STEP 1 – LAN (Local Area Network) Setup

Note: If you only plan on viewing DVR on your own network, you will be able to do so after completing Part I.

1: Connect your DVR into a Modem or Router using basic **Ethernet / Cat-5 cable**

2: Log in to your DVR. If this is the first time logging in, you can use the default usernames and passwords. There are three which are listed in the box below.

Username: admin, Password: admin

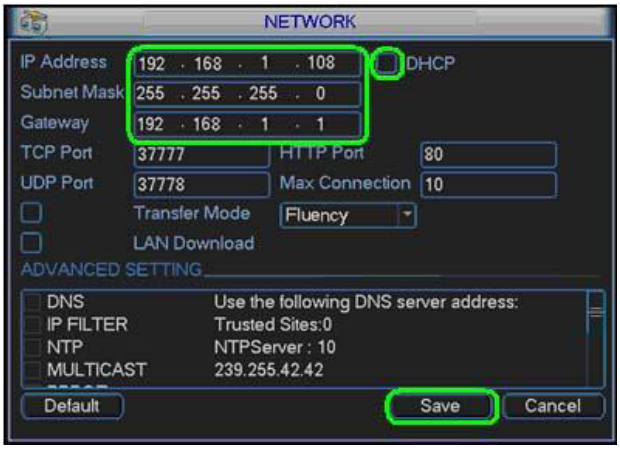
Username: 888888, Password: 888888

Username: 666666, Password: 666666

3: Once in the **Main Menu**, go to **Settings** and then go to **Network**

4: In the **Network settings**, next to where it shows the IP address you will see a small box that says **DHCP**. Click on this box so that it is highlighted "**white**". It may change your IP address or even change all of the digits to all 0's. This is OK. Select " **Save**" and then simply reboot the DVR. You can hold in the power button on the front right hand side for about 3 to 5 seconds until it powers down. Press the power button again to reboot.

Note: By Selecting the DHCP box and rebooting the DVR, we are now asking the DVR to communicate with the router and assign a unique IP address to the DVR.



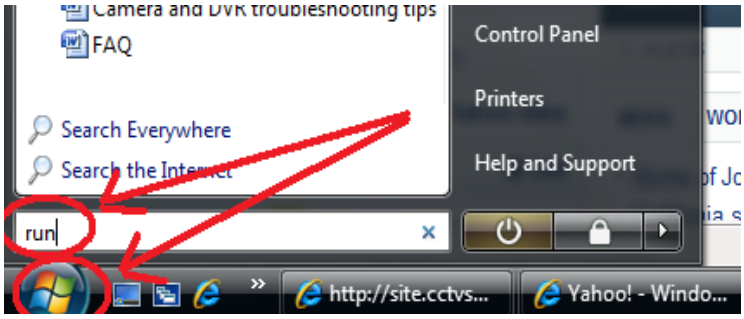
5: Once powered back on, go back into the **Network settings**. Here you will see an **IP address**. This is your DVR's IP address. Please write this address down. The **Default Gateway address** is your router's IP ad dress. Write this down as well. You will need this

information shortly. Now, make sure you **uncheck** the **DHCP** box so it is no longer highlighted and select "**Save**".

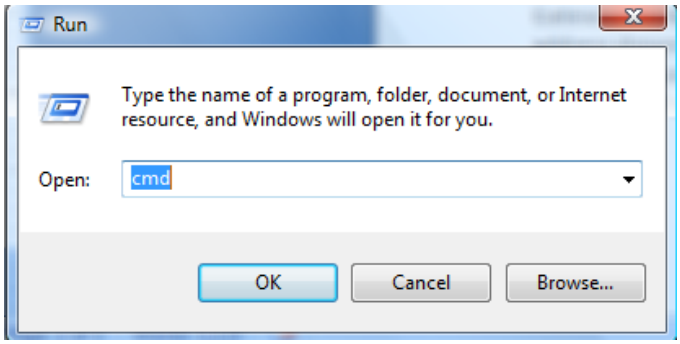
Warning: If after rebooting the DVR still has all 0's as the IP address, you are not communicating with your router properly. Please check all connections, check your routers port and/or try using a different cable. After you have done a thorough diagnostic exam of your cables & connections then try rebooting the DVR again. If you are still experiencing all 0' s, then try rebooting your router and/or referring to your routers user manual for further connectivity troubleshooting.

