for real-time streaming. This function is important if your network bandwidth is insufficient and you have other devices to share the network bandwidth.

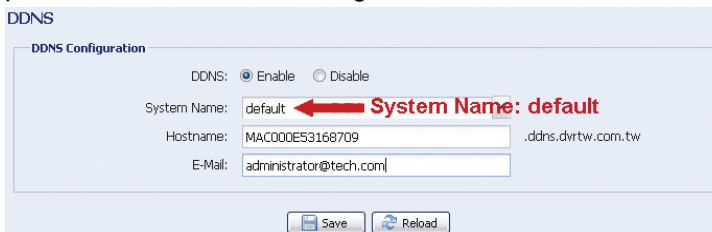
Check "QoS Enable", and set the max. upload rate from 256 to 10240 kbps.



The screenshot shows the 'QoS Configuration' page. It has radio buttons for 'Enable' (selected) and 'Disable'. The 'Interface' dropdown is set to 'Ethernet'. The 'Max. Upload Rate' is set to '4096' kbps. 'Save' and 'Reload' buttons are at the bottom.

4.4.3 DDNS

Select "On" when the selected network type in "Network" is "PPPOE" or "DHCP". For details, please refer to the installation guide.



The screenshot shows the 'DDNS Configuration' page. It has radio buttons for 'Enable' (selected) and 'Disable'. The 'System Name' field contains 'default', with a red arrow pointing to it and the text 'System Name: default'. The 'Hostname' field contains 'MAC00E53168709' and '.ddns.dvrtw.com.tw'. The 'E-Mail' field contains 'administrator@tech.com'. 'Save' and 'Reload' buttons are at the bottom.

4.4.4 SNTP

SNTP (Simple Network Time Protocol) is used to synchronize your camera time with the networked computer systems.



The screenshot shows the 'SNTP Configuration' page. It has a 'GMT' dropdown set to '(GMT+08:00) Taipei'. The 'NTP Server' field contains 'tock.stdtime.gov.tw'. The 'Sync. Period' dropdown is set to 'Daily'. The 'Server Time' field shows '2010-06-09 18:39:32'. A 'Sync.' button is present. 'Save' and 'Reload' buttons are at the bottom.

Function	Description
GMT	Once users choose the time zone, the network camera will adjust the local area time of the system automatically.
NTP Server	Simply use the default SNTP server (For example, tock.stdtime.gov.tw) or change to another server with which users are familiar.
Sync. Period	Select "Daily" to synchronize the camera time with the network time every day or

Function	Description
	"None" to turn off this function.
Server Time	Click and the network camera will synchronize the time with the network time.

4.4.5 FTP

Enter the detailed FTP information and click "Save" to confirm. The information you set here will be applied when "FTP" is selected in "General" → "Trigger".

4.4.6 Mail

Enter the detailed e-mail information and click "Save" to confirm. The information you set here will be applied when "Email" is selected in "General" → "Trigger".

Function	Description
SMTP Server	Enter the SMTP server address provided from your e-mail system supplier.
Port	Enter the port number provided from your e-mail system supplier. If this column is left blank, the e-mail server will use port 25 to send e-mails.
Mail From	Enter the entire mail address to ensure e-mails will not be blocked by SMTP.
SSL Encryption	Select "Yes" if your e-mail server is using SSL encryption to protect your e-mail content from unauthorized access.
Verify Password	Some mail servers are required to verify the password. Please enter the "user name" and "password".
E-Mail Address List	Add the e-mail address(s) of the assigned recipient(s).
Test	When all information is entered, click "Test Mail" to try if the recipe.

4.4.7 SMS

Note: Before using this function, you need to apply an API ID from the mobile messaging company, Clickatell, and you will be charged starting from the 11th message. For details, please refer to "APPENDIX 2 API ID APPLICATION FOR SMS MESSAGING" at page 27.

Enter the detailed information needed for text messaging, and click "Save" to confirm. The information you set here will be applied when "SMS" is selected in "General" → "Trigger".

SMS

SMS Configuration

System:

Username:

Password:

API ID:

Recipient: [more](#)

Transfer Interval: Minute(s) [Reset Counter](#)

Message: Include Hostname or IP

[Save](#) [Test](#) [Reload](#)

Function	Description
System	The text messaging service provider is Clickatell.
User name / Password	Enter the account user name and password you created in Clickatell.
API ID	Enter the API ID you applied from Clickatell.
Recipient	Click "Add" to enter the phone number, including the country code, to receive the text message. Five sets of phone numbers are allowed.
Transfer Interval	Set the interval time in minutes between two-message sending. The options are 0, 15, 30 & 60.
Reset Counter	Click to restart the text messaging, and the SMS will be sent after the specified time interval since you click this button.
Message	Enter the text content (up to 70 characters) you want to send with the text message.
Test	To know whether your SMS setting is correct, click this button to immediately send a SMS to your phone. Note: This testing is not free and you will be charged for SMS sending base on your local rate.

