MPT | DIGITAL SURVEILLANCE

TUTORIAL ON SETTING UP A DVR : FOR REMOTE CLIENT ACCESS

Setting up an MPT DVR unit to be accessed from outside the building it is installed at, isn't complicated. Here are the steps :

STEP ONE : SETTING THE DVR TO A STATIC I.P

When you plug a computer (or in this case, a DVR) into a Router, the computer is typically set to get it's I.P number from the DHCP Server automatically.   Each time you turn off the computer, and then turn it back on, the I.P number it's given may be different.   Today the computer might be 192.168.0.121 , but upon reboot tomorrow morning it's now 192.168.0.125.

We need to ensure that the I.P number the DVR has, remains the same forever.

To do this, you need to be at the DVR monitor and have shut down the recording screens so that no surveillance video is being recorded.

In Windows XP, click on the **START** button and then the **CONTROL PANEL** icon. Next, click on the NETWORK CONNECTIONS icon and you should see this :
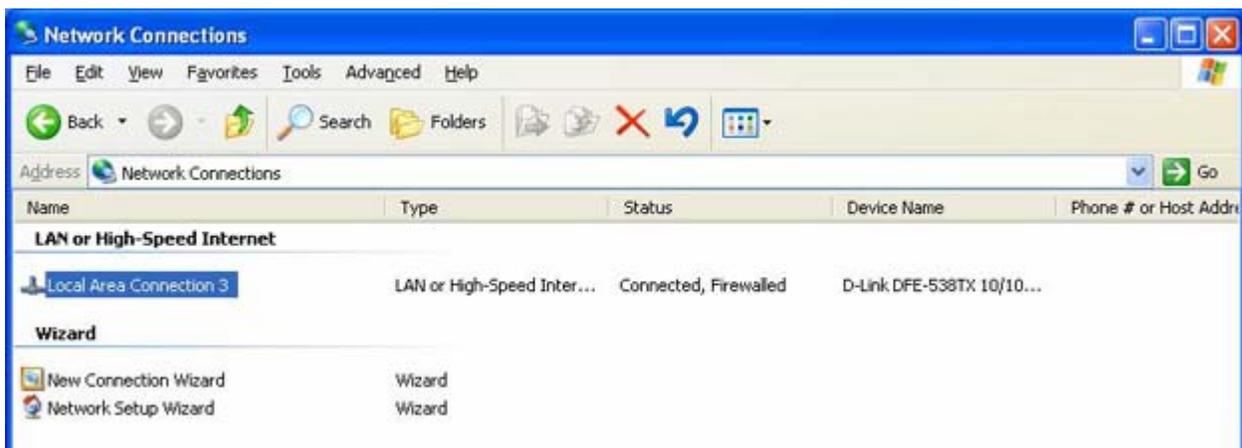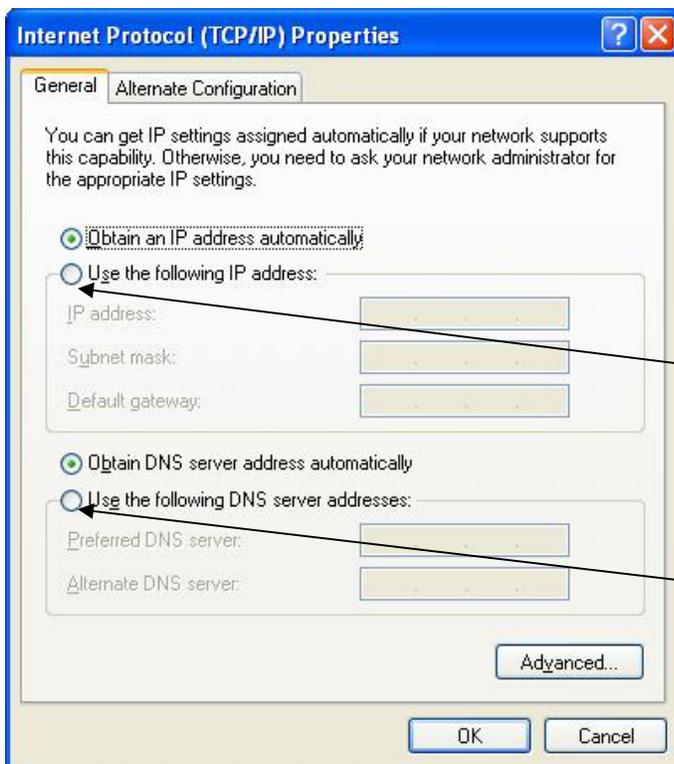
Right-click on the **LOCAL AREA CONNECTION** you see, and choose **PROPERTIES** from the pop-up menu.
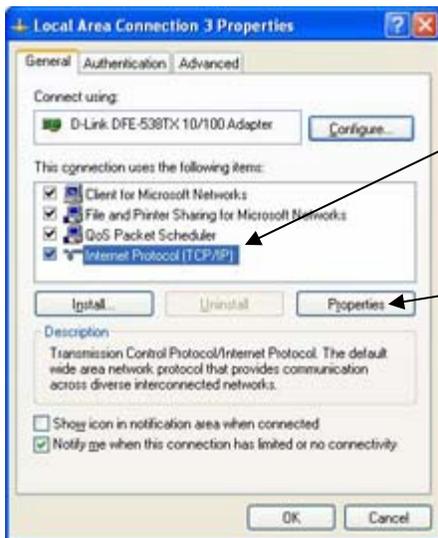
Note the line that says **INTERNET PROTOCOL (TCP/IP)**

