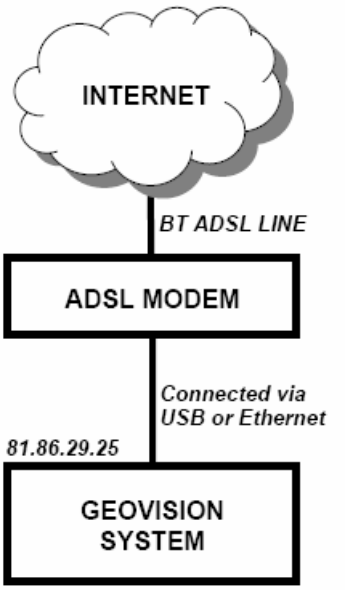
Webcam Setup Guide

When setting up GeoVision to be accessed over the Internet, you method of Internet connection will dictate which steps you will need to follow, in order to have your system securely accessible from remote locations.

The typical connection scenarios are as follows;

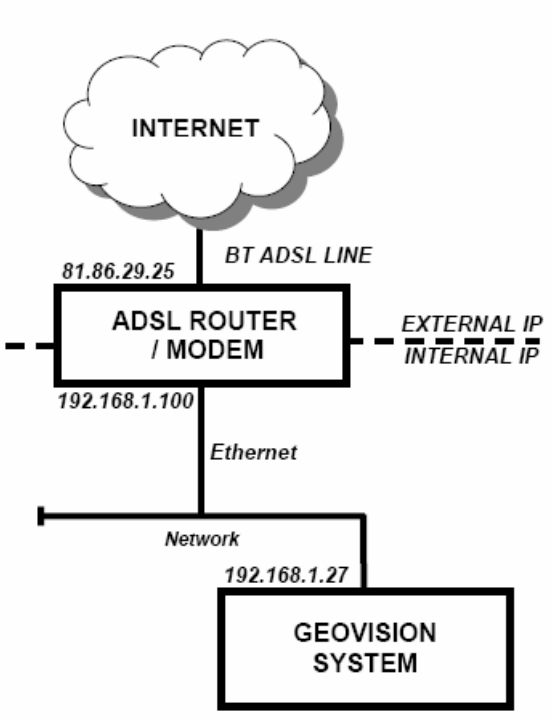
Broadband Modem connection (ADSL / Cable)

The broadband modem that your ISP provides with the installation of broadband is the entry level for Internet connectivity. The modem sits between your computer and you ADSL / Cable wall point. The connection to the computer is usually via USB. Cable (NTL / Blueyonder) modems can usually connect via Ethernet also. Connections have to be initiated by the user, similar to a dial up modem.



ADSL Modem Router – or Cable Modem attached to a router

This connection is a far superior connection than the one detailed above. Routers offer a higher level of security, a higher level of stability, and can improv Internet connection speeds. The ADSL modem router will sit between your computer and the ADSL enabled phone socket. The connection will be via Ethernet (network connection).



The two connection types are detailed below

DETAIL	ADSL MODEM	ADSL MODEM ROUTER
Security	Software Firewall	Hardware Firewall
Connection	Managed by PC	Self Managing
Reliability	Standard	Superior

In order for a user to connect to GeoVision from the Internet TCP (Transport Connection Protocol) ports need to be opened on the firewall, whether it be software or hardware.

GeoVision Webcam Server uses the following TCP ports by default

80
4550
5550
6550

In order to allow users to connect over the Internet the two connections will require different actions.

ADSL Modem

If running Windows XP the windows firewall will need to be configured, or disabled if using a third party software firewall.

START>Run>”winver”

If you are running Service Pack 2 , you can visit the download page on the support area of our website and download the auto configuration script for your GeoVision card

ezCCTV.com Support Download Area

If running a third party firewall software, then please open the ports detailed above, and allow access for any GeoVision applications that request Internet Access.

ADSL Modem Router

The router will need to be configured to open the relative TCP ports and forward them to the GeoVison system.

Routers are configured using Internet Explorer.

Open Internet Explorer and type in the IP address of your router in the address bar.

All routers operate differently, and use different terminology. Please see our guide for configuring a netgear router.

Once the Router is configured, if running Windows XP the windows firewall will need to be configured, or disabled, please see above for instructions.

