

H.264 NETWORK CAMERA

INSTALLATION GUIDE

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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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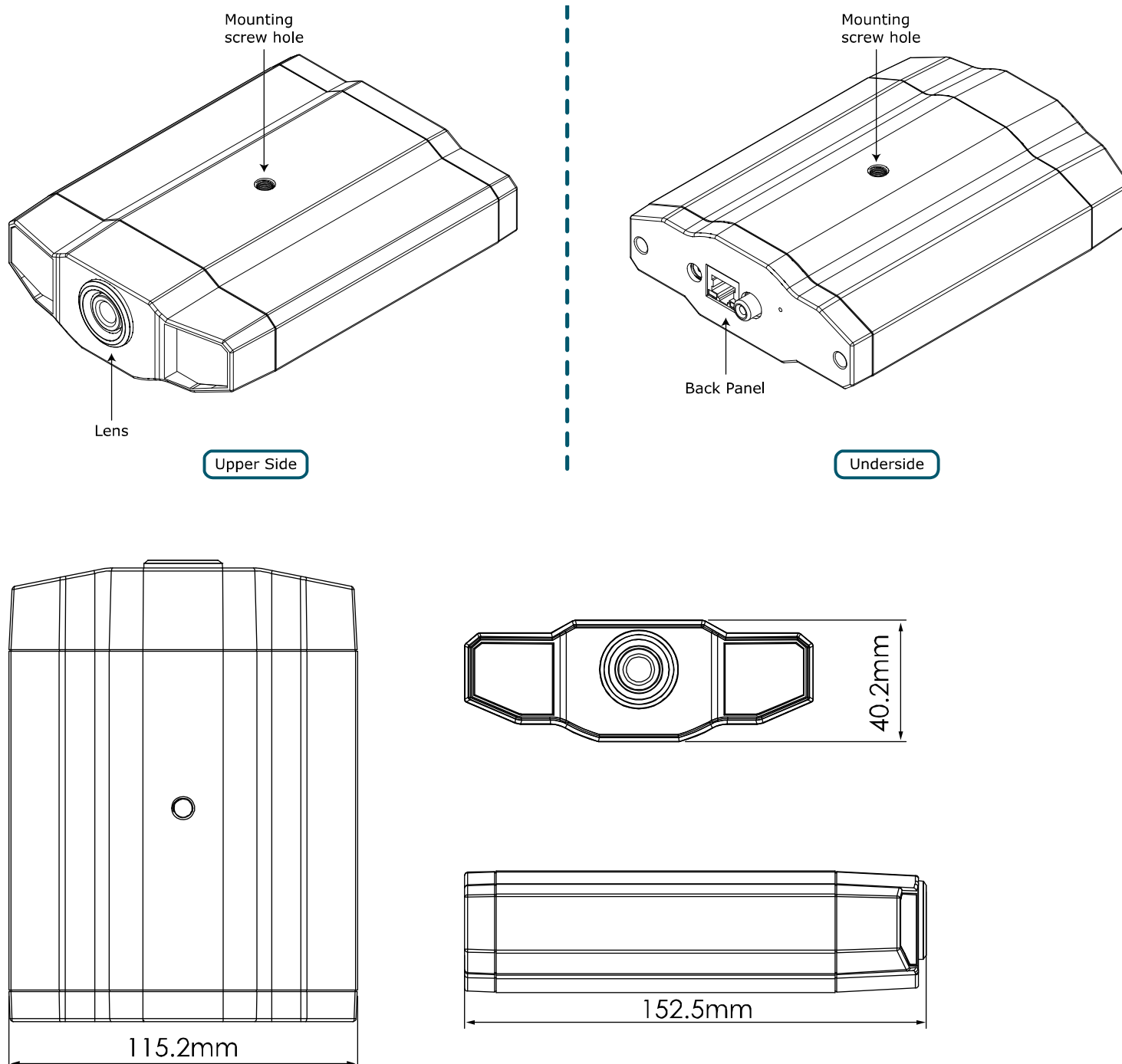
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1. OVERVIEW

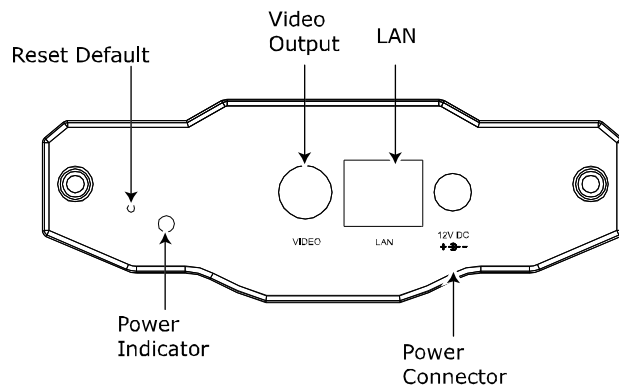
1.1 Package Content

<input type="checkbox"/> Network camera	<input type="checkbox"/> RJ45 network cable
<input type="checkbox"/> Installation Guide	<input type="checkbox"/> Adapter
<input type="checkbox"/> CD-ROM disc (including user manuals & CMS software "Video Viewer")	<input type="checkbox"/> Bracket

1.2 Hardware Overview



1.3 Rear Panel



CONNECTOR / BUTTON	DESCRIPTION
Reset Default	This button is hidden in the pinhole. Press and hold the reset button until the network camera rebooted. This will reset all parameters, including the IP address to factory default settings.
Power Indicator	When the camera is power-supplied, this indicator will be on as red.
Video Output	Connect to the video input connector of your monitor with a video cable (i.e. a RCA cable with the BNC connector, or a coaxial cable for video output. * The video cable is optional.
LAN	Connect the camera to the network with the supplied RJ45 cable.
Power Connector	Connect the DC 12V adapter for power supply.

2. INSTALLATION & CONNECTION

2.1 Install the Hardware

This camera can be installed in two ways: ceiling-mounted and desktop. During the installation, please make sure the upper side of the camera is always facing up, as shown in Figure 1 below (Regardless of which installation way you're using). This is to ensure the video output won't be up side down.

Note: The illustrations below are based on the ceiling-mounted installation.

Note: For the detailed cable connection, please refer to "1.3 Rear Panel" on Page 2.

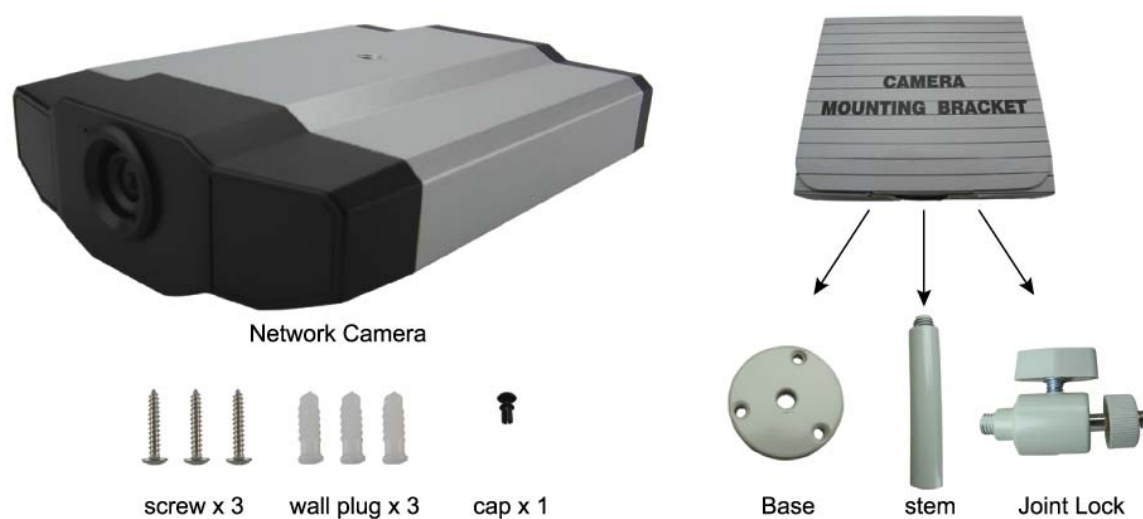
Tool needed: Power drill x 1 (not supplied within the sales package)

Prepare all the parts needed for camera installation.

