

**Siera.**



**User Manual 3G/Wifi & XPro CMS  
Server**

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

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## Part one -- 3G transmission

**PRO 6004 Login:** enter into PRO 6004 by pressing 'LOGIN/LOCK' or "setup" on the Remote Control.

**UNIT ID:** 0, the unit ID of PRO 6004 is shown in the right bracket.

**PASSWORD:** 88888888, the default admin password is 88888888.

### USER LOGIN



## 1 PRO 6004 setup

### 1.1 Insert SIM card

Please unlock and remove the HDD case, and then insert the SIM card as the following picture:



**Remarks:** please make sure the network of the SIM card corresponds with the built-in



wireless module.

## 1.2 Register Info

SETUP>>SYSTEM>>REGISTER INFO

**REGISTER INFO**

UNIT S/N: 00640000CB

UNIT ID (00000-99999): 00001

COMPANY NAME: NAME

VEHICLE NO.: 9999

DRIVER/ROUTE NAME: ABCD

**VEHICLE S/N FOR CMS: 02009**

SAVE EXIT

**UNIT S/N:** The serial number for PRO 6004. One PRO 6004 has only one S/N. This number is read from the special encrypted chip.

**VEHICLE S/N FOR XPro CMS Server:** This is very important. Only this number can be recognized by XPro CMS Server.

**Remarks:** when you connect PRO 6004 to CMS, make sure the vehicle “NO” and vehicle “S/N” are not blank; otherwise, it can’t register on the message server. For the others, you can set it up as you want.

Scroll to **【SAVE】** to make the settings valid before you exit this interface.

## 1.3 CHANNEL SETTINGS

SETUP >> RECORD >> CHANNEL SETING

### CHANNEL SETTING

CH ID	EN	NAME	AUDIO	LIVE
CH1	ON <input type="checkbox"/>		OFF <input type="checkbox"/>	ON <input type="checkbox"/>
CH2	ON <input type="checkbox"/>		OFF <input type="checkbox"/>	ON <input type="checkbox"/>
CH3	ON <input type="checkbox"/>		OFF <input type="checkbox"/>	ON <input type="checkbox"/>
CH4	ON <input type="checkbox"/>		OFF <input type="checkbox"/>	ON <input type="checkbox"/>

ROUND:  OFF    ROUND TIME:  (5-300) SEC

VOICE INTERCOM  ON

Make sure the enable switch for all the channels are **ON**

**LIVE:** ON means you can see the live view in the monitor and OFF means no live video in the monitor.

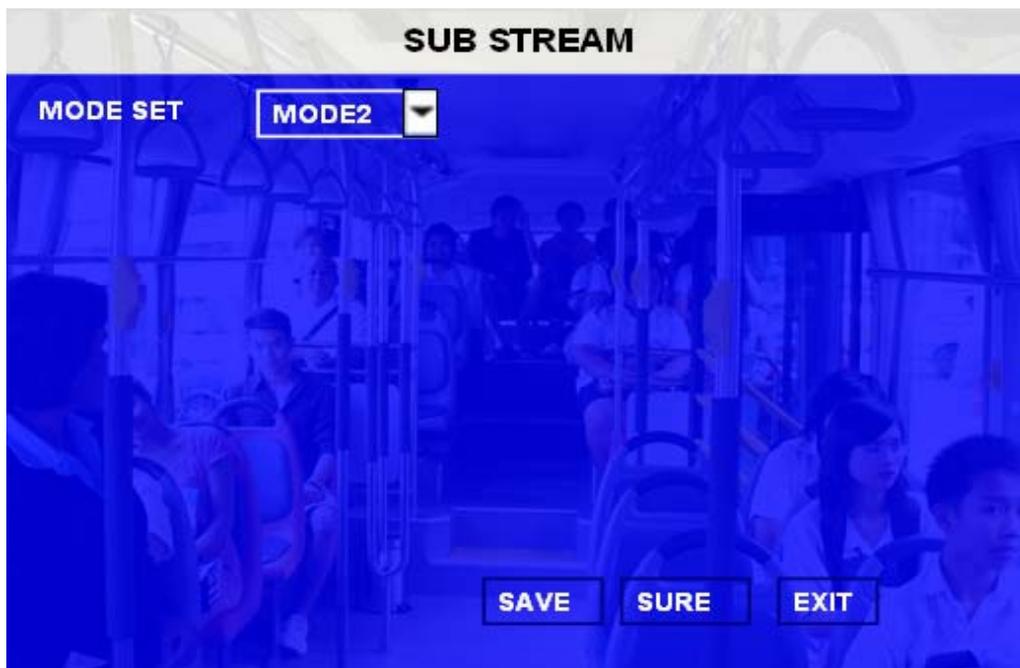
**NAME:** the channel name is the name that will be displayed in the live view monitor.

**AUDIO:** OFF means this channel does not record audio; ON means it will record audio synchronously with the video.

Scroll to **【SAVE】** to make the settings valid before you exit this interface.

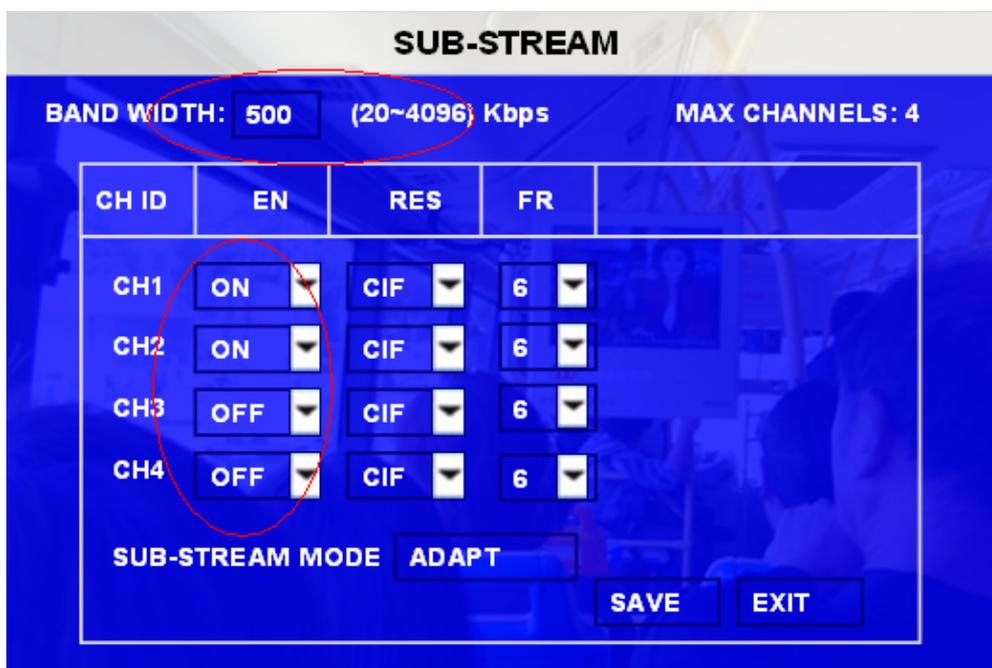
#### 1.4 SUB-STREAM

SETUP >> RECORD >> SUBSTREAM



To set up Sub-Stream: generally, **MODE 1** is for Broadband (WIFI or Net cable), **MODE 2** for 3G Transmission. If the 3G bandwidth is not sufficiently broad, choose MODE1 and setup the sub-stream resolution as QCIF.

Please choose MODE 2 and click on “SURE”.



Select **MODE 2** and press ‘SURE’ to enter into the settings interface.

Normally, we setup the BANDWIDTH as 400 kbps (check with your SIM card provider for



more details).

EN = enable the channels, must be ON (make sure all channel sub-streams are on).

RES (resolution) and FR (frame rate) can be setup as required.

SUB-STREAM MODE: ADAPT (means Flexible).

Then save the settings.