6: At this point we will perform a quick test just to be sure that you do not have more than one router and that the computer you are using is on the same network as your DVR.

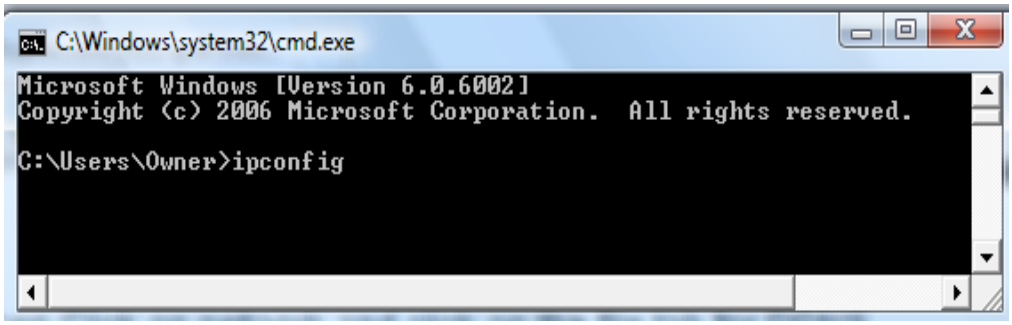
First, go to the **start menu** on your computer and either type in " **run**" in the search box or if there is an option you can just select " **run**" from the start menu.



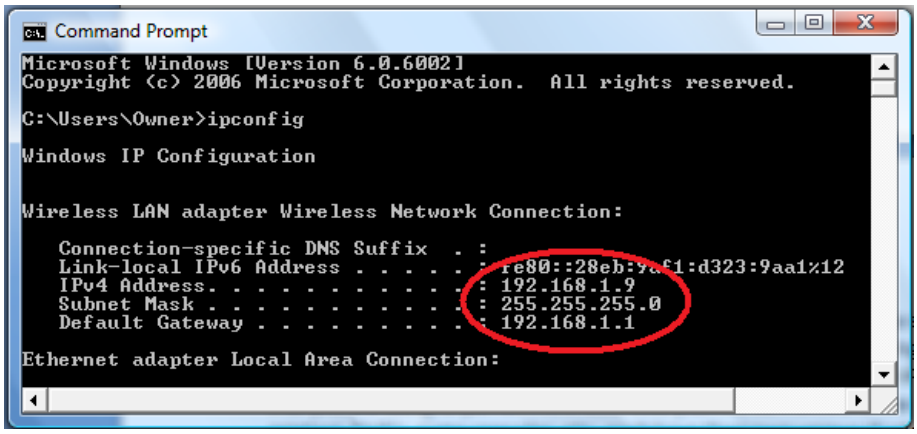
Once you have opened the "**run**" window type "**cmd**" to bring up the command menu.



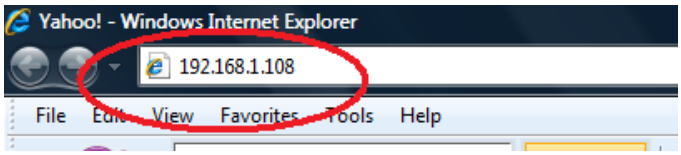
At the curser in the command menu, simply type " **ipconfig**".



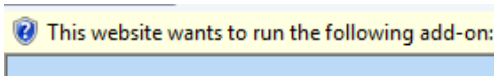
This will show you your **Gateway address** (Router's IP address). Make sure it matches the **Default Gateway address** that you wrote down from the DVR's network settings. There will also be an IP address shown. You are not concerned with this IP address. It is the IP address of the actual computer that you are using to perform this test. Each and every device connected to the network (i.e. computers, printers, DVR's, game consoles, etc.) has its own unique IP address.