Find the network camera, bracket package, a bag of screws & wall plugs, and a cap supplied with the sales package, as shown in Figure 1.

Unpack the bracket package to find the bracket disassembled into three parts: the base, stem and joint lock.

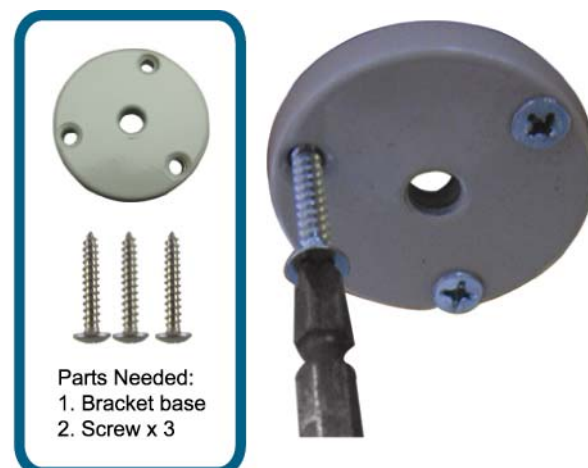
Figure 1: Parts needed for camera installation



1. Fix the base of the bracket.

Fix the base of the bracket with the supplied three screws to where the camera will be installed by using a power drill.

Figure 2: Screw the base to the ceiling

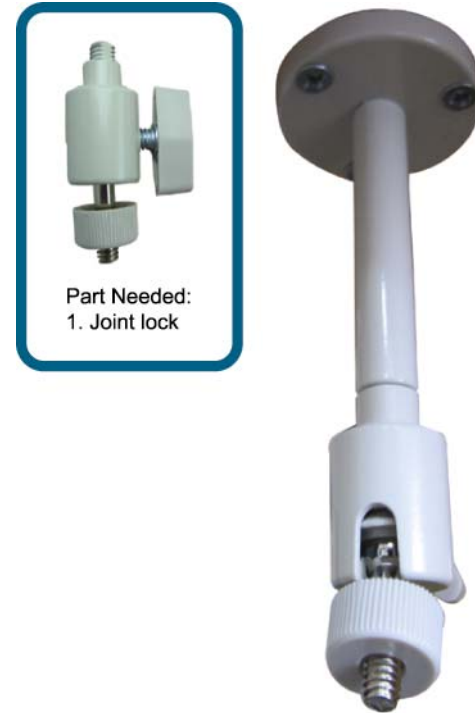


2. Assemble the bracket:
 - a). Align the stem with the central hole of the base, and rotate it to secure, as shown in Figure 3.
 - b). Connect the joint lock to the stem and rotate it to secure, as shown in Figure 4.

Figure 3: Connect the stem to the base



Figure 4: Connect the joint lock to the stem



3. Connect the camera to the bracket.

➤ *Ceiling-mounted:*

With the upper side of the camera facing up, align the mounting screw hole on the upper side with the screw thread of the joint lock, and rotate the camera to secure, as shown in Figure 4.

➤ *Desktop:*

With the upper side of the camera facing up, align the mounting screw hole on the underside with the screw thread of the joint lock, and rotate the camera to secure.

Figure 4: Connect the camera to the bracket

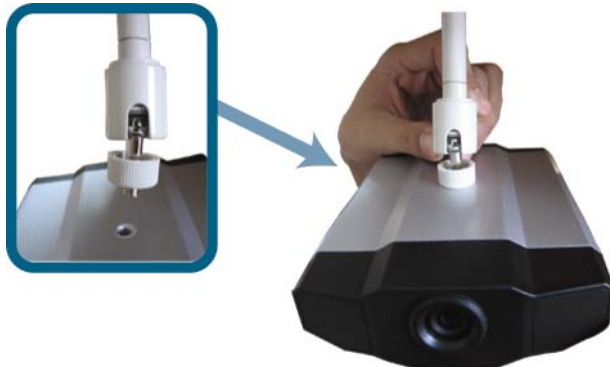


Figure 5: Insert the cap to the camera



4. Insert the cap to the other mounting screw hole of the camera.

➤ *Ceiling-mounted:*

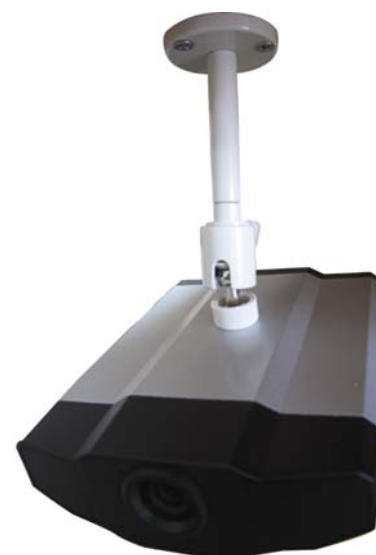
Insert the cap to the mounting screw hole on the underside of the camera, as shown in Figure 5.

➤ *Desktop:*

Insert the cap to the mounting screw hole on the upper side of the camera.

5. Adjust the viewing angle of the camera, and fasten the joint lock to fix the angle. The installation is completed, as shown in Figure 6.

Figure 6: Finish the installation



2.2 Connect to power

Plug the supplied power adapter to the camera's power connector and power outlet.

Note: The regulated power adapter is DC12V 1A to operate this device.

3. CAMERA CONNECTION TO INTERNET

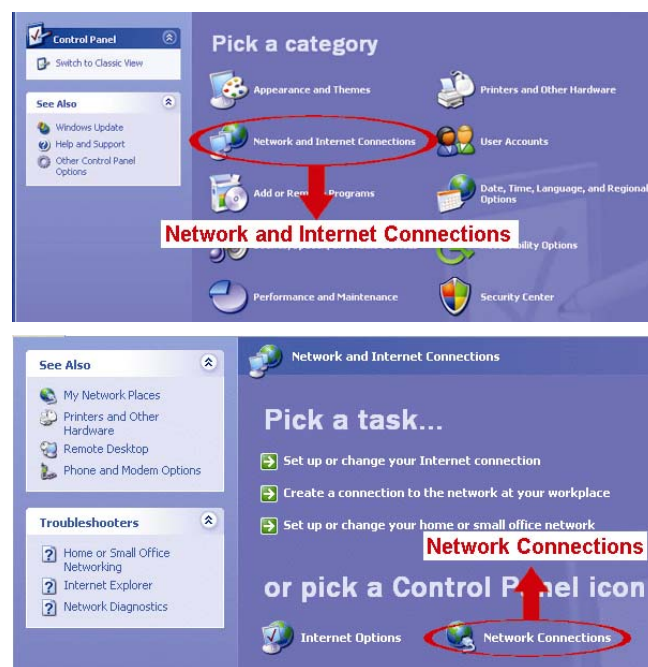
Before using this network camera, please follow the instructions below to finish the network connection settings based on your installation environment:

- To configure the network settings, you must connect the camera to your PC by LAN. For details, please refer to “3.1 Camera Access via LAN” at page 6.
- To configure the network settings via Wizard, please refer to “3.2 Network Configurations via Wizard” at page 9.