Setting up a Netgear FVS318 router

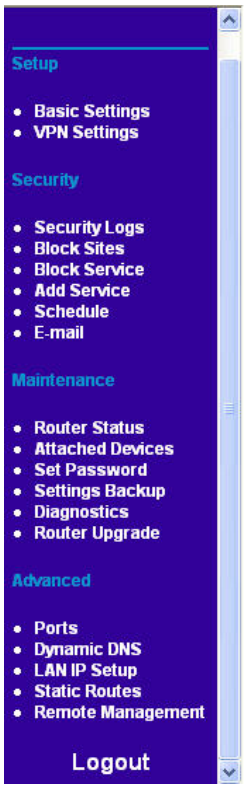
The IP address of the router is 192.168.1.1

The IP address of the GeoVision system is 192.168.1.100

Enter the IP address of the router into Internet Explorer

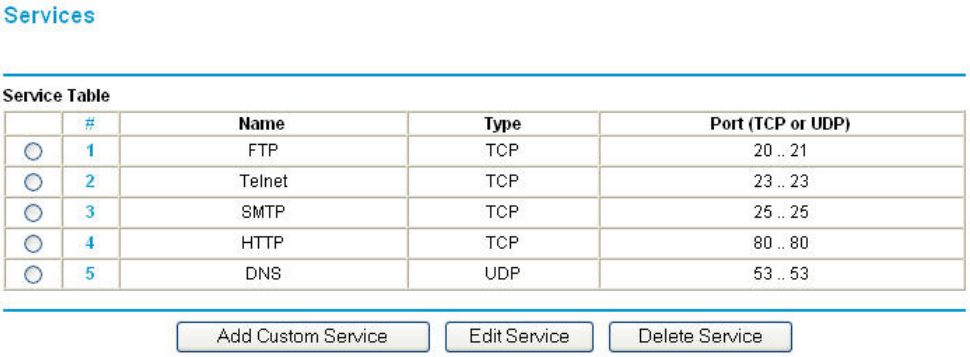
You should then have to enter a username and password.

The main screen has a menu in the left hand side of the screen.

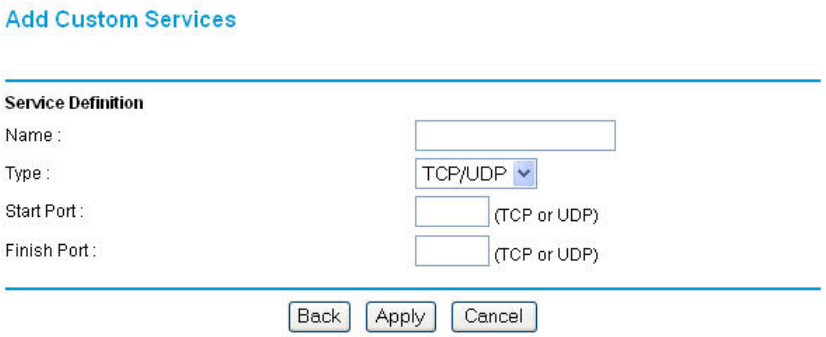


We need to add the services that GeoVision uses, as they are not commonly used ports.