4.4.8 Filter

Choose to permit or block the IP address(es) which can access this camera, and click "Save" to confirm.

Filter

Filter Configuration

Error Count:

Error Lock Time: Minute(s)

Echo Request: Non-Block Block

IP/MAC Filter Configuration

IP/MAC Filter: Enable Disable

IP/MAC Filter Policy: Allow Deny

IP/MAC Filter Rules

Rule : [Add](#) [Delete](#)

[Save](#) [Reload](#)

Function	Description
Filter Configuration	
Error Count	Set the maximum count for login failure. When the maximum count is reached, the IP address trying to access the network camera will be locked.
Error Lock Time	Set the lock time in minutes when the maximum count of error login for an IP address is reached.
Echo Request	Select "Non-Block" to allow other users to use the ping command to detect the IP address of your network camera, or "Block" to deny the ping command request.

Function	Description
■ IP/MAC Filter Configuration	
IP/MAC Filter	Choose to enable or disable the filter function.
IP/MAC Filter Policy	If "Enable" is selected, choose whether you want to permit (Allow) or block (Deny) the IP address list below.
■ IP/MAC Filter Rules	
Rule	<ul style="list-style-type: none"> To add an item to the IP address list, key in the IP address in "Rule", and click "Add". To remove an existing item in the IP address list, click the item you want to remove, and click "Delete".

4.4.9 UPnP / Bonjour

"UPnP" stands for "Universal Plug and Play", which allows devices to connect seamlessly in the home and corporate environments and simplify installation of computer components, and is only suitable for Microsoft Windows-based operating system.

"Bonjour" functions the same as "UPnP", but it's only suitable for Apple Mac-based operating system.

➤ UPnP

➤ Bonjour

Check "Enable" to allow the network camera to be detected among devices within the same network area, and set the identification name of the camera in "Friendly name".

When this function is activated, the other PC within the same domain as this camera will be able to search this camera in:

- "Network Neighbor" with the identification name set in "Friendly name" for Windows-based PC, or
- "Finder" (finder) or "Bookmark" with the identification name set in "Device Name" for Mac-based PC.

Double-click it to quickly open the web browser for camera access.

Port Mapping (Available only in UPnP)

When your device is connected to Internet via a router and you need to additionally access the router to configure port mapping, this function can eliminate the need to additionally access the router for port forwarding.

Note: Before using this function, make sure the UPnP function of your router is also enabled.


When "Port Mapping" is set to "Enable", the system will automatically assign an IP address or port number for you if no IP address or port number is entered.

Note: When the configurations are saved successfully, you'll see a message indicating the IP address and port number assigned to your device.

4.5 Camera

4.5.1 System

Set the camera OSD display.



The screenshot shows a web interface titled "System" with a "System Configuration" section. It contains three fields: "Display" with a dropdown menu set to "ALL", "Title" with a text input field containing "ipcam", and "Position" with a dropdown menu set to "U-L". Below these fields are two buttons: "Save" and "Reload".

Function	Description
Display	Select "CAMERA" to display the camera title you set in "Title" here. Select "SMART ZOOM" to display the current status of Smart Zoom when this function is activated. Select "ALL" to display the camera title and smart zoom status. Select "OFF" to disable this function.
Title	Enter the title for the camera with up to 15 alphanumeric characters.
Position	Set the position where the OSD will be shown: U-L (top-left) / U-R (top-right) / D-L (bottom-left) / D-R (bottom-right).

4.5.2 Color

Adjust the color performance from Brightness, Contrast, Hue and Saturation. Click and drag the slider to preview the color change on the right side of this page and adjust the image color.

To restore the default values, click "Back to Default".



The screenshot shows a web interface titled "Color" with a "Color Configuration" section. It contains four sliders: "Brightness" (value 98), "Contrast" (value 128), "Hue" (value 128), and "Saturation" (value 128). To the right is a "Live View" window showing a night street scene with a "263" overlay in the top-left corner. Below the sliders and live view are two buttons: "Back to Default" and "Reload".

4.5.3 Time

Set daylight saving time and the current time, and click “Save” to confirm.

Function	Description
■ Time Configuration	
Date	Set the current date.
Time	Set the current time.
■ Daylight Saving Time Configuration	
Daylight Saving Time	Specify whether to use daylight saving time (Enable / Disable). If this function is enabled, set the time period (Start Time / End Time), and adjust the daylight saving time in hours (Adjust Time).

