INSTALLATION & CONFIGURATION MANUAL

resi-linx RL-IP1000
HD IP Streaming Server

TABLE OF CONTENTS

SAFETY PRECAUTIONS

The presence of this symbol is to alert the installer and user to the presence of uninsulated dangerous voltages within the product's enclosure that may be of sufficient magnitude to produce a risk of electric shock.

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS DEVICE TO RAIN OR MOISTURE. DO NOT OPEN THE UNIT. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

- DO NOT apply power to the unit until all connections have been made, all components have been installed and all wiring has been properly terminated.
- DO NOT terminate, change or uninstall any wiring without first disconnecting the unit's power adapter from the device.
- This device is supplied with the appropriately rated 12VDC power supply with the centre pin positive.

The use of any other power supply could cause damage and invalidate the manufacturer's warranty.

- DO NOT power on the unit until all cables and connections to the device have been properly connected.
- The device should be installed in an environment consistent with its operating temperature specifications. Placement next to heating devices and ducts is to be avoided as doing so may cause damage. The device should not be placed in areas of high humidity.
- DO NOT cover any of the device's ventilation openings.
- If the device has been in a cold environment allow it to warm to room temperature for at least 2 hours before connecting power.

PACKAGE CONTENTS

This package contains:

- One RL-IP1000 IP Streaming Server
- One 12V 1.5mA Power Adaptor
- One installation / configuration manual

Inspect the package before starting installation to ensure there is no damage and all supplied contents are present. Contact your distributor or dealer should the device be damaged or package contents are incomplete.

PRODUCT DESCRIPTION

resi-linx RL-IR1000 HD IP Streamer allows the user to stream any one audio/video source over a IP Network to up to any 16 Smart HDTV's or connected computers within the IP Network. The IP Streamer accepts a HDMI, Component, or Composite video input and the unit is designed to deliver a rich HD/SD Streaming experience for its users deploying MPEG-2 or MPEG-4 standards.

Combine any sources and stream them over the network for multiple sources. The RL-IP1000 HD Streaming server enables high-definition streaming with resolutions up to 1080p, providing a high quality viewing experience for your customer. The unit is MPEG2 or MPEG4 switchable and supports UDP/RTP Streaming. The compact design saves space and is easily controlled via a GUI for rapid deployment.

- ✓ **The RL-IP1000 series features:**
- ✓ **Front panel LED Status Display**
- ✓ **Video resolution: Up to 1080p**
- ✓ **HDMI, Component, Composite inputs with auto detection**
- ✓ **Dual Mode H.264 AVC / MPEG-2 selectable**
- ✓ **Variable Bit Rate Control**
- ✓ **Closed Captioning Support**
- ✓ **Audio format : MPEG1-Layer2(MP2)**
  AAC
  AC-3 Pass through
- ✓ **Easy installation and use**
- ✓ **GUI for setup and control**
- ✓ **GigE output port**
- ✓ **Light weight and compact design**

Please note: not all DLNA supported Smart TV's are able to process full HD 1080p signals. Please refer to your TV manufacture to see if your TV supports this. If not, please revise your resolution and frame rate to the appropriate settings to suit your TV

SPECIFICATIONS

Interfaces	Ethernet (output)	1Gbps, RJ-45
	USB (optional)	USB 2.0
	Video Input	HDMI, YPbPr, CVBS
	Audio Input	Analog, Coaxial, Optical
Encoding	Video Format	MPEG-2, AVC
	Audio Format	MPEG-1 Layer2(MP2) AAC, AC-3 passthrough
	Resolution	480i, 480p, 576i, 576p, 720p, 1080i, 1080p
	Video bitrate	MPEG-2 HD: 10 to 20Mbps MPEG-2 SD: 2 to 8Mbps AVC HD: 2 to 10Mbps AVC SD: 1 to 4Mbps
	Audio Rate	128, 256, 384, 448, 512Kbps
	Streaming Protocols	HTTP Server (DLNA) UDP/RTP multicasting, UDP/RTP unicasting, TCP unicast
MISC	Digital Living Network Alliance (DLNA)	MediaServer 1.5
	Closed Caption	Yes
	Power Supply	12VDC 1.5Amp.
	Consumption	500mA
	Dimension	236mm x 155mm x 35mm
	Weight	940g

Specifications subject to change without prior notice

INSTALLATION

System Installer must adhere to Article 820-40 of the NEC that provides guidelines for proper grounding and specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as possible.

UNPACKING and INSPECTION

Each unit is shipped factory tested. Ensure all items are removed from the container prior to discarding any packing material.
Thoroughly inspect the unit for shipping damage with particular attention to connectors and controls. If there is any sign of damage to the unit or damaged or loose connectors contact your distributor immediately. Do not put the equipment into service if there is any indication of defect or damage.

HARDWARE INSTALLATION and CONNECTIONS

It is highly recommended that quality cables and connectors be used for all video and audio source connections

1. Connect the media source (Satellite STB, Media player, or other media device) to the HDIP streaming server by HDMI, YPbPr, or CVBS cables.

2. Connect the HDIP streaming server to local area network (LAN)

3. Plug the power adapter to the device and power up

4. Network Setup

5. In the same network segment, find the HDIP streaming server from Windows XP/7 “My Network Places”
   a. ** Note: For Windows XP enable UPnP.

6. Open the streaming server’s configuration web page by double-clicking the device icon(XP)

7. There are three (3) use cases supported by HDIP streamer: DLNA media server, UDP/RTP multicasting and TCP/UDP/RTP unicasting.

Limitations:

1. All UPnP/DLNA devices, including the HDIP streaming server (media-server), mediaplayers, the SmartTV, the set-top-box, and the controlling PC, should be located within same network segment/LAN.

2. If a DHCP server is present in the private network, the HDIP streaming server will use the IP address assigned by the DHCP server.