Click on Add Service

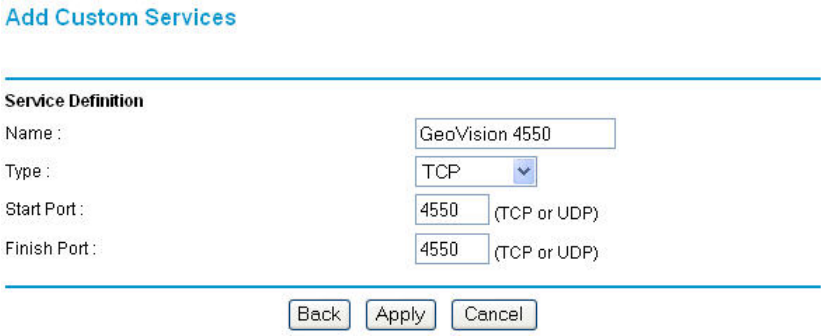


Click on Add Custom Service



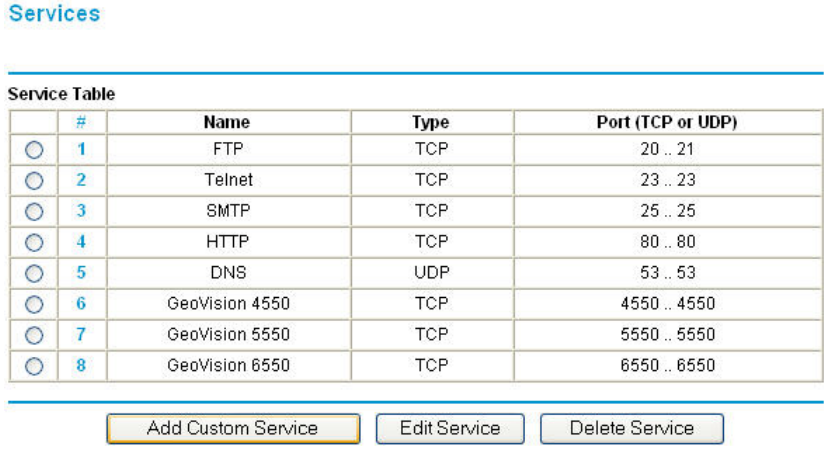
We now need to input the relevant information for each of the ports used by GeoVision

Please see the example below for the 4550 port, this will need to be done for the remaining ports. On this router we do not need to add port 80, as this is a commonly used port, and is on the system already.



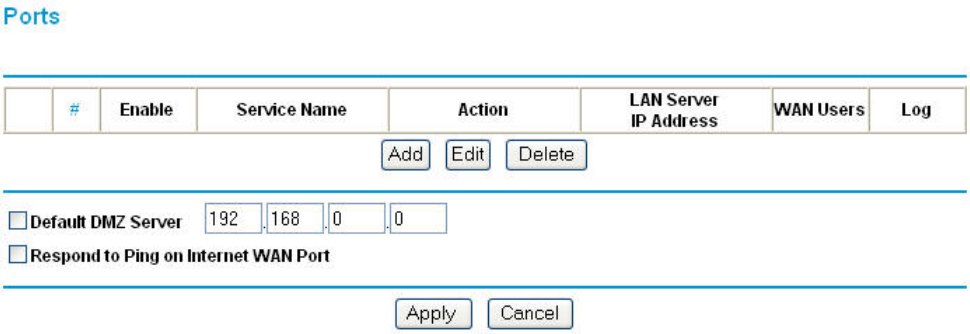
Click on Apply to save the setting.

Once all the ports have been entered, we should see all the GeoVision ports on the Services screen.



Now that we have the services added, we need to configure the forwarding of the ports to the GeoVision system. Currently the router is now aware of the ports used by GeoVision, but does not know what to do with requests on these ports.

