OBS_ADSL-HomeStation User Manual (Ed2)

Observa Telecom

OBJETIVOS Y SERVICIOS DE VALOR AÑADIDO S.L.

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CONTENT

1.- INTRODUCTION 5
1.1.- PACKING LIST 6
1.2.- SAFETY PRECAUTIONS 6
1.3.- LEDS AND INTERFACES 6
1.4.- SYSTEM REQUIREMENTS 8
1.5.- FEATURES 8
2.- HARDWARE INSTALLATION 9
3.- WIZARD 11
4.- ADVANCED WEB 14
4.1.- STATUS 14
4.2.- LAN 15
4.3.- WLAN 15
4.3.1 Basic Configuration 15
4.3.2 Advanced Configuration 16
4.3.3 Security 17
4.3.4 Access Control 18
4.3.5 WPS 19
4.3.6 MBSSID 20
4.3.7 WLAN STATUS 22
4.4.- WAN 22
4.4.1 DSL WAN 22
4.4.2 ATM CONFIGURATION 24
4.4.3 ADSL CONFIGURATION 24
4.4.4 3G configuration 25
4.4.5 PIN CONFIGURATION 26
4.4.6 3G DRIVER 26
4.5.- SERVICES 27
4.5.1 DHCP 27
4.5.2 DNS 27
4.5.3 Firewall 29
4.5.4 UPnP 31
4.5.5 RIP 32
4.5.6 DMS 32
4.6.- ADVANCED 32
4.6.1 ARP Table 32
4.6.2 Bridging 33
4.6.3 Routing 33
4.6.4 SNMP 34
4.6.5 IP QoS 35
4.6.6 Remote access 36
4.6.7 Printer 37
4.6.8 SAMBA 38
4.6.9 Other configuration 38
4.6.10 IPv6 39
4.7.- DIAGNOSTICS 44
4.7.1 Ping 44

4.7.2 Packet Dump 44
4.7.3 ATM Loopback 44
4.7.4 ADSL Tone 45
4.7.5 ADSL Conectivity 45
4.8.- ADMINISTRATOR 46
4.8.1 Save and Reboot 46
4.8.2 Backup and restore 46
4.8.3 Close Session 47
4.8.4 System log 47
4.8.5 Password 48
4.8.6 Upgrade Firmware 48
4.8.7 ACL 49
4.8.8 Time Zone 50
4.8.9 TR-069 50
4.9.- STATISTICS 51
4.9.1 Interface 51
4.9.2 ADSL 52

1.- Introduction

The device supports multiple line modes. With four 10/100 base-T Ethernet interfaces at the user end, the device provides high-speed ADSL broadband connection to the Internet or Intranet for high-end users like net bars and office users. It provides high performance access to the Internet with a downstream rate of 24 Mbps and an upstream rate of 1 Mbps. It supports 3G WAN, 3G backup, and Samba for USB storage.
The device supports WLAN access, such as WLAN AP or WLAN device, to the Internet. It complies with specifications of IEEE 802.11, 802.11b/g/n, WEP, WPA, and WPA2 security. The WLAN of the device supports 2T2R.

FCC STATEMENT

FCC ID: 2ABDFOBSADSL

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1） This device may not cause harmful interference.
2） This device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: The manufacturer is not responsible for any radio or tv interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

"To comply with FCC RF exposure compliance requirements, this grant is applicable to only Mobile Configurations. The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter."

1.1.- Packing List

- 1 x ADSL Home Station
- 1 x PSU 12V-1A
- 1 x RJ11 telephone cable
- 1 x RJ45 Ethernet cable
- 1 x Quick Installation Guide

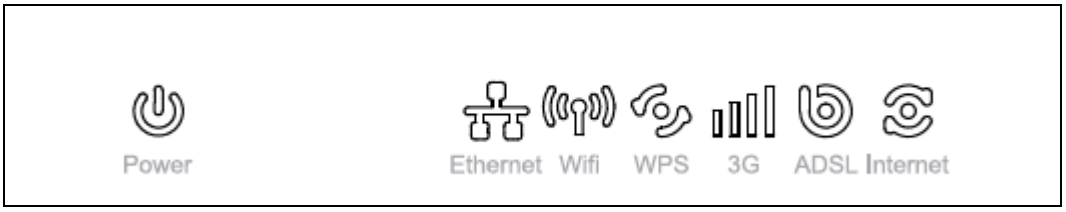
1.2.- Safety Precautions

Take the following instructions to prevent the device from risks and damage caused by fire or electric power:

- Use the type of power marked in the volume label.
- Use the power adapter in the product package.
- Pay attention to the power load of the outlet or prolonged lines. An overburden power outlet or damaged lines or plugs may cause electric shock or fire accidents. Check the power cords regularly. If you find any damage, replace it at once.
- Proper space left for heat dissipation is necessary to avoid damage caused by overheating to the device. The long and thin holes on the device are designed for heat dissipation to ensure that the device works normally. Do not cover these heat dissipation holes.
- Do not put this device close to a heat source or under a high temperature occurs. Keep the device away from direct sunshine.
- Do not put this device close to an overdamp or watery place. Do not spill fluid on this device.
- Do not connect this device to a PC or electronic product unless instructed by our customer engineer or your broadband provider. Wrong connection may cause power or fire risk.
- Do not place this device on an unstable surface or support.

1.3.- LEDs and Interfaces

Front Panel



The following table describes the LEDs of the device:

LED	Color	Status	Description
Power	Red/Green	Off	Router powered off
		Blinking 2Hz Red	Failure on power-on self-test
		Solid Green	Router powered on correctly.
Ethernet	Green	On	Ethernet connection is available.
		Off	Ethernet connection is unavailable.
Wifi	Green	On	Wi-Fi connection is available.
		Off	Wi-Fi connection is unavailable.
		Blinking Green	Negotiation or traffic on line.
WPS	Red/Green	Solid Green	WPS active
		Blinking 2Hz Green	WPS negotiation open

LED	Color	Status	Description
		Solid Red (20 seconds)	Problems on WPS registration
3G	Red/Green	Blinking Green	Negotiation
		Solid Green	Up
		Quick Blinking Green	Tx/Rx traffic on line
		Solid Red	Authentication failed
		Off	Traffic through broadband interface
ADSL	Green	Off	Router powered off
		Blinking 2Hz	No line detected
		Blinking 4Hz	Line training
		Solid	Line up
Internet	Red/Green	Blinking Green	PPP/DHCP negotiation
		Solid Green	PPP/DHCP up
		Quick Blinking Green	Tx/Rx traffice on line
		Solid Red	Authentication failed

Rear Panel

The following table describes the interface of the device.

Interface/Button	Description
12V⎓1A	Interface connecting to the power adapter. The power adapter output is: 12V DC, 800mA
On/Off	Push to power on/off the device.
Wifi	● Press the button for more than 1 second to enable WLAN function. ● Press the button for more than 5 seconds to enable WPS function.
Reset	Reset to the factory defaults. To restore factory defaults, keep the device powered on and push a paper clip into the hole. Press down the button for more than 5 seconds and then release.
USB	Connecting to a 3G data card or other USB storage device
Eth4/3/2/1	Ethernet RJ-45 interfaces connecting to the Ethernet interfaces of computers or Ethernet devices
ADSL	RJ-11 interface connecting to a telephone set through a telephone cable

1.4.- System Requirements

- A 10 baseT/100BaseT Ethernet card is installed on your PC.
- A hub or switch (attached to several PCs through one of Ethernet interfaces on the device)
- Operating system: Windows Vista, Windows 7, Windows 8, Windows 98SE, Windows 2000, Windows ME or Windows XP
- Internet Explorer V5.0 or higher, Netscape V4.0 or higher, or Firefox 1.5 or higher

1.5.- Features

- Various line modes
- External PPPoE dial-up access
- Internal PPPoE and PPPoA dial-up access
- Leased line mode
- 1483B, 1483R, and MER access
- Multiple PVCs (eight at most) and these PVCs can be isolated from each other
- A single PVC with multiple sessions
- Multiple PVCs with multiple sessions
- Binding of ports with PVCs
- 802.1Q and 802.1P protocol
- DHCP server
- NAT and NAPT
- Static route
- Firmware upgrade: Web, TFTP, FTP
- Reset to the factory defaults
- DNS relay
- Virtual server
- DMZ
- Two-level passwords and user names
- Web user interface
- Telnet CLI
- System status display
- PPP session PAP and CHAP
- IP filter
- IP QoS
- Samba
- Remote access control
- Line connection status test
- Remote management (telnet and HTTP, TR069)
- Backup and restoration of configuration file
- Ethernet interface supports crossover detection, auto-correction and polarity correction
- UPnP
- 3G WAN and 3G Backup
- Samba for USB storage

2.- Hardware Installation

Step 1 Connect the **ADSL** port of the device and the **Modem** port of the splitter with a telephone cable. Connect the phone to the **Phone** port of the splitter through a telephone cable. Connect the incoming line to the **Line** port of the splitter.