4.5.4 Advance

Adjust the camera parameters if necessary. You can preview the result on the right side of this page.

Item	Description
Back Light	It is the function to adjust the image to compensate for an area that is overpowered by brightness because of excessive light. The image will be properly exposed for clearness. Select to activate (ON) or disable (OFF) this function. Note: This function is available only in the day mode.
AGC Max	It is a function to adjust the amplitude of the signal input according to different light conditions. There are three options available: Low / Middle / High.
Mirror	Mirror is used when you want to rotate the images horizontally based on your installation situation. The options are: ON / OFF.

Item	Description
Color Mode	Color helps to adjust the color level of image through the camera. There are three options available: Color / B/W / Auto.
Smart Zoom	Select ON to activate / OFF to disable the Smart Zoom function. Before using this function, make sure it's activated here.
Smart Zoom Stand-by Interval	Smart Zoom is designed to pause for a certain period of time before the next activation. There are three options available: Short / Normal / Long.
IR Control	Select "AUTO" to automatically enable IR LEDs at night or in the dark environment, or "OFF" to disable this function.
Brightness	Brightness helps to adjust the bright level of image based on different light conditions. There are three options available: Dark / Normal / Bright.
Sharpness	Sharpness enhances the clarity of image detail by adjusting the aperture and sharpening the edges in the pictures. There are three options available: Soft / Normal / Sharp.
Color	Color helps to set the color level of image through the camera. There are three options available: Light / Normal / Colorful.
Smart Zoom Level Sensitivity	Here sets the sensitivity of comparing two different images when Smart Zoom is activated. The smaller the value, the more the sensitivity.
Smart Zoom Temporal Sensitivity	Here sets the detection frequency regarding how long one object stays in the detection area and triggers the recording when Smart Zoom is activated. The larger the value, the more the sensitivity.

4.6 General

4.6.1 General

In "General", you can select the UI language to English or Chinese, and check the MAC address of your camera.

To lock camera access when it's not used after the specified time, select "5 MIN", "15 MIN" or "30 MIN" from the drop-down list of "Auto Lock Time", or select "NEVER" to disable this function.

The screenshot shows the 'General Configuration' interface. It features three main settings: 'Language' is set to 'English', 'Auto Lock Time' is set to '15 MIN', and 'MAC Address' is '00:0e:53:18:c8:0c'. At the bottom, there are 'Save' and 'Reload' buttons.

4.6.2 Server Log

To quickly search the system logs you want by event type, click "Prev. Page" or "Next Page" to find the logs you want, or check the event type(s) and click "Reload" to start searching.

To clear all system event logs, click "Clear All".

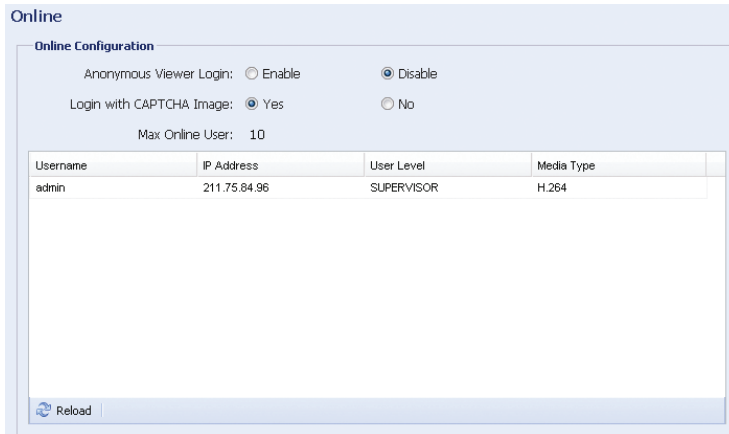
The screenshot shows the 'Server Log List' page with a table of 20 entries. Each entry includes a number, the event type (Remote Login), the time, and the user result (admin or guest). Navigation buttons for 'Prev. Page', 'Next Page', 'Reload', and 'Clean All' are visible at the bottom.