3. If no DHCP server is present, the HDIP streaming server will use an assigned IP address (169.254.xxx.x).

Front-Panel

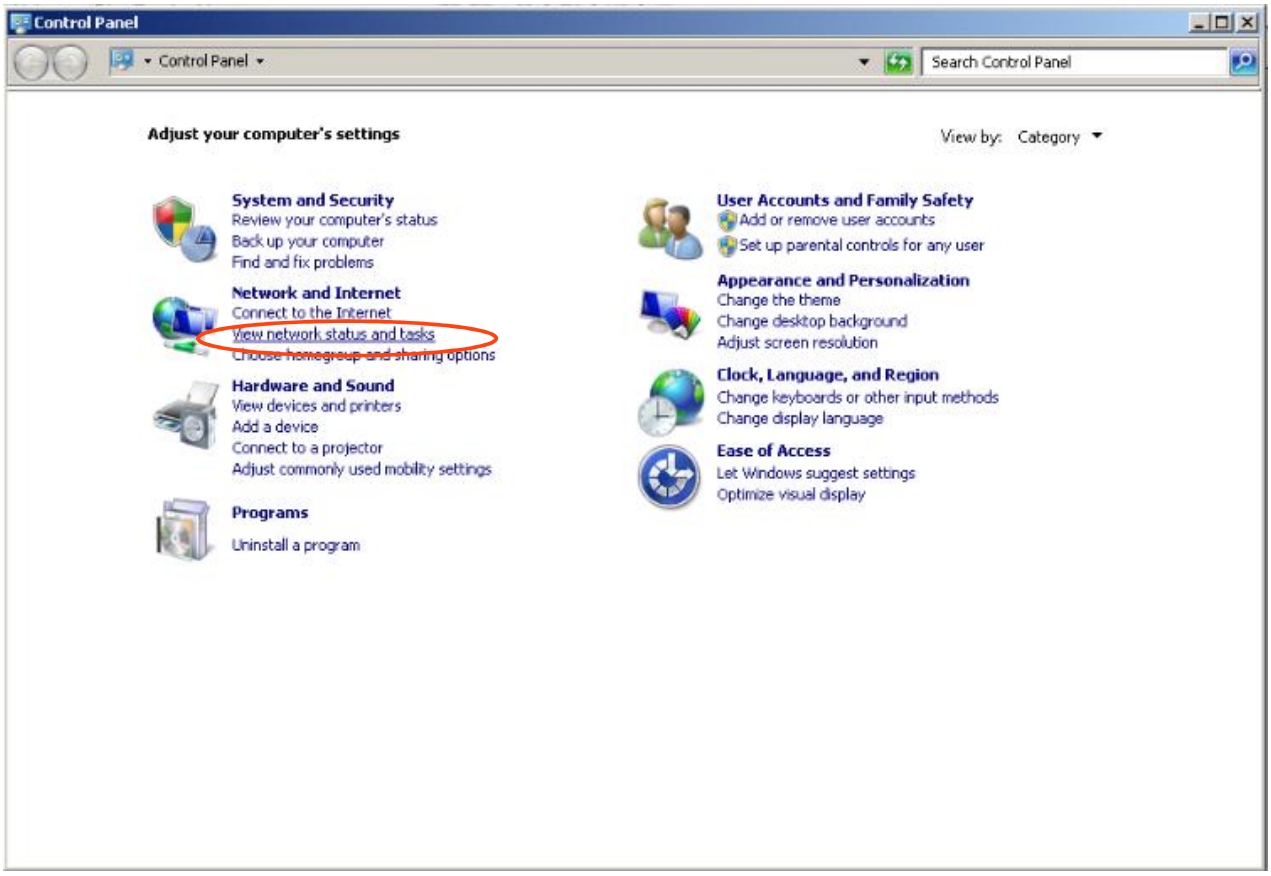
Buttons/LEDs	Description
Reboot button	Reboots the device (unsaved settings will be lost)
RST / UPG button	To reset all the settings of the device to factory default: 1.Press and hold the RST/UPG button and boot-up the device 2.Hold the button until CFG led to flashes 10 times (about 10 seconds) 3.After the CFG led stops flashing release the button To upgrade firmware using the USB port: 1.Plug-in the USB drive with the upgraded firmware image ("hdip_upg.img") 2.Press and hold the RST/UPG button and boot-up the device 3.USB led will flash while copying the image from USB drive (about 3~5 seconds) 4.Wait until the CFG led stop flashing 5.Release the RST/CFG button and wait for the device to reboot and upgrade the firmware (about 1 minutes)
PWR	Power is ON
CFG	Indicates device is in configuration mode
USB	Indicates USB drive is mounted
MPEG-2	Indicates device is encoding video using MPEG-2
AVC	Indicates device is encoding video using AVC
MP2	Indicates device is encoding audio using MPEG-1 Layer 2
AAC	Indicates device is encoding audio using AAC
AC-3	Indicates device is encoding audio using AC-3

Procedure to connect to the Streaming Server via the Network port

The following procedure will allow the installer to setup the Streaming Server via the GUI

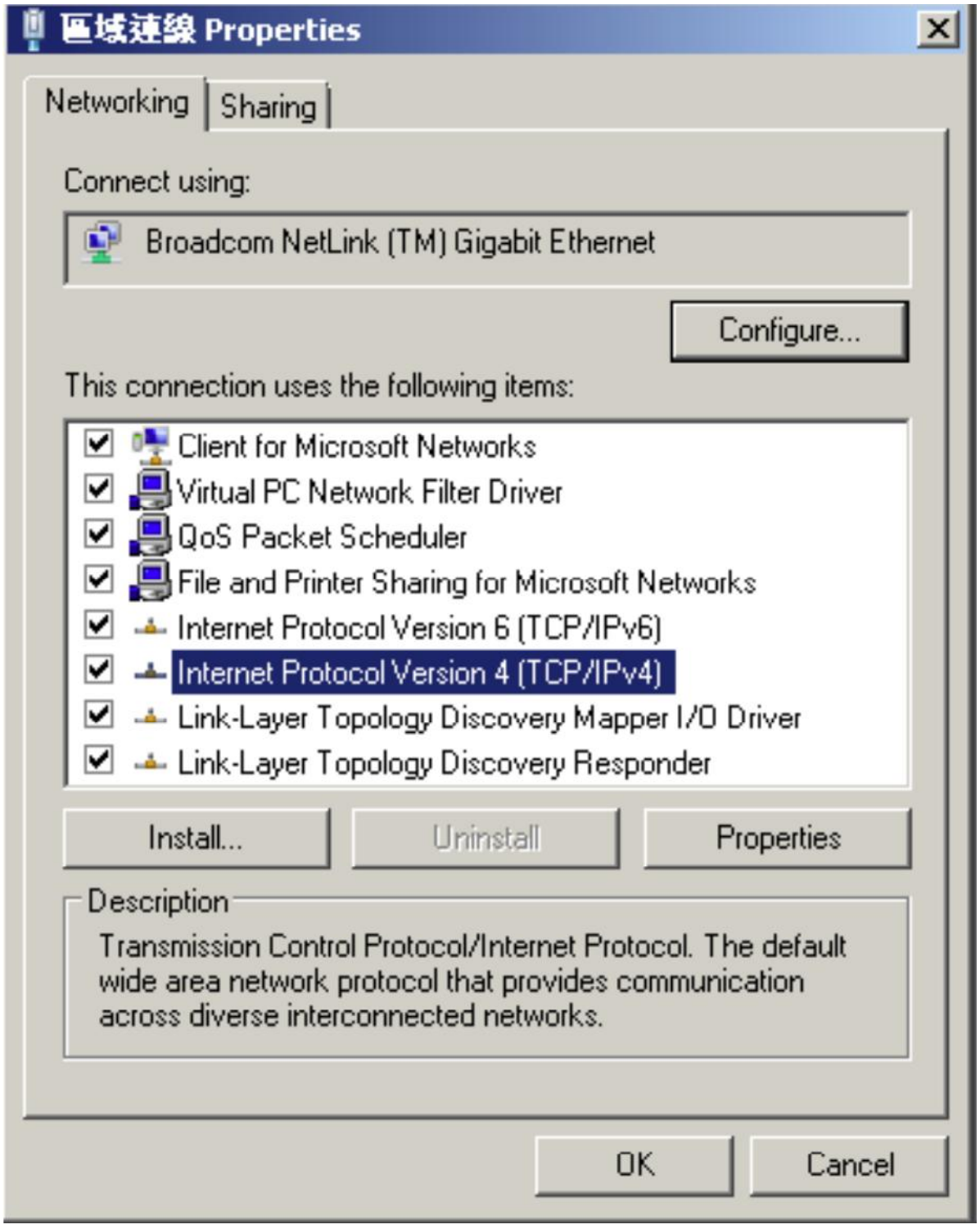
1. Connecting a standard CAT5e cable from HDIP Network port to to a switch then connecting from the switch to TV and PC.

2. Set the PC via the Control Panel to **"Obtain an IP address automatically"**
Start- Control Panel ==> View Network Status and Tasks

