



Remote Access via VPN Configuration  
(May 2011)

# Contents

---

<b>Copyright.....</b>	<b>2</b>
<b>Important Considerations .....</b>	<b>3</b>
<b>Introduction .....</b>	<b>4</b>
Supported router models .....	4
Installation Topology .....	4
<b>Dynamic IP Configuration (DynDNS).....</b>	<b>5</b>
<b>Vigor 2710 Router Configuration .....</b>	<b>10</b>
ADSL Parameters .....	11
DynDNS.....	14
VPN Server Parameters.....	16
<b>Configuration in iPhone / iPod / iPad.....</b>	<b>19</b>
<b>ANNEX A: Draytek Vigor 2710 (2710N) router firmware Update.....</b>	<b>22</b>
<b>ANNEX B: Internet access through 3G USB modem.....</b>	<b>23</b>



# Copyright

---

Information, data and values of these documents can be changed without prior warning. Technical information can also be changed without notice.

iTunes, App Store, iPhone, iPod and iPad are commercial brands of Apple Inc.

Houseinhand is a commercial brand of Intesis Software S.L.

## Important Considerations

---



Some Internet service suppliers (ISP from now on) restrict the traffic through VPN. For further information ask your ISP.



It is possible that the indicated configuration does not work with other router models different than the specified.



Make sure the router has the latest firmware version installed (currently 3.6). Otherwise see: “ANNEX A: Firmware update”.



In installations where it is not possible to substitute the main router (for instance, if the client has Imagenio), we recommend connecting a 3G USB modem to the router. For further information see: “ANNEX B: Internet access through 3G USB modem”.

# Introduction

---

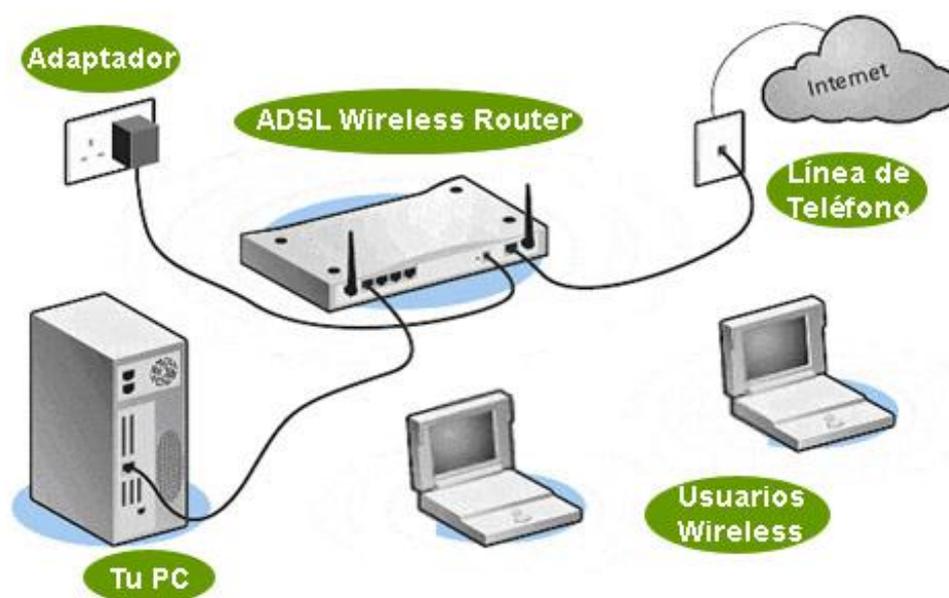
## Supported router models

The tested router models are from Draytek. Specifically, depending on the needs, we recommend to use one of the following models:

- **Vigor 2710:** It has the ability to connect simultaneously until 2 VPN. It has firewall functionalities, besides having a USB port to connect storage devices, printers and 3G modems (see annex). **It does not support wireless connections.**
- **Vigor 2710N:** It has the ability to connect simultaneously until 2 VPN. It has firewall functionalities, besides having a USB port to connect storage devices, printers and 3G modems (see annex). **It does support wireless connections.**

For further information visit: <http://www.draytekonline.com>.

## Installation Topology



In the previous scheme we indicate the necessary physical connections for the router. The KNX IP Router – Gateway would connect as any other PC (to a router LAN port).

# Dynamic IP Configuration (DynDNS)

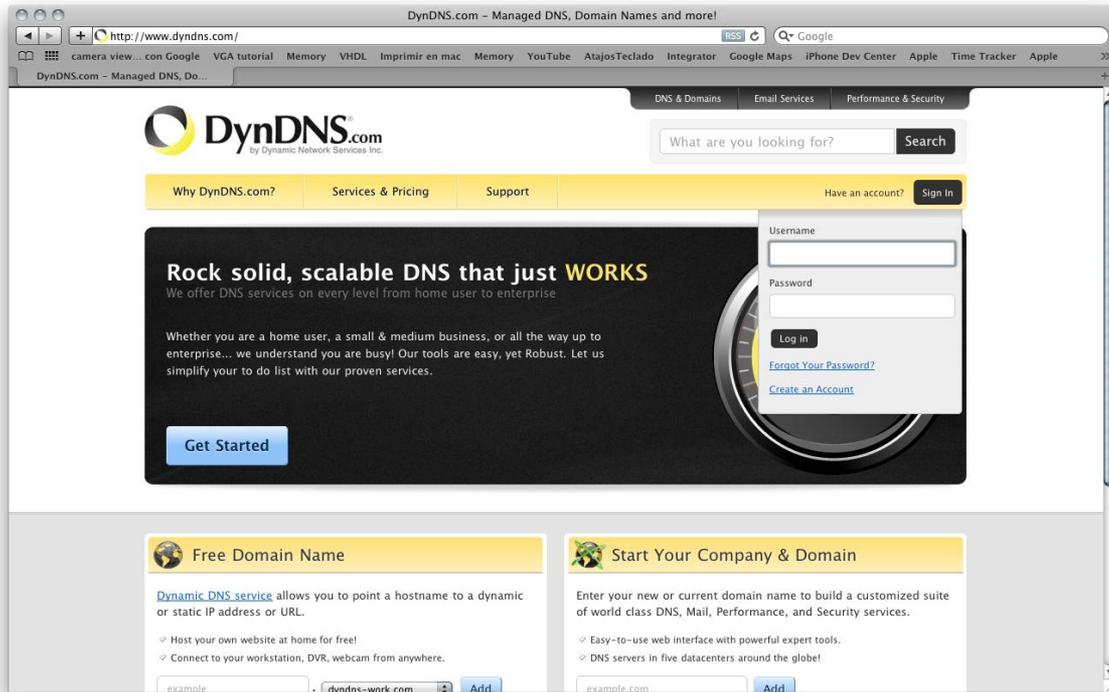
**NOTE: This section is only necessary in the case of not having a fixed IP. For further information consult your ISP.**

Most ISP provide their clients with a dynamic IP to access Internet. Since this IP can be modified anytime, it is necessary to configure the *DynDNS* service in order to establish connections without having to know every time the public IP of the installation.

