BILLION

BiPAC 7800 and 7800N

ADSL2/2+ Modem/Routers
QoS Firewall Wired/Wireless
Multi-GigaPort Switching Hub

UK Quick Install Guide

> (i) This guide covers only the initial Internet set-up. Please refer to the full User Manual on the CD-ROM for more advanced settings. This guide is based on the Billion BiPAC 7800N ADSL2+ Firewall Modem/Router. Screen shots in this guide may vary slightly from the actual router.

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This symbol on the product or in the instructions means that your electrical and electronic equipment should be disposed at the end of its life separately from your household waste. There are separate collection systems for recycling in the EU.

For more information, please contact the local authority or your retailer where you purchased the product.

QUICK INSTALL GUIDE

Billion 7800N ADSL2+ Firewall Modem/Router Set Up

The Billion 7800N ADSL2/2+ Firewall Modem/Router has a Dual WAN interface for use with fixed line ADSL services or cable/leased line broadband services (EWAN).

You can set up the router with:

1. **ADSL as the primary WAN interface**

2. *EWAN as the primary WAN interface*

This installation guide will take you through the process of initial configuration of your ADSL settings. *For EWAN settings connect your computer/laptop to the router via the supplied cable to one of the Ethernet ports and select EWAN from the Connect Mode field at 2.1.1 - 2.1.3 (pages 5 and 6). For use with cable broadband you will need to reboot your cable modem after connecting to the EWAN port of the 7800N, and may need to enter the MAC address of your cable modem in the MAC spoofing field if advised by your service provider. You can configure your wireless settings as per the ADSL set-up at 2.1.7 (page 8). For Advanced configuration of the EWAN select EWAN from the Main Port field under Advanced>Configuration>WAN>WAN Profile from the router's status page (see 2.1.15 pages 10-11).*

1.1 Starting out:

Before you can establish an Internet connection through your Billion 78000N Modem/Router make sure you have the following:

1. A Computer or Notebook with an installed Network Adaptor (sometimes called an Ethernet Adaptor, Network Card or NIC)

2. An ADSL or DSL or broadband service account and configuration information provided by your Internet Service Provider (ISP). You should need only a **User Name** and **Password**, but you can check with your ISP to see if you require any of the other following configuration parameters to connect your Billion 7800N Modem/Router to the Internet :

   a. **ISP User Name and Password**
   b. VPI/VCI parameters
   c. Multiplexing Method
   d. Host and Domain Names
   e. ISP Domain Name Server (DNS) Address
   f. Fixed or Static IP Address.

1.2 Steps for Connection:

The following are the steps to properly connect your Billion 7800N Modem/Router:

1. Turn off your computer.

2. If you do not have an ADSL faceplate installed by your service provider, you must ensure ADSL splitters (also called microfilters or filters) are fitted to **all** telephone sockets in use.

3. Connect the supplied ADSL (RJ-11) cable from the splitter/filter of your chosen telephone socket (or ADSL faceplate if you have one) to the **DSL** Port of your Billion 7800N Modem/Router.

4. Connect the yellow Ethernet cable (RJ-45) from one of the Ethernet ports of your Billion 7800N Modem/Router to the Network Adaptor in your computer.

5. Connect the Power adaptor to the Billion 7800N Modem/Router and plug the other end into a Power outlet. Power up the unit.

6. Turn on your computer. Please allow up to 45 seconds for your Network Adaptor to locate the Router. Please wait for the DSL light on the front of the router to turn to solid – this may take up to 1-2 minutes (see **3.1** Troubleshooting the ADSL connection).

7. You are now ready to configure your ADSL and Wireless connection for the Billion 7800N Modem/Router. All you need to do is to follow the instructions that follow and enter your **User Name** and **Password** as supplied by your Service Provider. **No other changes should be necessary.**

8. *For **EWAN** settings connect your computer/laptop to the router via the supplied cable to one of the Ethernet ports and select EWAN from the Connect Mode field at 2.1.**1** - 2.1.**3** (pages 5 and 6). **You will need to reboot your cable modem after connecting to the EWAN port of the 7800N and may need to enter the MAC address of your cable modem in the MAC spoofing field if advised by your service provider.** You can configure your wireless settings as per the ADSL set-up at 2.1.**7** (page 8). For Advanced configuration of the EWAN select EWAN from the Main Port field under Advanced>Configuration>WAN>WAN Profile from the router's status page (see 2.1.**15** pages 10-11).*