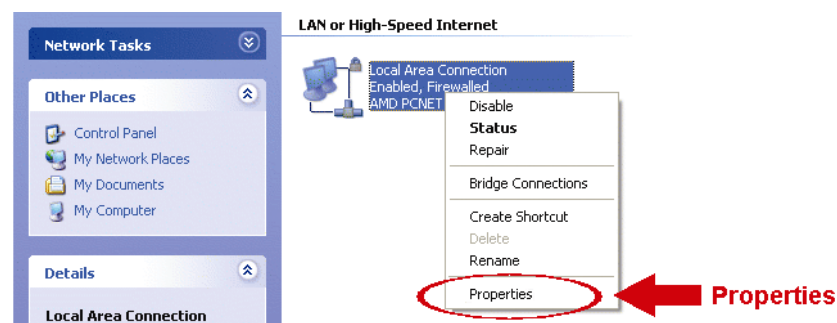
3.1 Camera Access via LAN

For Windows XP users:

- a) Select “start” → “All Programs” → “Control Panel” → “Network and Internet Connections” → “Network Connections” (If you’re in “Category View”).



- b) In “LAN or High-Speed Internet”, right-click on “Local Area Connection”, and select “Properties”.




- c) In the “General” tab, select “Internet Protocol (TCP/IP)”, and select “Properties”.
- d) In the “General” tab, select “Use the following IP address”, and set the IP address to “192.168.1.XXX” (XXX can be any value from 1~255 except 10).

Note: It’s recommended to note down the current settings first and then change as instructed. It’s helpful when you need to restore the PC network settings for connecting to Internet later.

- e) Click “OK” to close the “Internet Protocol (TCP/IP) Properties” dialog box. Then, click “Close” to close the “Local Area Connection Properties” dialog box.

For Windows Vista users:

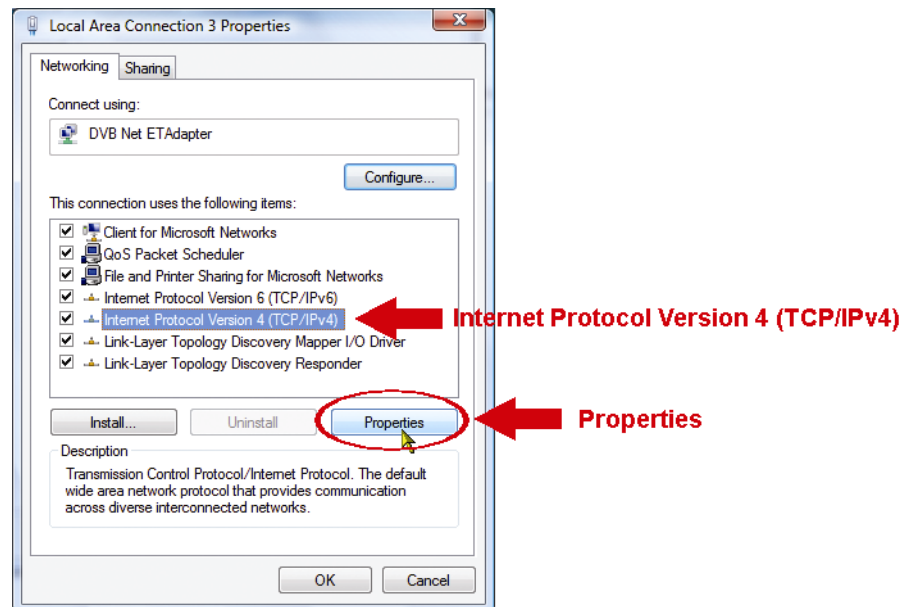
- a) Select “” (start) → “Control Panel” → “Network and Internet” to enter the “Network and Sharing Center”. Then, click “Manage network connections” (If you’re in “Category View”).



- b) Right-click on “Local Area Connection”, and select “Properties”.

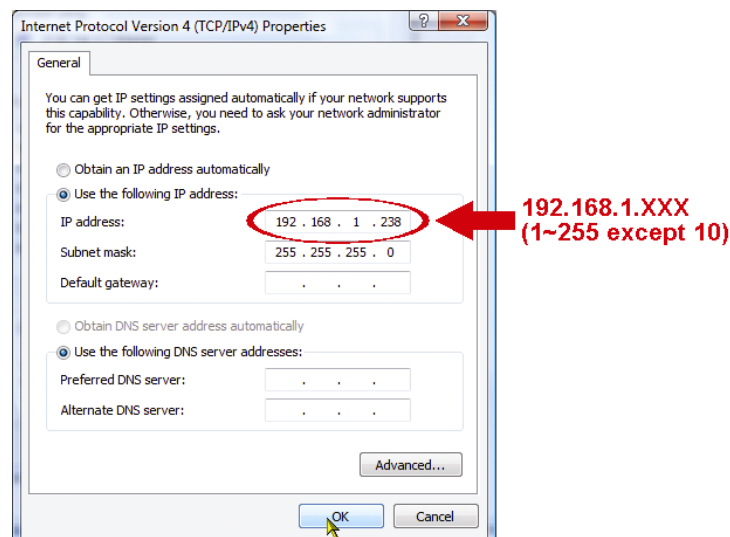


- c) In the “General” tab, select “Internet Protocol Version 4 (TCP/IPv4)”, and select “Properties”.




- d) In the “General” tab, select “Use the following IP address”, and set the IP address as described below.

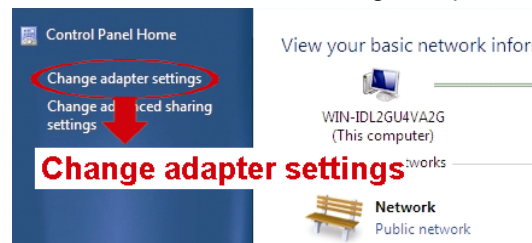
Note: It’s recommended to note down the current settings first and then change as instructed. It’s helpful when you need to restore the PC network settings for connecting to Internet later.



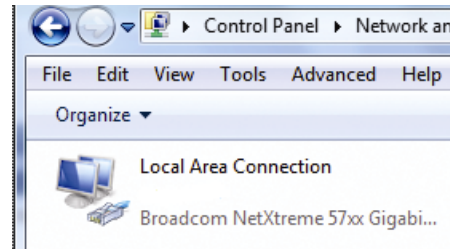
- e) Click “OK” to close the “Internet Protocol Version 4 (TCP/IPv4) Properties” dialog box. Then, click “Close” to close the “Local Area Connection Properties” dialog box.

For Windows 7 users:

- a) Select “” (start) → “Control Panel” → “Network and Internet” to enter the “Network and Sharing Center”. Then, click “Change adapter settings”.