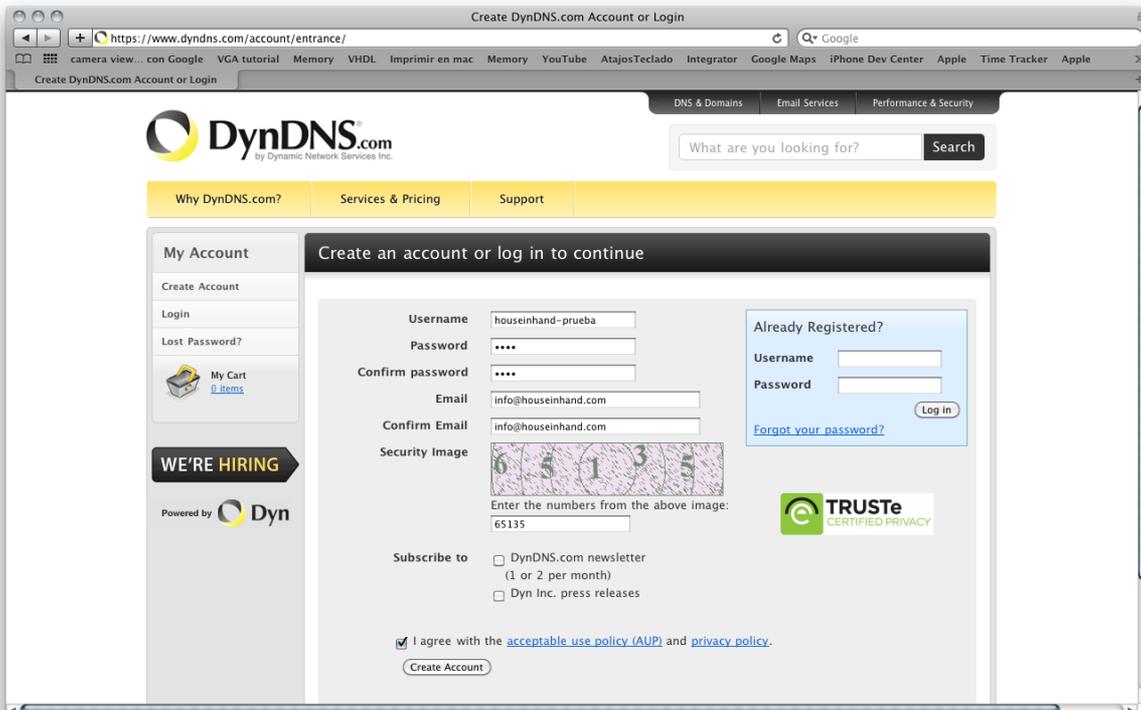
First of all go to: <http://www.dyndns.com/>.



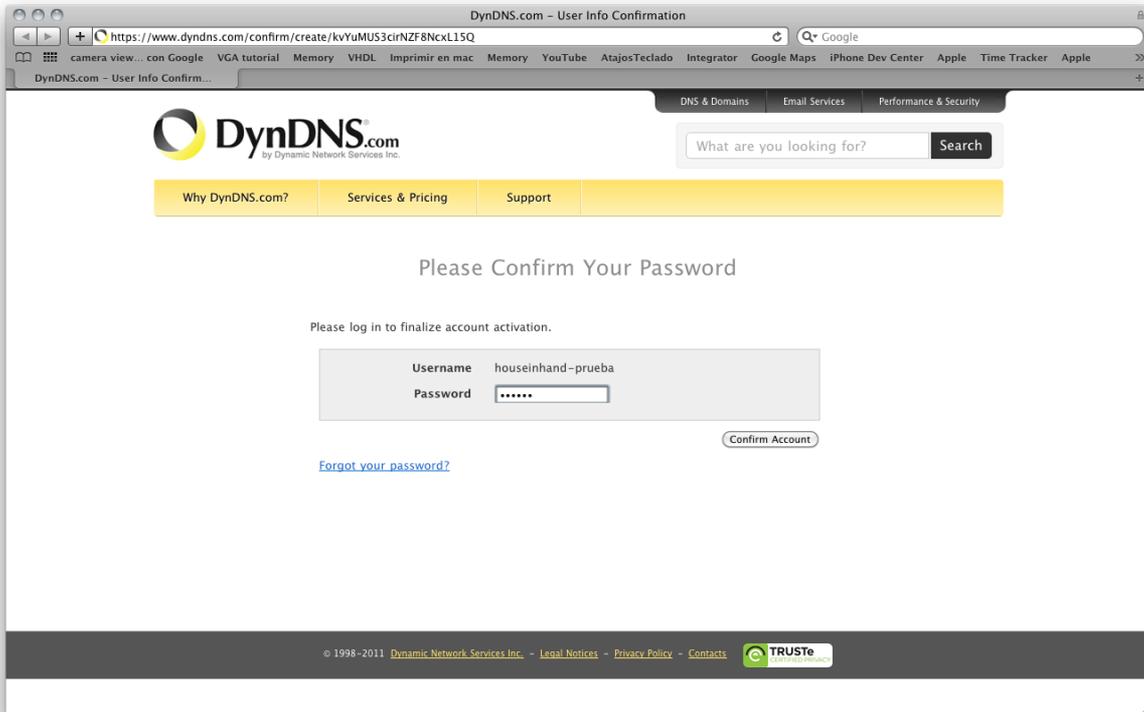
Next, go to “Sign In” -> “Create an Account”.



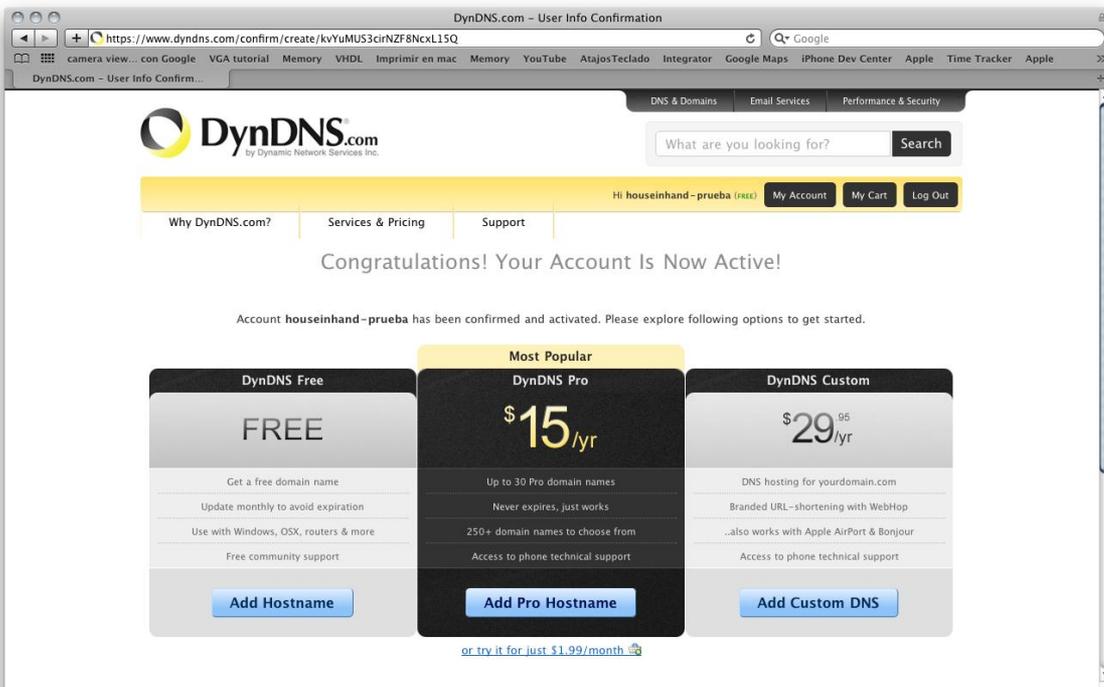
Afterwards, you will be asked to register a user name and password, as well as an e-mail address where you will receive a verification mail.