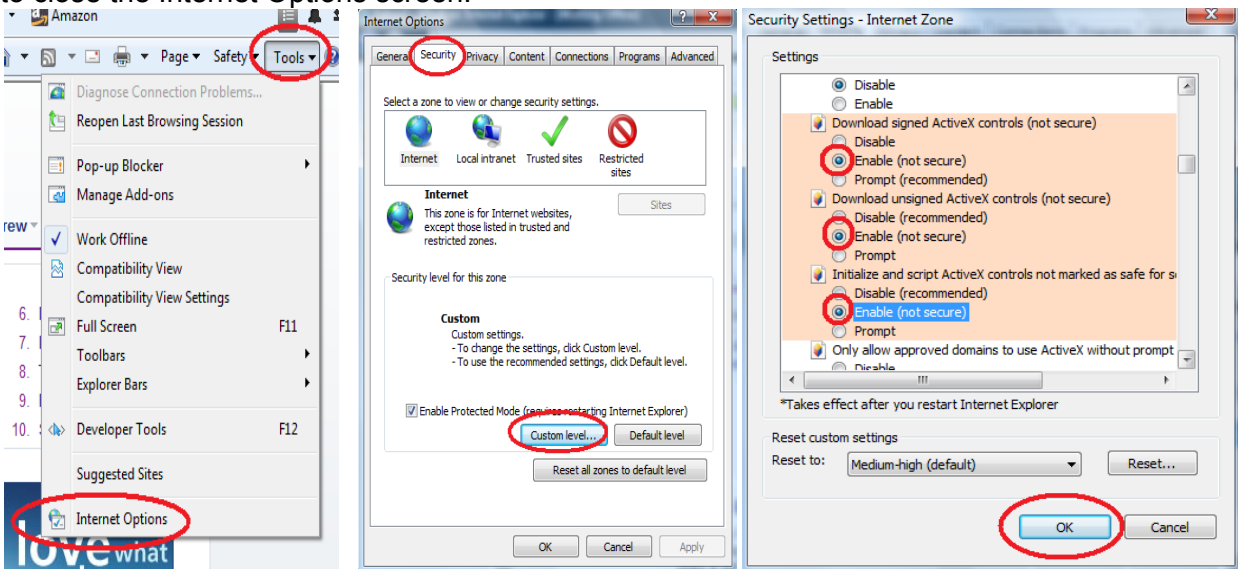
7: You now have access to your DVR from any computer on the same network only. In order to view your DVR simply type in your DVR's IP **address** into your Internet Explorer browser. This is the address you wrote down earlier in Step 4 (example: 192.168.1.108). Please be aware that your DVR's assigned IP address may very well be different from below example.



Note: When visiting your DVR from any computer for the first time, you will automatically be prompted to install the **Active X plug-in**. In the next step we will show you how to temporarily adjust your security settings in order to enable this safe download.



8: In order to install Active X, go to **TOOLS**> **INTERNET OPTIONS**> **SECURITY**> **CUSTOM LEVEL**…and then scroll down under the A ctive X options and check the enable button for the options that says "**Download signed Active X**", "**Download unsigned Active X**" and "**Initialize and script active x controls not** marked as safe" . Click OK , then Yes to the security warning (we are going to reset your security settings in a moment) and then OK again to close the Internet Options screen.



After the Internet options menu is closed you will see another pop up banner going all the way across the top of the screen. Scroll over or right click on this pop up and select the **install Active X** or **Download plug in**. Once the Active X plug in is installed you will see the log in screen for your DVR.

Note: Before you log into your DVR, go back to the pop up banner and right click on it. Select the first option " **Fix Settings**". If the pop up banner is no longer dis played you can also go into **TOOLS**> **INTERNET OPTIONS**> **SECURITY** and select **RESTORE DEFAULT SECURITY SETTINGS**.

9: To log into your DVR through **Web Service**, you will be using the same username and password that you used for the DVR above which was "admin" & "admin" .

10: You should now see the screen for your cameras. To open all of the cameras in order, click in the first box so that it is outlined in green. Then in the menu on the left hand side, select "**Open All**". You can configure the cameras in a different order by clicking the box so that it is highlighted in green and then click on the camera icon for the camera that you want to open there.

Tip: At the very bottom of this screen you will see a number of different icons for various screen configurations. Select the one that you prefer. Also, to bring one camera to a full screen view, just double click on the box with the video from that camera.

Congratulations!!! You are now able to view your cameras from any computer on your network.