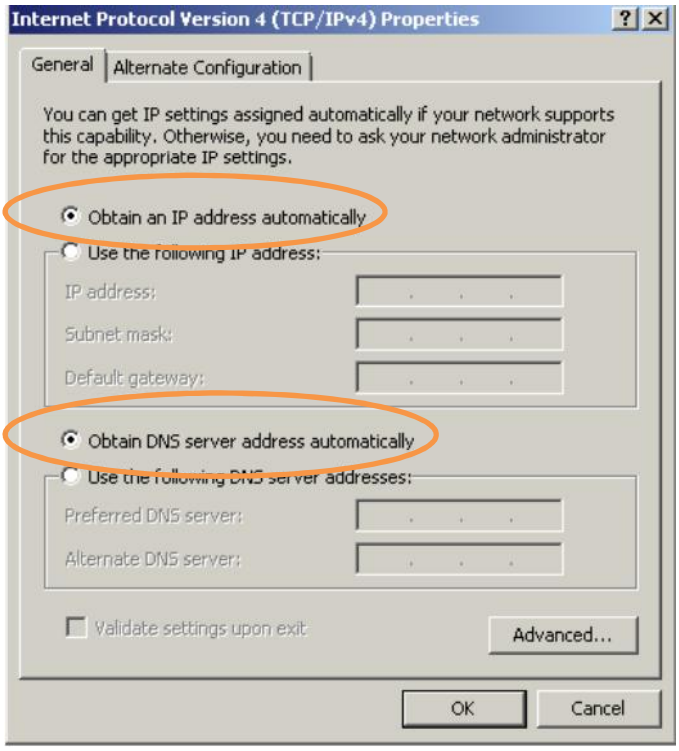


3. **Select** 'Change Adapter Settings' from the left plane

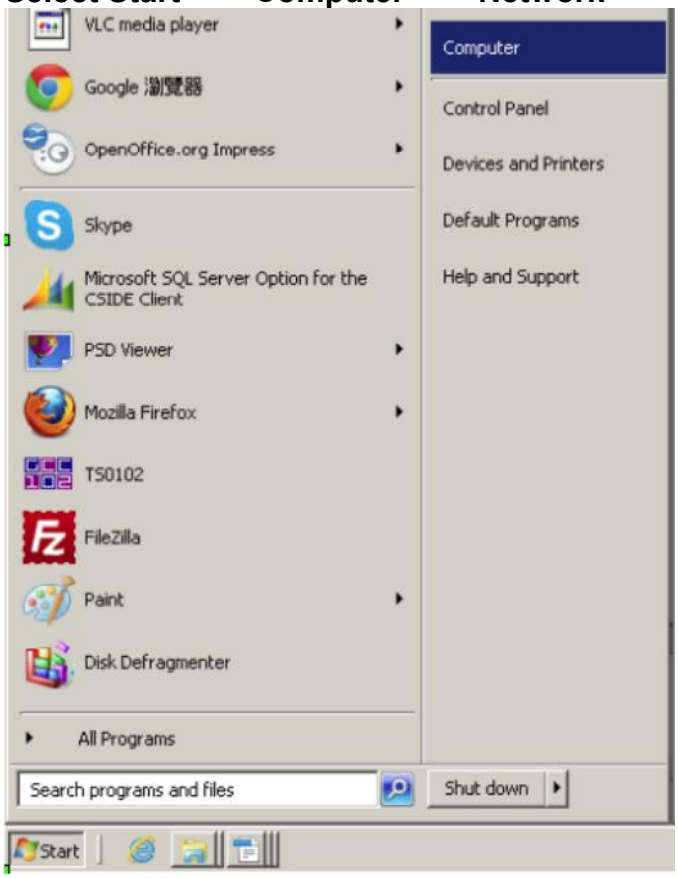
4. **Select** Local Area Connection Icon
Then **Right Click – Select Properties**
Internet Protocol Version 4(TCP/IPv4) Properties



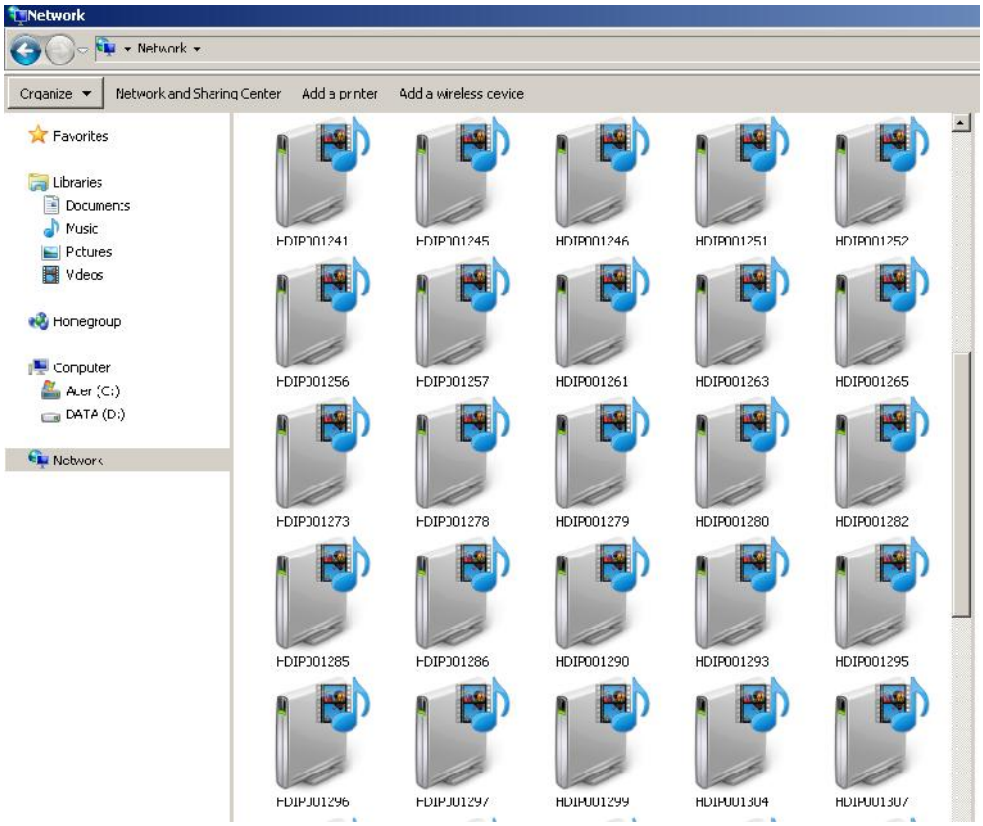
5. **Select** "Obtain an IP address automatically" & "Obtain DNS server address automatically"



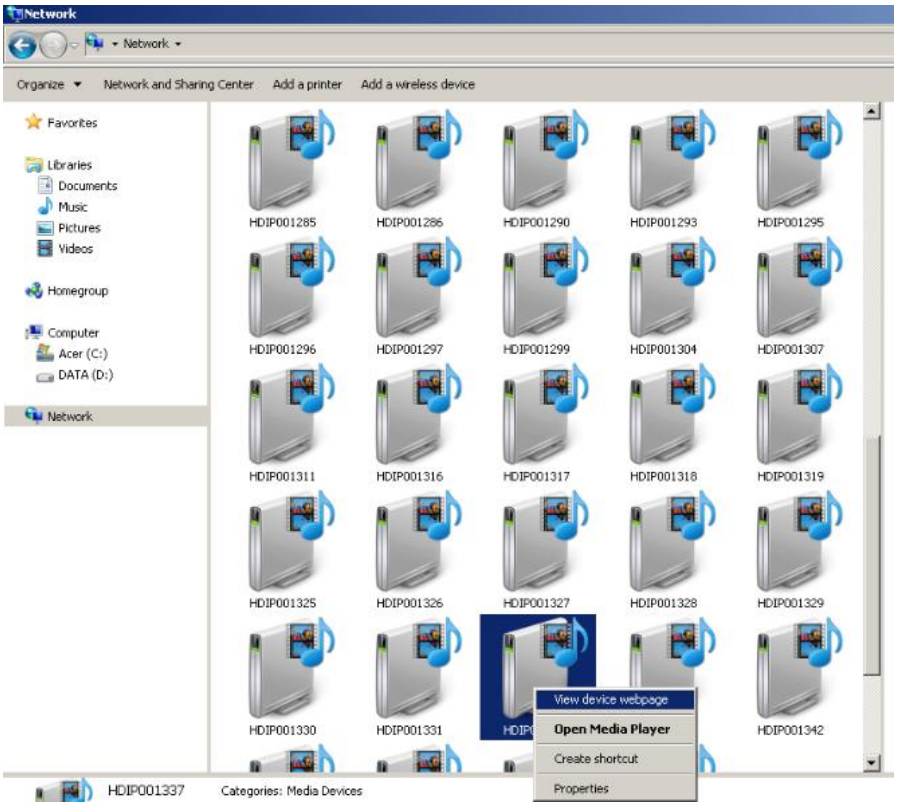
6. After setting the PC to obtain IP address & Obtain DNS server automatically
Select Start ==> Computer ==> Network