The splitter has three ports:

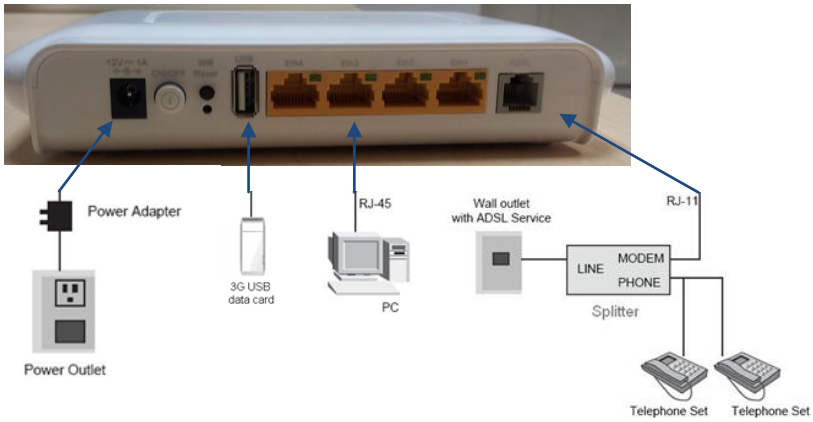
- Line: Connect to a wall phone port (RJ-11 jack).
- Modem: Connect to the DSL port of the device.
- Phone: Connect to a telephone set.

Step 2 Connect an **Eth** port of the device to the network card of the PC through an Ethernet cable (MDI/MDIX).

Note:
Use twisted-pair cables to connect the device to a Hub or switch.

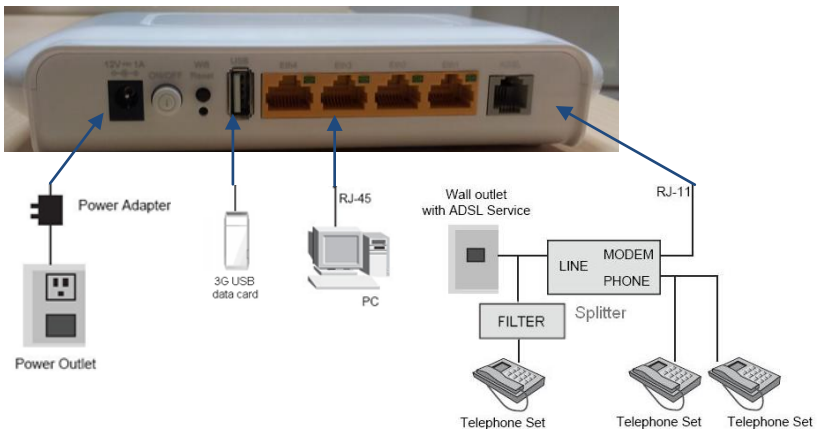
Step 3 Plug one end of the power adapter to the wall outlet and the other end to the **Power** port of the device.

Connection 1: displays the application diagram for the connection of the device, PC, splitter and telephone sets, when no telephone set is placed before the splitter.



1 Connection diagram (without telephone sets before the splitter)

Connection 2: displays the application diagram for the connection of the device, PC, splitter and telephone sets when a telephone set is placed before the splitter.
As illustrated in the following figure, the splitter is installed close to the device.



2 Connection diagram (with a telephone set before the splitter)

Note:
When connection 2 is used, the filter must be installed close to the telephone cable. See Figure 2. Do not use the splitter to replace the filter.

Installing a telephone directly before the splitter may lead to failure of connection between the device and the central office, or failure of Internet access, or slow connection speed. If you really need to add a telephone set before the splitter, you must add a microfilter before a telephone set. Do not connect several telephones before the splitter or connect several telephones with the microfilter.

3.- WIZARD

The following is the detailed description of accesing the device for the first time.

Step 1 Open the Internet Explorer (IE) browser and enter http://192.168.1.1.

Step 2 The Welcome page is shown in the following figure.