No.	Event	Time	Result
1	Remote Login	2010/06/09 18:10:40	admin
2	Remote Login	2010/06/09 18:08:24	admin
3	Remote Login	2010/06/09 18:07:09	admin
4	Remote Login	2010/06/09 18:02:50	admin
5	Remote Login	2010/06/09 18:52:43	admin
6	Remote Login	2010/06/09 18:49:10	admin
7	Remote Login	2010/06/09 18:47:32	admin
8	Remote Login	2010/06/09 18:42:53	admin
9	Remote Login	2010/06/09 18:42:08	guest
10	Remote Login	2010/06/09 18:41:35	guest
11	Remote Login	2010/06/09 18:38:10	admin
12	Remote Login	2010/06/09 18:35:53	admin
13	Remote Login	2010/06/09 18:29:27	admin
14	Remote Login	2010/06/09 18:11:39	admin
15	Remote Login	2010/06/09 18:06:14	admin
16	Remote Login	2010/06/09 17:55:06	admin
17	Remote Login	2010/06/09 17:47:51	admin
18	Remote Login	2010/06/09 17:44:53	guest
19	Remote Login	2010/06/09 17:42:45	admin
20	Remote Login	2010/06/09 17:38:22	admin

4.6.3 Online

You can check the current online user(s) with respective online information. To refresh the list, click “Reload”.

- To allow anonymous login, select “Enable” in “Anonymous Viewer Login”.
- To disable image code verification at login, select “No” in “Login with CAPTCHA Image”.

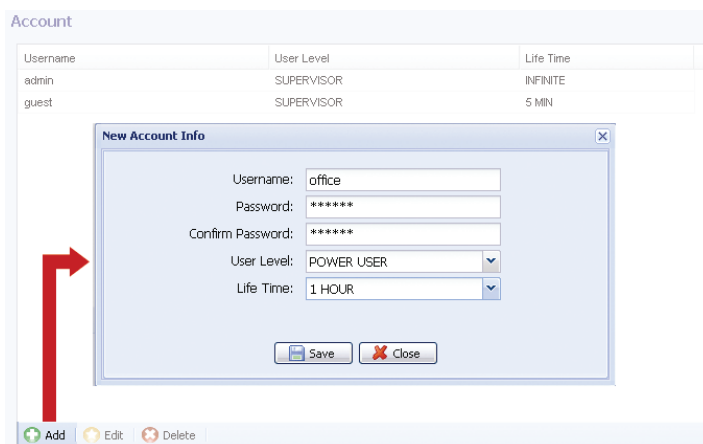


4.6.4 Account

You can create a new account with different user access privilege, or delete or modify an existing account setting.

How to create a new account

Step1: Click “New”, and fill in the following columns.



Column	Description
User Name	Set a user name that will be used for camera access. The user name allows up to 16 alphanumeric characters.
Password	Set the password that will be used for remote login. The password allows up to 16 alphanumeric characters.
Confirm Password	Enter the password again to confirm.
User Level	Set the security level of an account to give the permission to control different functions. There are four user levels: SUPERVISOR, POWER USER, NORMAL USER and GUEST.
Life Time	Select how long this account is allowed to stay online (1 MIN / 5 MIN / 10 MIN / 1 HOUR / 1 DAY / INFINITE)

Step2: Then, click “Save” to save your setting and create a new account.

How to modify or delete an existing account

Step1: Select the account you want to modify or delete.

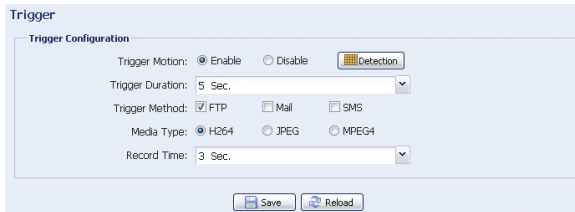
Step2: To modify the account, click “Edit” to change the settings, and click “Save”.

To remove the account, click “Delete”.

Note: It’s not allowed to remove an account when there’s only one account in the account list.

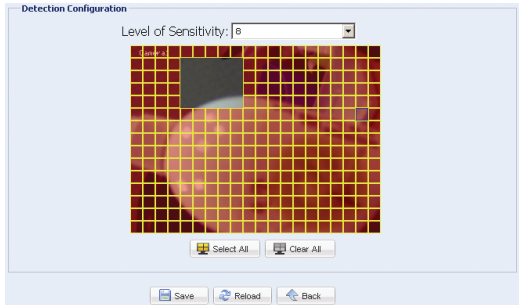
4.6.5 Trigger

You can set the motion detection and select the notification function.



◆ Trigger Setting

In this section, you can select to enable or disable the motion detection.

Item	Description
Motion	<p>Select to enable or disable the motion detection function.</p> <p>• Motion Detection Area Setting</p> <p>When “Enable” is selected, click “Detection” to enter the motion detection area setting page as follows:</p>  <p>Level of Sensitivity:</p> <p>Set the detection sensitivity from 0 ~ 9 (For Model 1 & 2 only), or High / Normal / Low (For Model 3 only).</p> <p>Area Setting:</p> <p>Set the motion detection area by selecting the area grids with your mouse. Pink grids represent the area that is not being detected while the transparent grids are the area under detection. You can set multiple areas under detection.</p> <p>Click “Clear All” to set the whole area undetected.</p> <p>Click “Select All” to set the whole area under detection.</p>
Trigger Duration	Set the duration time for trigger recording (5 / 10 / 20 / 40 seconds).