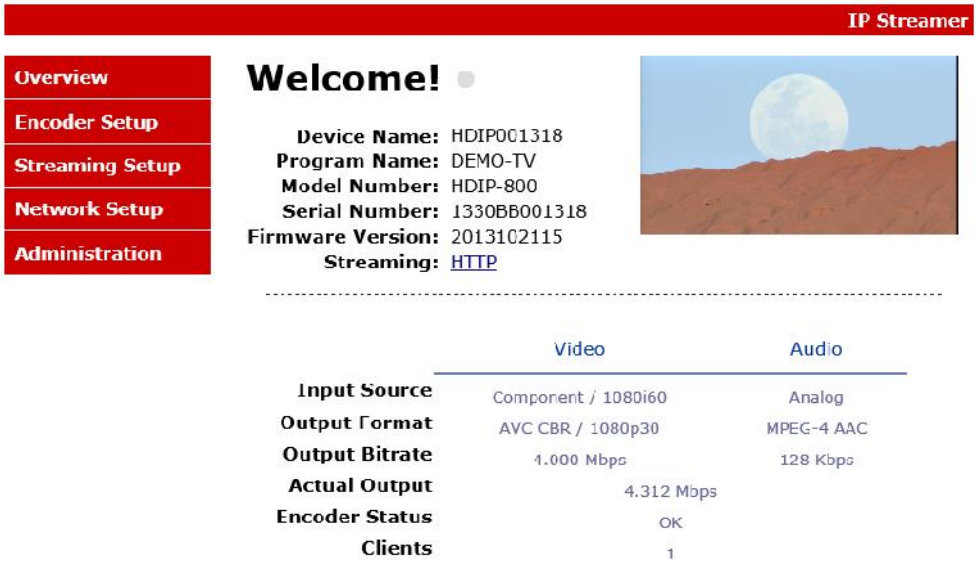


7. After selecting Network- the HDIP Icon will show up on the right side under Media Devices. Each device found will be displayed by the Device Address.