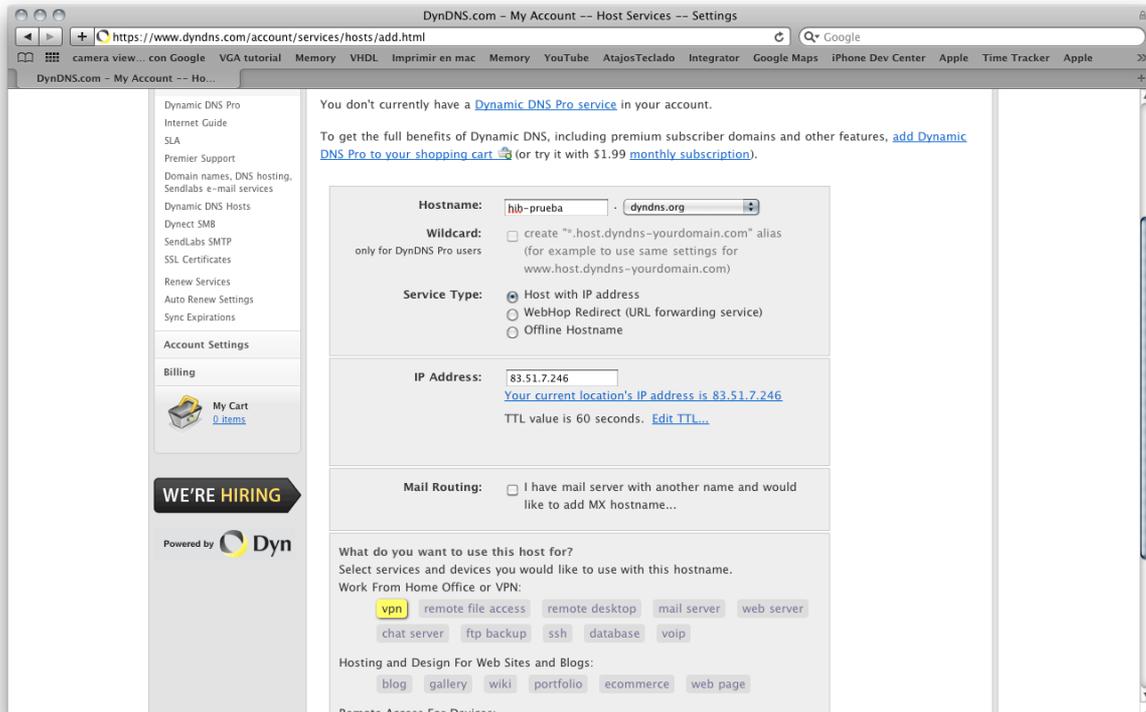
Once you have received the confirmation mail, you will be asked to confirm the password to activate the account.



With the *DynDNS* account created, a window as the one bellow will appear. Select “Add Hostname”.



Next, a window as the one below will appear:



DynDNS.com - My Account --- Host Services --- Settings

https://www.dyndns.com/account/services/hosts/add.html

DynDNS.com - My Account --- Ho...

You don't currently have a [Dynamic DNS Pro service](#) in your account.

To get the full benefits of Dynamic DNS, including premium subscriber domains and other features, [add Dynamic DNS Pro to your shopping cart](#) (or try it with \$1.99 [monthly subscription](#)).

**Hostname:**  .

**Wildcard:**  create "\*.host.dyndns-yourdomain.com" alias (for example to use same settings for www.host.dyndns-yourdomain.com) only for DynDNS Pro users

**Service Type:**  Host with IP address  WebHop Redirect (URL forwarding service)  Offline Hostname

**IP Address:**   
Your current location's IP address is [83.51.7.246](#)  
TTL value is 60 seconds. [Edit TTL...](#)

**Mail Routing:**  I have mail server with another name and would like to add MX hostname...

What do you want to use this host for?  
Select services and devices you would like to use with this hostname.  
Work From Home Office or VPN:  
 vpn remote file access remote desktop mail server web server  
chat server ftp backup ssh database voip

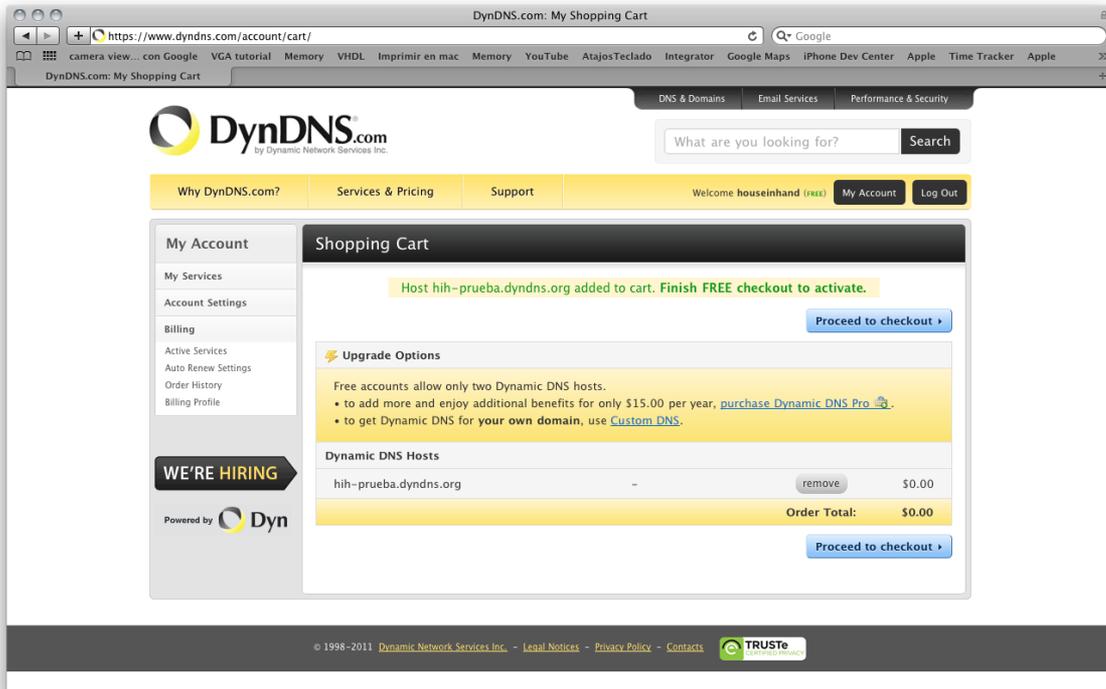
Hosting and Design For Web Sites and Blogs:  
blog gallery wiki portfolio ecommerce web page

Remote Access For Devices:

The fields to fill in are:

- **Hostname:** Name assigned to the service. It is possible to introduce any name. Select the extension **.dyndns.org**. An example would be *hib-prueba.dyndns.org*.
- **Service Type:** Leave it in *"Host with IP address"*.
- **IP Address:** Current public IP address. Fill it in with the one indicated in the field *"Your current location's IP address is ..."*
- **Mail Routing:** Disabled.