### 1.5 SERVER NETWORK



### SERVER NETWORK

CENTER SERVER IP 1:

NET. OPTION:

MESSAGE SERVER:

PORT:

MEDIA SERVER IP:

PORT:



**There are two pages for server setup, so you can setup two different server IPs.**

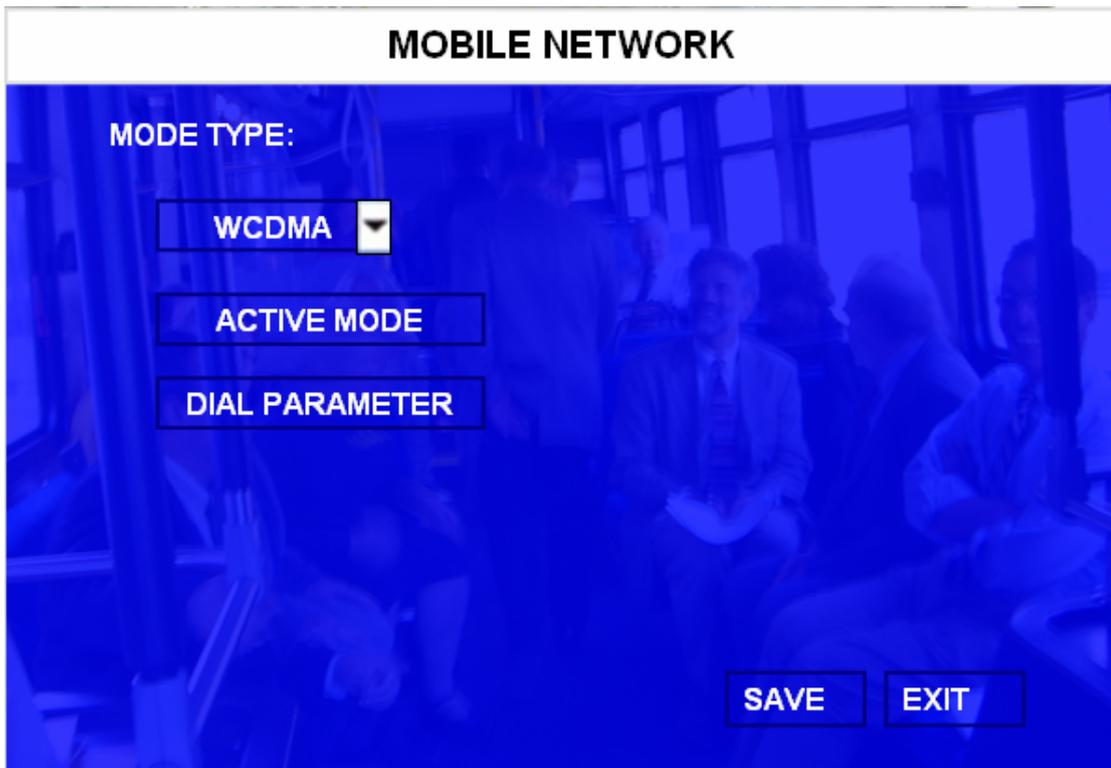
**Central Server IP 1:** the public IP of the PC which you installed the message server.

**Port:** 5556 (Message server's listen port). Please change the port if you have changed the message server port in the PC server.

The MEDIA SERVER IP and PORT have no use at present.

## 1.6 MOBILE NETWORK

**Mode type:** WCDMA (the built-in wireless module)



**ACTIVE MODE: SENSOR**

### ACTIVE MODE

ACTIVE MODE:

PHONE 1:

PHONE 2:

PHONE 3:

There are three options:

**ALWAYS** means the 3G module starts to work whenever PRO 6004 starts up;

**CALL/SMS** means the 3G module starts to work when PRO 6004 receives call from the appointed phone number;

**SENSOR** means when there is an alarm; it will trigger the 3G module to start working.

**DIAL PARAMETERS :**

### DIAL PARAMETER

**APN:**

**USER NAME:**

**PASSWORD:**

**ACCESS NUMBER :**

**APN** (access point name): please check APN with your SIM card provider.

**Access number:** Default.

Please setup according to the following table.

Network Type	User name	Password	APN	Access number
CDMA	card	card		#777
EVDO	card	card		#777
WCDMA			Please check the APN with SIM card manufacture	*99#
GPRS	card	card	Please check the APN with SIM card manufacture	*99**1#
EDGE	card	card	Please check the APN with SIM card manufacture	*99**1#
TD-SCDMA	card	card	Please check the APN with SIM card manufacture	*98*1#

**Remarks:** Our WCDMA module can support both WCDMA and GPRS networks. When you insert the 3G SIM card, you should setup the settings for WCDMA; when you insert the GPRS SIM card, you should select the module as WCDMA, and setup the APN and access number for the GPRS network.

### 1.7 Check the SIM card status

After PRO 6004 automatically gets restarted, check the SIM card status by pressing “Enter” on the IR remote control:



<b>HEATER: ON</b>	<b>IGNITION: ON</b>
<b>TEMPERATURE: 84F</b>	<b>VOLTAGE:12.5V</b>
<b>SIM CARD:ON</b>	<b>SERVER:WCDMA</b>
<b>DIAL UP:DIALED-UP</b>	<b>SIGNAL:20</b>
<b>3G NET STATUS: CONNECTING</b>	
<b>WIFI NET STATUS:UNKNOW</b>	<b>WIFI:-95DB</b>

<b>LOCAL IP: 192.168.003.100</b>	<b>MCA:00-14-F5-02-3D-35</b>
<b>2G/3G: WCDMA</b>	
<b>WIFI LOCAL SERVER IP:192.169.1.123</b>	<b>PORT:5556</b>
<b>2G/3G SERVER IP: 058.060.231.221</b>	<b>PORT:5556</b>
<b>WIFI NET:OFF</b>	

If all settings are OK, the status should be:

**SIM CARD→ON**

**NETWORK→WCDMA** (the network of SIM card)

**DIAL UP→ DIALED UP**

**Remarks:**

**SIM CARD:** PRO 6004 cannot detect the SIM card when it has a PIN number, so please delete it if there's one.

**SIGNAL:** PRO 6004 only starts to dial when the signal is greater than 9. If it is below 9, it will be on the IDEL status. In this case, please make sure you have connected the antenna, and try to put the antenna nearby the window.

**3G network:** SUCCESSFUL means PRO 6004 is already connected to the message server, but if the status is FAILED, it means PRO 6004 cannot connect to the message server, you should check whether the message server port is opened.

**If PRO 6004 cannot dial up in 5 minutes, the status will change to:**



<b>HEATER: ON</b>	<b>IGNITION: ON</b>
<b>TEMPERATURE: 84F</b>	<b>VOLTAGE:12.5V</b>
<b>SIM CARD:OFF</b>	<b>SERVER:NO SERVER</b>
<b>DIAL UP: UNKWON</b>	<b>SIGNAL:0</b>
<b>3G NET STATUS: CONNECT FAILED</b>	
<b>WIFI NET STATUS:UNKNOW</b>	<b>WIFI:-95DB</b>