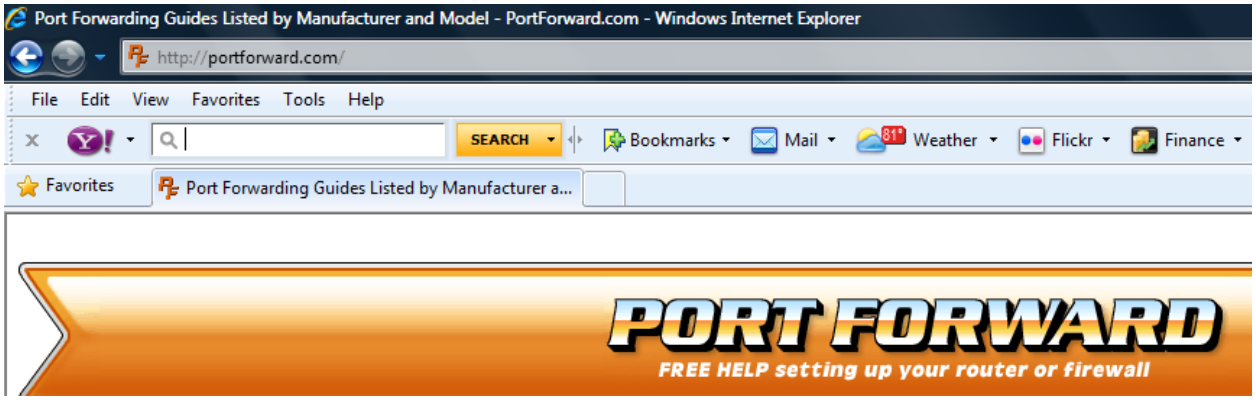
If you only wish to view your cameras from a computer that is on the same network then you are finished. To view your cameras again simply type in the DVR's IP address into the Internet Explorer browser. You will only have to go through the installation steps for the Active X plug in if you are trying to access your DVR from a different computer on the network for the very first time.

In order to view your cameras remotely from outside of your network, please go on to complete Steps 2 & 3.

STEP 2 – PORT FORWARDING

Note: In Step 1, we showed you how to view your DVR on your own private network. In Step 2 we will show you how to view the DVR from outside your private network over the internet. Right now the firewall settings in your router are preventing other people from accessing your network. We will need to open a couple ports on you router so that you will have access from the outside.

1: Every router is password protected and has its own specific steps for port forwarding. Regarding the passwords they are usually something simple. Often the default passwords have never been changed. We recommend visiting www.portforward.com which contains an extensive list of default passwords for every model router along with a guide showing how to forward the ports.



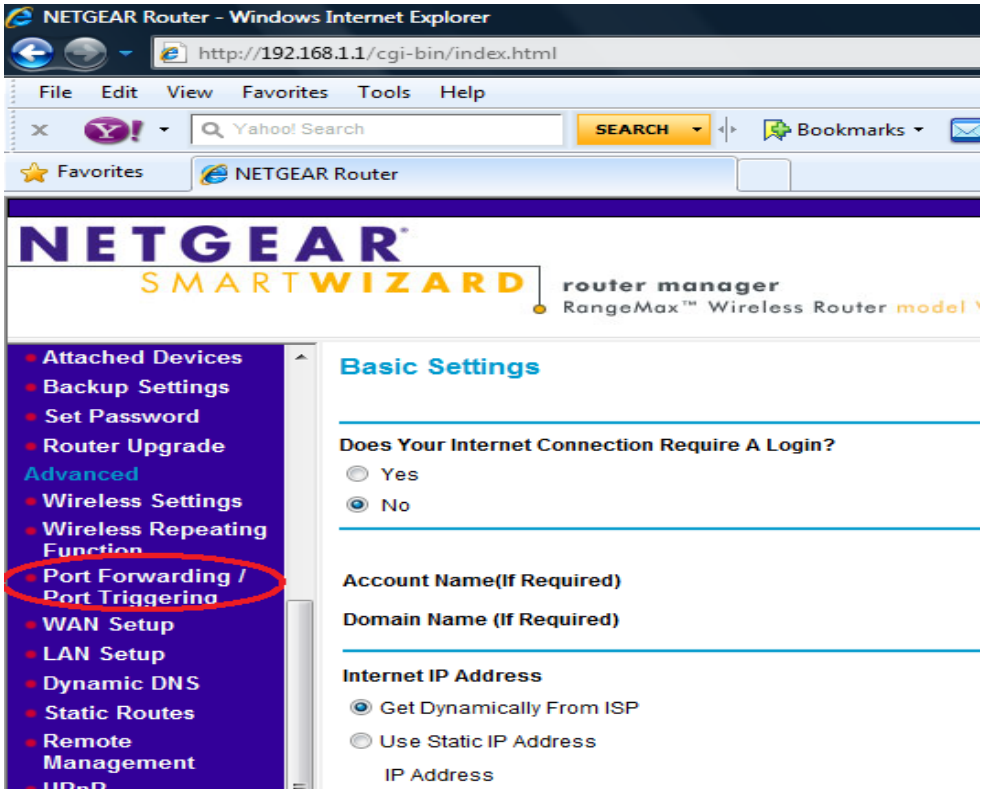
On the homepage, **scroll all the way down** until you see your router model. Select your router. The next screen is an advertisement. You can click "skip this advertisement" in the top right hand corner to get to the next screen.