Step 3 Click Next to configure your user's account and Wi-Fi network as shown in the following Connectivity page, or click Advanced Configuration for more options.

By default, the user's name is MAC@acs and password is the MAC. The MAC is the equipment's MAC Address leaving out the 2 points.

Step 4 Select **Advanced Configuration** to login into the equipment with the user **admin** and password **1234**, or selected Cancel to return to the Welcome page without saving changes, or select Next to save selected changes. When **the checkbox Additional Services** is selected, it will go to the following figure.

When **Solo Speedy (LAN1, LAN2, LAN3 y WIFI)+ VOIP(LAN4)** is selected, the LAN4 port is used as VOIP port for voice service.

Step 5 Select **Advanced Configuration** to login into the equipment, or select **Cancel** to return to the **Connectivity** page without saving the changes, or selected **Next** to save changes and go to the following **WiFi-Configuration** page.

Next, you are going to config you wireless network. You can enable wireless network, hide the SSID, select a channel and security mode, and input a key as instructed by the screen.

Step 6 Select **Next** to save changes and go to the following figure, or select **Cancel** to return to the **Additional Services** page without saving the changes, or select **Advanced Configuration** to login into the equipment.

4.- ADVANCED WEB

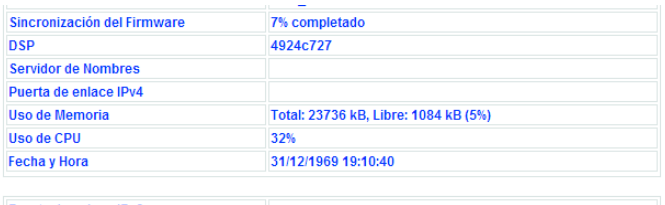
Click in **Configuración Avanzada** and you will obtain a login box**.** Credentials are **admin** as user and **1234** as password. If you log in successfully you will find the following page.

4.1.- STATUS

If user has followed all steps mentioned in wizard, there will be many parameters already configured. Now, we can complete setup from advanced web. First we can see device status from page **Estado → Dispositivo**.

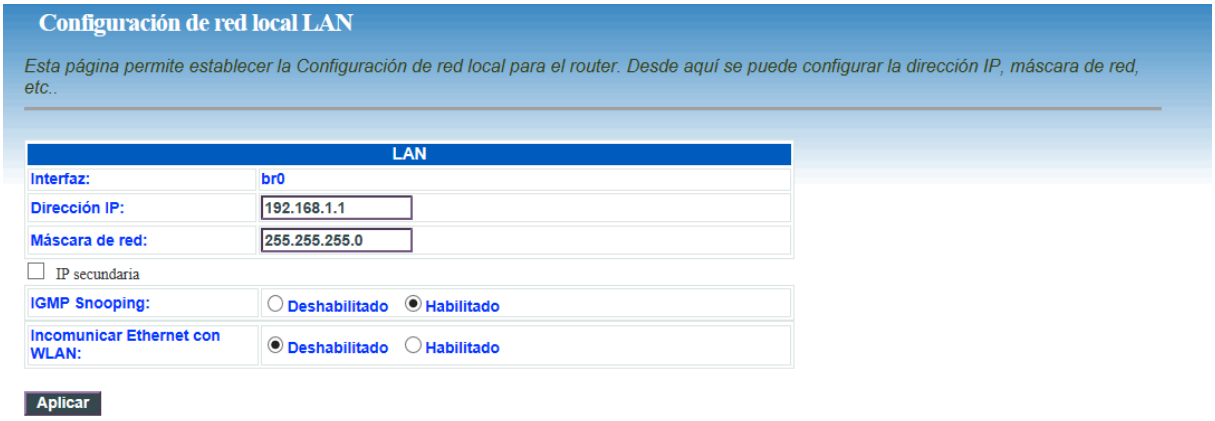
This page is showing information about System, WAN, LAN, DSL and DNS. Device information will change depending on its configuration. This page will auto refresh after few seconds, although there's a refresh button that will update information immediately.

Following pictures are showing system information. In the first figure ADSL line is still down, we can see that firmware is still syncing as well. This device synchronizes both memory stacks after every reboot in order to have same image in both stacks. Second image is showing firmware it's already synced and line is up.