Highlight it, and click on the **PROPERTIES** button

Another box will pop up. Notice how this screen shows that the computer is set to obtain it's I.P number automatically.

You need to click on the other checkbox, "**Use the following I.P address**" which then gives you the opportunity to assign an I.P of your choosing.

Also change the DNS Server checkbox down to "**Use the following DNS Server addresses**"

In this tutorial, we're using a **D-LINK** brand Router which is set by default to have an I.P number of **192.168.0.1**

The D-LINK Routers normally are set up to assign I.P numbers to any connected computer in the range of   **192.168.0.100**   to   **192.168.0.199** .   This means that it will not try to assign anything in the **192.168.0.1** to **192.168.0.99** range to any computer that might be connected.

So, let's assign the unused I.P of **192.168.0.50**   to the DVR :

Internet Protocol (TCP/IP) Properties   [?][X]

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically
◉ Use the following IP address:

IP address:	192 . 168 . 0 . 50
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192 . 168 . 0 . 1

○ Obtain DNS server address automatically
◉ Use the following DNS server addresses:

| Preferred DNS server: | 192 . 168 . 0 . 1 |
| Alternate DNS server: | . . . |

[Advanced...]

[OK]   [Cancel]

This is the standard Subnet Mask for most Network setups

This is the I.P number of the DLINK Router. Putting this number in here tells the DVR which device to use, to get out on the internet.

Put the DLINK Router I.P in the **"Preferred DNS Server"** box too.

Click on   **OK**   when you're done.

As you exit out of the TCP-IP setup, you should get a message that Windows now wants to restart the computer, so allow it to do that. When the reboot is complete, the DVR will have a static (never changing) I.P number of **192.168.0.50** .

Okay, let's now move on to the next step, of configuring the DLINK Router ....

STEP TWO : CONFIGURING THE DLINK ROUTER

Now that the DVR is configured, you'll want to get into the Router configuration screen to change some settings.

To do this, go to **START** and **ALL PROGRAMS** on the DVR and look for the **INTERNET EXPLORER** icon.   When Internet Explorer (I.E) opens, click in the Address (URL) window (which places your flashing cursor there.) and type in :