◆ Notification Setting

In this section, you can select to enable e-mail and/or FTP notification when a motion event happens.

Item	Description
Method	<ul style="list-style-type: none"> • Email When this option is checked, the network camera will upload the captured video clip to the assigned e-mail address(s) once motion recording happened. • FTP When this option is checked, the network camera will upload the captured video clip to the specified FTP site once motion recording happened. • SMS When this option is checked, the network camera will send a text message to the specified mobile phone number once motion recording happened. For details, please refer to "4.4.7 SMS" at page 16.
Media Type	Select the file type of the notification files: H264 (video) / MPEG4 (video) / JPEG (image).
Record Time	Set the record time of the notification video clip (1 ~ 5 seconds).

4.6.6 Video

Set the image resolution, quality and frame rate.

The screenshot shows a 'Video Configuration' window with the following settings:

- H.264: CIF
- MPEG4: 4CIF
- JPEG: 4CIF
- Frame Rate: FULL
- Quality: BEST
- Quality: NORMAL
- Quality: HIGH

Buttons for 'Save' and 'Reload' are visible at the bottom.

Item	Description
JPEG / MPEG / H264	Select the image resolution and quality. Image Resolution: CIF / 4CIF Image Quality: BEST / HIGH / NORMAL / LOW
Frame Rate	The frame rate allowed to each viewer can be adjusted to adapt to the bandwidth on the network. Set the desired image frequency to the maximum (FULL) or to a specified frame rate (1/2; 1/3; 1/4; 1/5; 1/10; 1/15; 1/20; 1/25; 1/30). The actual frame rate depends on the actual network connection, and may be lower than the specified one.

4.6.7 Google Maps

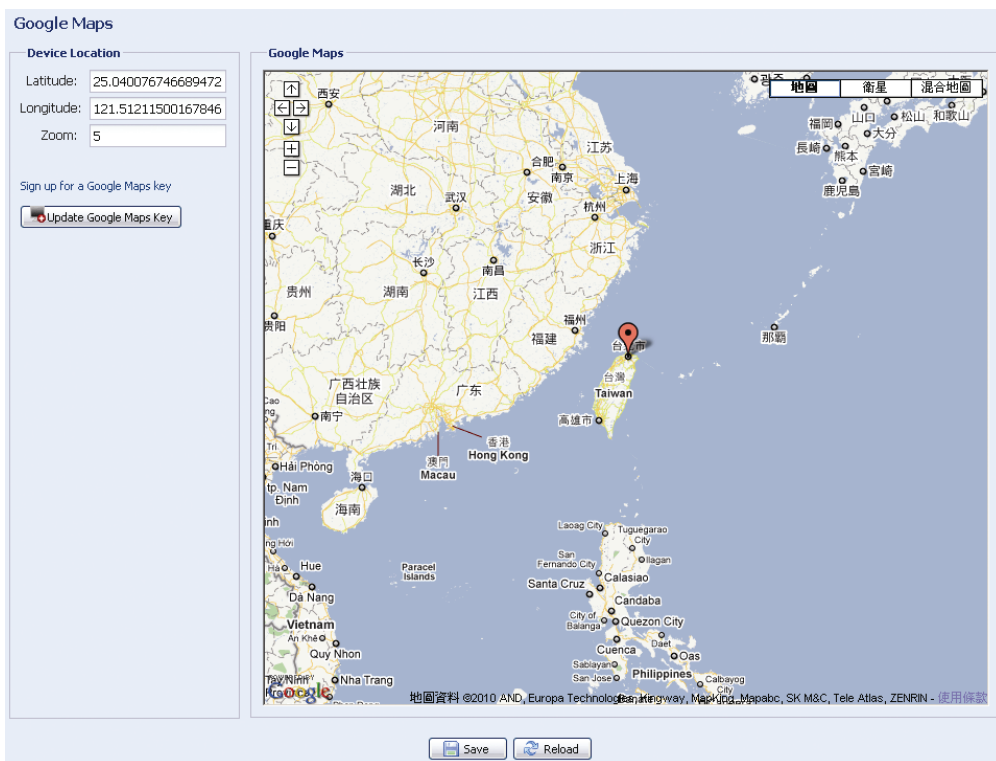
This function is used to let you know where the network camera is.

The system will prompt you to apply a Google Maps Key if your access is denied. Please follow the instructions below when you're denied:

Step1: Click "Sign up for a Google Maps key" to enter the application page.