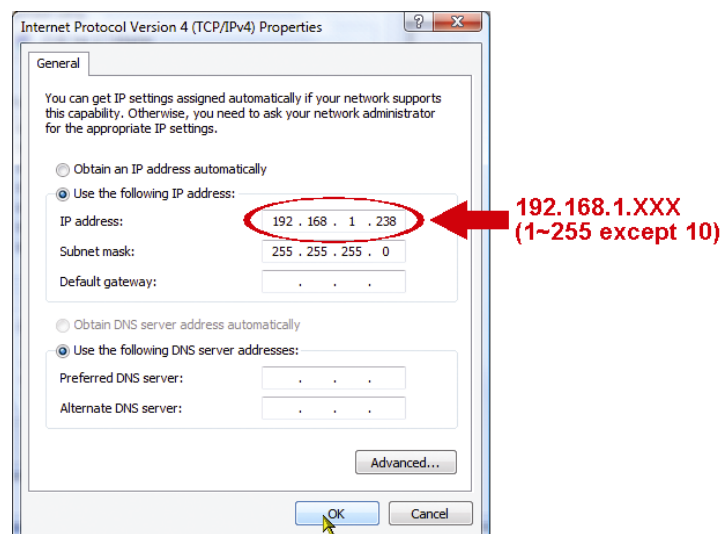
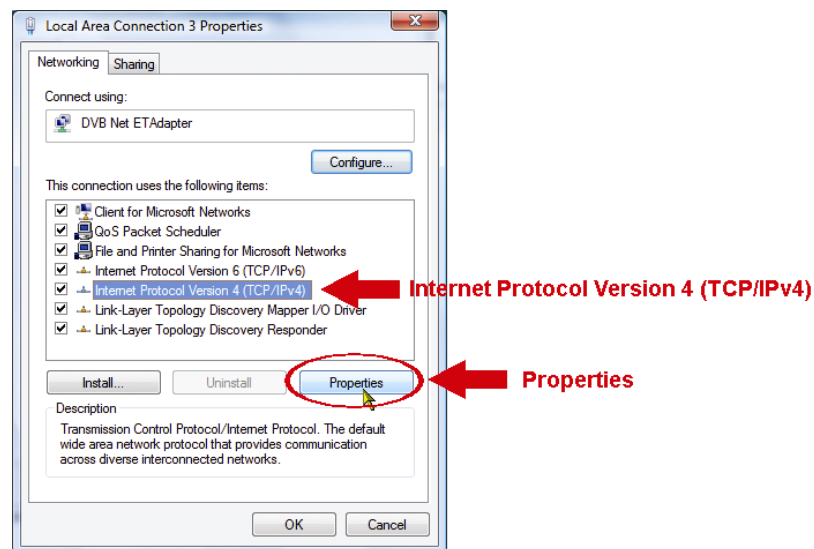
- b) Right-click on “Local Area Connection”, and select “Properties”.



Note: If your local area connection is not enabled, please also enable it.

- c) In the “Networking” tab, select “Internet Protocol Version 4 (TCP/IPv4)”, and select “Properties”.
- d) In the “General” tab, select “Use the following IP address”, and set the IP address as described below.

Note: It’s recommended to note down the current settings first and then change as instructed. It’s helpful when you need to restore the computer’s network settings for connecting to Internet later.



- e) Click “OK” to close the “Internet Protocol Version 4 (TCP/IPv4) Properties” dialog box. Then, click “Close” to close the “Local Area Connection Properties” dialog box.

3.2 Network Configurations via Wizard

A quick installation wizard is available via your web browser for password change, date & time settings, and network configurations.

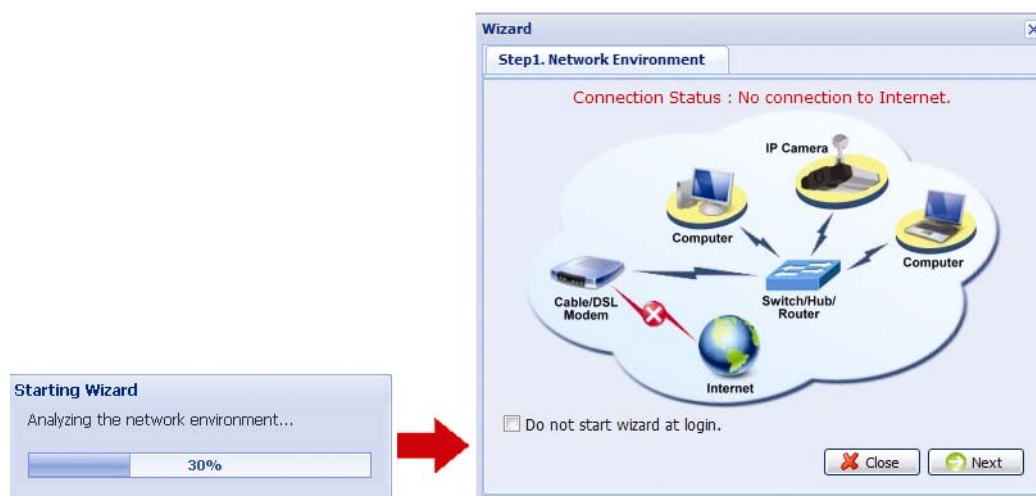
Note: You can also change the settings in the system configuration page via your web browser later. For details, please refer to "5. ACCESSING THE CAMERA VIA WEB BROWSER" in the user manual.

Step1: Open your web browser, for example, Microsoft Internet Explorer, and enter "<http://192.168.1.10>" in the URL address box.

Step2: In the login page, key in the default user name (*admin*) and password (*admin*), and enter the security code from the image below. Then, click "LOGIN".



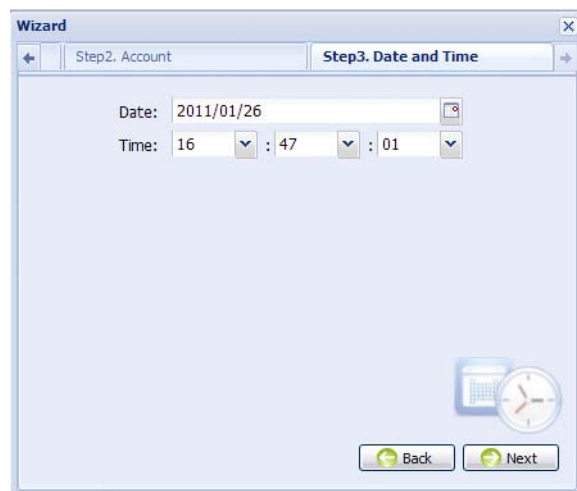
Step3: The wizard is then starting analyzing your network environment, and shows your network environment. Select "Next" to continue.



Step4: In "Account", change the access password if needed. If not, leave all the columns blank, and select "Next".

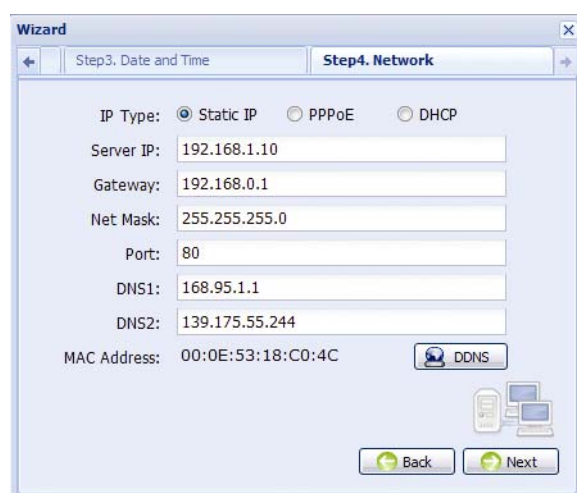


Step5: In "Date and Time", check if the date and time setting are correct and modify if necessary.