2.1 ADSL, EWAN and Wireless Configuration:

1. Open Internet Explorer or your default web browser. You should be directed automatically to the Easy Sign On Page. Now go to 2.1.**3** on the next page.
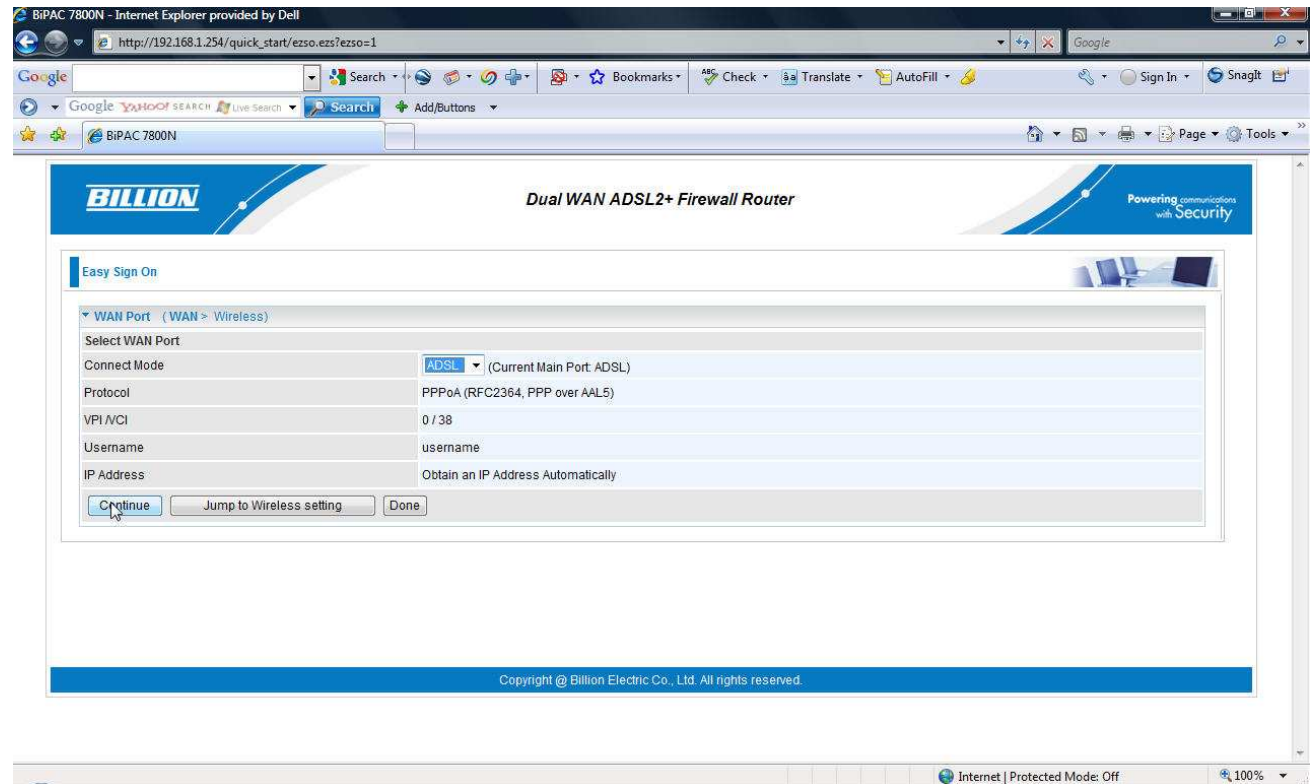
2. If this page does not appear type in **http://192.168.1.254** in the address bar (where you would normally enter the web site address).You will then be presented with a user name and password prompt.* Simply enter user name as **admin**, password as **admin** and click **OK**. This will take you to the modem's **Status** page. From the Menu on the left select **Quick Start.**

* If the user name and password prompt box does not appear make sure that any firewall or anti-virus such as Trend Micro or Norton is disabled. Also ensure that your Internet settings are correct. (In Internet Explorer go to Tools/Internet Options/Connections and make sure "Never dial a Connection" is checked. Then Click on the LAN settings and ensure "Automatically detect settings" is checked and all other fields are blank. Then go to Tools/Internet Options/Security and return your Security settings to "default".)

3. Ensure the **Connect Mode** is **ADSL** and click on **Continue.** *Select EWAN for EWAN configuration.* ***You will need to reboot your cable modem after connecting to the EWAN port of the 7800N and may need to enter the MAC address of your cable modem in the MAC spoofing field if advised by your service provider.*** *Then click **Next to Wireless** – see 2.1.7 (page8).*

4. Enter your **Username** and **Password** as supplied by your Internet Service Provider in the relevant fields, and click **Continue.**

5. For **O2** broadband and **Be** customers please change the Protocol field to **MPoA** (RFC 1483/RFC2684 Multiprotocol Encapsulation over AAL5), the **VPI** setting remains on **0**, the **VCI** setting needs to be changed to **101** and Encapsulation changed to **LLC/SNAP-BRIDGING**, and enter a static IP if you have one. Click **Continue**.