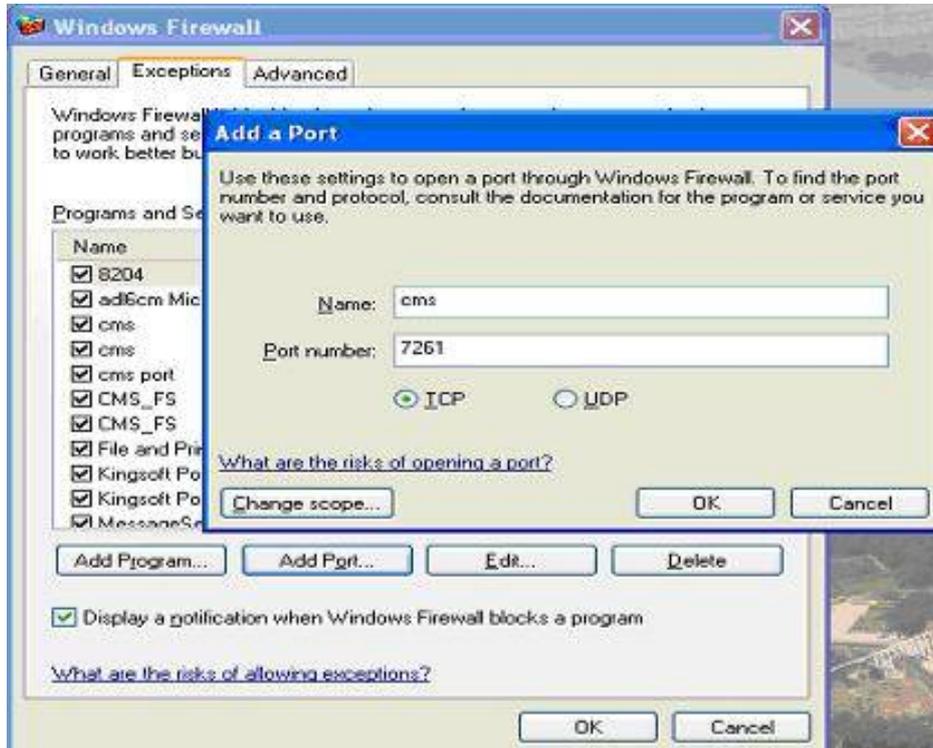
It will start to dial again, in 5 minutes time.



## 2 CMS/PC setup

Close any anti-virus software that is open as it will stop video transmission.

Please turn OFF the firewall, or add the ports in the firewall as shown below:



### 2.1 Open ports in the router for XPro CMS Server

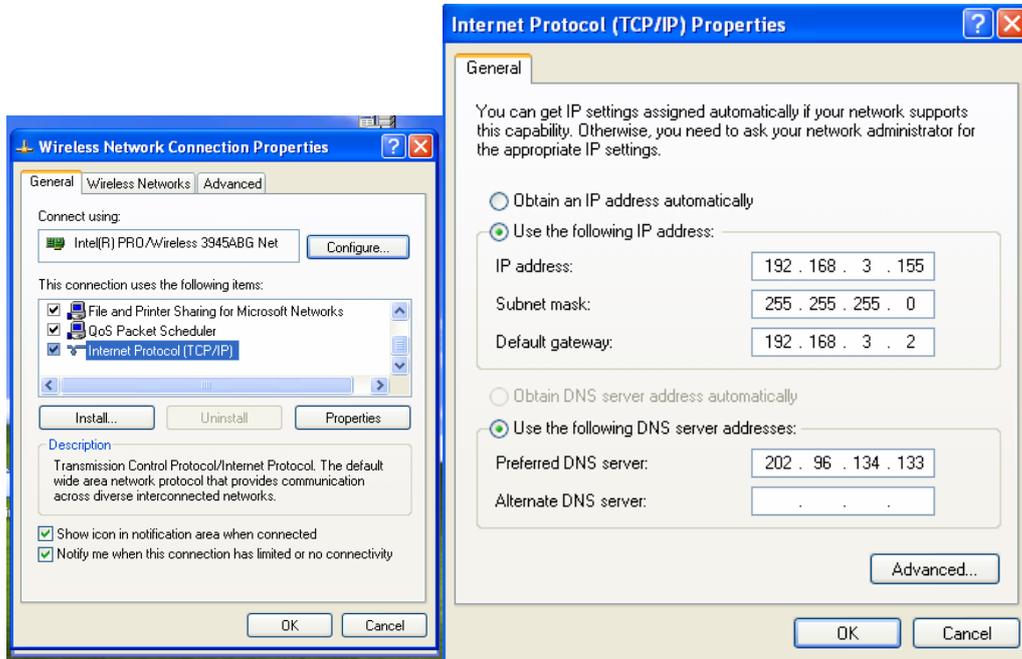


**Remarks:** EMake sure you have opened all the ports for the XPro CMS Server.



## 2.2 Check the local IP of the XPro CMS Server:

Get to the 'Properties' interface for the local network, and then select the last item of the 'Internet Protocol (TCP/IP)', make sure the local IP is the one that you opened all the ports to, in the router.

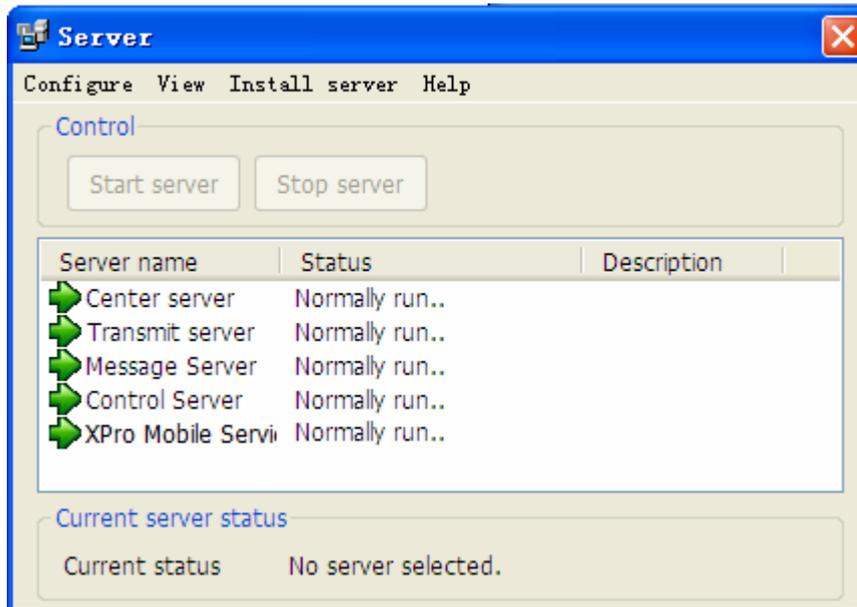


## 2.3 XPro CMS Server installation

There is only one EXE program file, to install the server please just run the .EXE.

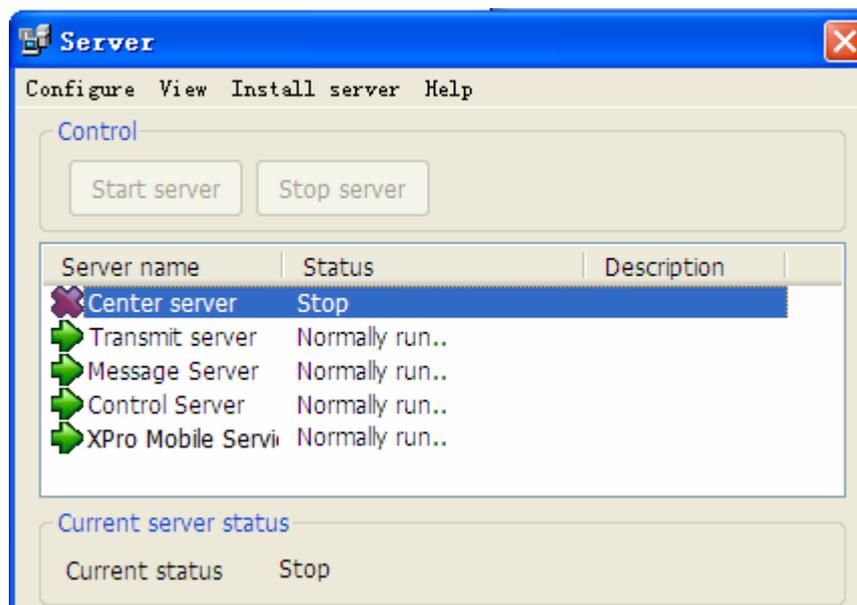
 Siera CMS Server\_Spanish(3.0.1.26).exe

After the installation of the server, there will be a  server icon on right-down of the screen, please click this icon to check the running status of each part.