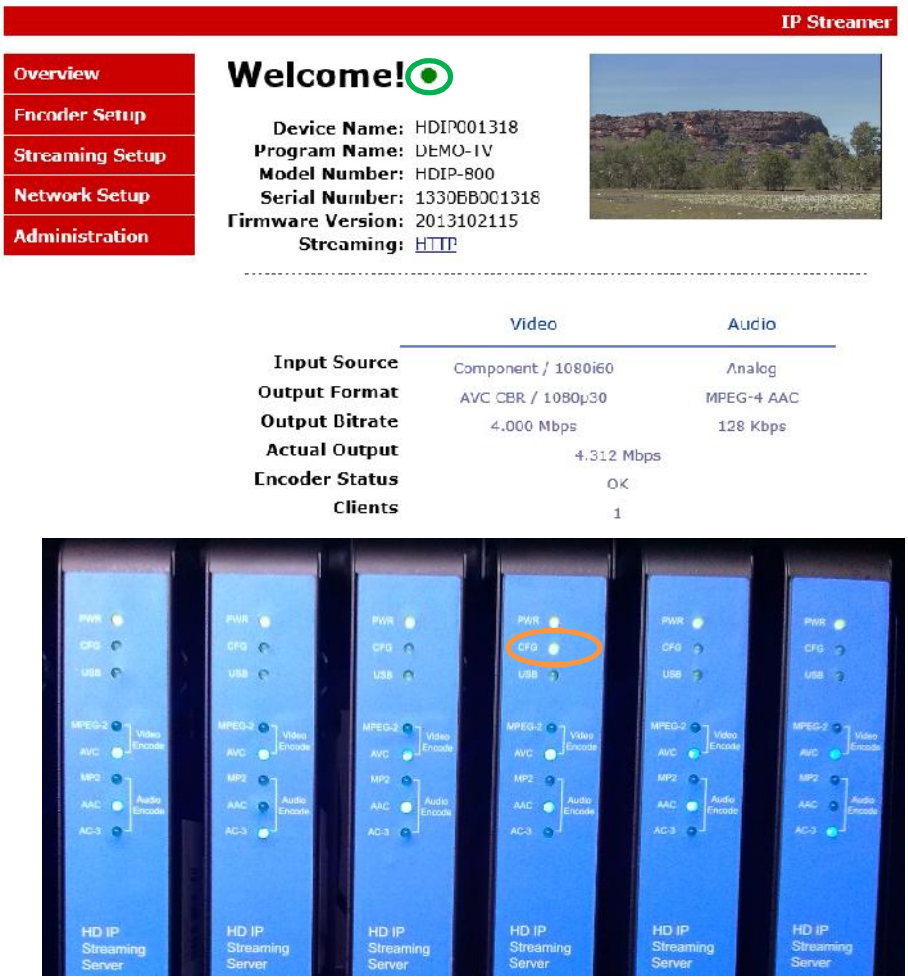


8. Right Click on the icon, **Select 'View Device Webpage'**

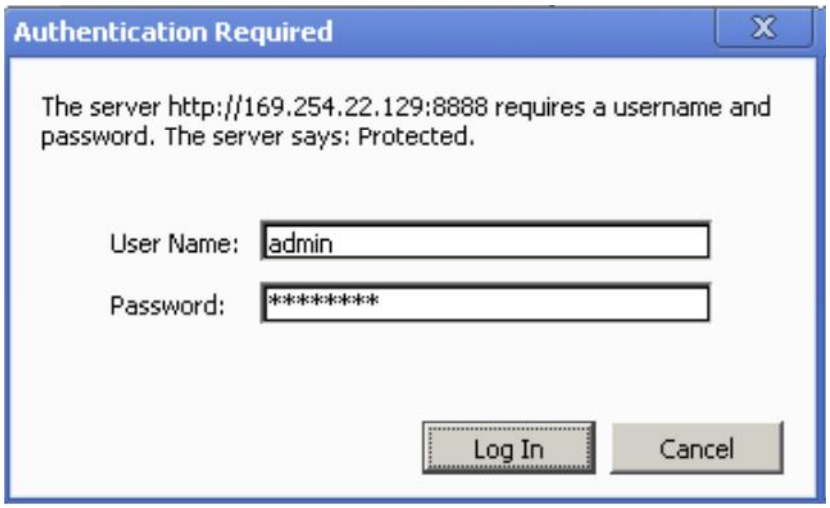


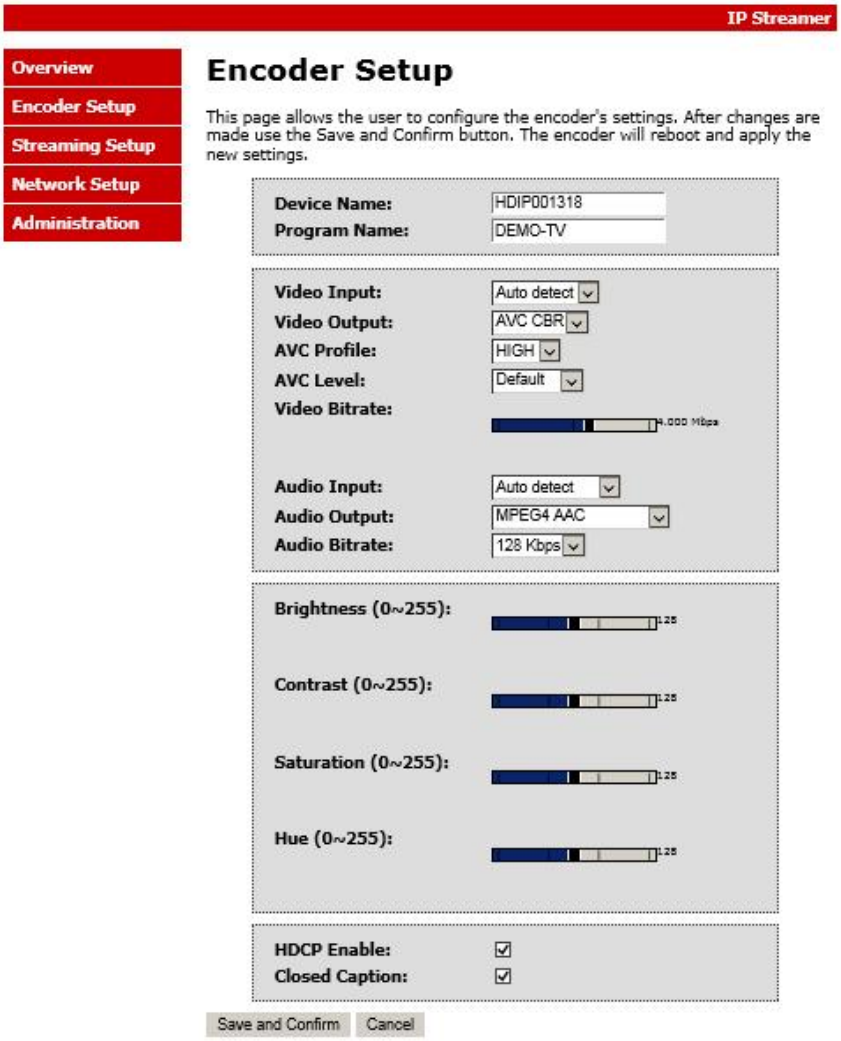


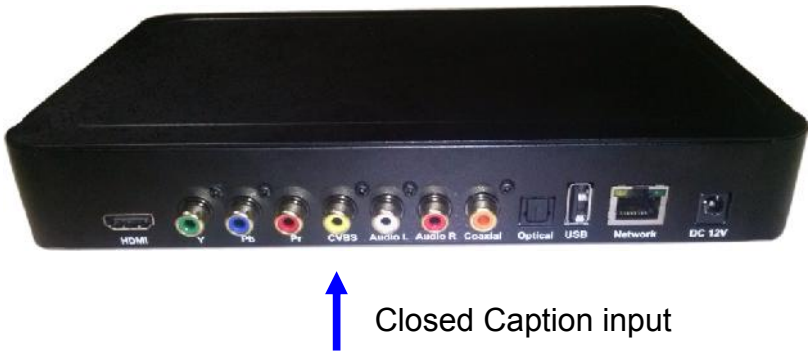
On the Welcome Screen, we have added a tool to help the installer locate a unit in a rack or headend. Press the LED ON button (shown below). This will cause the CFG LED light to flash continuously for the installer to identify and locate the HDIP. To turn off, simply press the LED tool again.



Encoder Setup : User Name: **admin** Default Password: **Admin123**
Once the Welcome Page is displayed select the Encoder Setup tab and the below Login “Authentication Required” screen will be presented. Enter the User Name and Password then click Login.



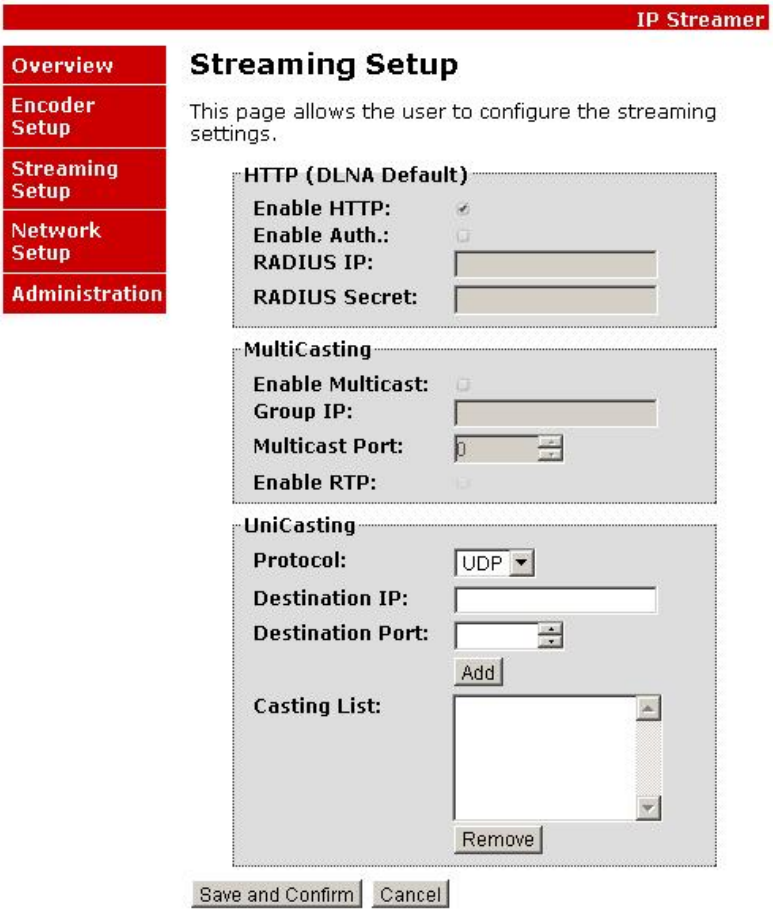




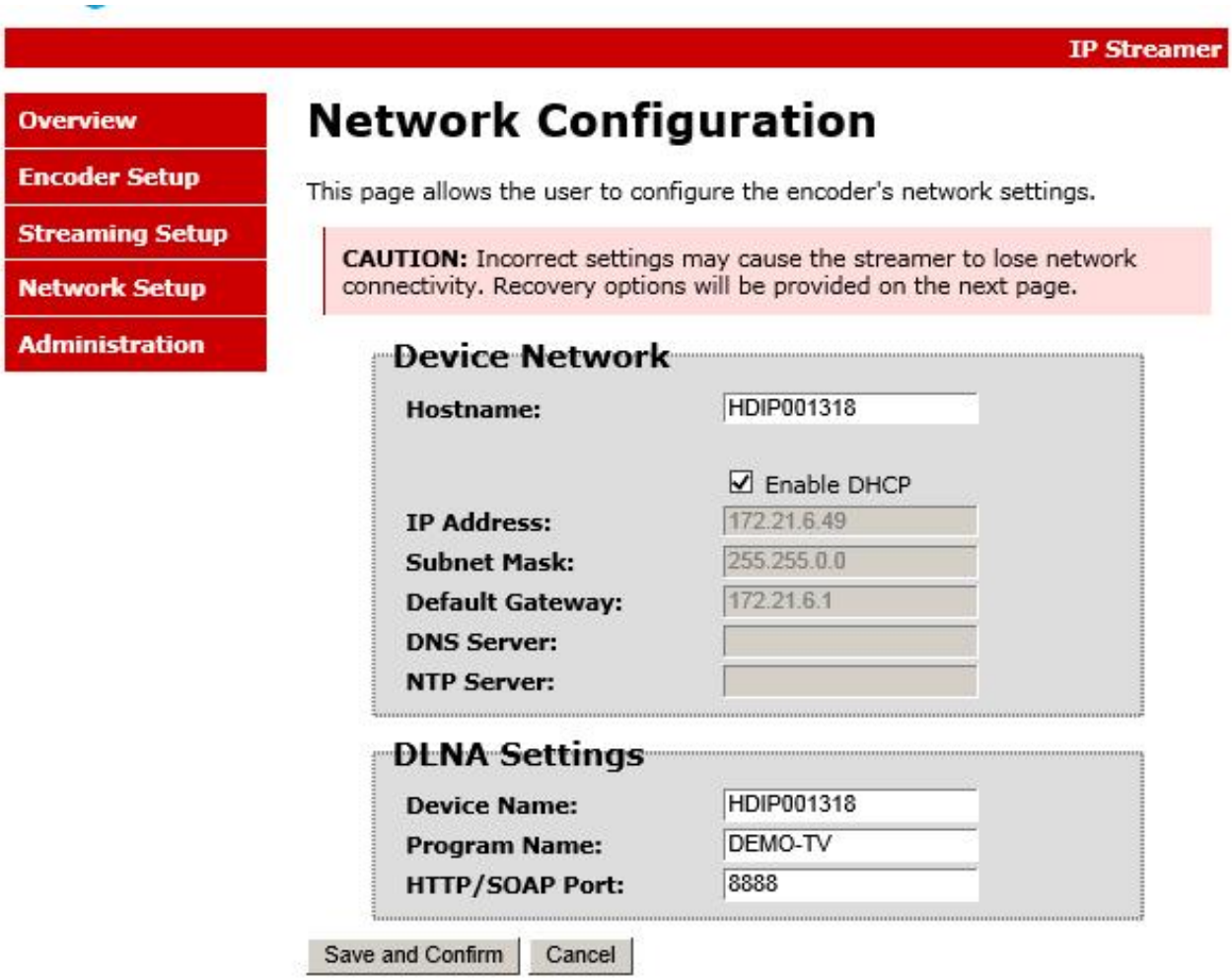
Enable Closed Caption:

1. Connect Video source to HDMI or YPbPr port.
2. Connect Video with supporting Closed Caption source to CVBS port.
3. A supporting Closed Caption Player/TV must be used for this function.