http://192.168.0.1

and press **ENTER**. You should then see this :
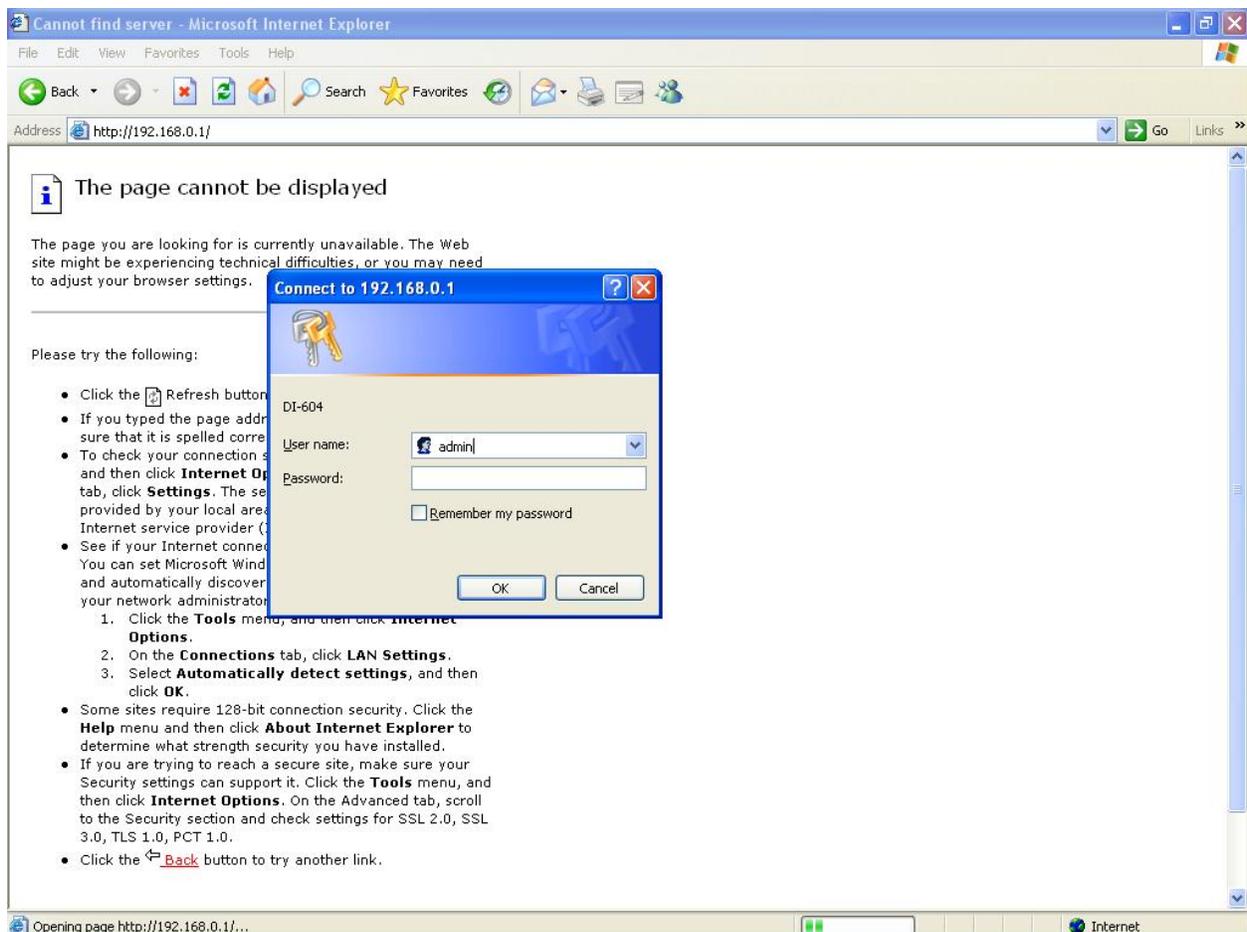
On DLINK Routers, the default User Name is usually " **admin** " (no quotes) and the password is left blank.   When you click **OK** after entering in the information, the login screen will vanish, and be replaced with the DLINK configuration screen.
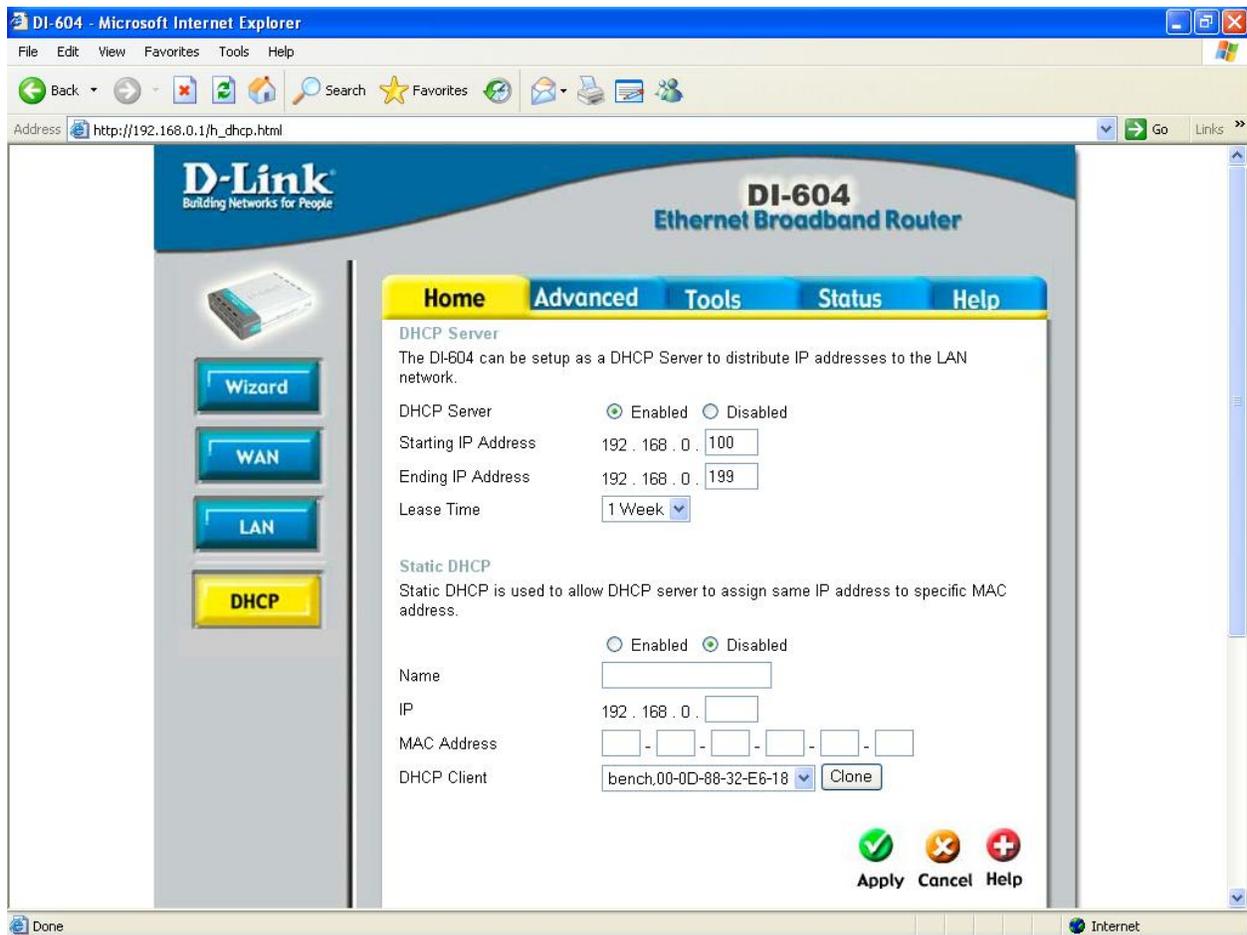
You can click on the left-side buttons to see how the Router is currently configured, and check to see what range of I.P numbers are being assigned by the DHCP Server.