6. The router will restart and save your settings. Please wait.

7. Once the WAN port has been successfully configured you can configure your wireless settings. Click on **Next to Wireless.**
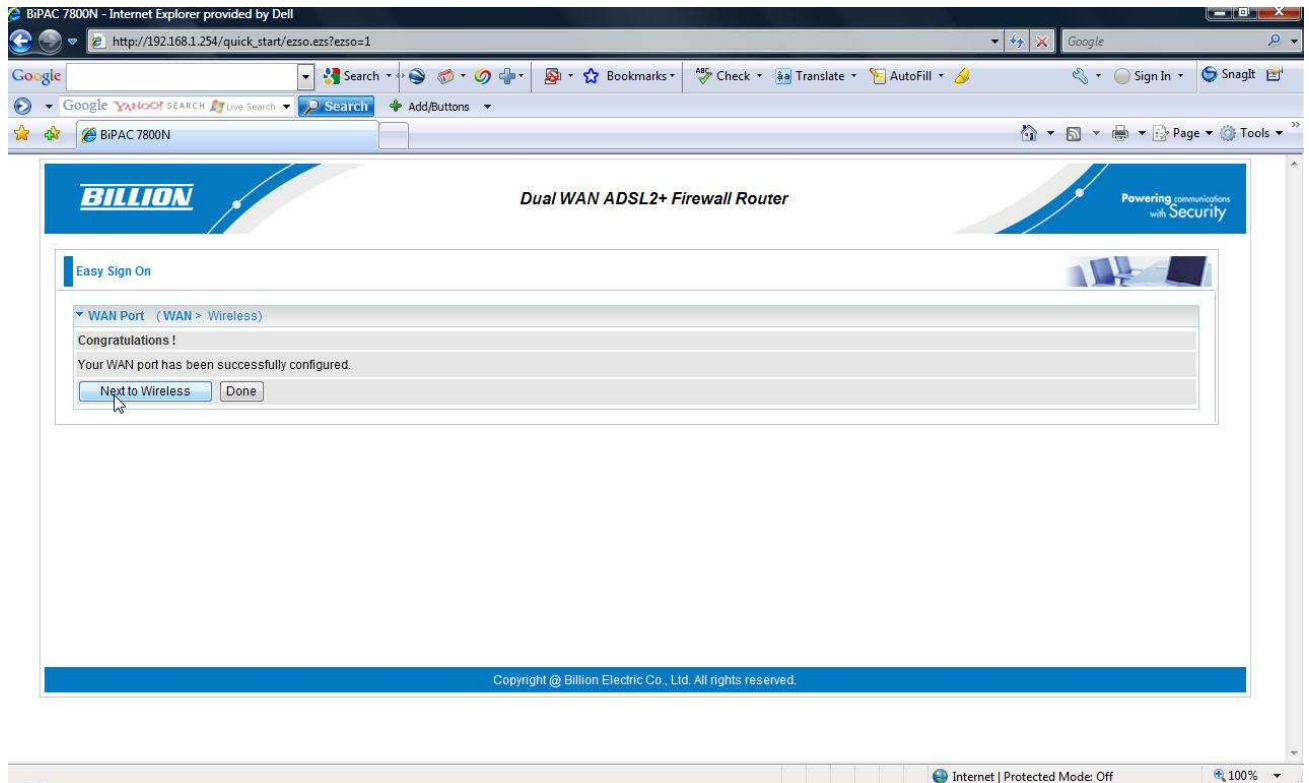