Step2: Check the terms and conditions, and enter the IP address of the network camera. Then, click "Generate API Key".


Step3: Copy the generated API key, and click "Update Google Maps Key" on the web browser to paste it.

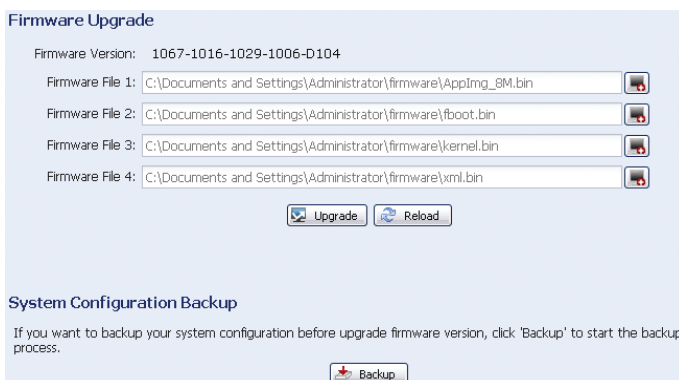


4.6.8 Upgrade

This function is used when users need to upgrade the network camera for function scalability.

Note: Before using this function, make sure you have the correct upgrade files provided by your installer or distributor.

Step1: Click “” to browse to where you save the upgrade files, and select them one by one until all files are selected (up to four files).



Step2: To make a system backup for restore all camera configurations later, click “Backup”.

Step3: Click “Upgrade” to start system upgrading.

Note: It takes a few minutes to finish the upgrade process. Do not disconnect the power during firmware upgrade, or the upgrade may be failed. The camera will reboot after the upgrade.

APPENDIX 1 PRODUCT SPECIFICATIONS

	AVN263	AVN263V
■ Network		
Network Compression	H.264 / MPEG4 / MJPEG	
LAN Port	YES	
LAN Speed	10/100 Based-T Ethernet	
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP, RTCP, IPv4, Bonjour, UPnP, DNS, UDP	
ONVIF Compatible	NO	YES
Frame Rate	NTSC:30, PAL:25	
Number of Online Users	10	
Security	Multiple user access levels with password / IP address filtering	
Web management	(1) Web browsers, such as Internet Explorer, Mozilla Firefox, Google Chrome or Safari for single device access, or (2) Free CMS software, Video Viewer, for up to 16 network cameras control simultaneously	
■ Camera		
Image Sensor	1/3" HR color CCD image sensor	
Pixels	768(H) x 494(V) <NTSC> / 752(H) x 582(V) <PAL>	
Min Illumination	0.05 Lux / F1.8, 0 Lux (IR ON)	
Shutter Speed	1 / 60 (1/50) to 1 / 100,000 sec.	
S/N Ratio	More than 48dB (AGC off)	
Lens	f4.0mm ~ f9.0mm	
Viewing Angle	75° ~ 36°	
IR LED	56 units	
IR Effective Range	Up to 40 meters	
Smart Light Control	YES	
Smart Zoom	YES	
White Balance	ATW	
AGC	Auto	
IRIS Mode	AES	
IP Rating	IP67	
Power Source (±10%)	AC100V ~ 240V	
Power Consumption (±10%)	Max. 13W	
Operating Temperature	-20°C ~40°C	
Dimensions (mm)**	287.4(L) x 117.89(W) x 212.63(H)	
■ Others		
Mobile Surveillance	iPad, iPod, iPhone, BlackBerry, Windows Mobile, Symbian & Android	
Motion Detection	YES	
Event Notification	FTP / Email / SMS	
Minimum Web Browsing Requirements	<input type="checkbox"/> Pentium 4 CPU 1.3 GHz or higher, or equivalent AMD <input type="checkbox"/> 256 MB RAM <input type="checkbox"/> AGP graphics card, Direct Draw, 32MB RAM <input type="checkbox"/> Windows 7, Vista & XP, DirectX 9.0 or later <input type="checkbox"/> Internet Explorer 7.x or later	