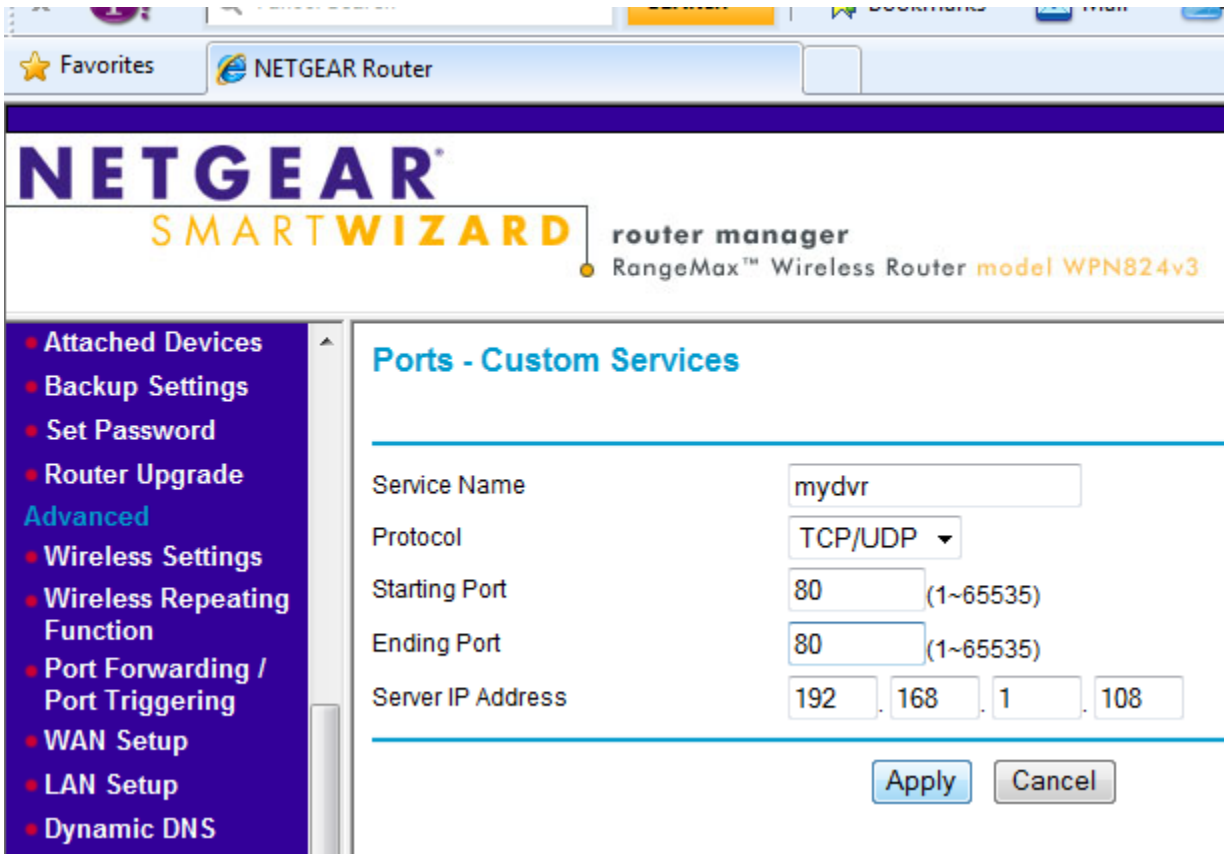
On the following screen you can select any random application. We do not care which application you select - we are simply selecting any application just to find out the port forwarding process.

After selecting an application, you will be brought to a screen that will show you how to log in to your router with default usernames and passwords in case you do not already know your routers login info. A lot of these applications also start off by telling you to get a Static IP address and they say that it is a must. That is not the case for setting up your DVR for remote view. It's fine **if you have a static IP address but static IP is not required**. Follow the steps for port forwarding.