8. From the drop down menu in the **Security Mode** field you can choose your preferred wireless security (or keep the wireless security disabled.) Please ensure your wireless adaptor or laptop is compatible with your chosen mode.
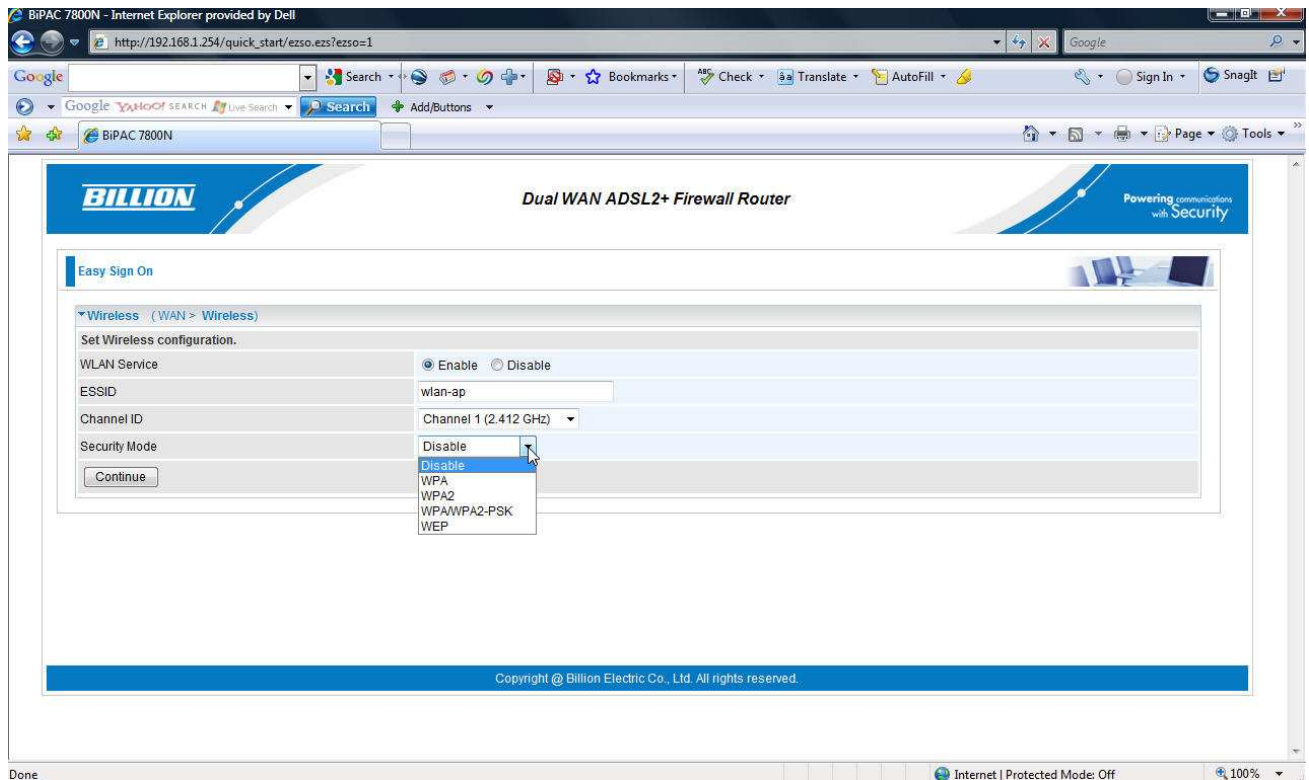
9. For WPA you should enter an alphanumeric password (numbers and letters) of between 8 and 64 characters in the **WPA Shared Key** field and click **Apply**.