** The specifications are subject to change without notice.

** Dimensional tolerance: ± 5mm

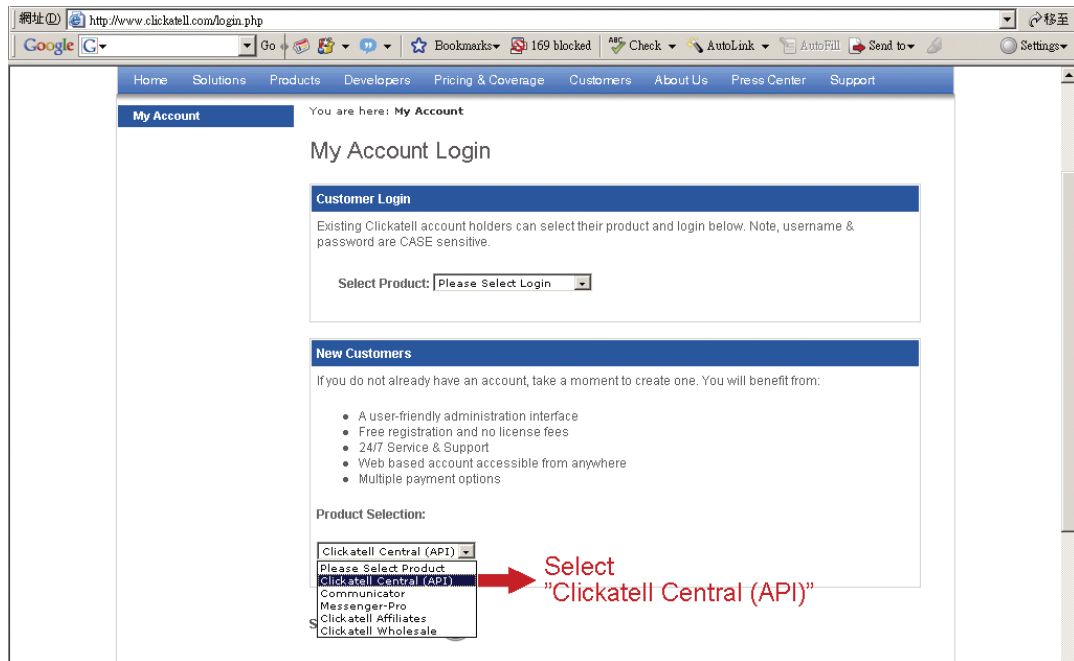
APPENDIX 2 API ID APPLICATION FOR SMS MESSAGING

To allow the camera automatically sending a text message when an event happens, you need to apply an API ID from Clickatell, one mobile messaging company, first.

Note: The SMS messaging is not totally free. You will be charged starting from the 11th message.

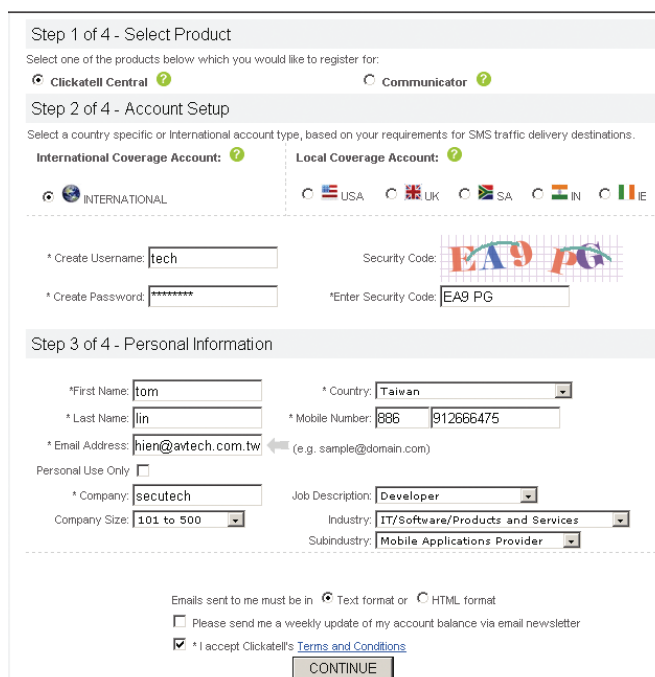
Please follow the steps below for application.

Step1: Go to <http://www.clickatell.com/login.php>. In “New Customers”, select “Clickatell Central (API)” from the drop-down list.



Step2: Fill in your information to create an account, and click “CONTINUE”.

Note: Note down the user name and password, and the mobile phone number you specified here for SMS notification setting later.