Important: You want to port forward ports **80** & **37777**. **Open** or **Start** at **80** & **Close** or **End** at **80**. For the type of protocol select both **TCP & UDP**. If you only have the option on your router to use one, choose the TCP protocol. The IP address that you want to forward to is the DVR's network address. Also check "**enable**." Do the same thing for port **37777** and then **save**.

Below are a couple screenshot examples of the process using a Netgear model router.





Included below are instructions for four of the "most common" routers. These manuals can also be found under the technical support tab on our website.

Linksys:
http://site.cctvsecuritypros.com/2011/spdf/linksysremoteview.pdf

Netgear:
http://site.cctvsecuritypros.com/2011/spdf/netgear.pdf

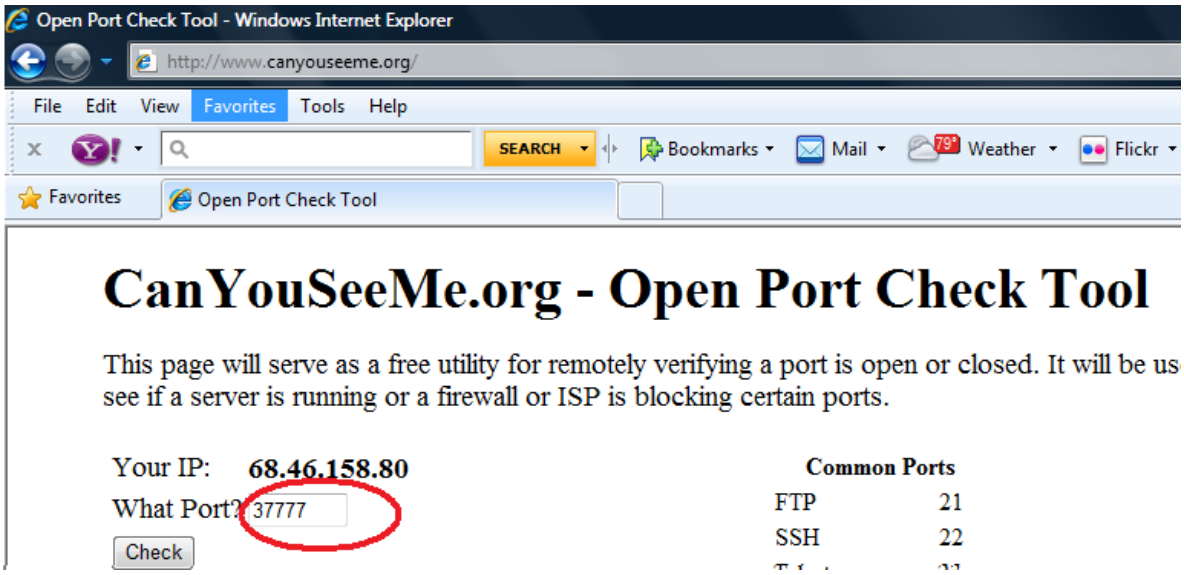
AT&T:
http://site.cctvsecuritypros.com/2011/spdf/attremoteview.pdf

Verizon:
http://site.cctvsecuritypros.com/2011/spdf/verzionconfig.pdf

2: At this point we will perform a quick test just to be sure that everything is configured correctly and your ports have been opened. Go to www.canyouseeme.org . Here you will see your Internet (Public) IP address. Underneath that is a box. In the empty box type in port **37777** first and select the check button. Look down below and you will either see a **red error message** or a **green success message**.

If you see a red error message, you have not configured the settings correctly. If you see a success message continue to check port 80. If you get a success message for port 37777, but an error message for port 80 then you have configured the settings correctly, but your internet provider is blocking port 80.

A lot of people use port 80 to host their own website, and some internet providers block port 80 because they want you to pay for website hosting services. If that is the case, go back into your router settings and change the port 80 to port 88. If you do this, also go into your DVR's network settings where we found your DVR's IP address and gateway address and next to the http port change it from 80 to 88. Go back to www.canyouseeme.org and check port 88.