10. Please wait while the router applies the new settings.

11. This completes the ADSL, EWAN and wireless security configuration.
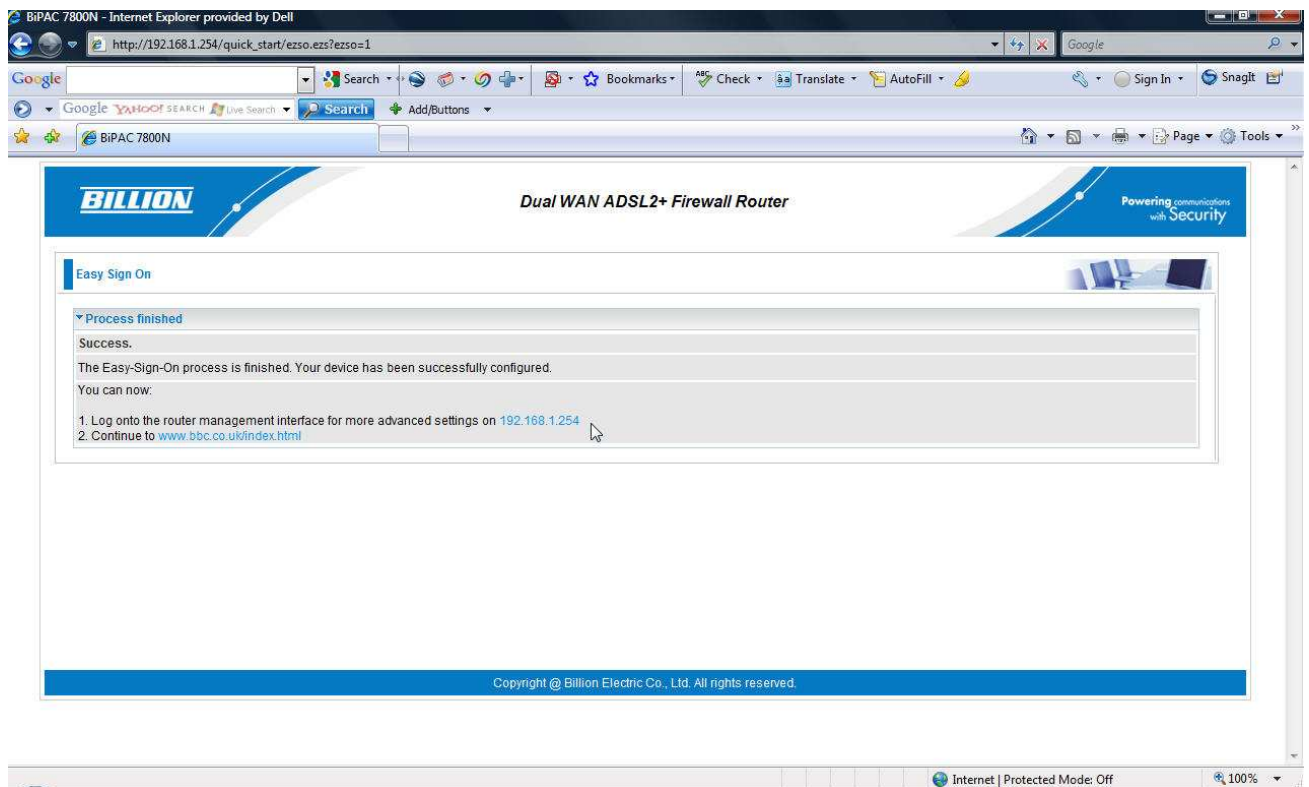

12. You should now be connected to the Internet.

13. For advanced settings you can login to the router by clicking on the blue 192.168.1.254 link. You will then be presented with a user name and password prompt.* Simply enter user name as **admin**, password as **admin** and click **OK**.