From the Main Menu
Click on Ports
We should see the Ports screen

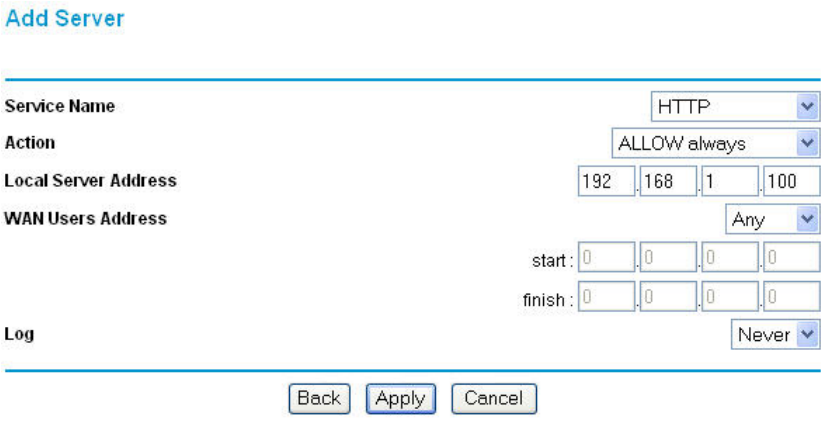


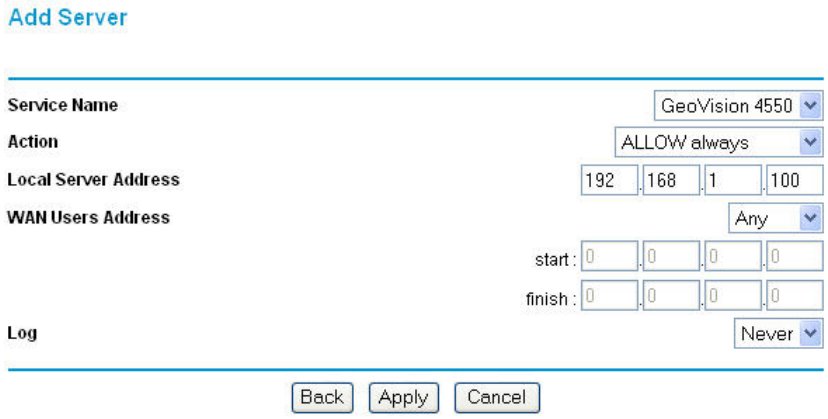
Click on Add

We should see the Add Server screen

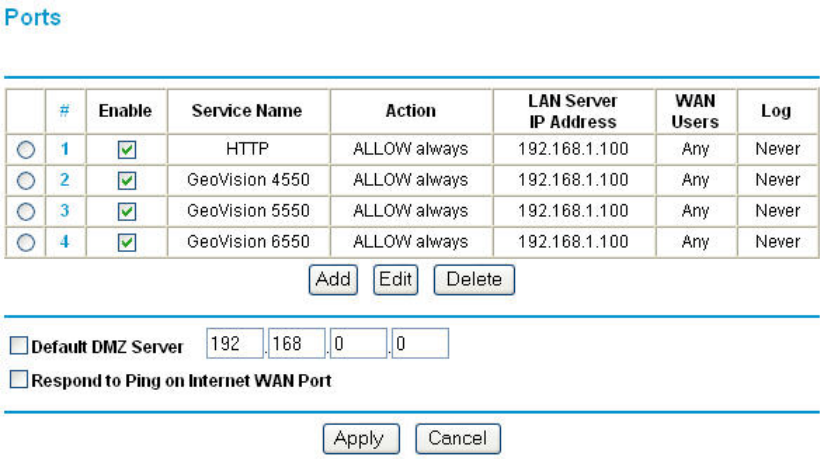
We need to add a server for each of the ports used by GeoVision. Please see below the examples for HTTP (port 80) and GeoVision 4550 (port 4550), which we created in the previous steps. This needs to be repeated for 5550 and 6550.

Once again, we put in 192.168.1.100 under Local Server Address, as this is the local IP address of the GeoVision system, and hence this is where we want all requests on the GeoVision ports to be redirected to.





Once all the Servers have been created, the Ports screen should appear as below.



This router is now correctly configured to redirect all GeoVision relevant requests, through to the GeoVision system.