After you get a success message on both ports you have successfully configured you port forwarding settings and can continue to the last step of setting up your own host name on www.dyndns.org

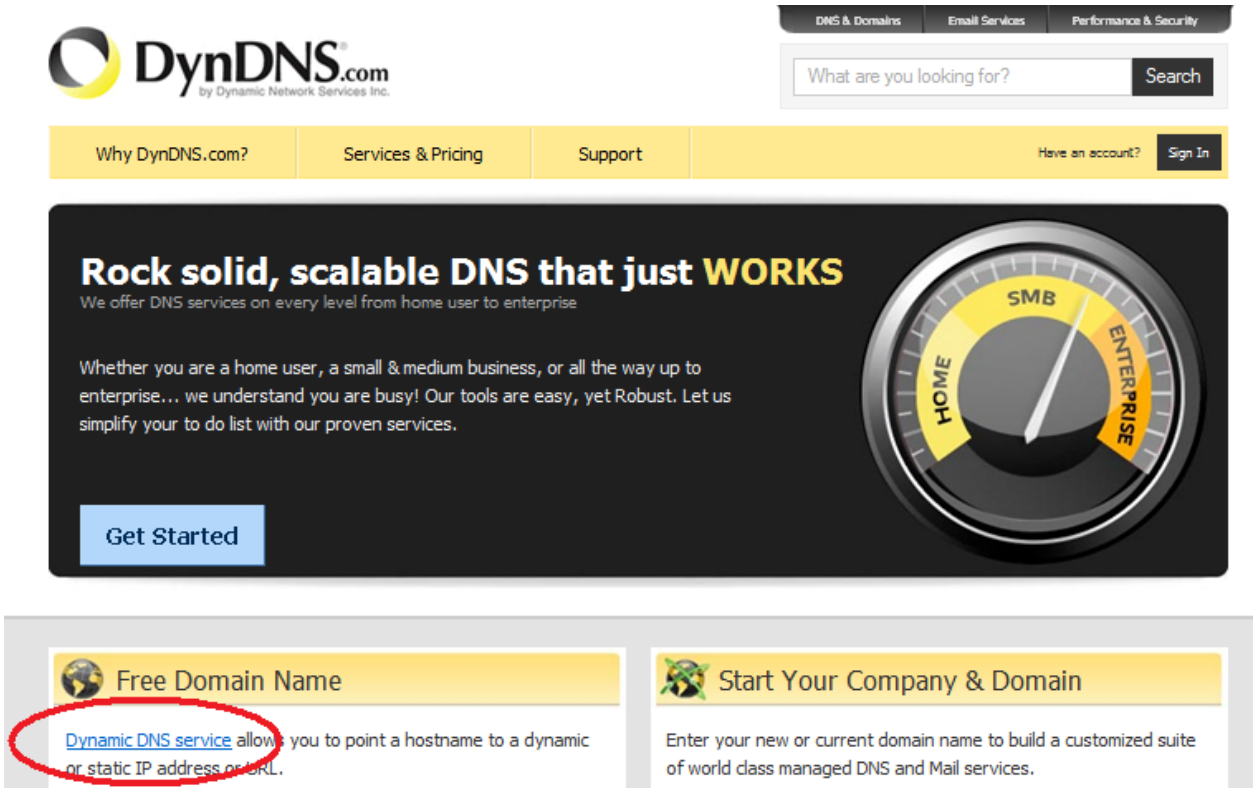
STEP 3 – DYNDNS Hostname Setup

Note: You either have a **static IP address** for which you are paying a premium or you have a **dynamic IP address** that comes with your Internet service. This is your **Internet IP address**.

Most residential customers have a **dynamic IP address**. A dynamic IP address changes very frequently. It can change monthly, weekly, daily or even every time you sign onto the Internet. Your Internet IP address is what you need to enter into the Internet Explorer browser in order to access your DVR through your router and view over the internet. Since Dynamic IP addresses change so frequently, we are going to sign up for a free service that will automatically track your IP address for you. All you will have to remember is your " **Hostname**" which we are about to create. **Upon completion, you will be able to view your DVR remotely over the internet by simply entering your Hostname into your Internet Explorer browser.**