Step6: In “Network”, select the network type based on your network environment (Static IP / PPPoE / DHCP), and key in the information needed.

Note: This camera doesn’t support POE router or hub.

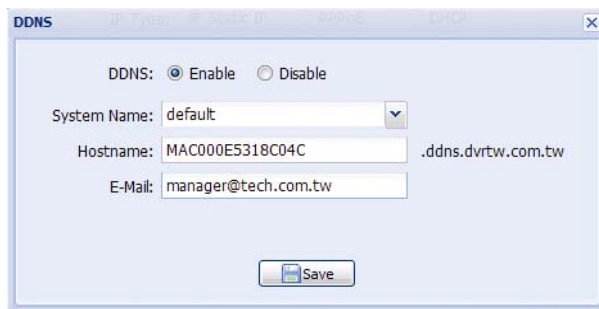


For Static IP:

- Enter the information of “Server IP”, “Gateway” and “Net Mask” obtained from your ISP (Internet Service Provider).
- Enter the port number. The valid number ranges from 1 to 9999. The default value is 80. Typically, the TCP port used by HTTP is 80. However in some cases, it is better to change this port number for added flexibility or security.

For PPPoE:

- Enter the user name and password obtained from your ISP.
- Continue the DDNS setting by clicking the “DDNS” button, as reminded in this page.
 - Select “default” in “System Name”.
 - In “Hostname”, keep the default value, i.e. the MAC address of this camera. Then, note down the whole address of the camera, for example, MAC000E5318C04C.ddns.dvrtw.com.tw.
 - (Optional) Enter your email address to receive messages from the DDNS server.



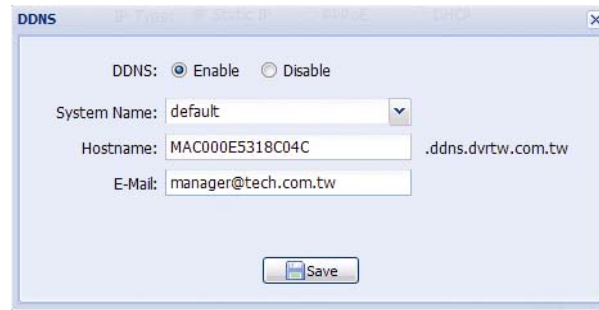
Note: Please at least use the default address to access your DVR remotely once. This is to ensure our DDNS server has your DVR registered. Then, you may change the host name to a more meaningful name to memorize later here.

Note: You can also create a DDNS account from a website which provides free DDNS service. For details, please refer to “APPENDIX 1 CREATING AN ACCOUNT FOR DDNS SERVICE” at page 12.

- Select “Save” and return to the wizard.

For DHCP:

- a) Before selecting this option, you need to finish the DHCP router settings first.
Get a router and connect it to the Internet via your computer (with Static IP or PPPoE setting). There are different setting methods for different routers. Please refer to their respective user manuals.
- b) Continue the DDNS setting by clicking the “DDNS” button, as reminded in this page.
 - Select “default” in “System Name”.
 - In “Hostname”, keep the default value, i.e. the MAC address of this camera. Then, note down the whole address of the camera, for example, MAC000E5318C04C.ddns.dvrtw.com.tw.
 - (Optional) Enter your email address to receive messages from the DDNS server.



Note: Please at least use the default address to access your DVR remotely once. This is to ensure our DDNS server has your DVR registered. Then, you may change the host name to a more meaningful name to memorize later here.

Note: You can also create a DDNS account from a website which provides free DDNS service. For details, please refer to “APPENDIX 1 CREATING AN ACCOUNT FOR DDNS SERVICE” at page 12.

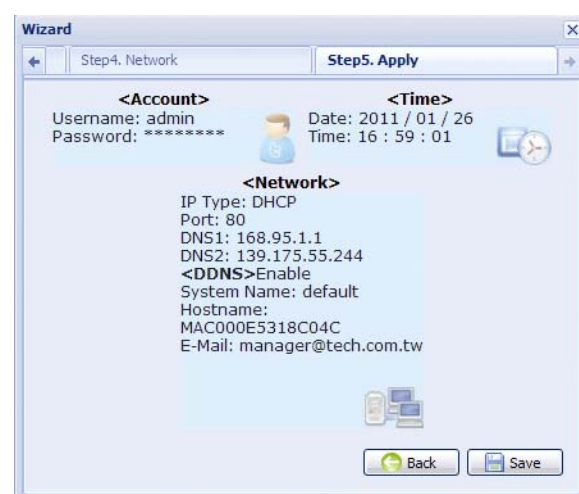
- c) Select “Save” and return to the wizard.

Step7: In “Apply”, all the changes are listed. Check if the changes are correct.

- If yes, click “Save”.
- If no, click “Back” to where the changes should be made for modification, and click “Save” to apply the settings.

You will be prompted to restart your web browser for network setting changes.

Note: You can also change the settings in the system configuration page via your web browser later. For details, please refer to “5. ACCESSING THE CAMERA VIA WEB BROWSER” in the user manual.



Step8: Click “Save” and log out. Then, disconnect your camera and your PC, and connect them to Internet separately.

Step9: Enter the host name you just note down in the URL address box of the web browser, and see if you can access the camera successfully.

APPENDIX 1 CREATING AN ACCOUNT FOR DDNS SERVICE

For PPPOE or DHCP, you should enter the host name which points to the IP address of your network camera for login first. Besides using the default DDNS service, you can also apply for new DNS services.

There are many websites for free DDNS service application, and below shows an example of DDNS account application from the website <http://www.dyndns.com>.

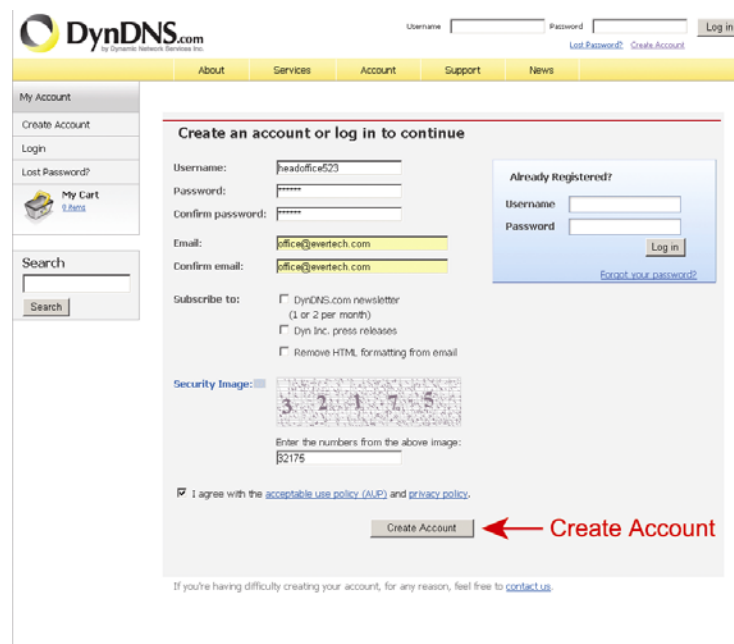
Step1: Go to <http://www.dyndns.com>, and click “Create Account” to sign up a DDNS account.