* If the user name and password prompt box does not appear make sure that any firewall or anti-virus such as Trend Micro or Norton is disabled. Also ensure that your Internet settings are correct. (In Internet Explorer go to Tools/Internet Options/Connections and make sure "Never dial a Connection" is checked. Then Click on the LAN settings and ensure "Automatically detect settings" is checked and all other fields are blank. Then go to Tools/Internet Options/Security and return your Security settings to "default".)
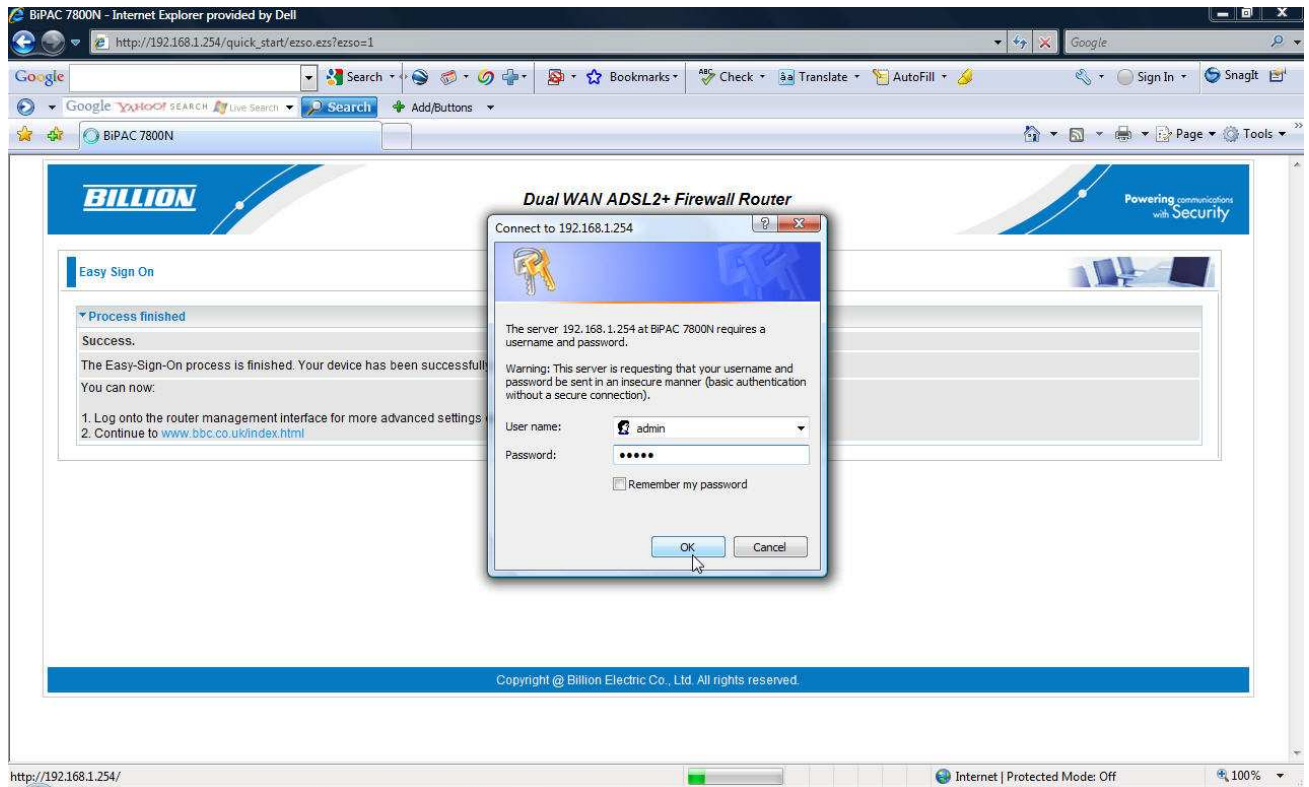
14. This will take you to the modem's **Status** page with details of your connection status.