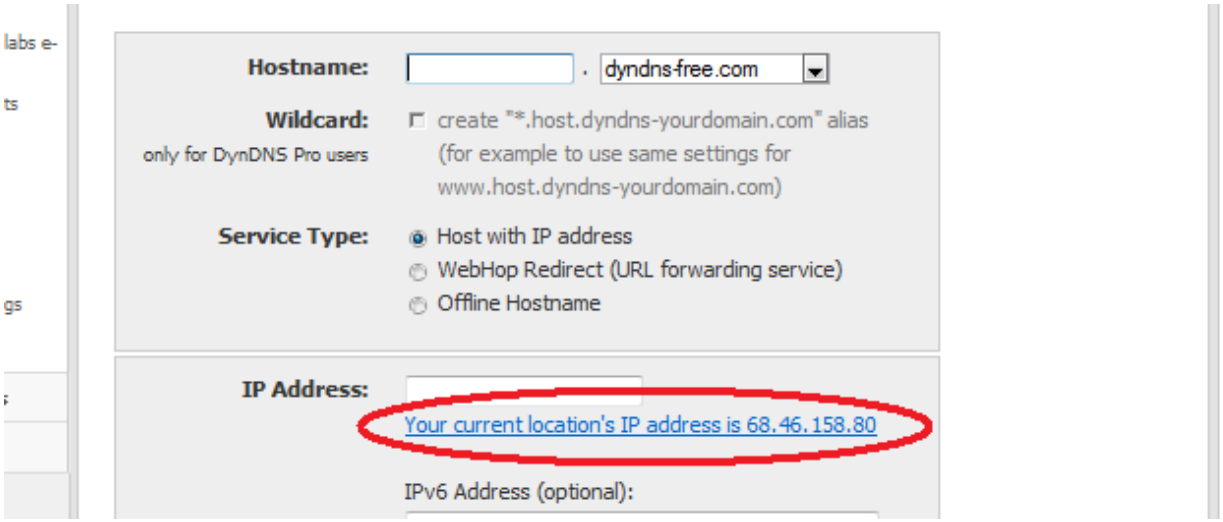
1: Go to: www.dyndns.org

2: Underneath **Free Domain Name** click the link that says Dynamic DNS service



3: Click the box that says " **Create Free Hostname**"

4: Next to Hostname, type in a name that you will easily remember and on the drop down box to the right select the end extension that you like. (dyndns.org or dyndns.tv are two short ones that are easiest to remember, but you can choose any one that you like)



5: For the option that asks you to enter your IP address, click on the **blue link** directly underneath which should automatically have your public Internet IP address populated. This will fill it into the box for you.

There should be no reason that the IP address already there in blue is not your Internet IP, but if you want to double check, you can go back to www.canyouseeme.org and your Internet IP address will be automatically populated above the empty box where you entered the two ports that you checked earlier.

6: Do not select anything else and select " **Add to Cart**" at the bottom.

7: On the following screen fill in this information by creating a **username** and **password**, and by entering your **email address**. Agree to the terms and select " **Create Account**".

Note: you may want to unselect the option to subscribe to their newsletter if you do not want to receive emails from them.

8: Go to the email address that you entered in setting up an account and look for an email from dyndns.org. You may have to check in your junk or spam folder

Hint: for Gmail accounts underneath the inbox option select "m ore" to locate your spam folder .

9: Click on the link in your email from them (if you can not click on the link, simply copy and paste the link into your Internet Explorer browser)

10: This will bring you back to their homepage. Sign in using the username and password you created and go to your cart and proceed to check out. Notice that this is a free service. After proceeding to checkout select "Activate". You will see that your new hostname is activated. **You are now finished creating a dyndns hostname!!**

11: Enter your new hostname into the Internet Explorer browser. Enter http:// in front of the hostname. If you had to change the one port from 80 to 88 then you will need to also enter :88 after the hostname. (example: http://securitypros.dyndns.tv or http://securitypros.dyndns:88)

12: This will bring you to the **Web Service** page. Because your computer thinks that this is a different website, you may have to install the Active X plug in again. Go to: **Tools**> **Internet Options**> **Security**> **Custom Level** and then scroll down to the Active X options and select Enable for " **Download Signed Active X**"," **Download Unsigned Active X**" & "**Initialize and** script active x controls not marked as safe" , Select **OK**, then **Yes** and then **OK** again to close the security settings menu.

13: Right click on the pop up banner that is running across the top of your screen to install the Active X plug in. After you see the Log on screen for Web Service, click on the pop up banner again and select " **Fix My Settings**".

14: Log in using the default username "admin" and the default password "admin". Unle ss you changed it, then use the login info you created for your DVR.

Some routers are quirky and do not let you go in and out of the network. Your router may not let you access your DVR using your new hostname (Public IP) because you are already on the network and trying to access it again from outside the network. If everything was successful up until this point, you are most likely still right on track.

You will need to check your hostname from a computer that is not on your network such as a friend's or neighbor's house. You can use your DVR's IP address while using a computer on the network and your dyndns hostname from everywhere else outside your network