Step2: Enter all the information necessary for signing up an account according to the website instructions.

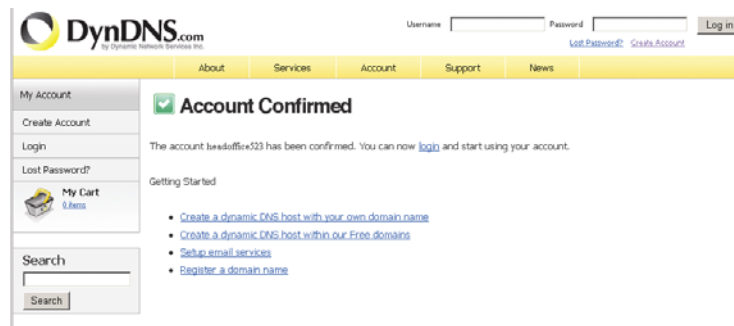
- Key in a user name for login, for example, *headoffice523*.
- Set the password and input it again to confirm.
- Key in your E-mail address and input it again to confirm.

Then, click “Create Account”.



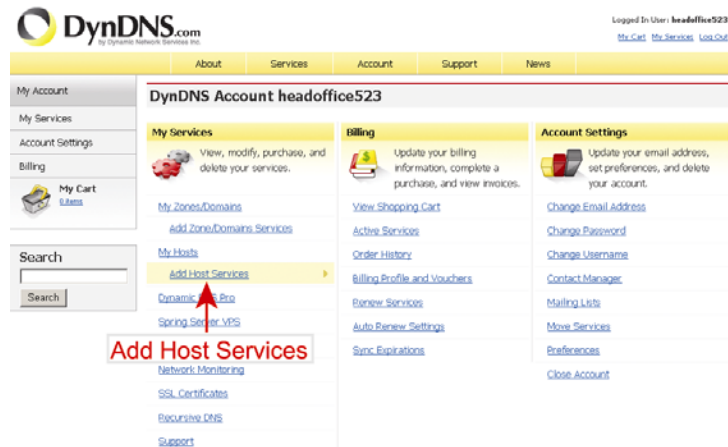
Step3: The system will automatically send a confirmation email to your email account. Please read this email within 48 hours and complete the procedure to activate your account according to the instructions in the email.

When the account is confirmed, you will see “Account Confirmed”. Your account is created successfully now.



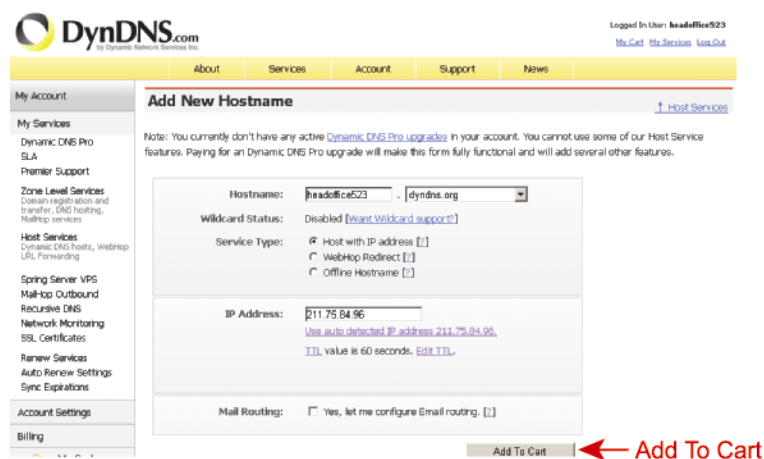
Step4: Click “login”, and enter the user name and password you preset before to log in.

Step5: Click “Add Host Services”.



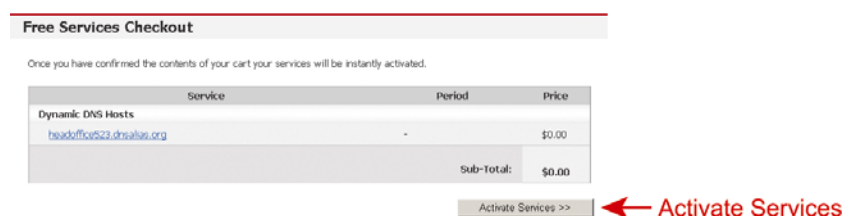
- Input a meaningful host name.
- Choose a host name.
- Enter the IP address you want to redirect.

Note down the whole host name, for example, *headoffice523.dyndns.org*. Then, click “Add To Cart” for billing.



Note: This service is free. Just finish the billing process, and **NO** paying information is required.

Step6: Click “Activate Services” after checkout, and you’re ready to use DDNS services now.



DDNS Configuration

DDNS: ☒ Enable ☐ Disable

System Name:

Username: **← User name to log in DDNS service**

Password: **← Password to log in DDNS service**

Hostname:

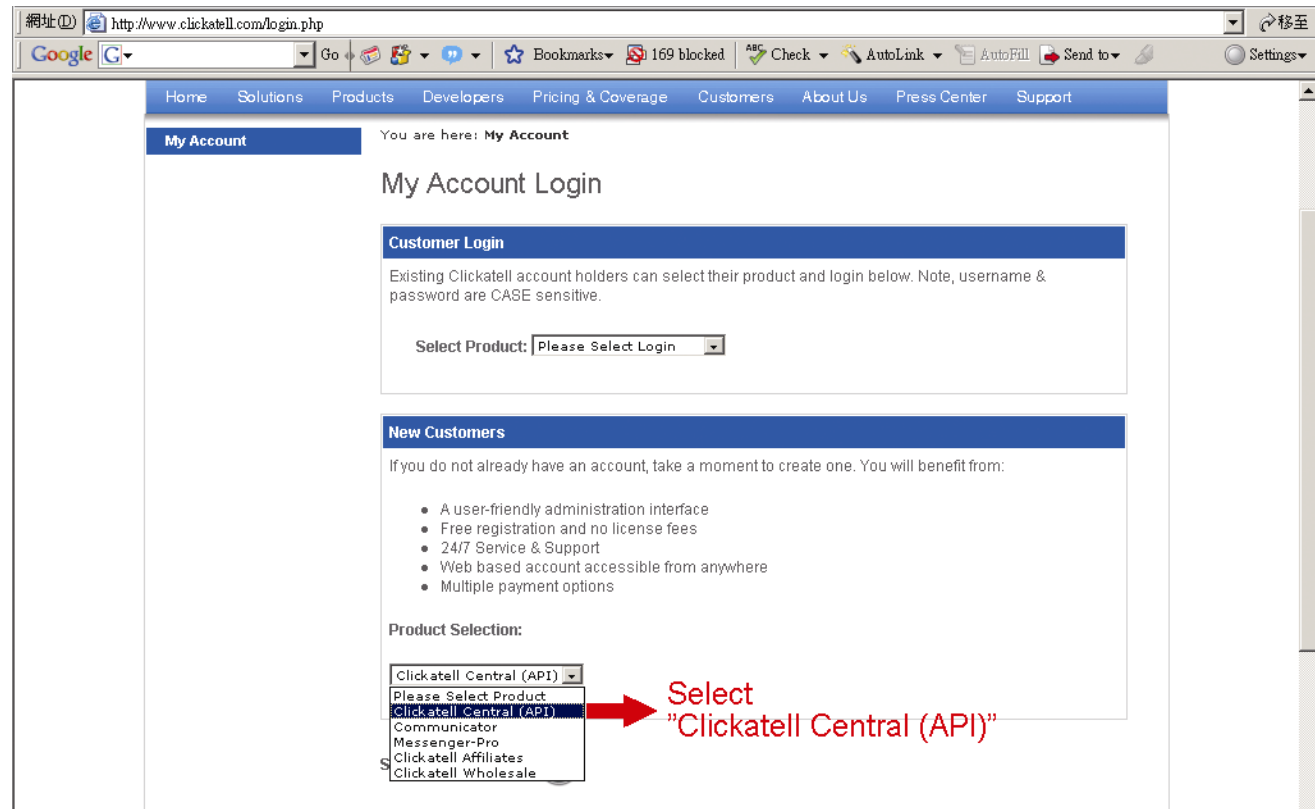
APPENDIX 2 API ID APPLICATION FOR SMS MESSAGING