Finally, select *“Proceed to checkout”* to finish the configuration.



# Vigor 2710 Router Configuration

---

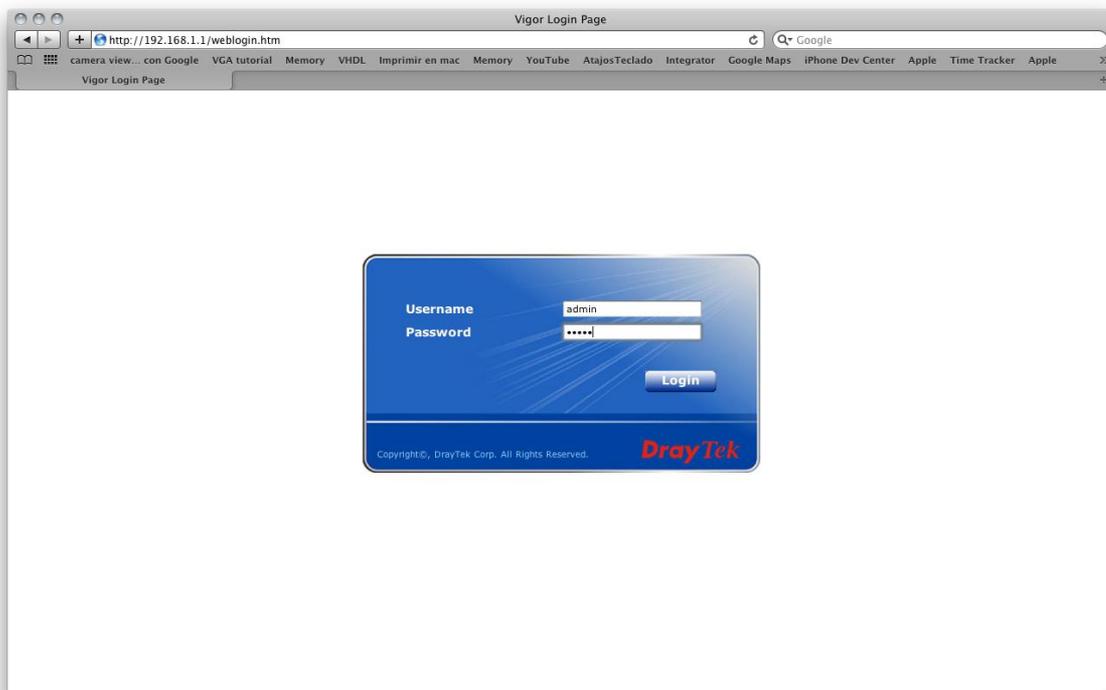
This section has been divided in the following points:

- **ADSL Parameters:** Set of necessary parameters to Access Internet through the router.
- **DynDNS:** Configuration of *DynDNS* service in the router.
- **VPN Server Parameters:** Necessary configuration in order to create the VPN server in the router and allow the remote connections.

Moreover, in the case of having the Vigor 2710N model, the wireless network will have to be configured.

Once the router is connected (according to the connection parameters in the section "*Installation topology*"), connect the computer to a router LAN port and access the configuration web <http://192.168.1.1/>.

A window as the following will appear, where you must introduce the user name and password (by default *admin – admin*).

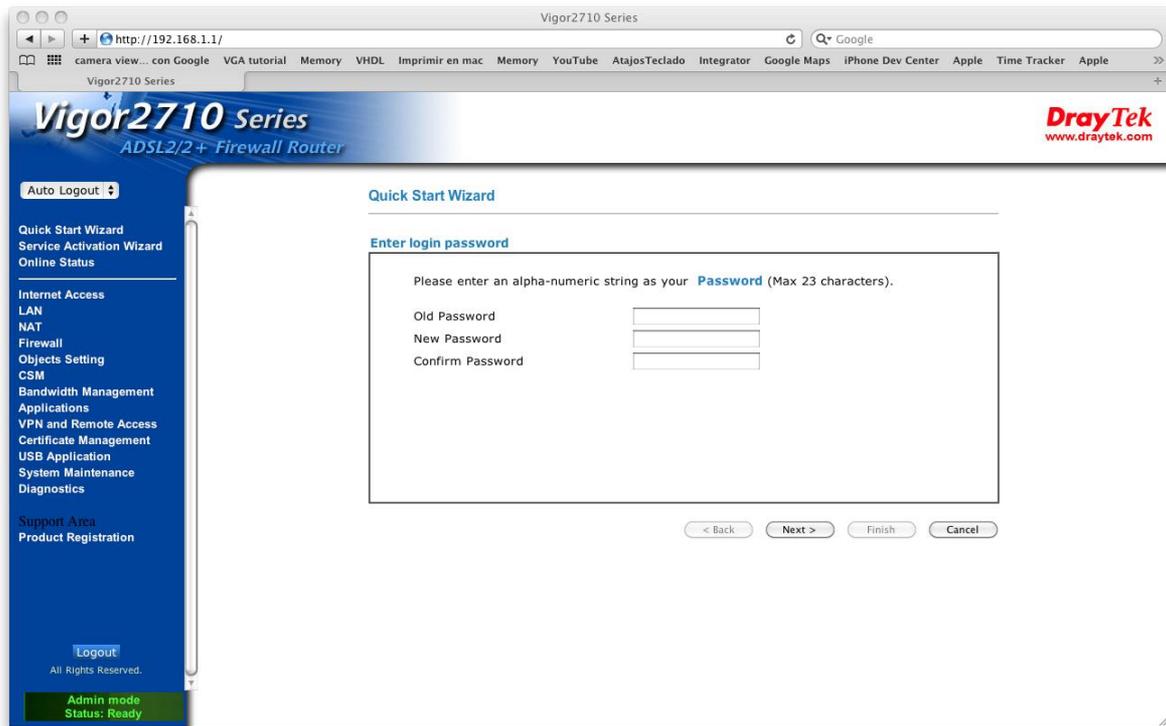


## ADSL Parameters

The first step will be to introduce the necessary parameters to establish Internet connection.