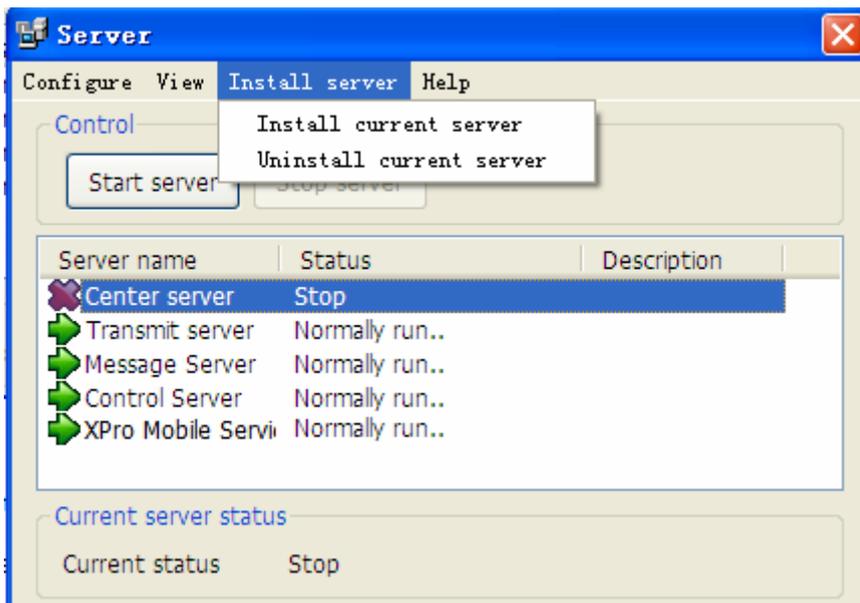


The green icon before each server means it is running normally.

✖ Red Cross means it stops. Please click on that server and then click on Start server button to restart it.

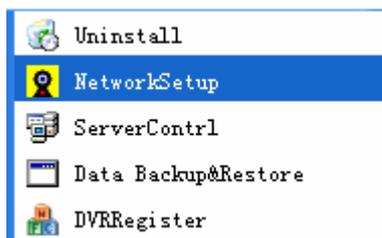


If still cannot work, please choose that server and click on Install server, choose install current server first and then click on start server button to start it. If no result, please contact us.



## 2.4 Network setup

Please start the network setup from Start-All programs-XPro CMS Server:



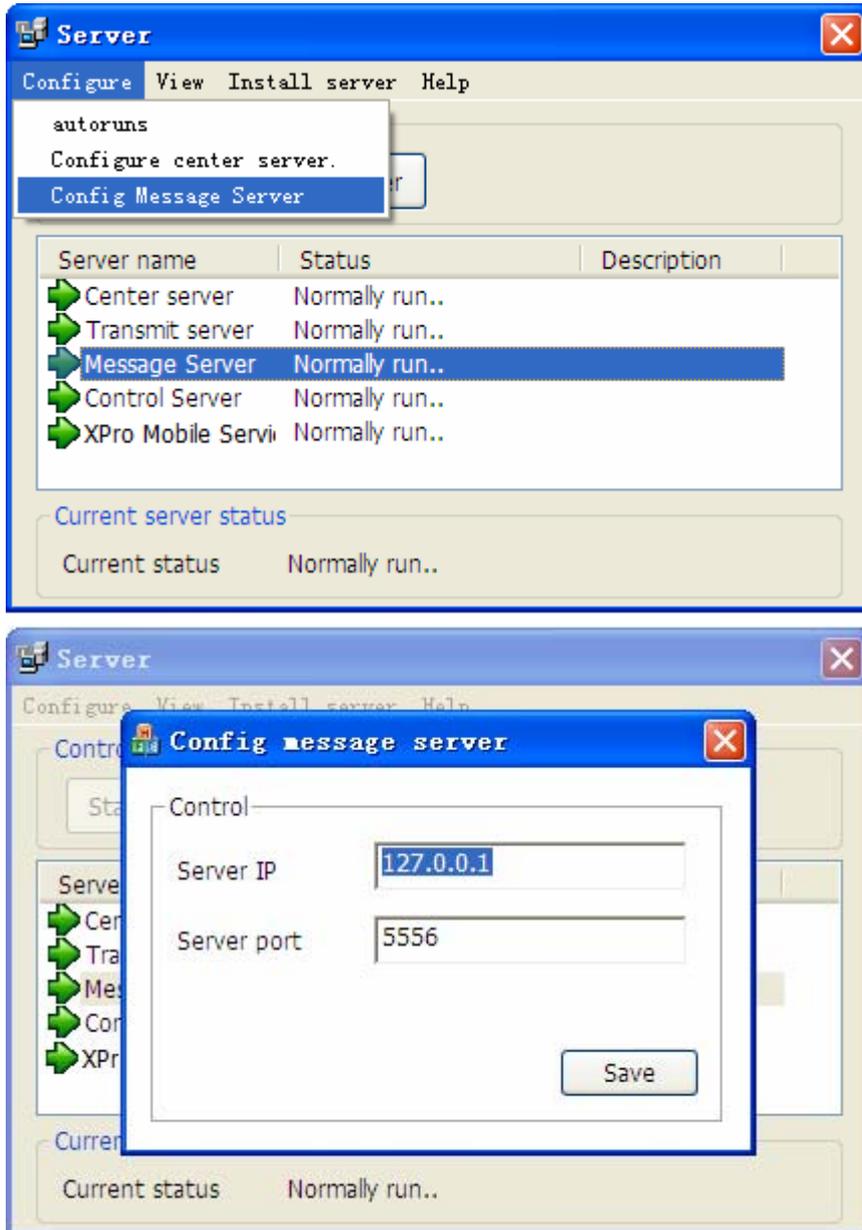
Input the WAN IP for Register server IP and Local public IP.

Register port: 5556; Receive Video Data Port: 7263





Setup message server:



This port must be the same as the port being setup in PRO 6004.

### SERVER NETWORK

CENTER SERVER IP 1:

NET. OPTION:

MESSAGE SERVER:

PORT:

The listen port 5556 must be opened in the router for PRO 6004 to connect to the message server. If no device is online when testing, please check:

- (1) Whether you have correctly setup and saved the ID of PRO 6004, VEHICLE S/N FOR XPro CMS Server, and VEHICLE No.

### REGISTER INFO

UNIT S/N:

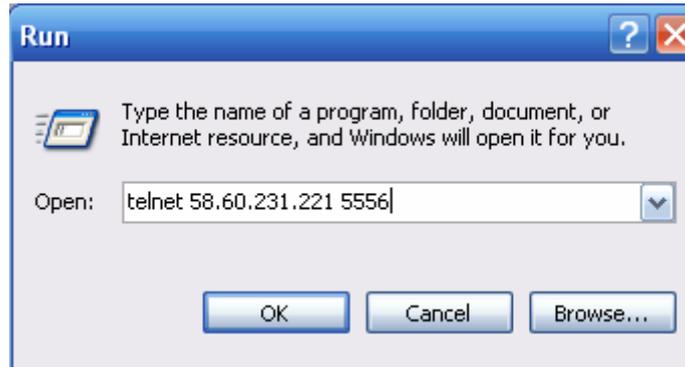
UNIT ID (00000-99999):

COMPANY NAME:

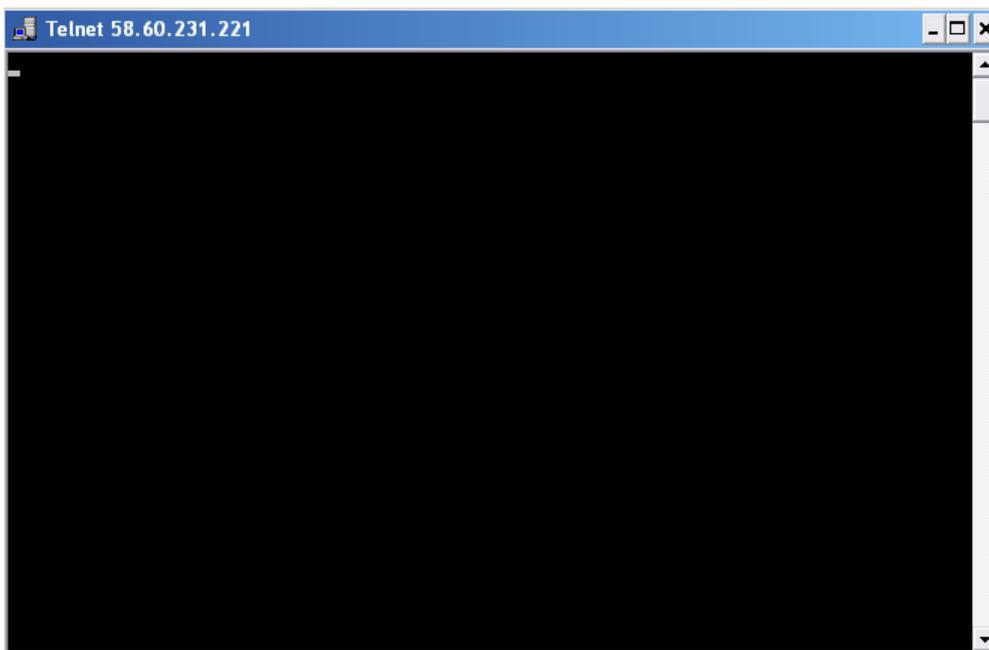
VEHICLE NO.:

DRIVER/ROUTE NAME:

- (2) Whether the register port (5556) is opened:



The following screen will pop up if the port has opened; otherwise, please check the port in the router.



(3) Follow the commands; make sure the listen ports statuses are 'LISTENING' after you have started the message server:



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.26001]
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\Administrator>netstat -a