4.2.- LAN

You can configure the LAN IP address according to the actual application. The preset IP address is 192.168.1.1. You can use the default settings and DHCP service to manage the IP settings for the private network. The IP address of the device is the base address used for DHCP. To use the device for DHCP on your LAN, the IP address pool used for DHCP must be compatible with the IP address of the device. The IP address available in the DHCP IP address pool changes automatically if you change the IP address of the device.
You can also enable the secondary LAN IP address. The two LAN IP addresses must be in different networks. Choose LAN and you will see picture below.



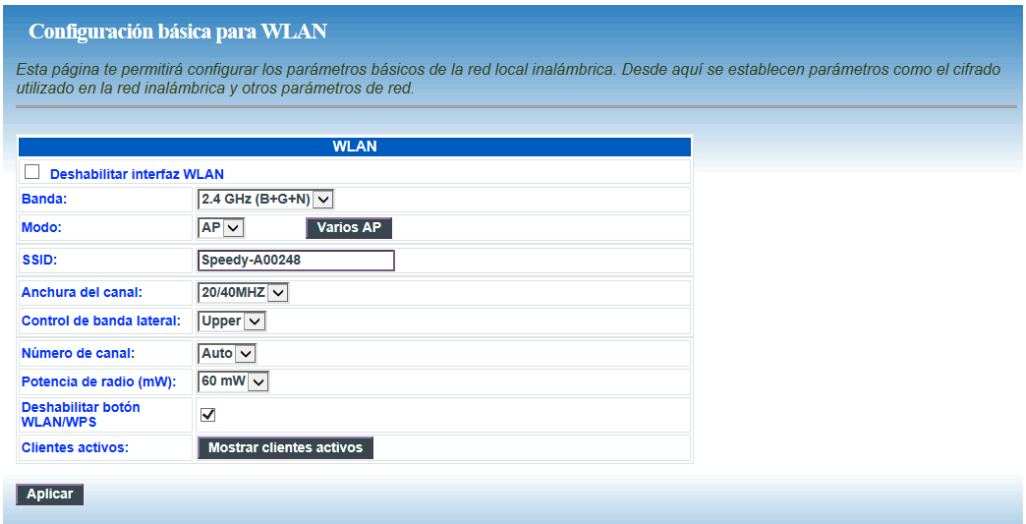
4.3.- WLAN

This section describes the wireless LAN and basic configuration. A wireless LAN can be as simple as two computers with wireless LAN cards communicating in a pear-to-pear network or as complex as a number of computers with wireless LAN cards communicating through access points which bridge network traffic to wired LAN.

4.3.1 Basic Configuration

Choose **WLAN → Configuración Básica,** page shown will be the one below.

In this page, you can configure the parameters of wireless LAN clients that may connect to the device.



The following table describes the parameters in this page.

Field	Description
Enable Wireless (Deshabilitar interfaz WLAN)	Select this to turn Wi-Fi on or off.
Button 'Varios AP'	Select this to open MultiAP isolation page and its options.
Wireless Network Name (SSID)	The Wireless Network Name is a unique name that identifies a network. All devices on a network must share the same wireless network name in order to communicate on the network. If you decide to change the wireless network name from the default setting, enter your new wireless network name in this field.
Control Sideband (Control de banda Lateral)	Choose the channel selection mode as **Upper** or **Lower**.
Wireless Channel (Número de canal)	Select the wireless channel from the pull-down menu.
Band Width (Anchura del canal)	Select the appropriate band of **20M**, **40M** or **20M/40M** from the pull-down menu.
Disable WLAN/WPS button	It's enabled by default. This avoids WLAN or WPS can be enable/disable from physical button.

4.3.2 Advanced Configuration

This function is used to modify the standard 802.11g wireless radio settings. It is suggested not to change the defaults, as incorrect settings may reduce the performance of your wireless radio. The default settings provide the best wireless radio performance in most environments.

From this page is also possible avoid Wireless network broadcast (Difusión SSID).

4.3.3 Security

Select **WLAN → Seguridad**. The page shown in the following figure appears. Wireless security is vital to your network to protect the wireless communication among wireless stations, access points and wired network.