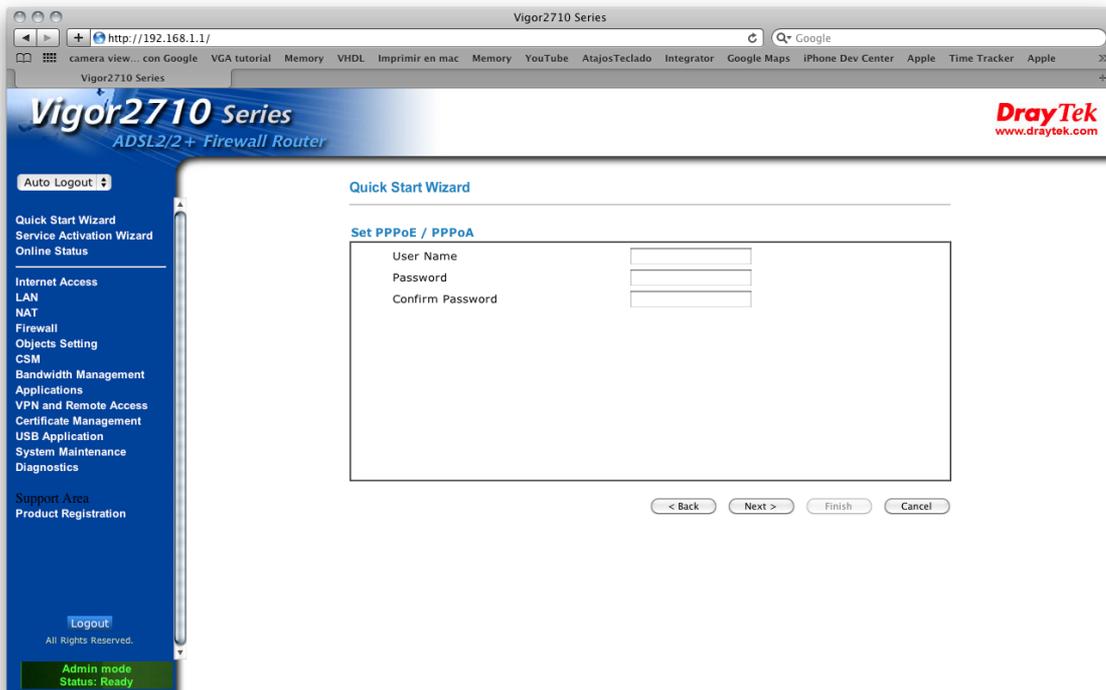
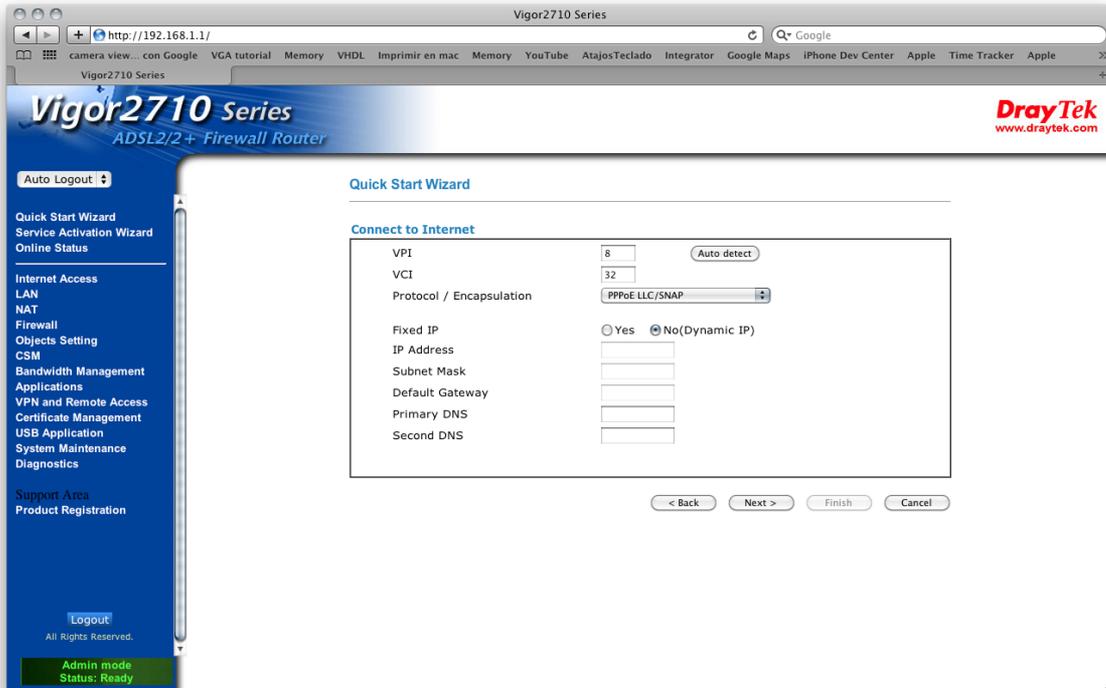
For that purpose, select option “*Quick Start Wizard*”.

First, you will have to modify the password to access the router (you can continue without modifying it).



Next, introduce the contracted ADSL parameters using the autodetection option. In the next window you will be asked the user name and password provided by your ISP.

In case you do not know those parameters, your ISP will provide them.



Once all the parameters are introduced, the router will be able to Access Internet, being possible to check out the status of the connection in the option "Online Status" -> "Physical Connection".

The screenshot shows the web interface of a Vigor2710 Series ADSL2/2+ Firewall Router. The browser address bar shows the URL http://192.168.1.1/. The page title is "Vigor2710 Series ADSL2/2+ Firewall Router" and the DrayTek logo is visible in the top right corner.

The "Online Status" section is active, displaying the following information:

- System Uptime:** 25:19:11
- Physical Connection:**
  - LAN Status: Yes
  - Primary DNS: 80.58.61.250
  - Secondary DNS: 80.58.61.254
  - IP Address: 192.168.1.1
  - TX Packets: 371977
  - RX Packets: 444829
- WAN 1 Status:**
  - Enable: Yes
  - Line: ADSL
  - Name: PPPoE
  - Mode: PPPoE
  - Up Time: 24:31:39
  - IP: 83.51.7.246
  - GW IP: 80.58.68.4
  - TX Packets: 244795
  - TX Rate(Bps): 339
  - RX Packets: 306781
  - RX Rate(Bps): 1000
- ADSL Information:** (ADSL Firmware Version: 211011\_A)
  - ATM Statistics: TX Cells: 842863, RX Cells: 6324178, TX CRC errs: 0, RX CRC errs: 223
- ADSL Status:**

Mode	State	Up Speed	Down Speed	SNR Margin	Loop Att.
ADSL2+(G.992.5)	SHOWTIME	832000	10046935	10	30

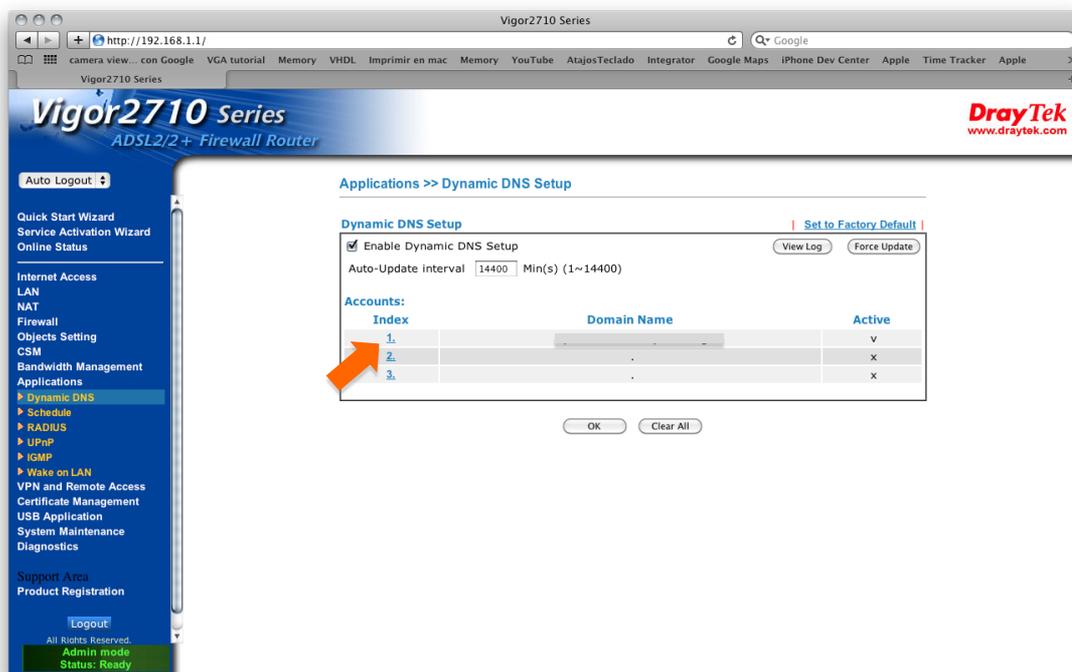
The left sidebar contains navigation options such as "Quick Start Wizard", "Service Activation Wizard", "Online Status", "Physical Connection", "Virtual WAN", "Internet Access", "LAN", "NAT", "Firewall", "Objects Setting", "CSM", "Bandwidth Management", "Applications", "VPN and Remote Access", "Certificate Management", "USB Application", "System Maintenance", "Diagnostics", "Support Area", and "Product Registration". A "Logout" button is located at the bottom of the sidebar.