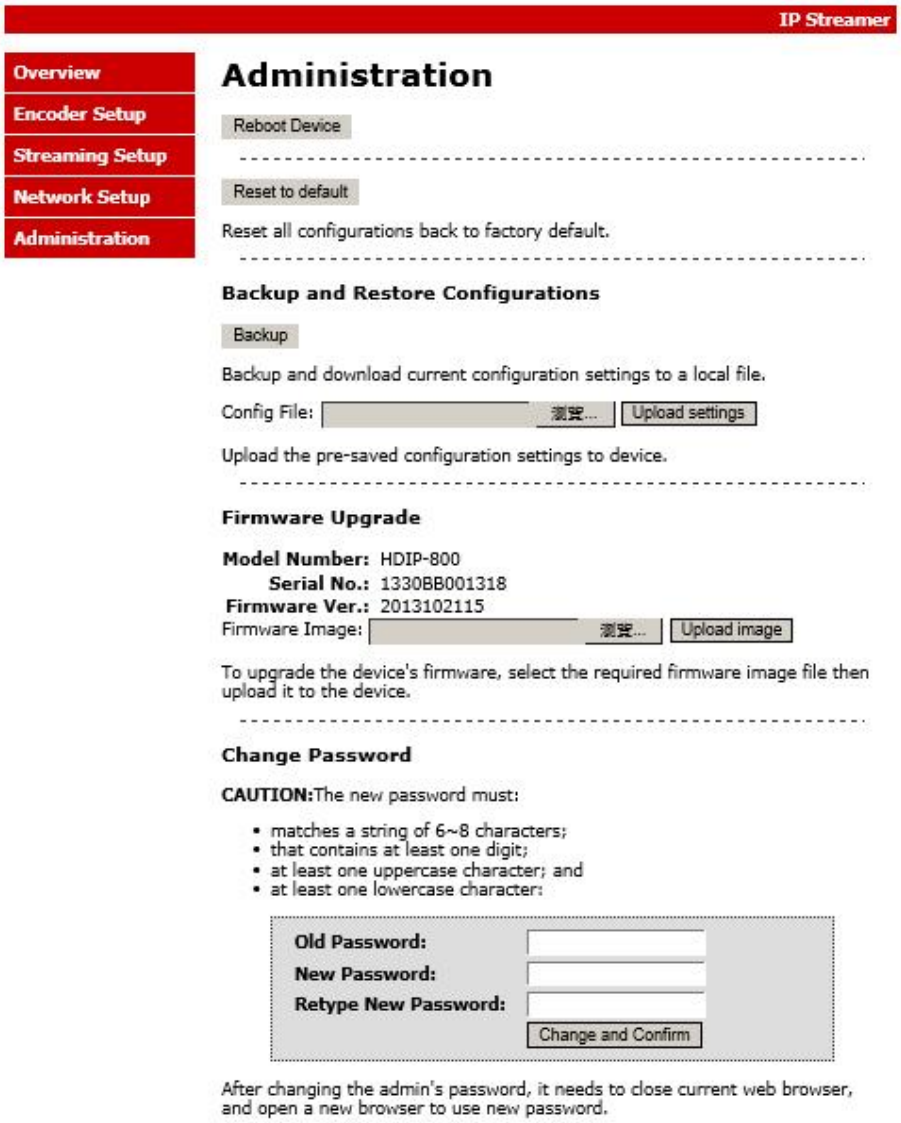
Streaming Setup:
Allows the user to configure the streaming settings: HTTP (DLNA default), UDP/RTP Multicasting, UDP/RTP Unicasting, and/or TCP Unicasting. HDIP Streaming Server accepts concurrent streaming; you can set multiple streaming at the same time.



Network Configuration:



Administration:



Saving your configuration files:

We highly recommend you save your encoder configuration files. Simply Click the “Backup” button and the config files will be saved to your computer.

To upload a configuration file- simply click “Choose File” then locate the file you want to upload. Click “Upload Settings” to install the configuration files. This function is helpful to the installer when installing a large number of encoders in a single system.

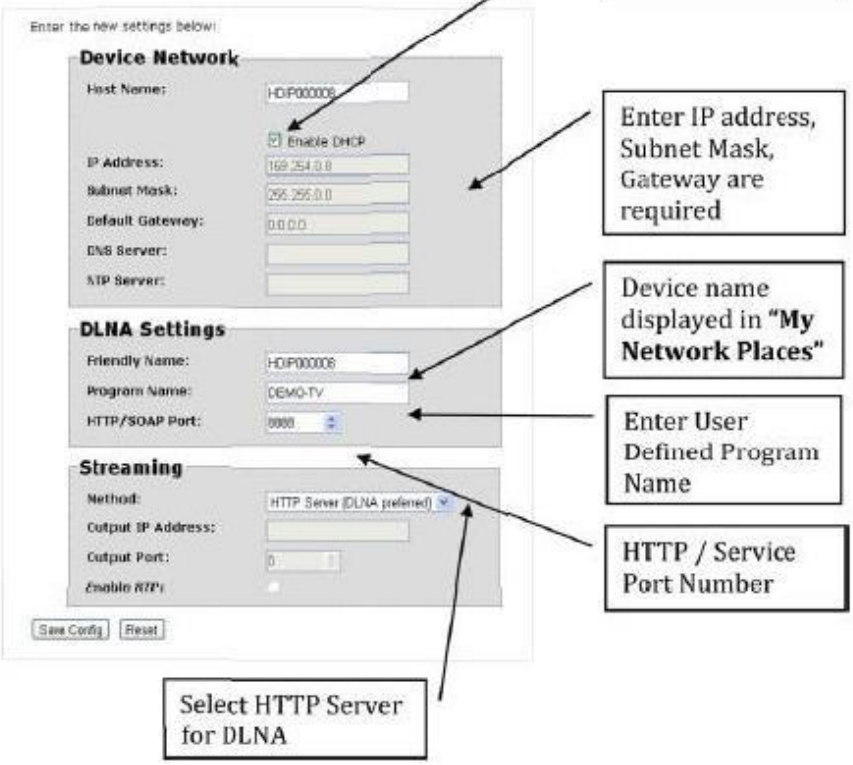
We highly recommend saving the settings of your encoder.

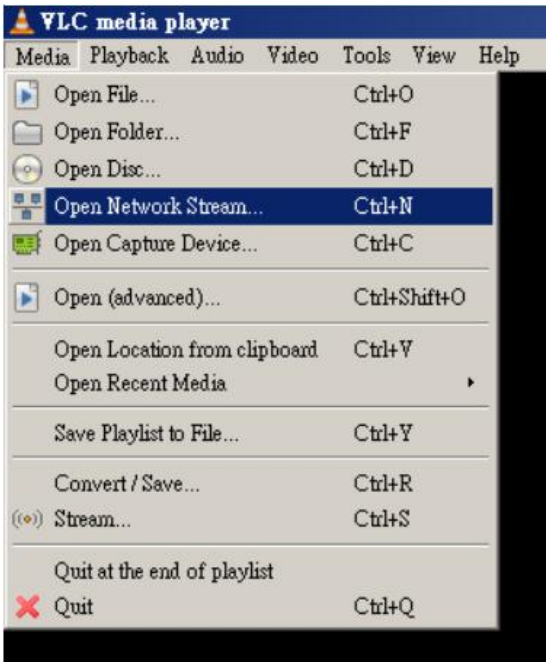
A “config.cfg” file will be created. Locate the file My Computer> C Directory > Documents and Settings> User>My Documents>Downloads>configs.cfg.