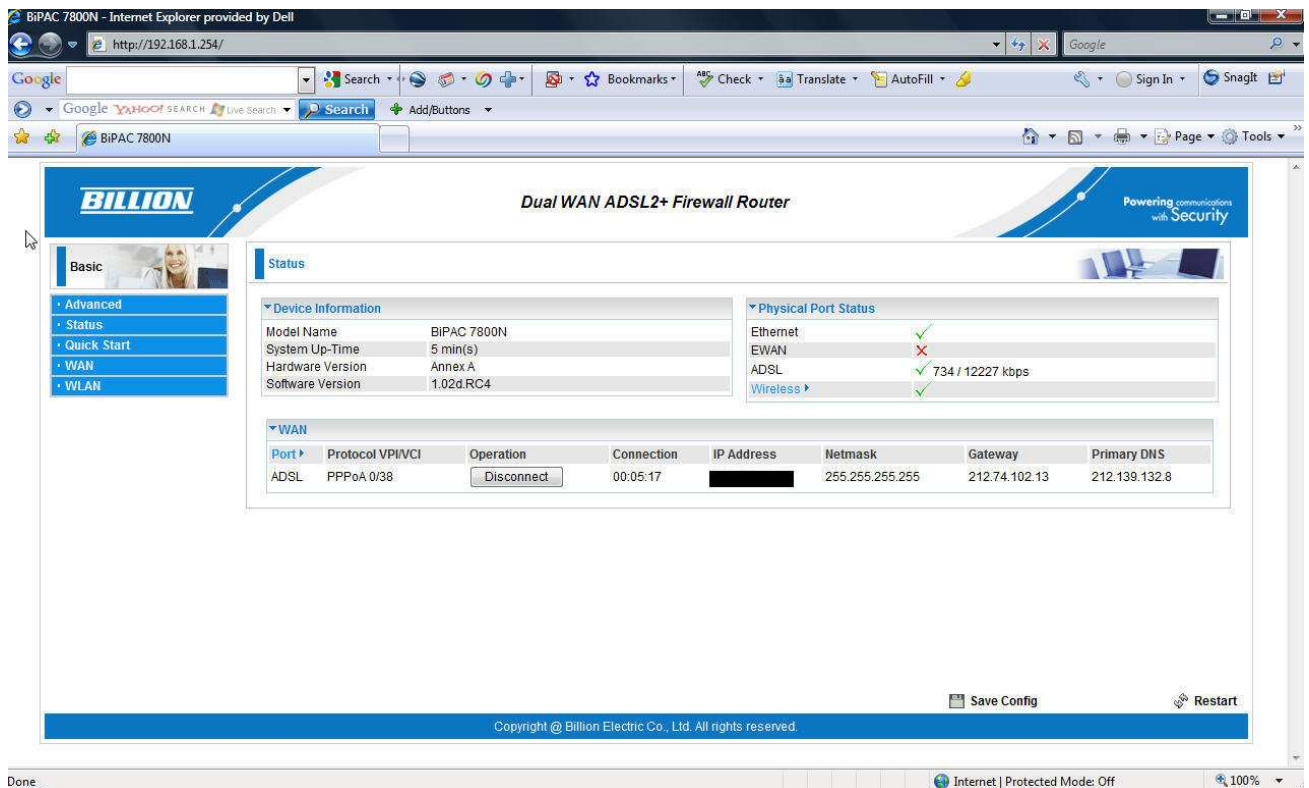
15. Under Advanced>Configuration>WAN>WAN Profile you can see the ADSL parameters.
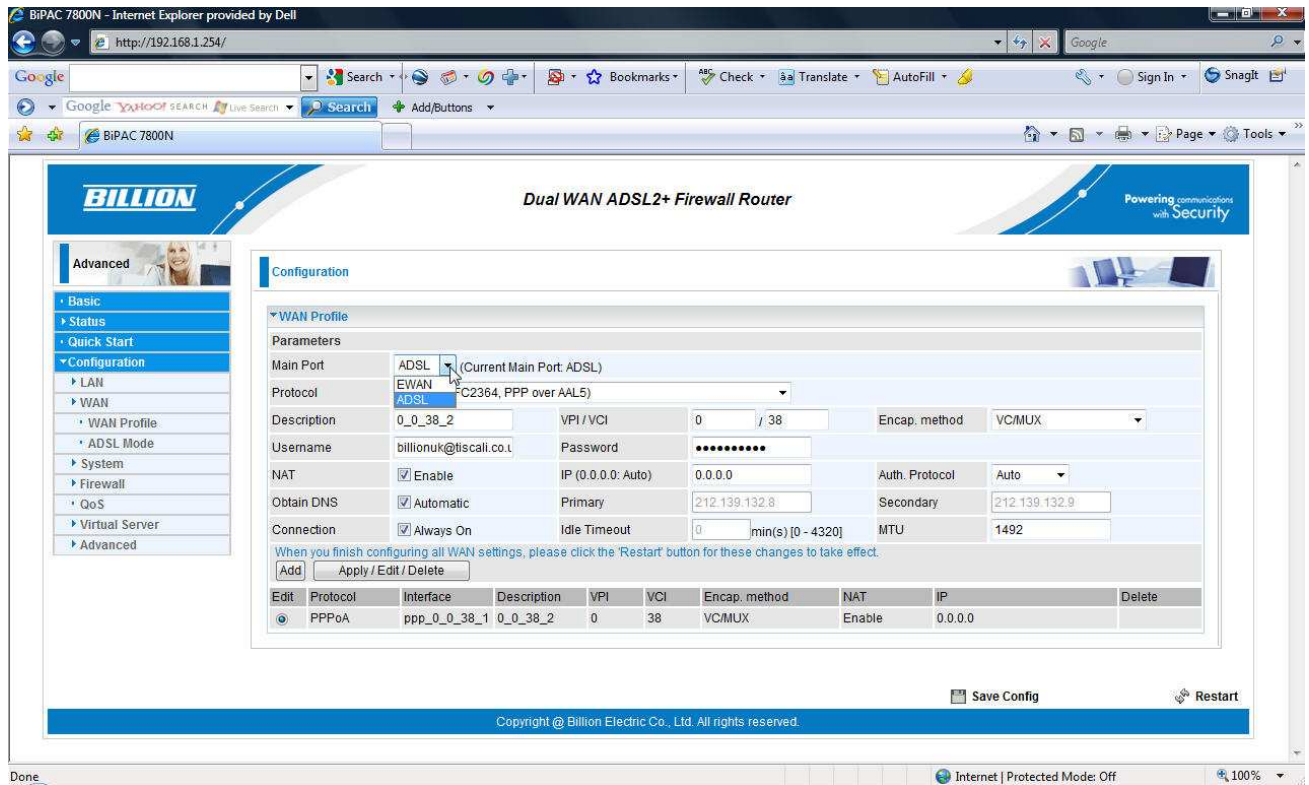
16. Under **Main Port** select **EWAN** from the drop-down menu and click **Apply** to change the primary WAN interface. For cable broadband customers you will need to reboot your cable modem after connecting to the EWAN port of the 7800N and may need to enter the MAC address of your cable modem in the MAC spoofing field if advised by your service provider.
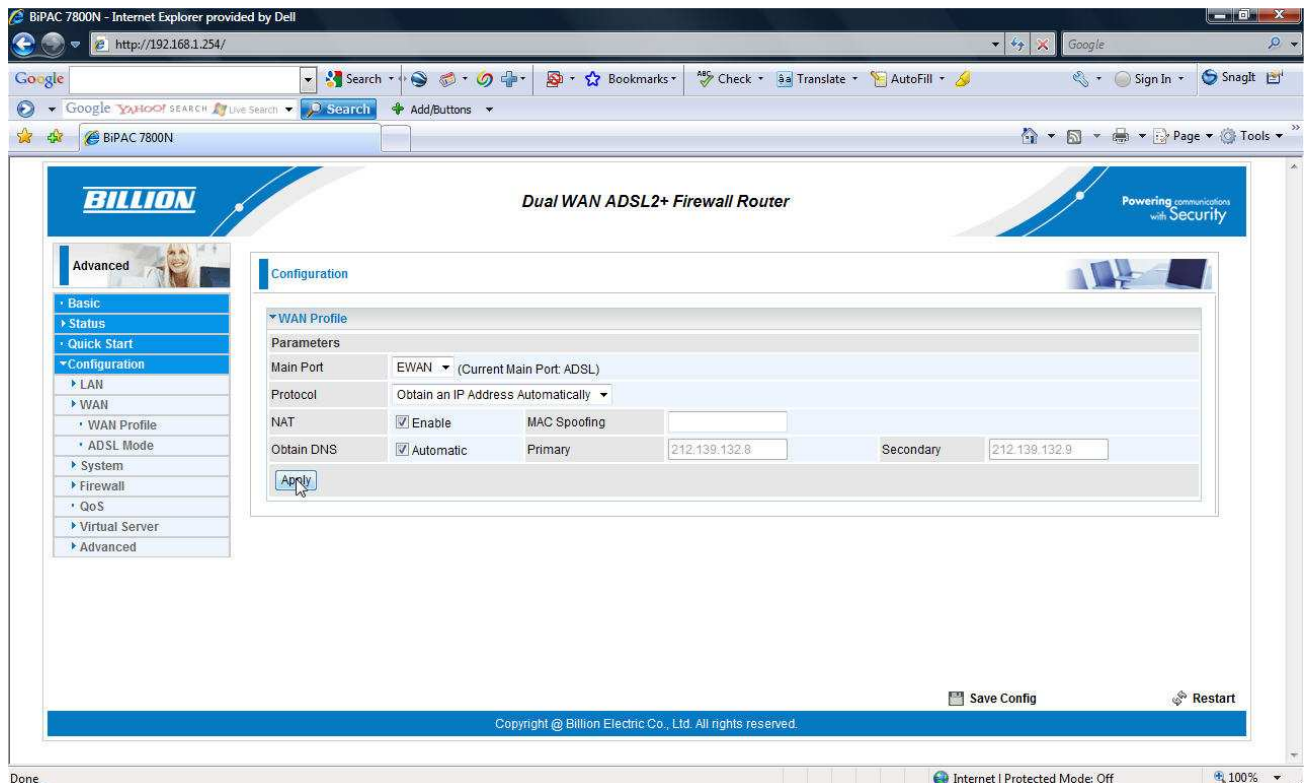
17. Click **Save Config** to save your new settings.