A screenshot of the Clickatell account setup form. The form is divided into three steps. Step 1 of 4 - Select Product: Shows two radio buttons for 'Clickatell Central' (selected) and 'Communicator'. Step 2 of 4 - Account Setup: Shows 'International Coverage Account' and 'Local Coverage Account' sections. The 'International Coverage Account' section has radio buttons for 'INTERNATIONAL' (selected) and 'USA', 'UK', 'SA', 'IN', 'IE'. The 'Local Coverage Account' section has radio buttons for 'USA', 'UK', 'SA', 'IN', 'IE'. Below this, there are input fields for 'Create Username' (tech), 'Create Password' (*****), 'Security Code' (EA9 PG), and 'Enter Security Code' (EA9 PG). Step 3 of 4 - Personal Information: Shows input fields for 'First Name' (tom), 'Last Name' (lin), 'Email Address' (hien@avtech.com.tw), 'Company' (secutech), 'Company Size' (101 to 500), 'Country' (Taiwan), 'Mobile Number' (886 912666475), 'Job Description' (Developer), 'Industry' (IT/Software/Products and Services), and 'Subindustry' (Mobile Applications Provider). At the bottom, there are checkboxes for 'Please send me a weekly update of my account balance via email newsletter' and 'I accept Clickatell's Terms and Conditions' (checked). A 'CONTINUE' button is at the bottom.

Step2: When the account is created, the system will automatically send an Email to your specified Email address and ask you to activate your account.

Click the link in the Email to complete account activation, and enter the login page as follows. Enter the password you set, and click “Login”.

My Account Login

Customer Login
Existing Clickatell account holders can select their product and login below. Note, username & password are CASE sensitive.

Select Product:

Username:

ClientID:

Password:

[Lost password?](#)

Step3: Enter the mobile phone number (including your country code) you want the text message to be sent, and click “SEND ACTIVATION CODE”. The system will send an activation code to that number for verification.

Check if you receive a text message from Clickatell.

Verify your Mobile Number

For security reasons you are required to verify your mobile number for non-test SMS messages.

Your activation code will be sent to:

If this is not your number, please retype your mobile number in the box above and click the "Send Activation Code" button.

Enter your activation code here:

Step4: Go back to Clickatell, and click the tab “Manage my Products”. Then, select “HTTP” from the drop-down list “My Connections”.

Manage my Products

Central Home | My Settings | **Manage my Products** | Billing | Message Reports | Help

Manage my Products

My Connections

Converters
Two-Way Messaging

Application Forms

Two-Way Application
SA Shortcode MO
Namibia Shortcode
USA Shortcode
UK Shortcode
Canada Shortcode
Clickatell ICM

Test Message in Message Box

Please Note that Clickatell pre-populates all test credits with a standard test message. Once you have purchased Clickatell credits, the test message will be removed and you will be able to send personalized text messages.

My Connections:

SMTP
FTP
XML
COM
SMPP
SOAP

For a quick overview of each connection type. Also take a look at a comparison of [Clickatell](#) and [supported message types](#).

Popular connection, HTTP is one of the simpler forms of communicating to the Clickatell API. It is

Step5: In “Add HTTP API”, enter a descriptive name for this service, and make sure the dial prefix is correct and callback type is “HTTP GET”. Then, click “Submit”.

Add HTTP API - Bold Items Required

Name:

IP Lock Down:

Dial Prefix:

Callback Type:

Callback Url:

Callback Username:

Callback Password:

Minimum information required

Step5: You will get an API ID as follows.

Note: Note down the API ID for SMS notification setting later.

My Connections:

Name	Type	API ID	Dialing Code
IP_SMS	SMTP API	3218637	886 Taiwan
IP_MSG	HTTP	3220810	886 Taiwan

1 to 2 of 2

APPENDIX 3 BIT RATE TABLE FOR REFERENCE

The data below is for reference only.

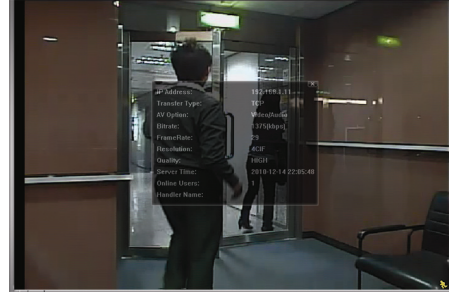
The bit rates listed here may vary depending on the resolution, image quality & frame rate you choose, the complexity of your monitoring area, and how often the moving objects show in your monitoring area.

Testing Environment

- Place: Office Entrance
- Network translation: H.264



Static: No one coming in and out



Dynamic: One or two people coming in and out

Resolution	Quality	Frame Rate	(Dynamic) kbps	(Static) kbps
4CIF	Best	FULL	2786	1546
	High		1375	705
	Normal		1234	425
	Basic		441	245
CIF	Best		955	290
	High		364	171
	Normal		328	111
	Basic		161	68
4CIF	Best	1/5	935	474
	High		506	272
	Normal		297	175
	Basic		223	108
CIF	Best		222	109
	High		133	67
	Normal		81	49
	Basic		71	32
4CIF	Best	1/30	127	70
	High		197	20
	Normal		61	11
	Basic		50	4
CIF	Best		42	7
	High		38	2
	Normal		22	1
	Basic		28	0