Looking at the above screen, the DLINK assigns 192.168.0.100 up to 199.
We're okay to use any I.P number below 100 .

Click on the **ADVANCED** tab at the top of the DLINK screen, and we'll proceed to the area where the required ports must be opened.

(proceed to next page)

You need to create a configure several ports to allow access to the DVR. Let's start with port # **99**. In the below screen, you can see that need to check off the **ENABLED** checkbox, and then give the port a name.   Try " **Port 99** " for the name, and then put in **192.168.0.50** for the " Private IP " box.   Lastly, put " **99** " in both the Private and Public port boxes.   To finish, click on the green " **APPLY** " button.

The Virtual Server screen will disappear for a few moments while the Router updates it's configuration with the settings you just added.   When the Virtual Server screen reappears, you will see this (scroll down) :

Virtual Servers List				Apply Cancel Help
Name	Private IP	Protocol	Schedule	
Virtual Server FTP	0.0.0.0	TCP 21/21	always	
Virtual Server HTTP	0.0.0.0	TCP 80/80	always	
Virtual Server HTTPS	0.0.0.0	TCP 443/443	always	
Virtual Server DNS	0.0.0.0	UDP 53/53	always	
Virtual Server SMTP	0.0.0.0	TCP 25/25	always	
Virtual Server POP3	0.0.0.0	TCP 110/110	always	
Virtual Server Telnet	0.0.0.0	TCP 23/23	always	
IPSec	0.0.0.0	UDP 500/500	always	
PPTP	0.0.0.0	TCP 1723/1723	always	
NetMeeting	0.0.0.0	TCP 1720/1720	always	
DCS-1000	0.0.0.0	TCP 80/80	always	
DCS-2000/DCS-5300	0.0.0.0	TCP 800/800	always	
i2eye	0.0.0.0	TCP 1720/1720	always	
DCS-3120	0.0.0.0	UDP 3120/3120	always	
Port 99	192.168.0.50	TCP 99/99	always	

Port 99 has now been added to the Router as a port in which outside traffic can now pass through, to the DVR.

You need to repeat this process four more times, as there are additional ports used by the DVR Remote Client.   Following the above directions, create more port entries for the following :

PORT NAME   **PORT NUMBER**

Port # 3000   3000

Port # 3001   3001

Port # 3003   3003

Port # 8800   8800

Each time you add in the additional port, and click APPLY, you should see the newly created port appear in the Virtual Servers list.   When finished, close Internet Explorer which exits you from the DLINK Configuration screen.

The DVR and Router configuration is now complete.