Setting up a Draytek Vigor 2600 ADSL modem router

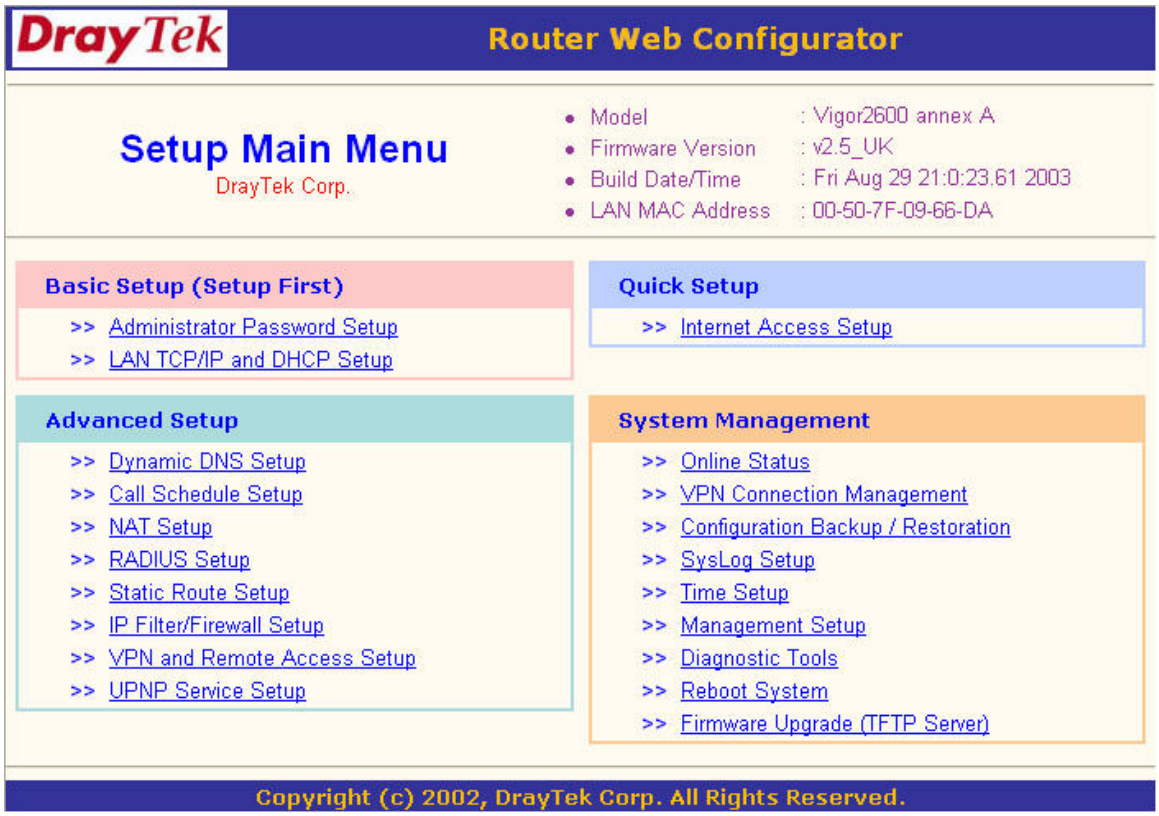
The IP address of the router is 192.168.1.1

The IP address of the GeoVision system is 192.168.1.100

Enter the IP address of the router into Internet Explorer

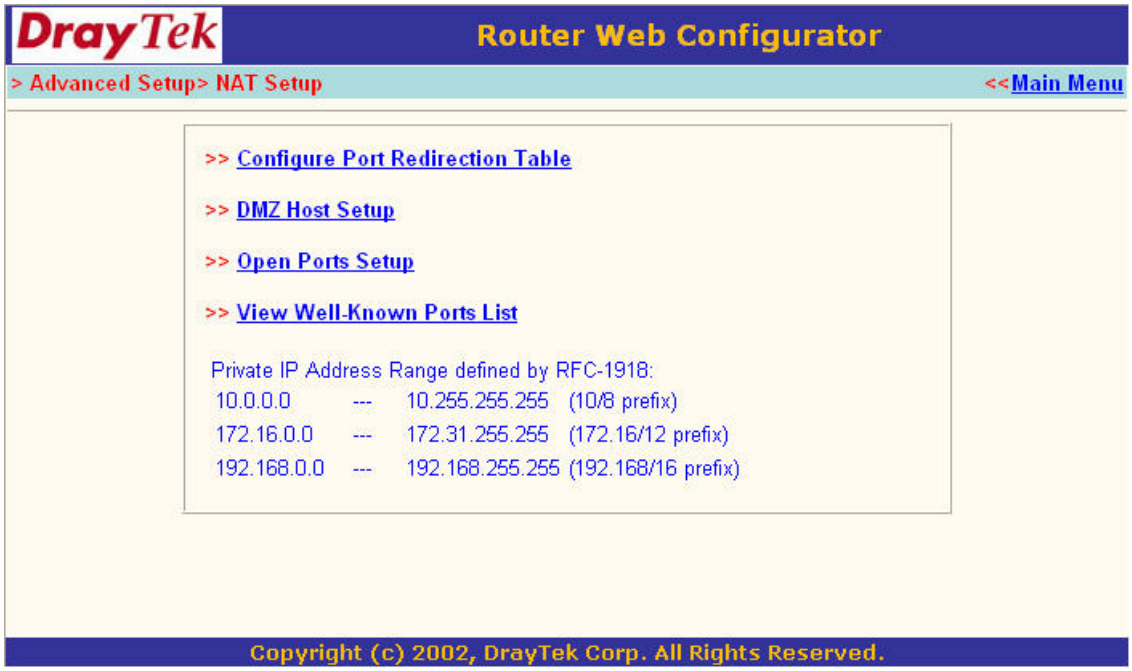
You should then have to enter a username and password.

