Block Of Public IPs and Disabling NAT

The following document outlines how to disable the NB5580/w series NAT (Network Address Translation) feature in order to implement an additional block of public IP addresses.

This type of setup is commonly used when you wish to individually assign a public IP address to a local computer or other TCP/IP enabled device(s) that are connected on the LAN side of the NB5580/w. This will then enable them to be publicly available and remotely accessible via the allocated public IP. Some examples of such computers or devices include Web Servers, Mail Servers, IPCameras etc.

For this example we will use the following IP addressing information of which is usually provided by your ISP -

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Default WAN IP - 58.6.33.30 (ISP PPPoE/A assigned)
/29 Block of public IP addresses
Network IP Address: 58.6.33.32
Useable IP Range: 58.6.33.33 – 58.6.33.38
Broadcast IP Address: 58.6.33.39
Subnet Mask: 255.255.255.248
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Note:- For this feature to be available your modem should be installed with firmware version 1.05.02 and above.

1. Reset The NB5580/W back to factory defaults by holding down the reset button (Back of unit) for 10 seconds.
2. Login to the NB5580/w web-based interface i.e http://192.168.1.1 and if prompted, enter the default username and password of "admin" for both.
3. You will first need to setup your Modem to connect to your ISP using the "PPP Unnumbered" option with "static IP" selection. To do this change the Wan Type at on the 'One Page setup" to **IP Unnumbered over PPPoE,** and change the selection to **Fixed IP.** Simply fill out your complete ISP username and password in the required (you do not require a service name). . To save the changes click on the "Apply" button.
4. The first Public IP address from your block should be assigned as the LAN IP address of the Modem. This will ensure that you are still able to manage the connection when the subnets have been changed on the rest of the network. This can be done by updating the **LAN IP address** and **subnet Mask** on the one Page setup. To save the changes click on the "Apply" button.