# DynDNS

**NOTE:** This section is only necessary in case of not having a fixed IP. For further information ask your ISP.

Once the *DynDNS* account is created (see section “*Dynamic IP Configuration*”), it is necessary to configure the router so that it updates the *DynDNS* service every time the public IP is modified.

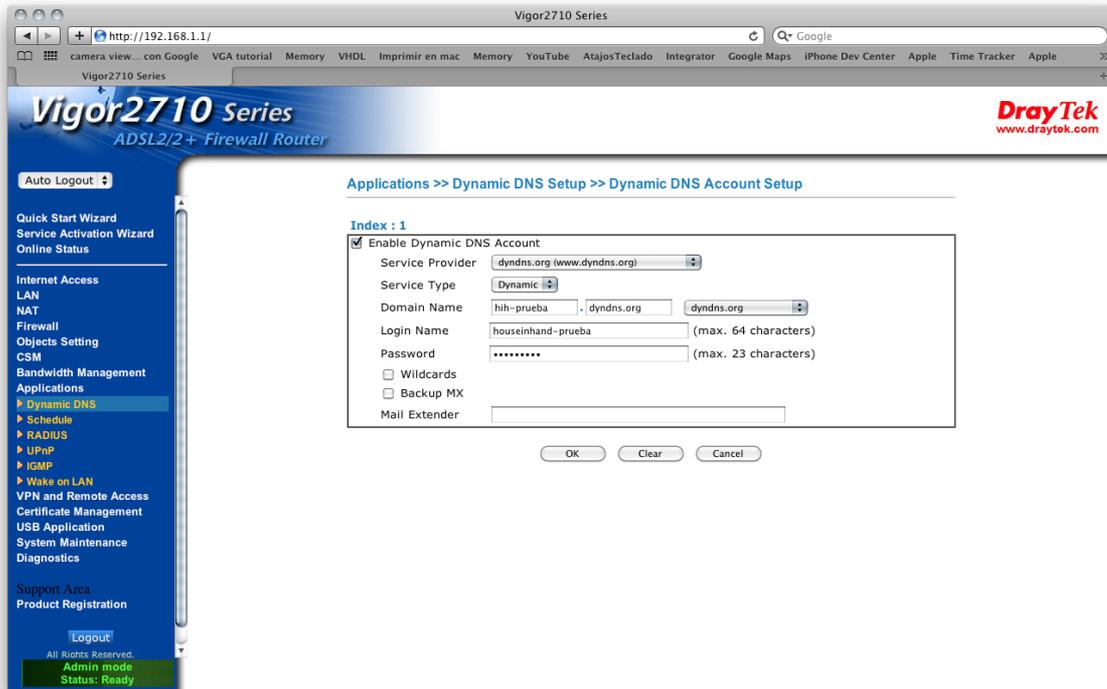
To that end, select “*Applications*” -> “*Dynamic DNS*”. It will appear a window as the one below, where you will activate “*Enable Dynamic DNS Setup*” and press index 1.



In the following window, configure these parameters:

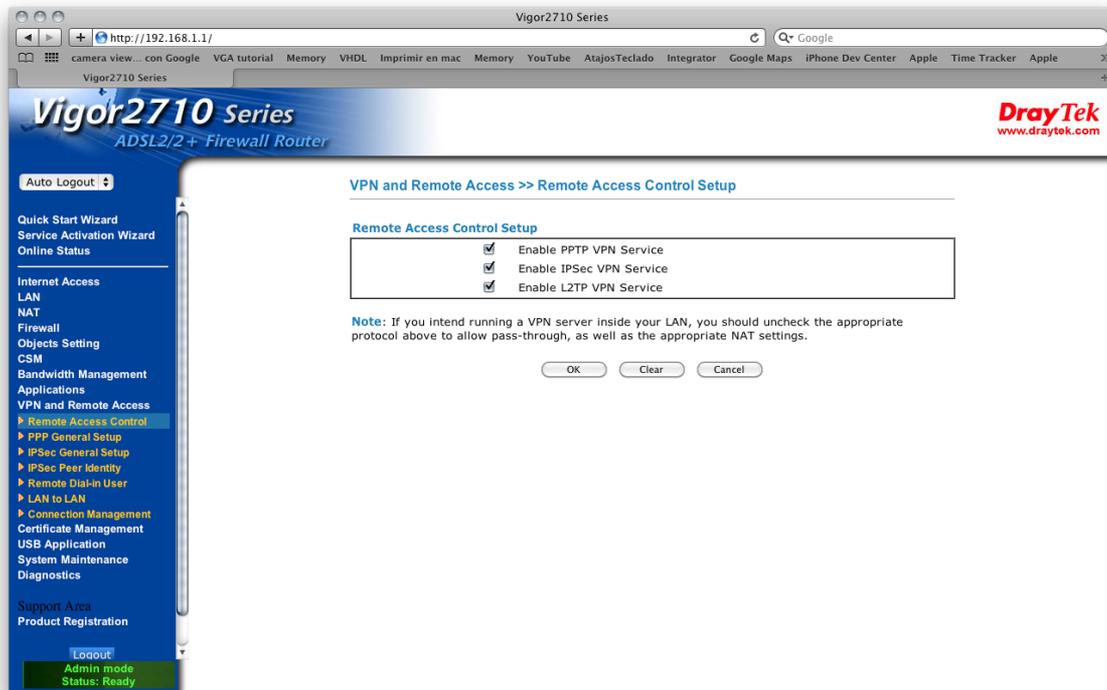
- “**Enable Dynamic DNS Account**”: Activate the box.
- “**Service Provider**”: Select *dyndns.org* ([www.dyndns.org](http://www.dyndns.org)).
- “**Service Type**”: Select “*Dynamic*”.
- “**Domain Name**”: Hostname created in the *DynDNS* service. Select the extension *.dyndns.org*. In the previous example *hih-prueba.dyndns.org*.
- “**Login Name**”: *DynDNS* account’s user name.
- “**Password**”: *DynDNS* account’s password.

The rest of the parameters must remain blank.