The main screen is displayed below



We need to configure the router to forward all requests on the GeoVision ports to the GeoVision server.

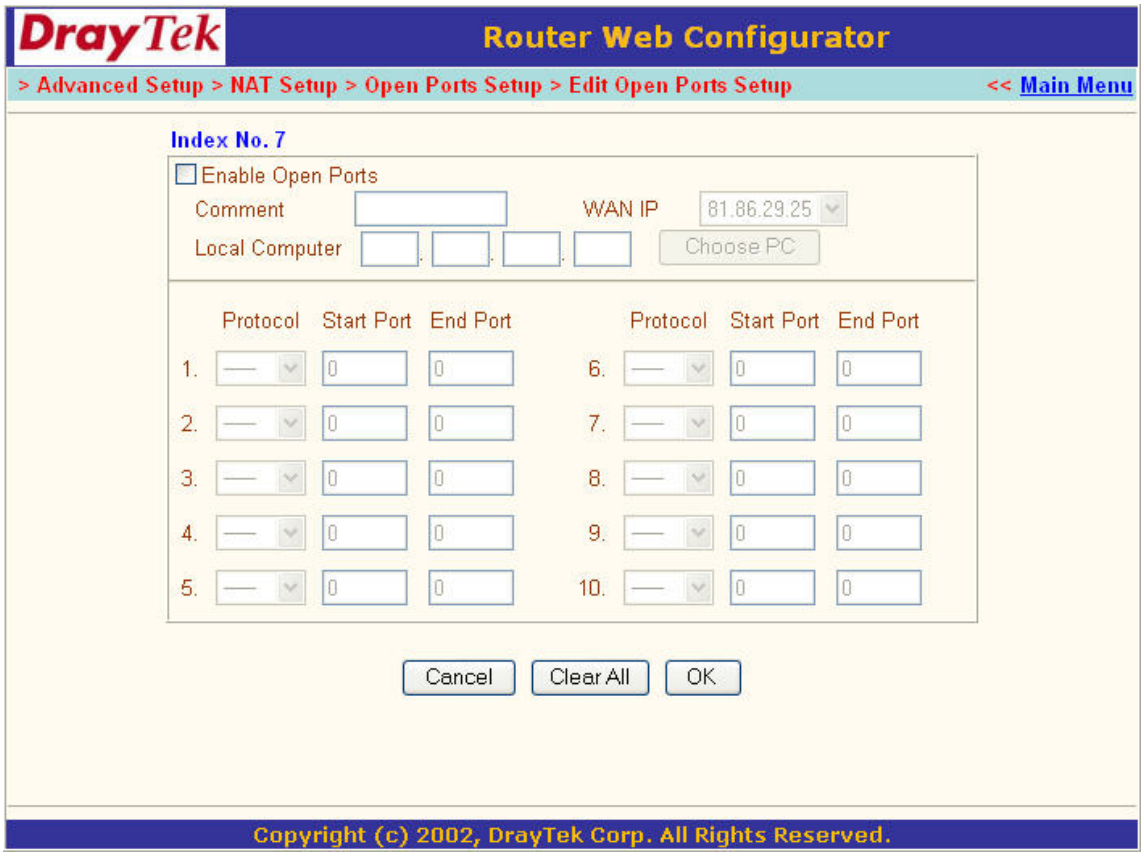
Click on NAT Setup



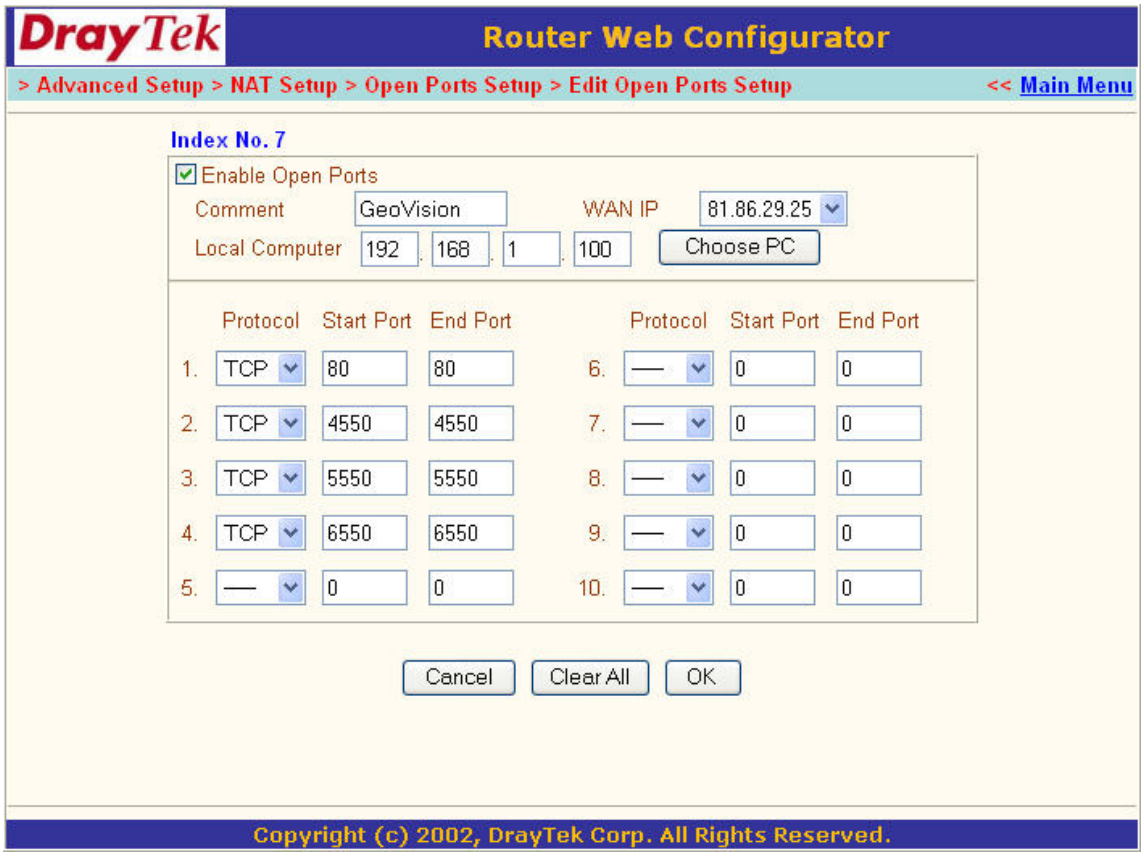
We will see the NAT Setup page.

Click on Open Ports Setup

We can now add the GeoVision port details, and the LAN IP address of the GeoVision server



Fill in the form will the correct details



This router is now correctly configured to redirect all GeoVision relevant requests, through to the GeoVision system.

Explanation of WAN IP addresses

WAN IP addresses are unique numerical addresses that identify any point of presence connected to the Internet. IP addresses take the form of xxx.xxx.xxx.xxx. (i.e. 81.102.17.12)

Clients will either have a STATIC or DYMANIC WAN IP address.

STATIC IP addresses do not change, and are “owned” by the client
DYNAMIC IP addresses are given out each time a computer connects to the internet. These addresses have a lease time and will expire after a number of days.

It is safe to assume that most residential broadband installations will have a dynamic WAN IP address. ISPs (Internet Service Providers) will usually only give a static WAN IP address if specifically asked for by the user, and will usually charge extra for the service.

Most business broadband installations will have either one or several static WAN IP addresses, as they will be using their connections for many applications.

The reason we need to know whether the address is DYNAMIC or STATIC, is that when you want to use the WebCam feature and connect from a remote site, if the IP address is dynamic, then you will not know that address to type into Internet Explorer to view the cameras.

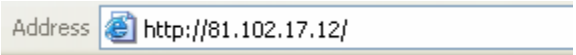
There is a tool on the GeoVision CD, which monitors the client’s WAN IP address, and updates it to a domain name address. This application can also be used with static IP addresses, to provide a “user friendly” text based address rather than a numerical IP address. The form of the address is [*username*].dipmap.com, where username is the client’s unique address.

For instance ezcctvbaldock.dipmap.com points to ezCCTV’s Baldock shop WebCam.