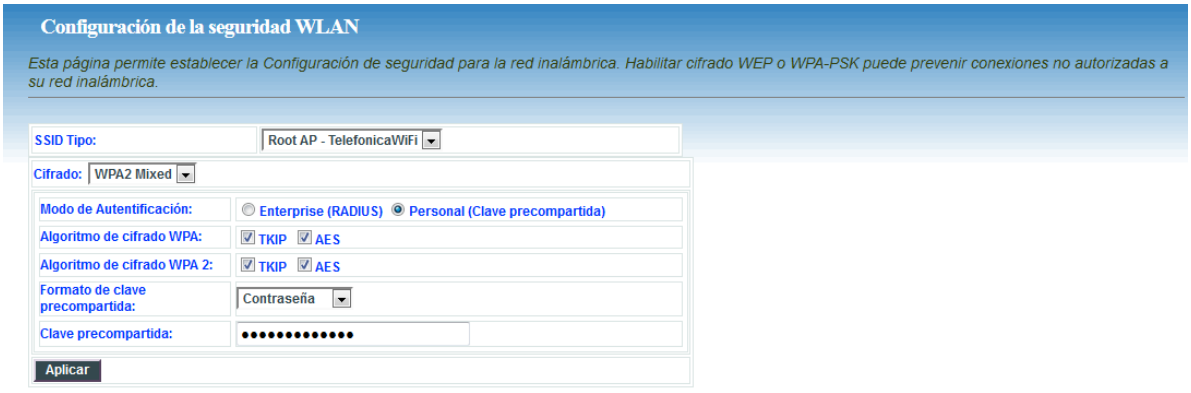
When the Security Mode is set as **WEP**, the following figure appears.

The following table describes the parameters of this page.

Field	Description
WEP Key Length (Longitud de la clave)	Choose the WEP key length. You can Choose **64-bit** or **128-bit**.
Key Format (Formato de la clave)	Choose ASCII or Hexadecimal.
WEP Key 1/2/3/4	The Encryption keys are used to encrypt the data. Both the modem and wireless stations must use the same encryption key for data transmission. An example for default key could be **8wlHK**.

Click Apply to save the settings.

When the Security Mode is set as Auto (WPA or WPA2), WPA2 only or WPA only, the following figure appears.



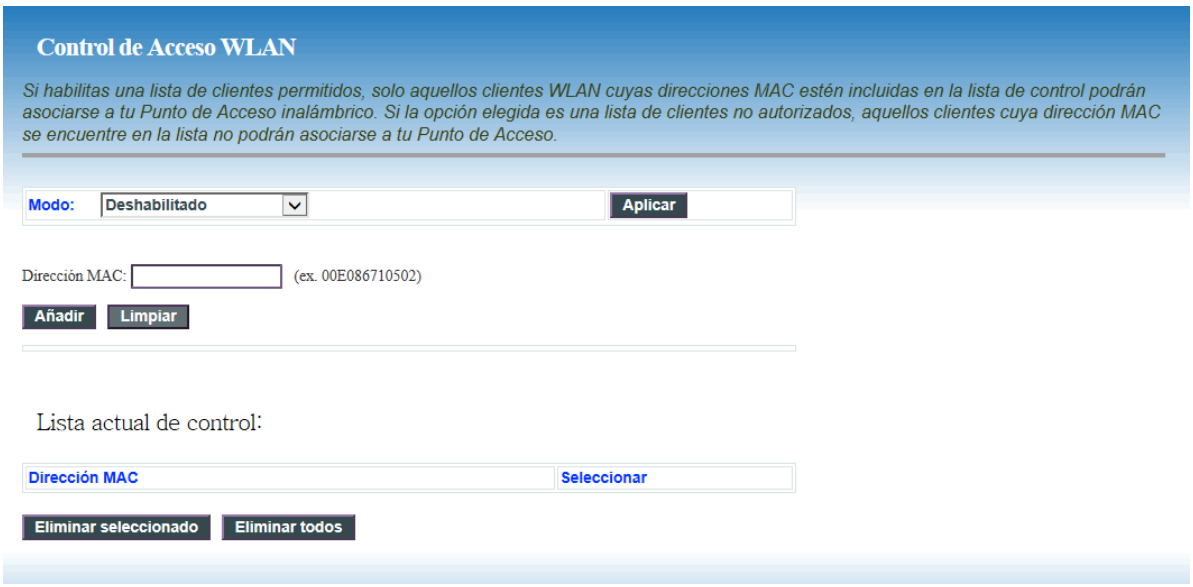
The following table describes the parameters in this page.