18. For advance configuration please access the full manual on the CD provided.

N.B. *Please be aware that the default wireless settings for some 7800N models may be g + n, meaning wireless b devices, such as Nintendo DS, will not connect automatically. This can be changed to b + g + n mixed mode under the WLAN settings.*

3.1 Troubleshooting the ADSL connection:

1. Check that the ADSL light on the front of the router has turned solid. This can take up to 1-2 mins after switching on. (If the ADSL light slowly flashes then the router is not detecting an ADSL signal and you should contact your Service Provider immediately).
2. Ensure your username and password are correct – your username should read yourname@yourisp.co.uk (or something similar).
3. Ensure you have a filter attached to the master socket, and check that there are no phones connected to any extensions that do not have a filter.

If you still can't get a connection after checking the above – disconnect all phones, sky boxes, fax machines etc., double–check that all cables are correctly connected and filters properly attached, restart the router, and try again. If this still fails then we suggest you contact your Service Provider for further advice.

Billion 7800N Modem/Routers are configured with standard UK ADSL settings. Standard ADSL UK settings are VPI 0, VCI 38 and Encapsulation PPPoA VC-Mux. A small number of Service Providers, such as Karoo, Be and O2 broadband, do however have their own proprietary settings. In this case please contact your ISP to confirm their configuration parameters.

Telephone Support for Internet Access **ONLY** is available during office hours from Mon-Fri 10am–5pm on 0203 372 0120. If you are successfully connected to the Internet and have a support query please go to www.billion.uk.com/esupport and submit a ticket.