Connecting to a client’s WebCam via Internet Explorer

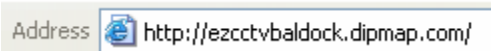
STATIC WAN IP Address

Type in the IP address of the client for example



DYNAMIC IP address using DIPMAP service

Type in the domain name of the system **[*username*].dipmap.com**



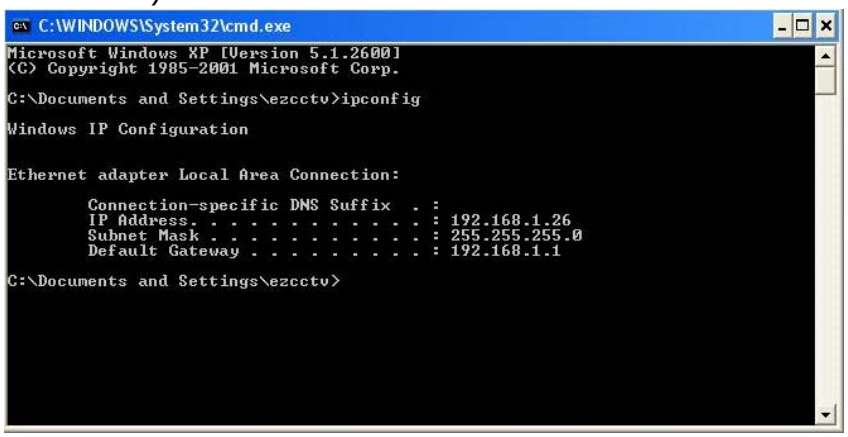
In order for the WebCam service to function correctly, the GeoVision system must have the WebCam service running, and the PC must have a healthy Internet connection.

Tools & Information

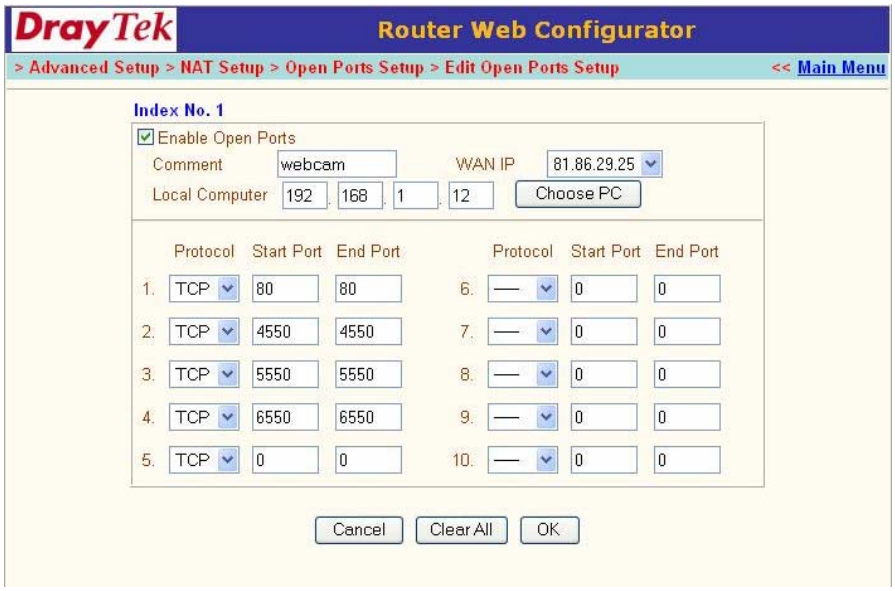
To find out your current WAN IP address, you can go to a website called www.whatismyip.com

To find out your computer's current local IP address

Go to **START>Run** type "**cmd**" hit Enter
Type "**ipconfig**" this will display your local IP address. You will need this information if there is a router to configure (to redirect the ports used by GeoVision)



An example of port forwarding configuration on a Draytek router



Software firewalls must also be configured properly if they are installed – please see the documentation from the manufacturer to open the necessary ports.

To test whether the necessary ports are open on an Internet connection (whether it be a software firewall or a router). You can run the following command from any remote machine.

Go to **START>Run** type "**cmd**" hit Enter
Type "**telnet [WAN IP Address of GeoVision PC] [port number]**"
E.g. **telnet 81.102.17.12 4550**

If the port is open, the screen will clear, and display a flashing cursor. If the port is closed, then it will display a message stating that it could not create a connection.