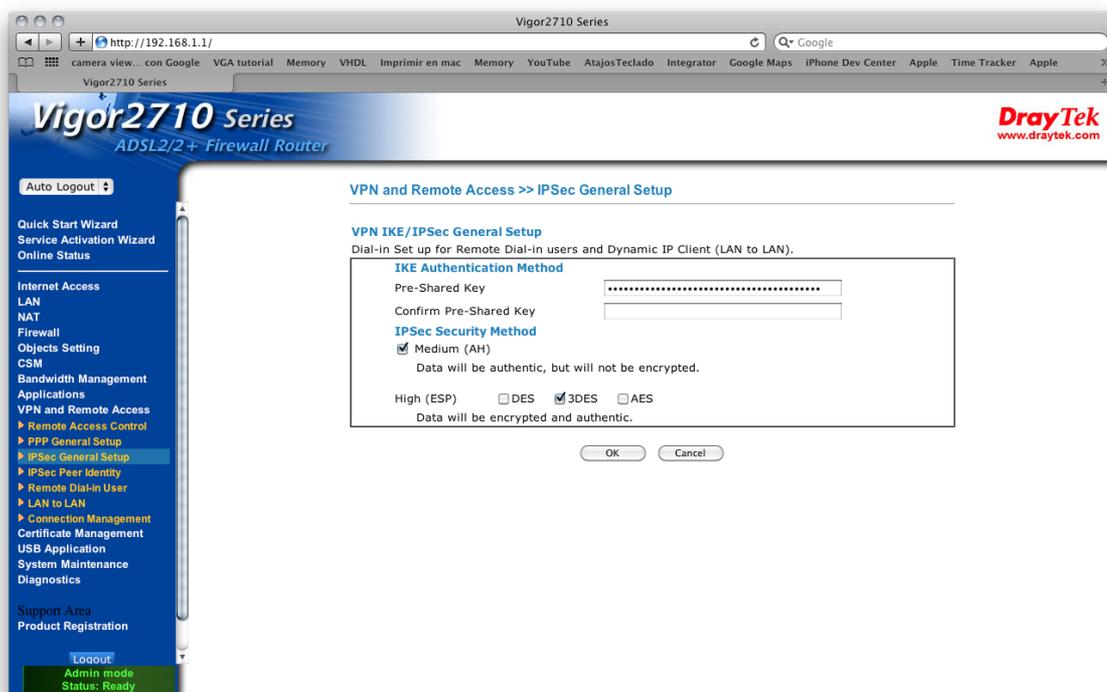


# VPN Server Parameters

First of all, select the in the left bar “VPN and Remote Access” -> “Remote Access Control” and mark all three options.



Next, select “IPsec General Setup” and introduce a shared password (from now on defined as **secret**). In the section “IPsec Security Method” unmark all the boxes but “3DES”.



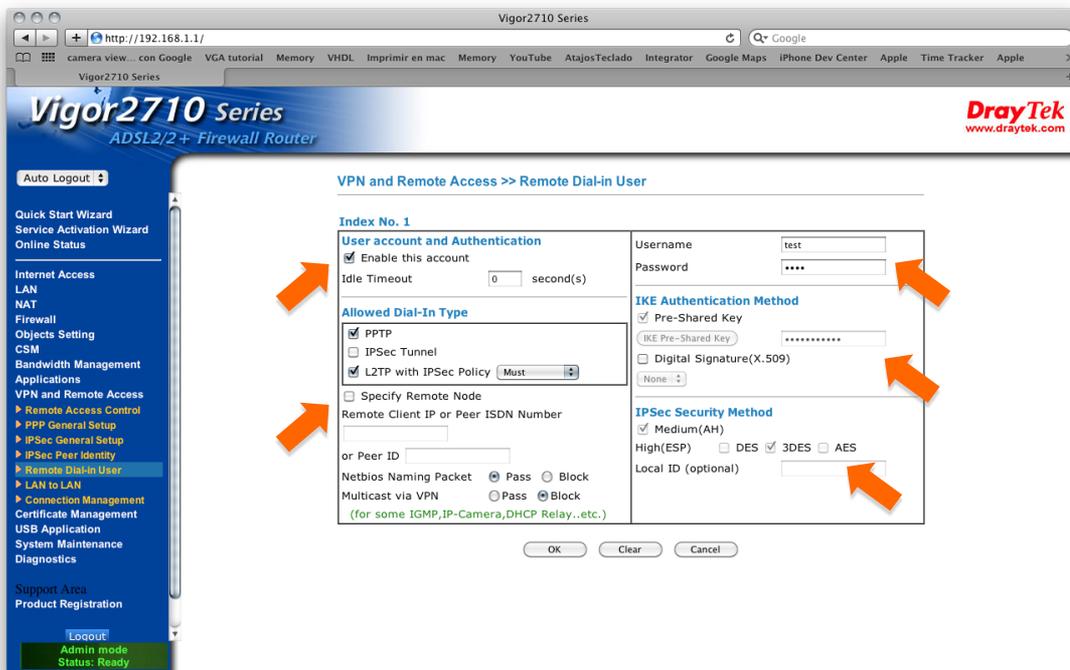
Once all the modifications are accepted, select “Remote Dial-in User” and activate the box “Enable this account”.

Modify the box “Idle Timeout” to 0. Next, activate the boxes “PPTP” and “L2TP with IPSEC Policy” (with the option “Must”).

Next, mark the box “Specify Remote Node” and edit the user name and password (which will be the ones to introduce in your iPhone).

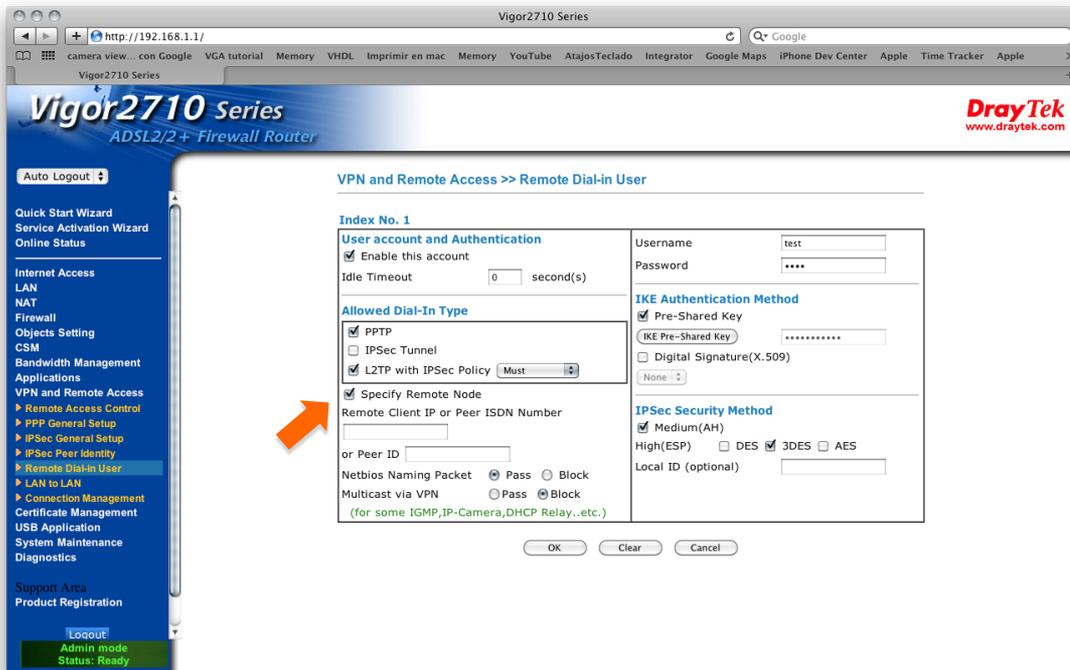
The next step will be to introduce the secret previously configured (section “IKE Authentication Method”) and, in section “IPSec Security Method” unmark all the options but “3DES”.