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.

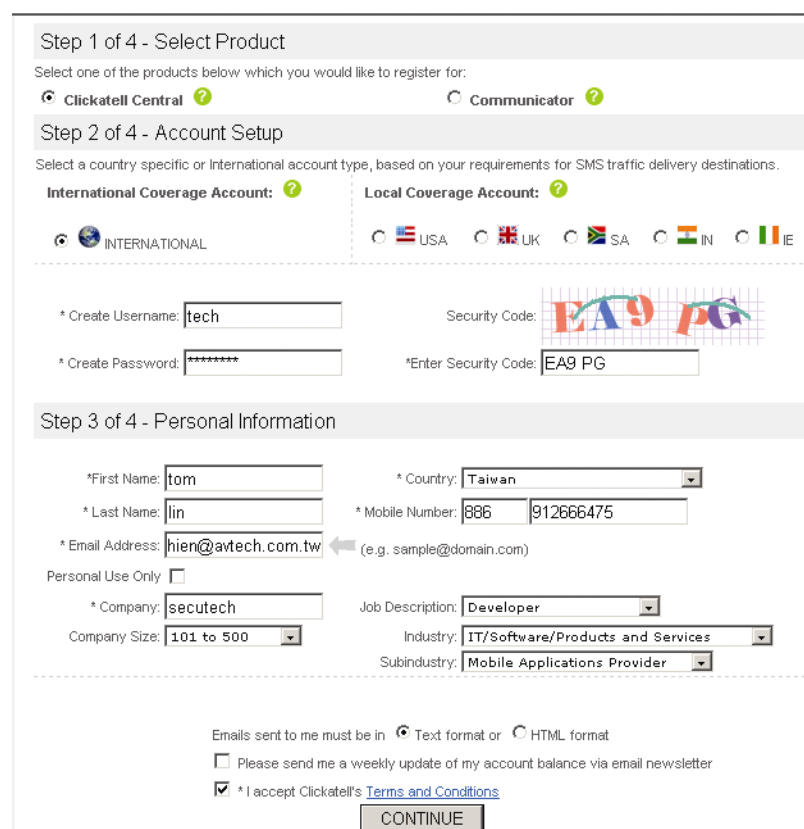
Step1: Go to <http://www.clickatell.com/login.php>. In “New Customers”, select “Clickatell Central (API)” from the drop-down list.



The screenshot shows the Clickatell website's login page. The 'New Customers' section is active, displaying a list of benefits and a 'Product Selection' dropdown menu. A red arrow points to the 'Clickatell Central (API)' option in the dropdown list, which is highlighted. The dropdown menu also includes options like 'Please Select Product', 'Communicator', 'Messenger-Pro', 'Clickatell Affiliates', and 'Clickatell Wholesale'.

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.



The screenshot shows the Clickatell account setup form. It is divided into three steps: Step 1 of 4 - Select Product, Step 2 of 4 - Account Setup, and Step 3 of 4 - Personal Information. In Step 1, 'Clickatell Central' is selected. In Step 2, 'International Coverage Account' is selected. In Step 3, the user's information is entered: First Name 'tom', Last Name 'lin', Email Address 'hien@avtech.com.tw', Country 'Taiwan', Mobile Number '886 912666475', Company 'secutech', and Job Description 'Developer'. The 'CONTINUE' button is visible at the bottom.

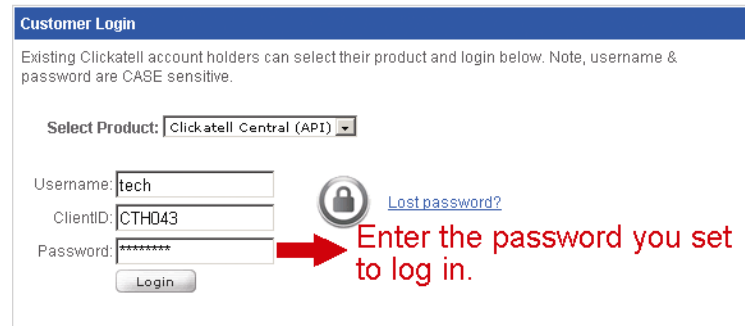
Step2: When the account is created, the system will automatically send an Email to your specified

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”.

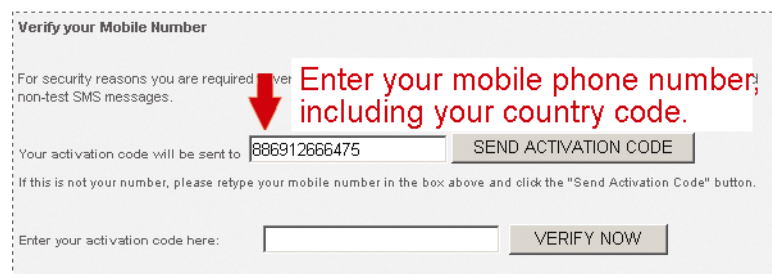
My Account Login



The 'Customer Login' form includes a dropdown for 'Select Product' set to 'Clickatell Central (API)'. It has input fields for 'Username' (containing 'tech'), 'ClientID' (containing 'CTH043'), and 'Password' (containing seven asterisks). A 'Login' button is at the bottom. A red arrow points to the password field with the text 'Enter the password you set to log in.' A 'Lost password?' link is also present.

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.