Active Connections

Proto Local Address           Foreign Address         State
TCP    microsoft-6b15aa:http  microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:epmap microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:https microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:microsoft-ds microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:1871  microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:5556  microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:6059  microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:7260  microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:16877 microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:28792 microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:2517  microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:6059  localhost:21175        TIME_WAIT
TCP    microsoft-6b15aa:20745 microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:20745 localhost:20748        ESTABLISHED
TCP    microsoft-6b15aa:20748 localhost:20745        ESTABLISHED
TCP    microsoft-6b15aa:41309 microsoft-6b15aa:0     LISTENING
TCP    microsoft-6b15aa:netbios-ssn microsoft-6b15aa:0     LISTENING
```

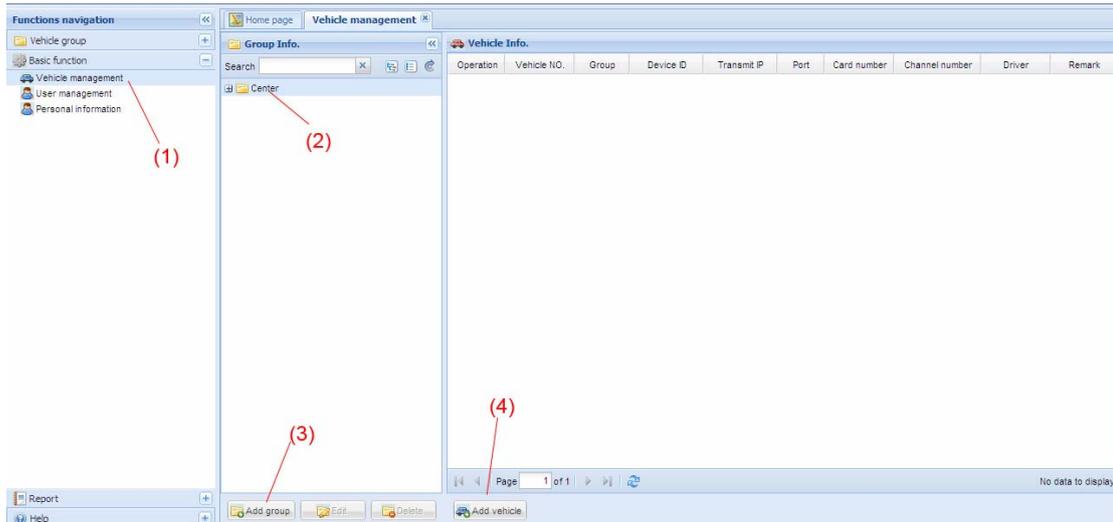
Last, make sure the message server IP in PRO 6004 is correct. Please contact the representatives of Siera Holding Group if it cannot connect to the message server.

## 2.6 Configure vehicle

Use Microsoft IE 6.0 or 8.0 to login “http://127.0.0.1:7260”, the default user name and password are **admin**



After login, please follow the below picture to setup the vehicle information



Click on Basic function=> click on Center=> Add group => Add vehicle:

Vehicle plate:	02010	*	Muse be filled, length is up to 15
Group:	TEST	*	Please choose group
Device ID:	dns:02010	*	Must be filled, length is up to 15
Transmit IP:	58.60.231.218		Optional
Port:	17891	*	Must be filled, port can only be number
Channel count:	4	*	Must be filled, channel can only be number
Device type:			
Driver:			Optional, length is up to 15
Card number:			Optional, length is up to 15
Remark info.:			

Transmit Server Setting:

Vehicle Plate: [AAAA](#)

Device type: [PRO 6004](#) (Default)

Device ID: [02009](#) (same as the PRO 6004 setting on System-Register Info-Vehicle S/N for XPro CMS Server: [02009](#)).

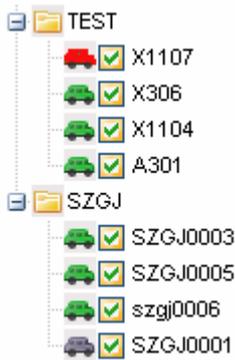
Transmit IP: [58.60.231.221](#) (For 3G transmission, it must be the public IP of the server; but for WIFI or net cable, use the local network IP).



## 2.7 Apply video on IE

After the above setup, go to home page, you can see the vehicle is online.

Please right click on the green vehicle icon to apply video or playback GPS.



Red means alarm is triggered on this vehicle; Green means online; Grey means offline.

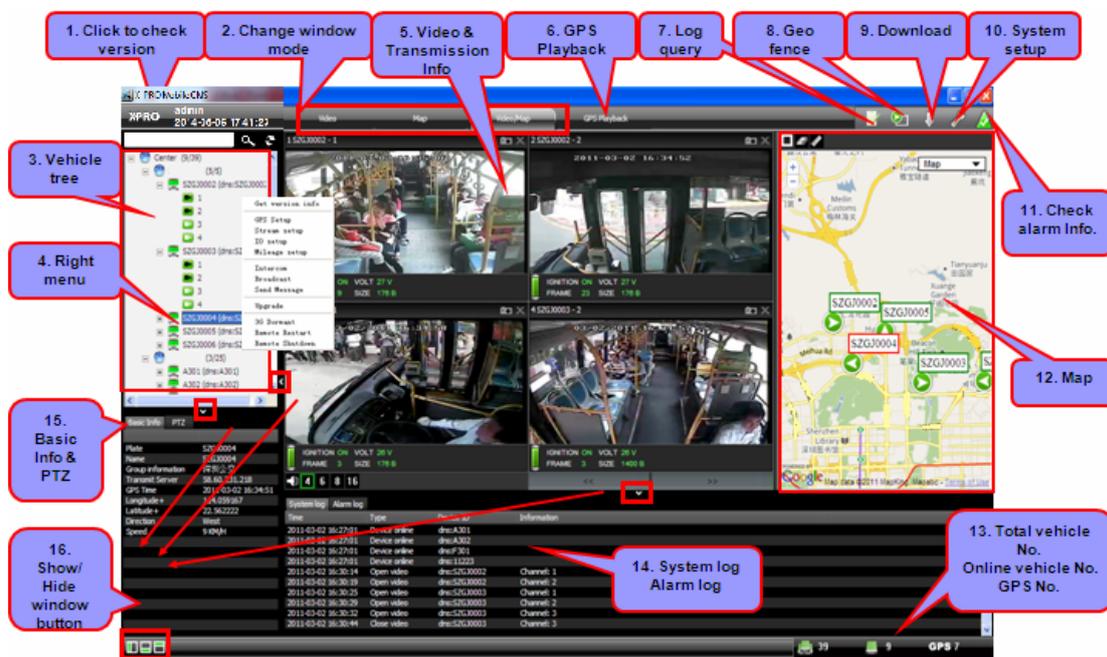
## 2.8 CMS client setup

Input the transmit server IP here. If in LAN, please input the local IP, if in WAN, input the public IP.



If you install the message server and transmit server on the same PC, and all ports are the default ones. Please tip Default here. Otherwise, please input the message server IP and port.

### 3 XPro CMS Client application



Please check the whole interface.

#### 3.1 Apply video

Right click on the online vehicle icon to get video. When the cameras are correctly connected, the main icons will be green.

Double click on the individual cameras, and then the videos will be showing on the live view window panels on the right below.



There are three options for window mode:

Video: Video only.

Map: Map only.

Video/Map: Show both video and map.