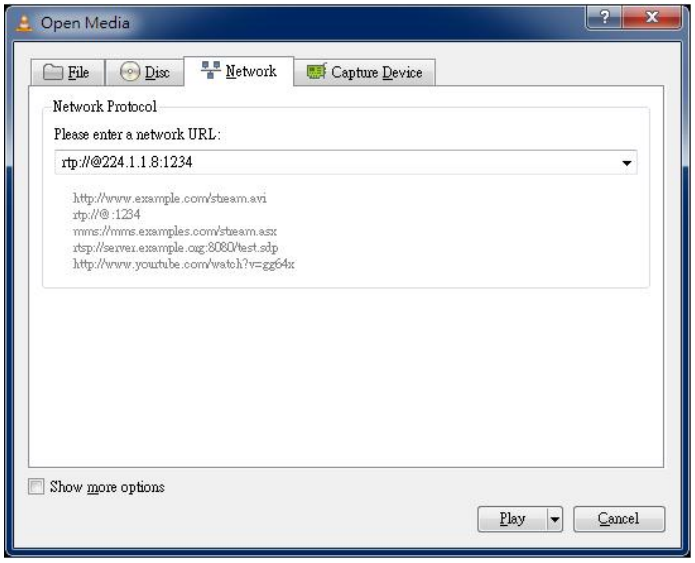
Streaming methods: (Note: If using VLC player, please install version 2.0.8 or newer version)

Case 1: DLNA

Network Setup Example:





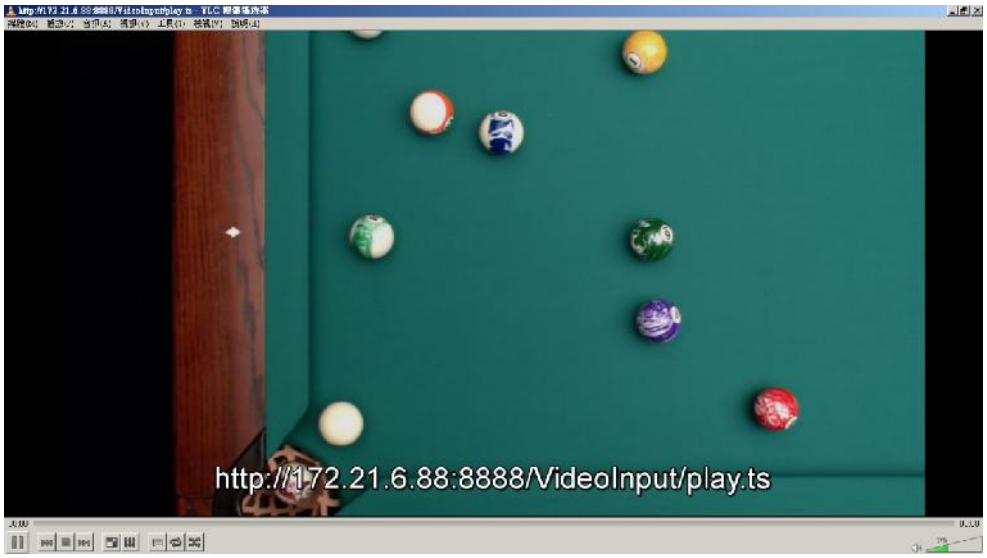


Using VLC media player, select Media ==> Open Network Stream...

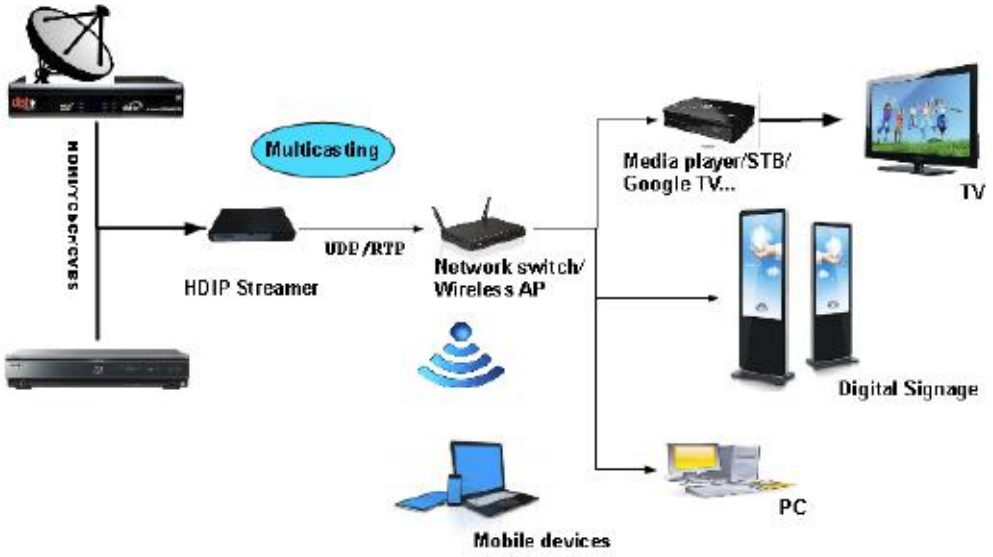
On the Network Protocol, key in the Output IP address and Output Port as following example,

ex. http://172.21.6.88:8888/VideoInput/play.ts

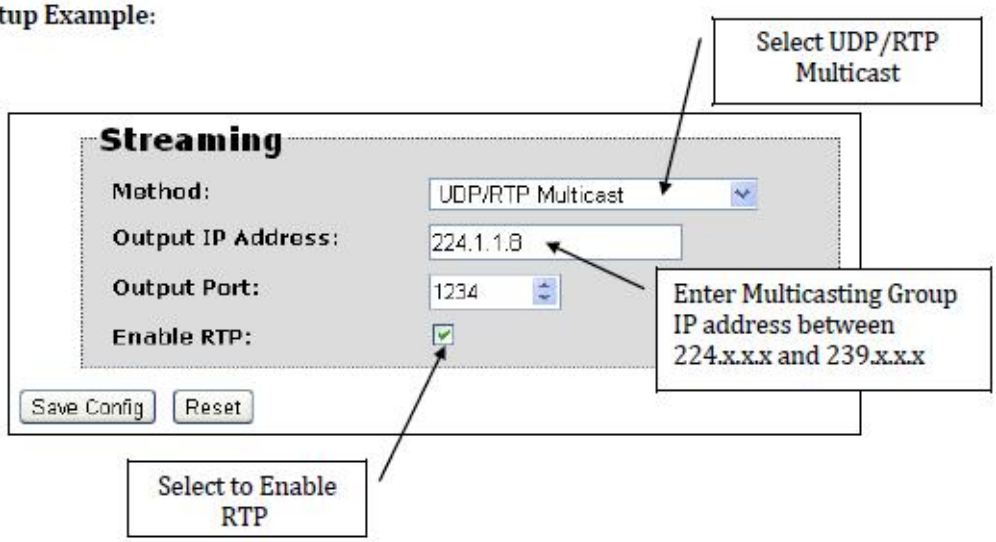
Press Play button to view the video

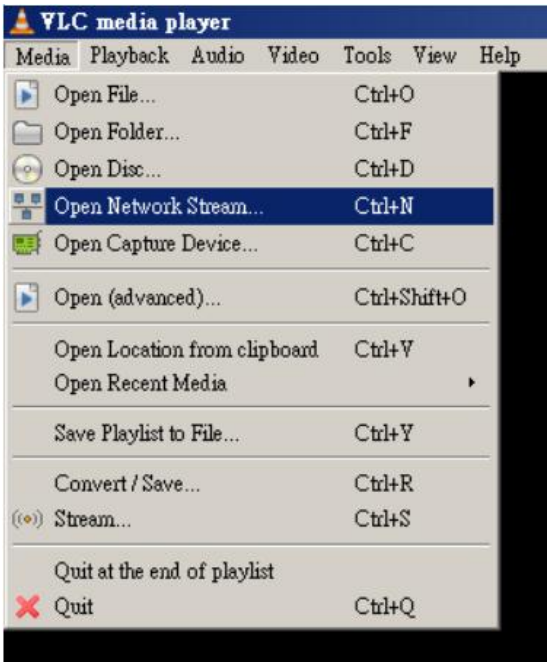


Case 2: UDP/RTP Multicasting



Network Setup Example:



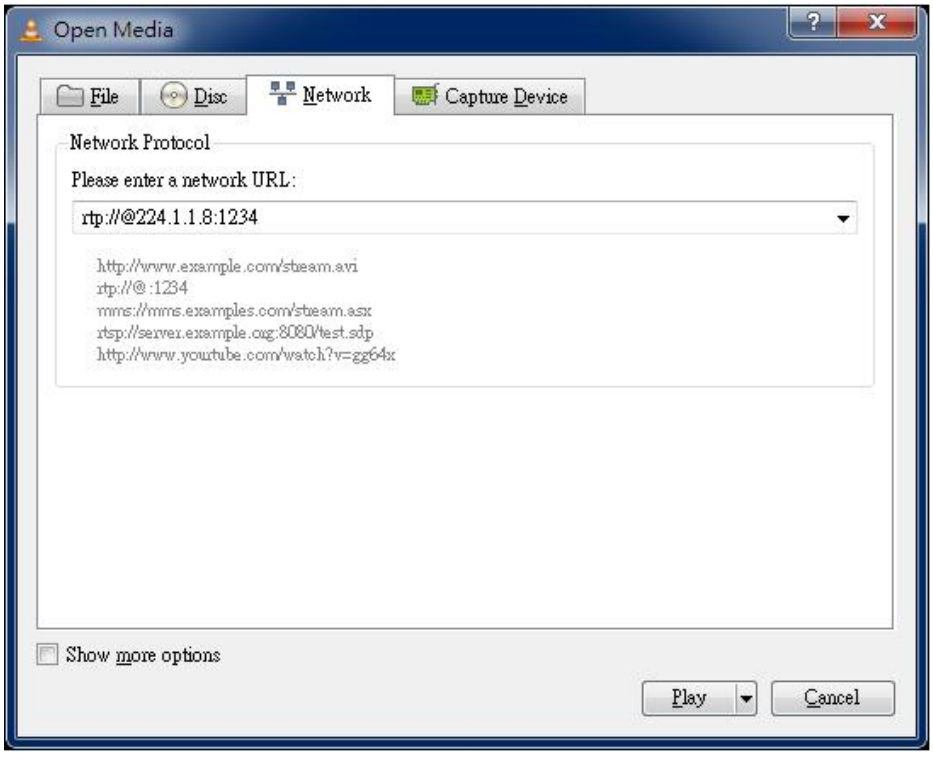


Using VLC media player, select Media ==> Open Network Stream...

On the Network Protocol, key in the Output IP address and Output Port as following example,

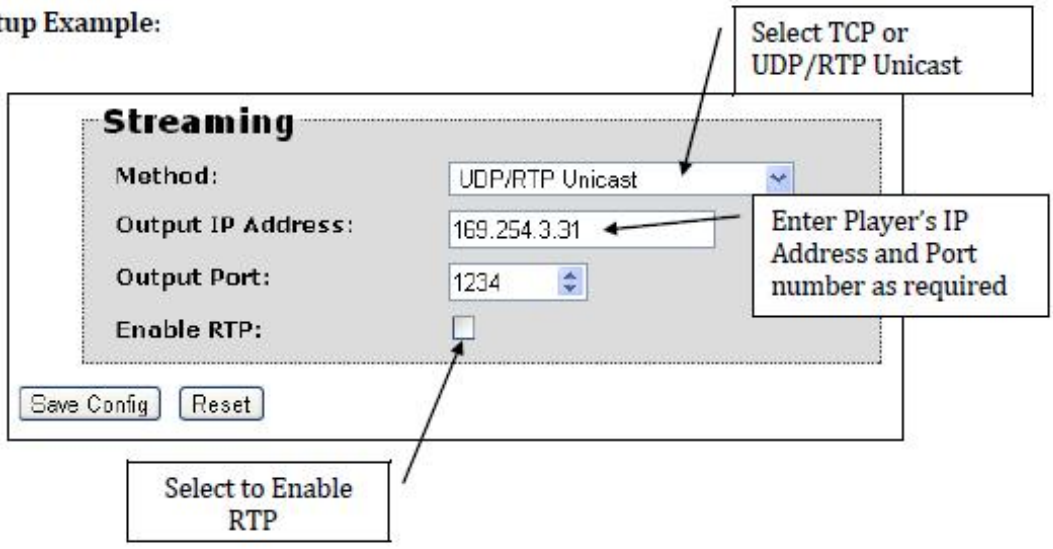
ex. rtp://@224.1.1.8:1234

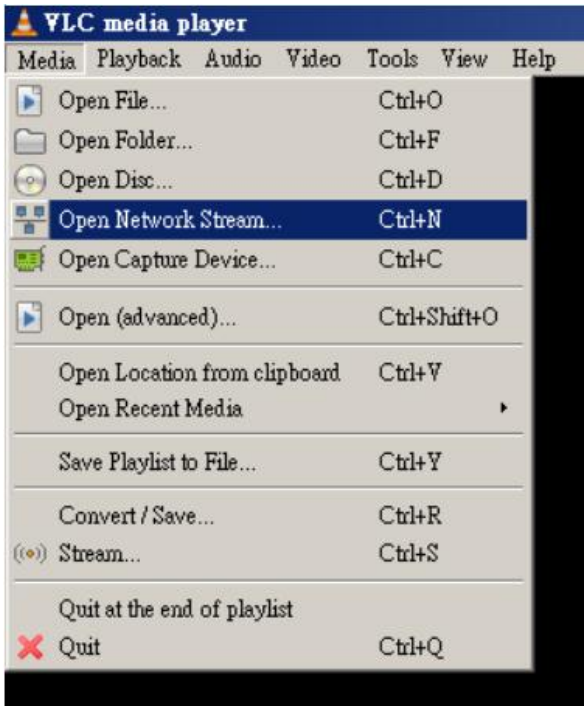
Press Play button to view the video.



Case 3: TCP/UDP/RTP Unicasting

Network Setup Example:



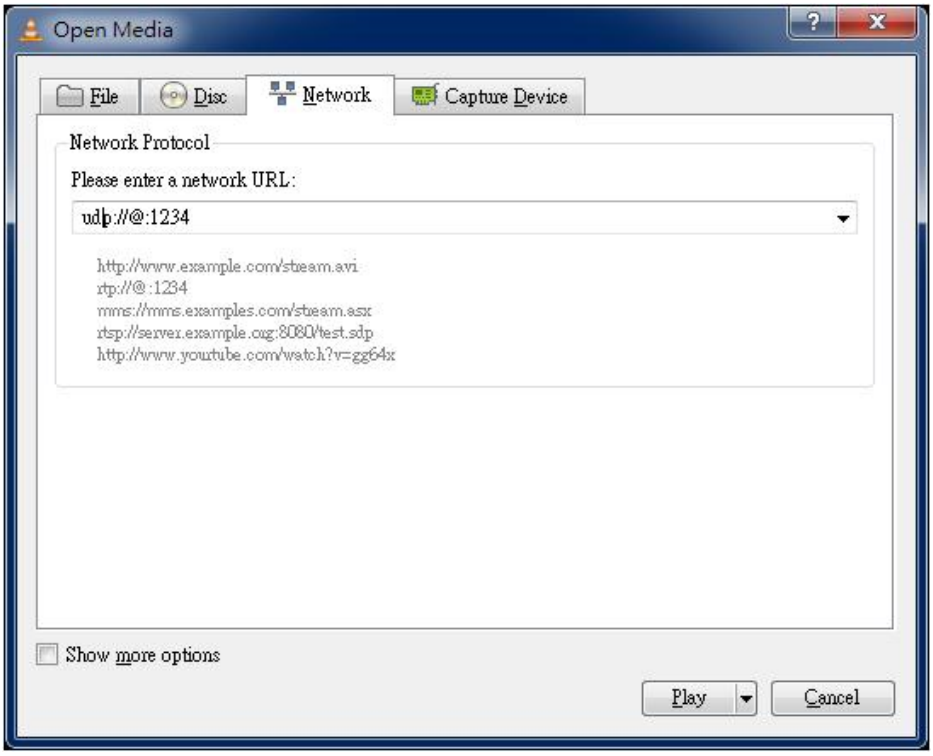


Using VLC media player, select Media ==> Open Network Stream...

On the Network Protocol, key in Output Port as following example,

ex. udp://@1234

Press Play button to view the video.



HDIP Streaming Server Notes

PRODUCT NOTES:

ITEM	VALUE
USER NAME / PASSWORD	
SERIAL NUMBER	
INSTALLATION DATE	
PURCHASE DATE	
DEVICE NAME	
FIRMWARE VERSION	
STREAMING METHOD	