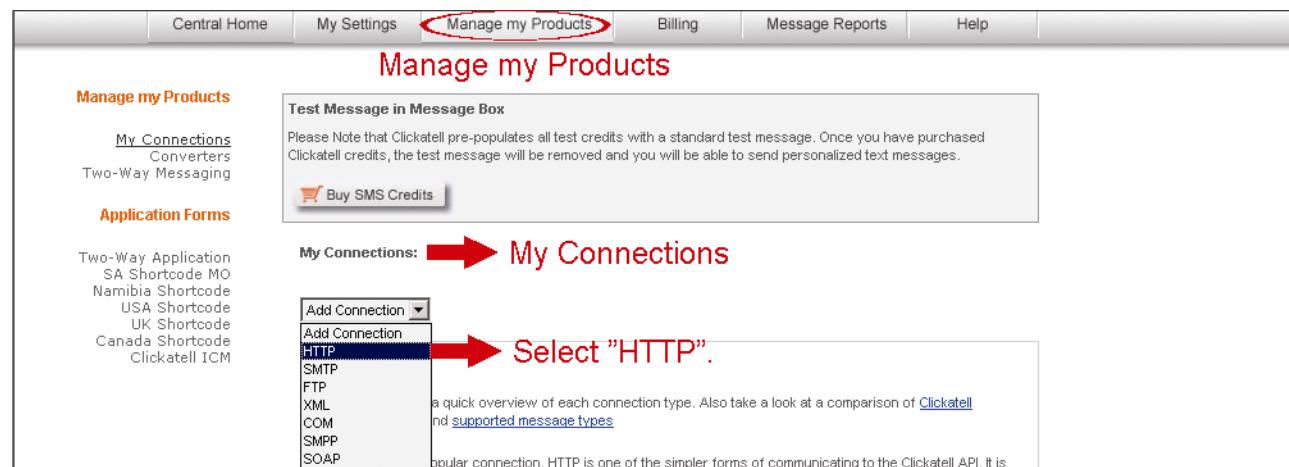
Check if you receive a text message from Clickatell.



The 'Verify your Mobile Number' form has a text box for the mobile number containing '886912666475'. A red arrow points to this box with the text 'Enter your mobile phone number, including your country code.' Below the number box is a 'SEND ACTIVATION CODE' button. At the bottom, there is a field for 'Enter your activation code here:' and a 'VERIFY NOW' button.

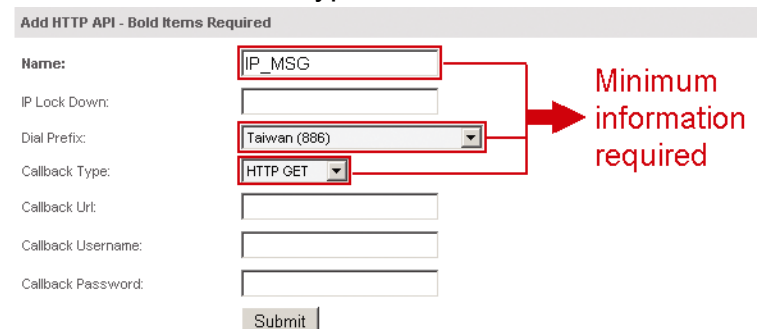
Step4: Go back to Clickatell, and click the tab “Manage my Products”.

Then, select “HTTP” from the drop-down list “My Connections”.



The 'Manage my Products' page shows a sidebar with 'My Connections' selected. The main area has a 'My Connections' dropdown menu with 'HTTP' selected. A red arrow points to the 'HTTP' option with the text 'Select "HTTP".' The page also includes a 'Test Message in Message Box' section and a 'Buy SMS Credits' button.

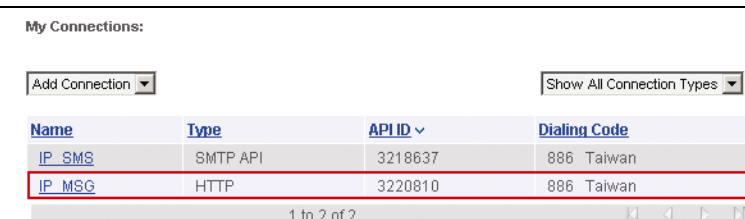
Step5: In “Add HTTP API”, enter a descriptive name for this service, and make sure the dial prefix is correct and callback type is “HTTP GET”. Then, click “Submit”.



The 'Add HTTP API - Bold Items Required' form has fields for 'Name' (containing 'IP_MSG'), 'Dial Prefix' (containing 'Taiwan (886)'), and 'Callback Type' (containing 'HTTP GET'). A red arrow points to these three fields with the text 'Minimum information required'. There are also fields for 'IP Lock Down:', 'Callback Url:', 'Callback Username:', and 'Callback Password:', along with a 'Submit' button.

Step5: You will get an API ID as follows.

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



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 MOBILE SURVEILLANCE VIA EAGLEYES

EagleEyes is a mobile phone program used with our surveillance system (DVRs or network cameras) for remote surveillance. It has several advantages:

- It's free (Except *EagleEyes Plus* for iPhone).
- It's compatible with several popular mobile platforms, such as iPhone, BlackBerry, Symbian, Windows Mobile and Android.

It's easy to download, install and configure. For more details about configuring and operating this program, please visit our official website www.eagleeyescctv.com.

A2.1 Prerequisites

Before installing *EagleEyes* to your mobile phone for remote surveillance, make sure you have checked the following:

- ✓ Your mobile platform is iPhone, BlackBerry, Symbian, Windows Mobile & Android.
- ✓ Mobile Internet services are subscribed and available to use for your mobile phone.

Note: You might be charged for Internet access via wireless or 3G networks. For the Internet access rate details, please check with your local network operator or service provider.

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- ✓ Your DVR or network camera is powered on and connected to Internet.
 - ✓ You have noted down the IP address, port number, user name and password used to access your DVR or network camera from Internet.

A2.2 Where to download

Connect to www.eagleeyescctv.com from your mobile phone, and sign in.

Note: Please **DO NOT** try to download *EagleEyes* from your computer.

Then, select "Software" and the mobile platform of your phone to download *EagleEyes* to your phone.

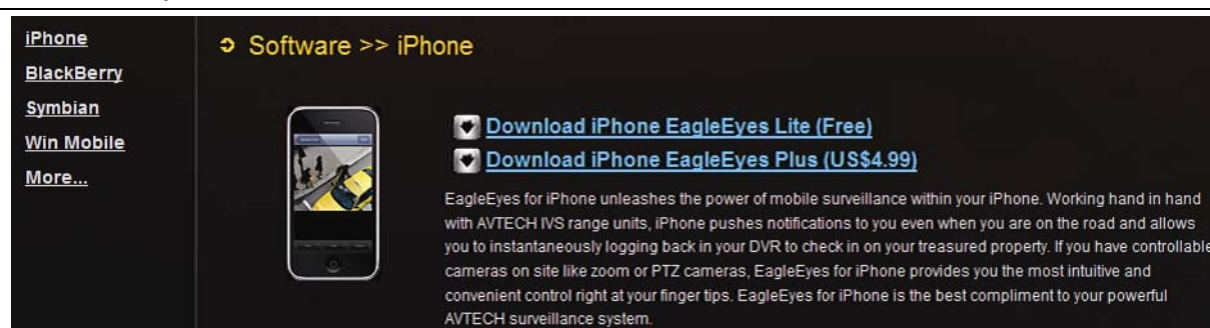
- For BlackBerry, Symbian, Windows Mobile & Android, select the download link from the website to start downloading.

Note: It's recommended to download *EagleEyes* for BlackBerry with the web browser of Opera.

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- For iPhone, two versions of *EagleEyes* are available:
 - *EagleEyes Plus* (US\$4.99), and
 - *EagleEyes Lite* (Free).

Select the version you want, and you'll be directed to "App Store" to download the application.

Note: You can also find *EagleEyes* on "App Store" from your iPhone. Go to "App Store", and select "Search". Enter the keyword "eagleeyes" to find and download the version you want.



When the download is completed, *EagleEyes* will be installed automatically to the location where all applications are saved in your phone by default, or where you specify.

Note: For more details about configuring and operating this program, please visit our official website www.eagleeyesctv.com.