5. After the previous settings have been saved you won't be able to access the NB5580/Ws configuration page until you change the IP addressing of your computer to an address within the same public IP subnet, appropriate subnet mask, gateway and DNS e.g 58.6.33.34, 255.255.255.248, 58.6.33.33, 58.6.33.33 respectively. You should then be able to access the web-based interface on the modem as below.
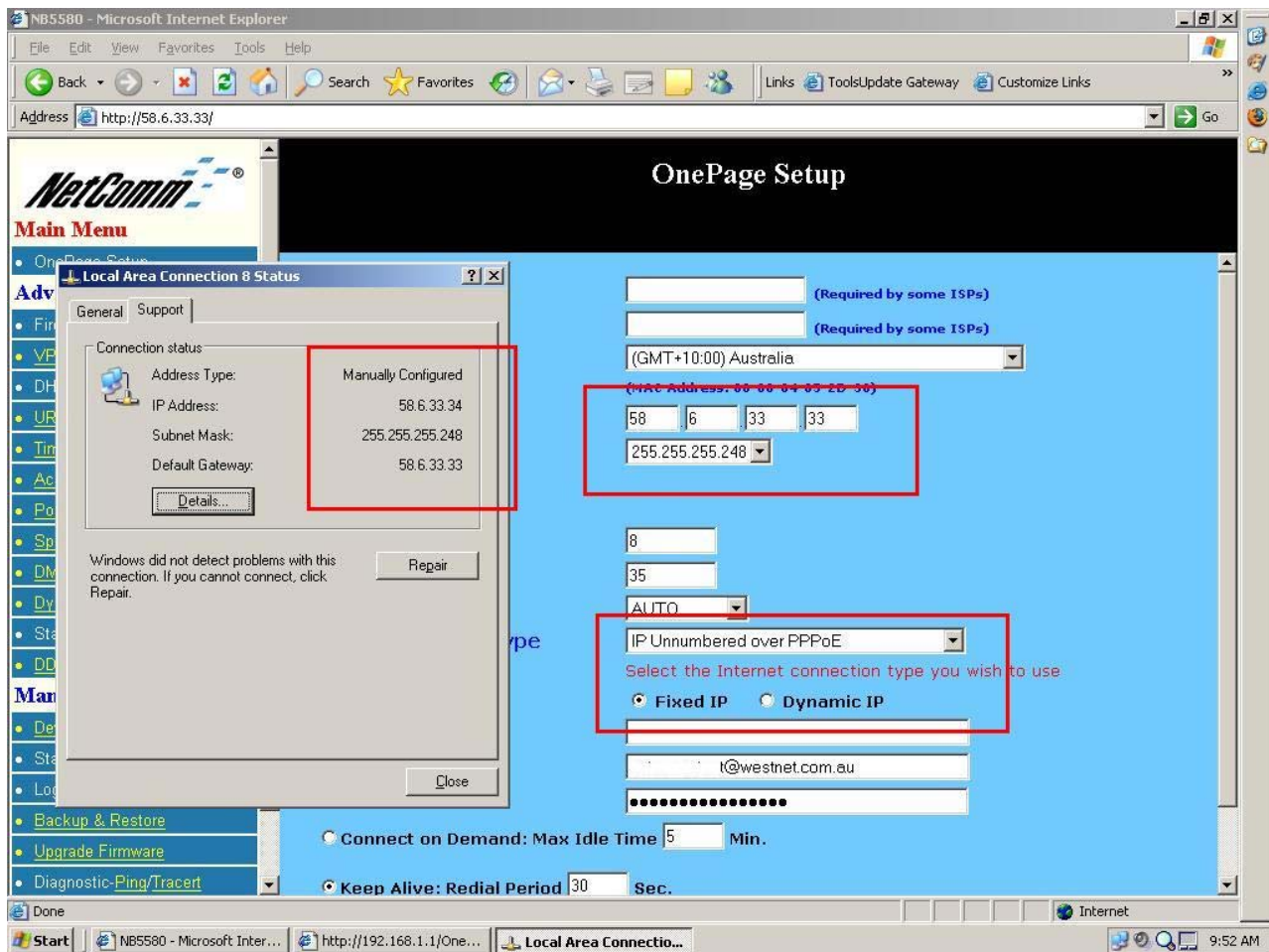
6. Once the above has been configured you will also need to disable the modem's advanced firewall feature to ensure the success of the connection. Simply choose the "firewall settings" option on the side menu and disable all firewall options as below, then click on the "apply" button to save changes.
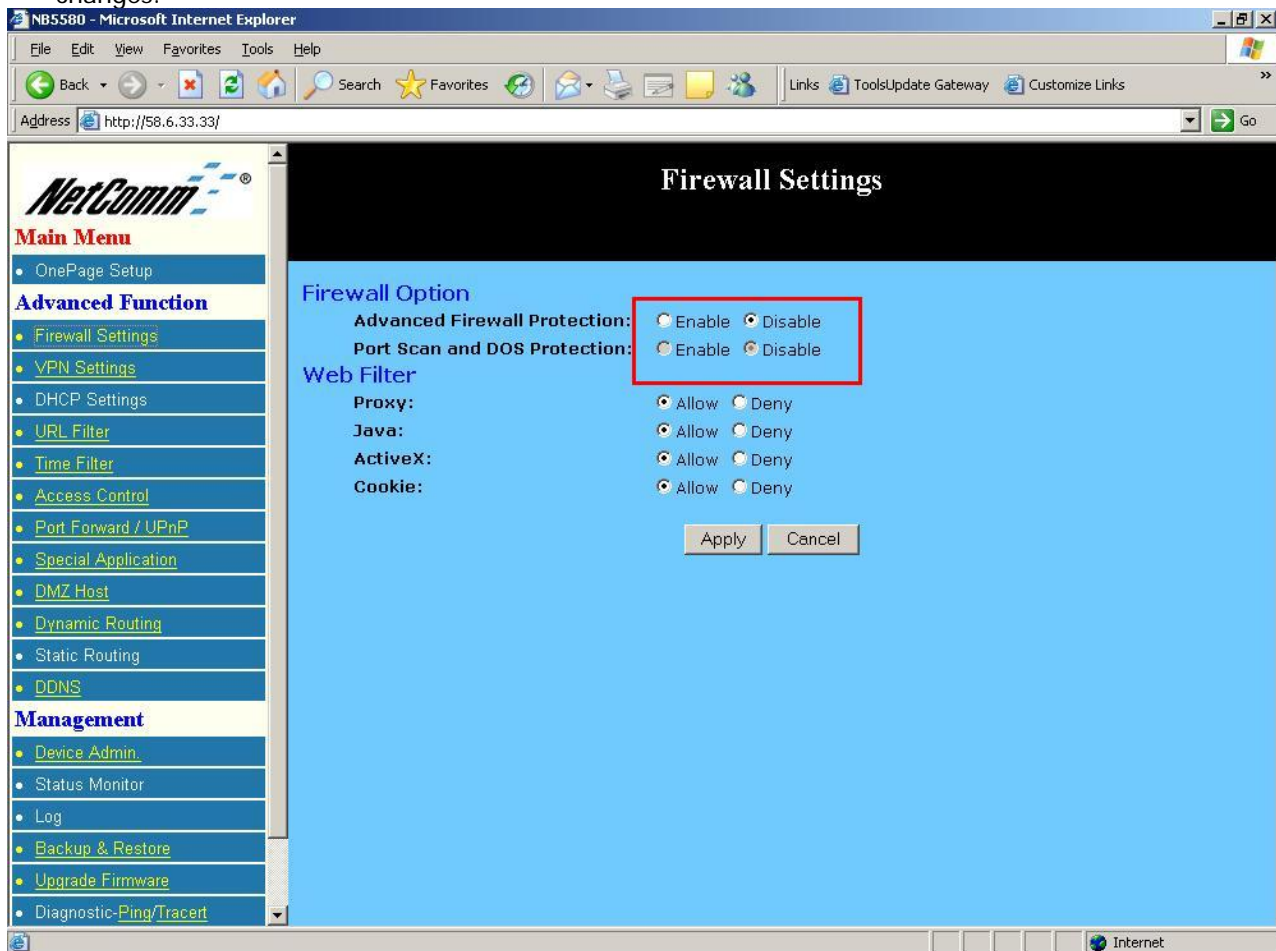
7. The process should now be complete and any other available public IP addresses from your block can now be assigned to additional machines or devices.

To test simply try to remotely ping the public IP addresses of which you have assigned.

As NAT is now disabled on the NB5580/W, your machines will be exposed to the Internet so it would be recommended to implement some form of software based firewalling to increase security and help prevent against external attacks.