Click to turn on/off the audio. Click on the channel that you would like to hear, CMS can only play one audio channel at a time.

Click 4, 6, 8, and 16 to change the number of screens to be displayed.



If you can't get video, please right click on the green vehicle to check the setup of



sub-stream: make sure you use Mode 2 for 3G network. And the sub-stream o is enabled.

The SetStream window contains the following settings:

- Net Mode: Mode 2
- Video Mode: PAL
- Total Band Width: 4096 kbps (20 - 4096)
- Sub Streaming code: Fix

	Enable	Resolution	Frame	Quality	Bit
Channel 1	ON	CIF	18	1	1024
Channel 2	ON	CIF	18	1	1024
Channel 3	ON	CIF	18	1	1024
Channel 4	ON	CIF	18	1	1024

### 3.2 Get GPS

If the PRO 6004 is online, when you click on its icon, the map will automatically locate it.

If you cannot get GPS, please right click on the vehicle icon, choose GPS setup:

The GPS setup 02009 dialog box includes the following options:

- Close upload GPS
- Open upload GPS
- Interval: 10 Second

A red speech bubble highlights the text "02009: Device" in the top right corner of the dialog box.



## Part two—WIFI transmission

### 4 PRO 6004 setup

#### 4.1 Register Info

SETUP>>SYSTEM>>REGISTER INFO

**REGISTER INFO**

UNIT S/N: 00640000CB

UNIT ID (00000-99999): 00001

COMPANY NAME: NAME

VEHICLE NO.: 9999

DRIVER/ROUTE NAME: ABCD

**VEHICLE S/N FOR CMS: 02009**

SAVE EXIT

**UNIT S/N:** The series Number for PRO 6004. One PRO 6004 has only one S/N. This number is read from the special encrypted chip.

**VEHICLE S/N FOR CMS:** This is very important for XPro CMS Server. Only this number can be recognized by XPro CMS Server.

**Remarks:** When you connect PRO 6004 to XPro CMS Server, make sure the vehicle No. and vehicle S/N are not blank, otherwise, it can't register on the message server. For others you can setup on your discretion.

**【SAVE】** to make the setting valid.

#### 4.2 CHANNEL

SETUP >> RECORD >> CHANNEL SETING

### CHANNEL SETTING

CH ID	EN	NAME	AUDIO	LIVE
CH1	ON <input type="checkbox"/>		OFF <input type="checkbox"/>	ON <input type="checkbox"/>
CH2	ON <input type="checkbox"/>		OFF <input type="checkbox"/>	ON <input type="checkbox"/>
CH3	ON <input type="checkbox"/>		OFF <input type="checkbox"/>	ON <input type="checkbox"/>
CH4	ON <input type="checkbox"/>		OFF <input type="checkbox"/>	ON <input type="checkbox"/>

ROUND:  OFF  ROUND TIME:  (5-300) SEC

VOICE INTERCOM  ON

Turn **ON** all the required channels.

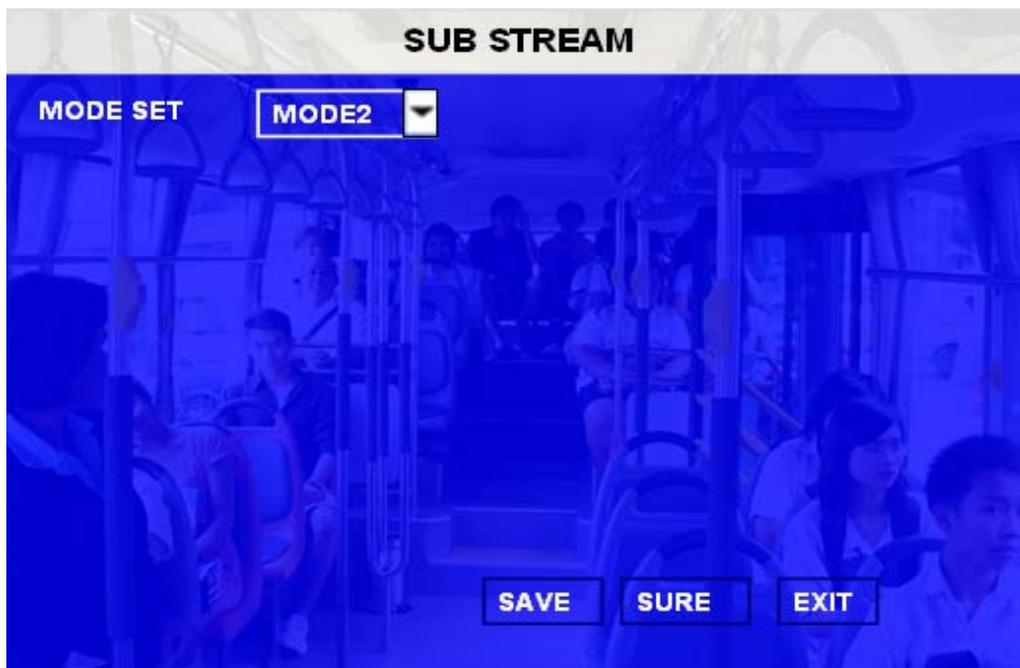
**LIVE:** Display video recordings on the monitor. ON means you can see the video on the monitor and OFF means no video on the monitor.

**NAME:** The channel name which will be showing on the live view monitor.

**AUDIO:** OFF means the channel does not record audio; ON means recording audio synchronously with the video.

#### 4.3 SUB-STREAM

SETUP >> RECORD >> SUBSTREAM



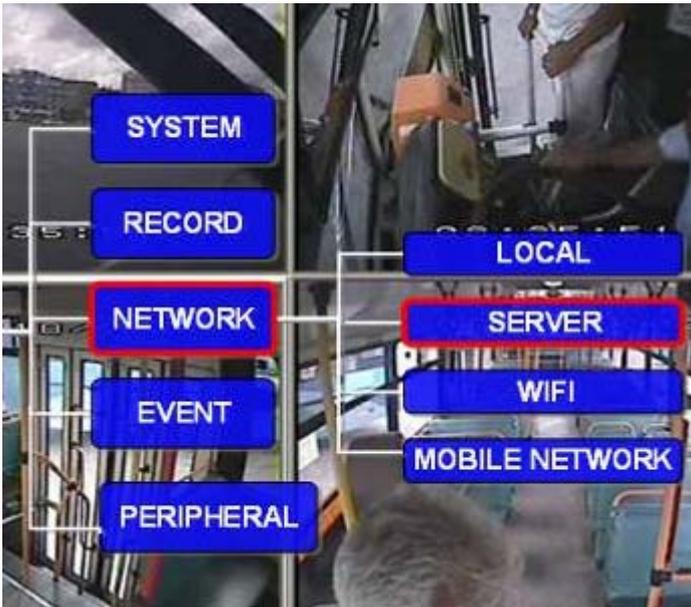
To set up the Sub-Stream: generally, **MODE 1** for Broadband (WIFI or Net cable), **MODE 2** for 3G Transmission. Please choose MODE 1 here and click on “SURE”.



EN = enable the channels, required to be **ON** (make sure all channel sub-stream are on)

RES (resolution) and FR (frame rate) need to be setup as required.

#### 4.4 SERVER NETWORK



**SERVER NETWORK**

CENTER SERVER IP 1:

NET. OPTION:

MESSAGE SERVER:

PORT:

MEDIA SERVER IP:

PORT:

Central Server IP: 192.168.1.12. This is the PC IP on which you installed the message server.

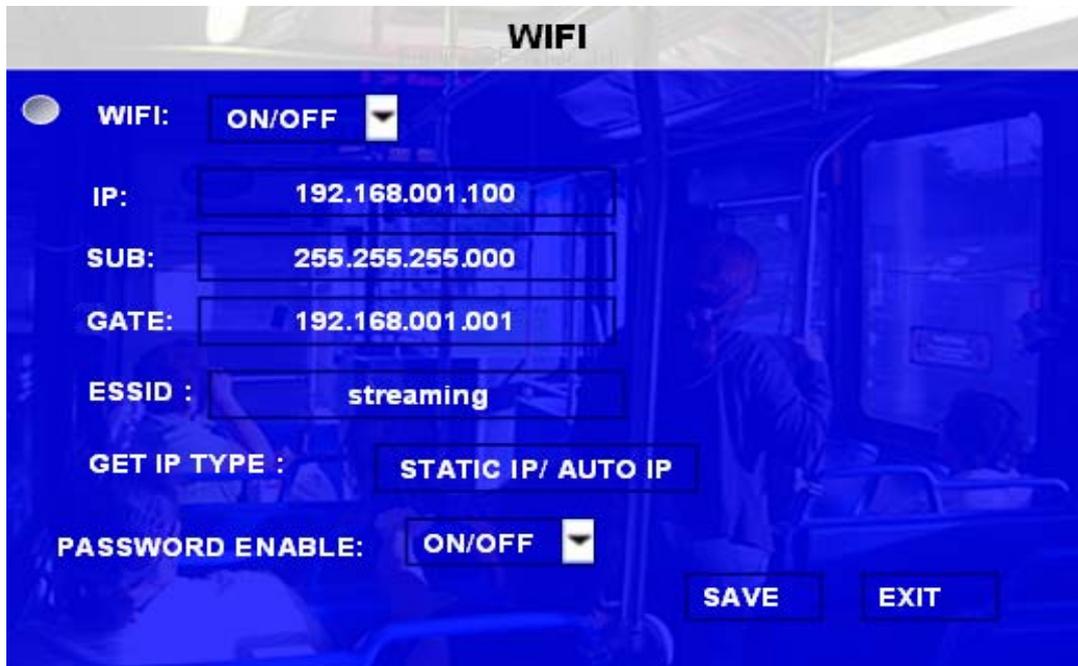
Port: 05556 (same as Message server's listen port), If you change the message server port, please don't forget to change the port here.



The MEDIA IP and PORT have no use at present.

#### 4.5 WIFI setup

SETUP → NETWORK → WIFI