As an option, you can activate the box “Multicast via VPN” (from “Block” to “Pass”), in order to enable the **IP Autofinding** option for remote connections.



Once all the parameters are introduced, press “OK”.

Finally, it will be necessary to come back to this window, unmark the option “Specify Remote Node” and save changes (see the following image).



The rest of the available options must remain as they are by default.

# Configuration in iPhone / iPod / iPad

---

With the next steps, we will configure the mobile device so that you can access the remote network (where KNX set up is found) by means of a VPN connection.

1. Access “Settings” ->“General” ->“Network” ->“VPN”.
2. Select the option: “Add VPN Configuration”.



3. Fill in the next fields in the “L2TP” type:
  - **Description:** Name assigned to the configured VPN.
  - **Server:** If you have configured the *DynDNS* service, fill it with the configured server address (xxx.dyndns.org). On the contrary, introduce the fixed IP assigned by the ISP.
  - **Account:** User name inserted in the section “*Remote Dial-in User*” of the router.
  - **RSA SecurID:** Disabled.
  - **Password:** Password introduced in the section “*Remote Dial-in User*” of the router. If it is left blank, every time you activate the VPN, the password will be asked.
  - **Secret:** Secret configured in the router, in section “*IKE Authentication Method*”.
  - **Send all traffic:** Enabled.
  - **Proxy:** Select *No*.



4. Save configuration.



5. Activate the VPN. The status will go from: “Connecting” ->“Starting” ->“Authenticating” ->“Connected”.



6. From that moment on, in the main page of settings, it will appear a switch to activate/deactivate the VPN connection. Connection is ready, being able to connect both by 3G/GPRS and WiFi.



# ANNEX A: Draytek Vigor 2710 (2710N) router firmware Update

---

Due to modifications introduced by Apple from the IOS version n 4.0, it is necessary to update the router's firmware so that the VPN connection works correctly.

For the update, it is necessary a computer with Windows connected to the router and following these steps:

1. Go to <http://www.draytek.com/>.
2. Go to "Support" -> "Downloads" and select "Vigor 2710 series".
3. Once registered, select again the model "Vigor 2710 series" and download the option "Vigor2710 V3.3.6 AnnexA Standard.zip".

When unzipping the file, two files will appear. The one you need is **.all**.

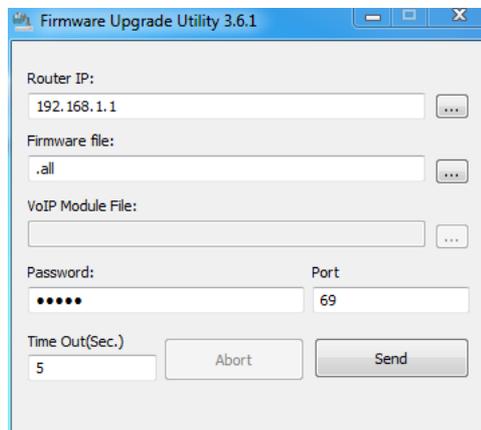
At this point, it is possible to update the router in two different ways. The first one is to access the option "System Maintenance" -> "Firmware Upgrade" with the configuration web and update the router directly.

If this option does not work, download the utility from the producer's web site <http://www.draytek.co.uk/support/downloads.html>.

You can find this utility at the bottom of the page, in "Router tools" -> "Firmware Upgrade V.3.6.2 (Windows)".

When installing and executing this utility, you will have to introduce the router's IP, the downloaded firmware and the router's access password (by the default *admin*).

**NOTE: It is necessary to disable the Windows firewall during the update.**

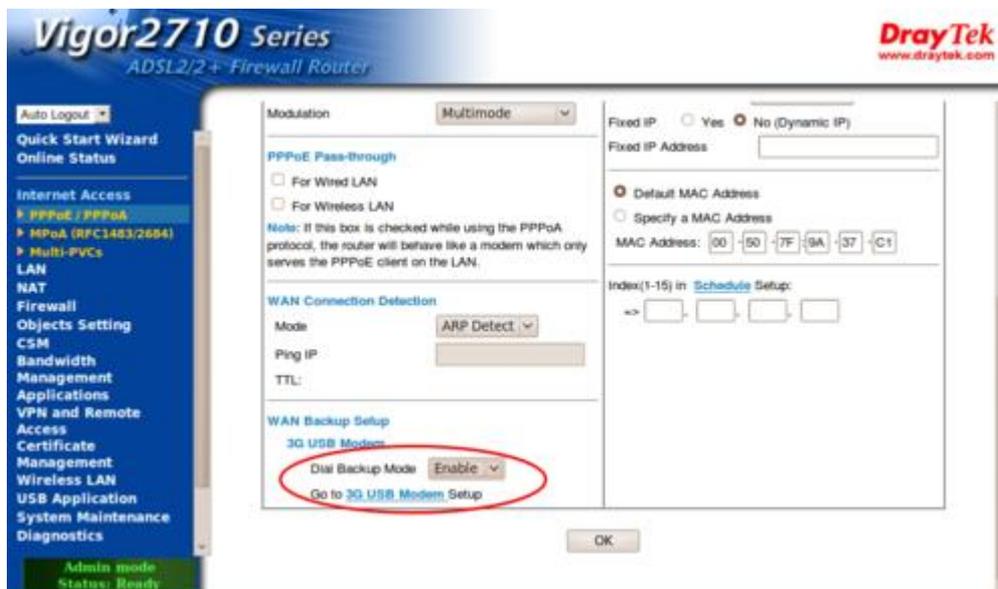


# ANNEX B: Internet access through 3G USB modem

Optionally, it is possible to connect a 3G modem to the USB port. This functionality can be very useful in environments where it is not possible to substitute the main installation router (for instance, if you have Imagenio), as well as in facilities where permanent ADSL connection is not required (for example, secondary residences). Finally, it can be used as a second line in case of ADSL main service failure.

Configuration can vary according to the 3,5G USB modem that is chosen. In any case, it is necessary to activate some parameters of the router.

1. Go to “Internet Access” -> “PPPoE/PPPoA”.
2. In the bottom of the window, select “Go to 3G USB Modem Setup”.



3. In the next window you will have to configure the following fields:
  - “**PPP Client Mode**”: Select “*Enable*”.
  - “**SIM PIN Code**”: Introduce the PIN of your SIM card. The producer recommends deactivating the PIN previously.
  - “**APN Name**”: Parameter assigned by your ISP. Next, select “*Apply*”.
  - “**PPP Username**”: Parameter assigned by your ISP.
  - “**PPP Password**”: Parameter assigned by your ISP.

Press "OK" (both in this window and the previous one) in order for the configuration to be effective.