Turn 'ON' the WIFI ENABLE.

Set the PRO 6004 IP address as: [192.168.001.012](#)

(As long as it is the same as the IP group as the laptop [192.168.1.12](#) & the router [192.168.1.1](#))

SUB: [255.255.255.000](#)

GATE: [192.168.001.001](#) (router IP)

ESSID: [streaming](#) (name of your router ID)

GET IP TYPE: [STATIC IP](#). STATIC IP for the WIFI server is assigned by an administrator; and AUTO IP can be assigned by the Dynamic Host Configuration Protocol (DHCP).

Password Enable: [OFF](#). If the WIFI server needs a password, then you can input a 5-digit password here.

Then press [SAVE](#) to save the settings. Now the SDR 6004 IP address is setup.

Please note:

(1) All IP addresses here must be 3 FULL digits for each set. For example: the usual IP [192.168.1.1](#) should become [192.168.001.001](#) on all PRO 6004 settings.

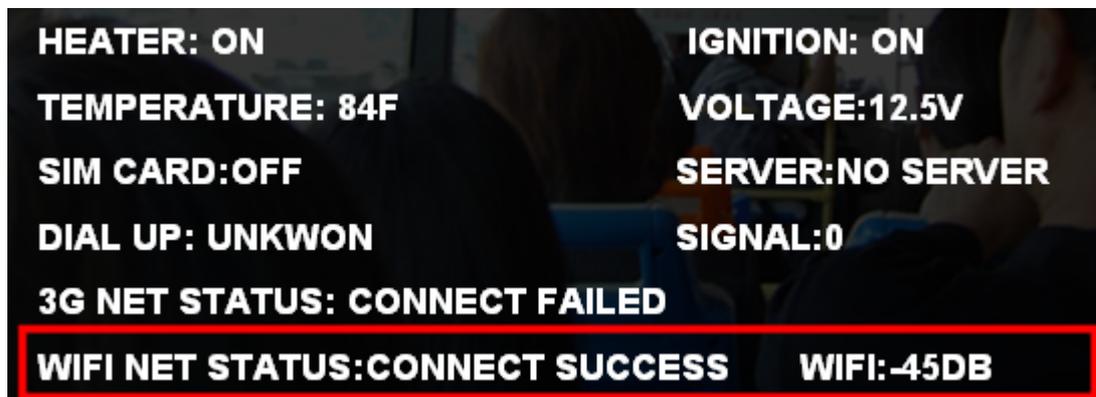


(2) WIFI router has two kinds of password, WAP and WPE 2. For WAP you can choose either HEX or ASCII type key, but our PRO 6004 only supports: WAP, 64 bits, 5-digit ASCII key. So please make sure your WIFI router password is 5-digit WAP ASCII.

(3) Please change the local IP to 192.168.000.000; it cannot be the same segment with the WIFI IP.

#### 4.6 Check PRO 6004 WIFI connection

Press 'Enter' on the IR remote control to check the WIFI status, the WIFI signal should be showing like below when SDR 6004 has successfully connected to the WIFI router:



The connection is OK if the signal is not -95DB.

**Remarks:** If PRO 6004 cannot connect to the WIFI router even when all the settings (router IP, ESSID, password and PRO 6004 WIFI settings) are right, then please check whether the WIFI router has a fixed frequency channel.

## 5 CMS/PC setup

No need to map any port if WIFI is used to transmit video.

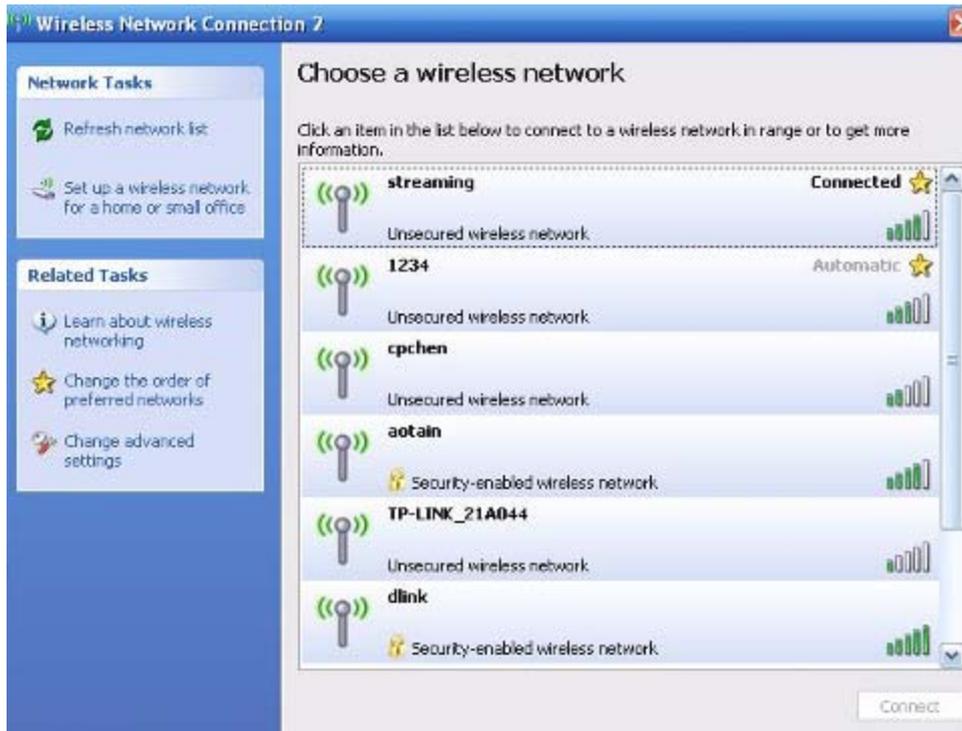
Please close the anti-virus software.

### 5.1 XPro CMS Server installation

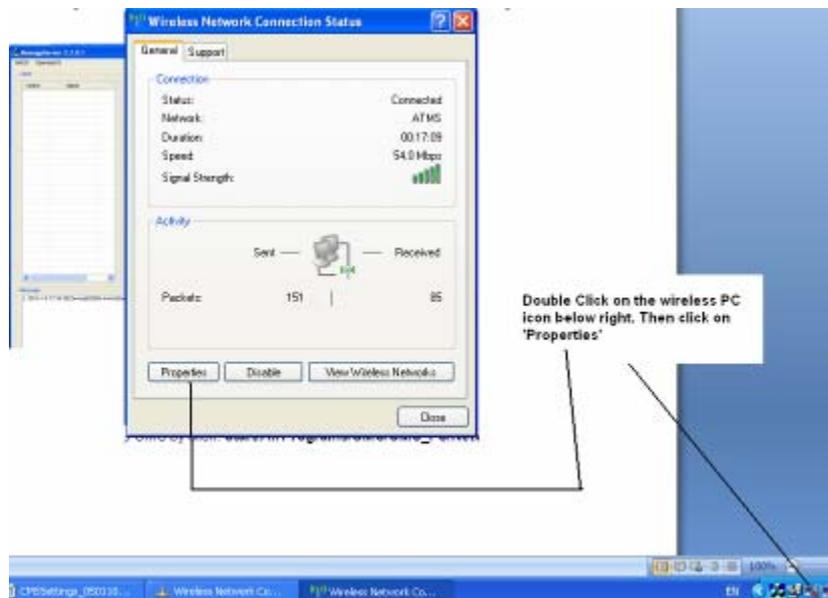
Please refer to 2.3 CMS installation.

### 5.2 Setup the IP for PC:

Search for wireless network connection and connect to the network named 'streaming' (the ISSID you setup in PRO 6004):

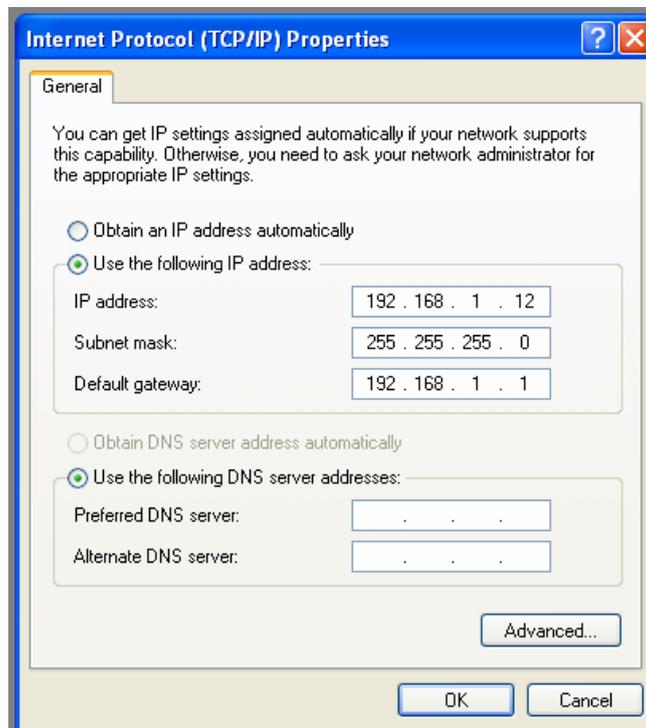
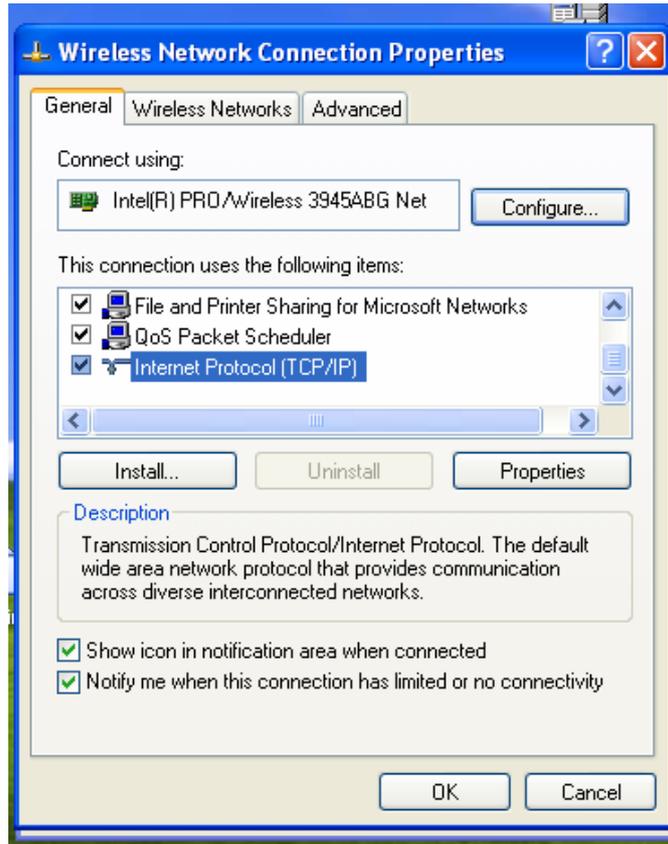


Double **click** on the wireless PC icon (on the bottom right of your PC for wireless connection).



Click on **'Properties'**

Then Scroll down to the last item of the 'Internet Protocol (TCP/IP)' and choose 'Use the following IP address'.



Fill in the IPs as follows:

**Laptop IP:** 192.168.1.12

**Sub:** 255.255.255.0.



Gate: [192.168.1.1](#) (Router IP)

Note: it requires a wireless router to connect to the laptop and PRO 6004.

### 5.3 Check whether the laptop and PRO 6004 are connected correctly

Ping PRO 6004 IP from laptop promptly by clicking:

Start – All Programs – Accessories – Command Prompt:

and type **cmd**, then press enter, and type **Ping 192.168.1.13** (There is a reply when PRO 6004 and the laptop are connected, and please check the connection if there is no reply).

```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\DELL>cmd
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings\DELL>ping 192.168.1.13

Pinging 192.168.1.13 with 32 bytes of data:

Reply from 192.168.1.13: bytes=32 time=3ms TTL=64
Reply from 192.168.1.13: bytes=32 time=4ms TTL=64
Reply from 192.168.1.13: bytes=32 time=4ms TTL=64
Reply from 192.168.1.13: bytes=32 time=2ms TTL=64

Ping statistics for 192.168.1.13:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 2ms, Maximum = 4ms, Average = 3ms

C:\Documents and Settings\DELL>
```

### 5.4 Xpro CMS Server setup/application

Please refer to chapter 2 and chapter 3.