Field	Description
Security Mode (Cifrado)	Configure the wireless encryption mode. You can choose **None**, **WEP**, **WPA, WPA2** or **WPA2 Mixed**. ● Wired equivalent privacy (WEP) encrypts data frames before transmitting over the wireless network. ● Wi-Fi protected access (WPA) is a subset of the IEEE802.11i security specification draft. ● WPA2 Mixed is the collection of WPA and WPA2 encryption modes. The wireless client establishes the connection between the modem through WPA or WPA2. Key differences between WPA and WEP are user authentication and improved data encryption.
WPA Encryption (Algoritmo de Cifrado WPA)	When WPA or WPA2 is selected, you can select WPA encryption as **AES** or **TKIP+AES**.
WPA Mode (Modo de autentificación)	● Select **PSK (Pre-Shared Key)**, enter the pre-shared key in the **Pre-Shared Key** field. ● Select **Enterprise (RADIUS)**, enter the port, IP address, and password of the Radius server. You need to enter the username and password provided by the Radius server when the wireless client connects the modem. If the encrypton is set to **WEP**, the modem uses 802.1 X authentication, which is Radius authentication.

4.3.4 Access Control

From this page is possible to accept or deny several devices basing control on MAC Address.

Choose one of the modes (Disabled, Allowed customers, Non Authorized customers). Click apply to enable the mode you want. Then add a MAC address in the field below and click Add button. List below named *Lista actual de control,* will show if devices are allowed or not.



4.3.5 WPS

Click WPS link and you will find the page below. WPS is enabled by default, but you cannot launch it from physical button, until you enable it. You can do it in Basic Configuration (see Basic Configuration section).

Field	Description
Disable WPS	Choose to disable WPS function. By default WPS function is enabled, but can be only launched first time from SW page.
Configuration State	When **Configured** state is selected, wireless parameters (for example, the encryption password) are provided by the CPE in WPS negotiation. When **Unconfigured** state is selected, wireless

	parameters are provided by the connecting user end (for example, PC).
PIN (Número PIN generrado)	Insert this number is your PC is asking you for it. You can generate it and change its value.
Push Button (Inicializar configuración PBC)	Press the button, the CPE will connect the station automaticlly.
Input Station PIN (Número PIN de Cliente)	You need to enter a pin the station which mode is Enrollee Generate. Press the button to connect the other with the pin.

4.3.6 MBSSID

This page can be used for enable different SSID. Once new SSID is configured, it's possible to change its security from **Security** page, choosing the proper AP. User can also create several SSID's from page **Basic Configuration**, clicking on **Varios AP** button.

Figure showing MBSSID page.

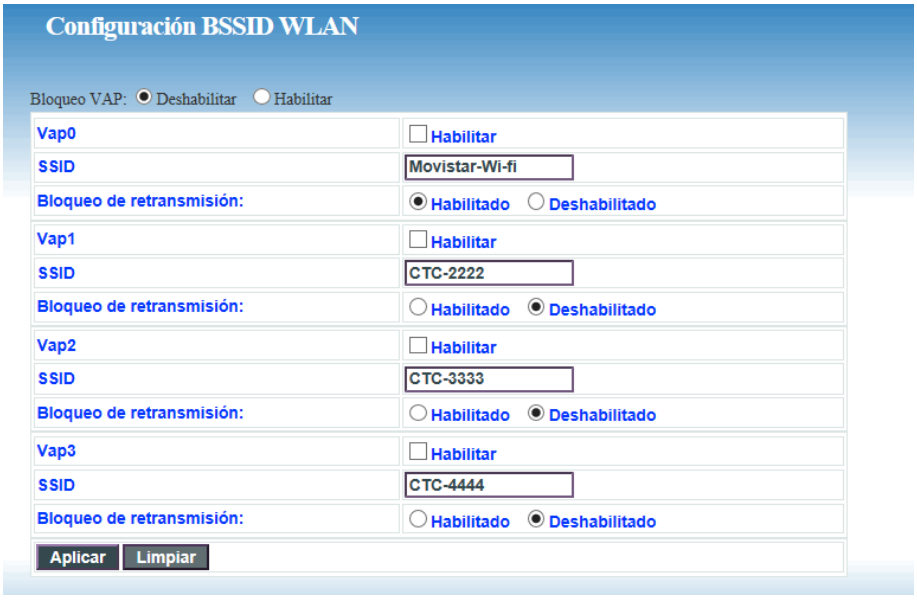
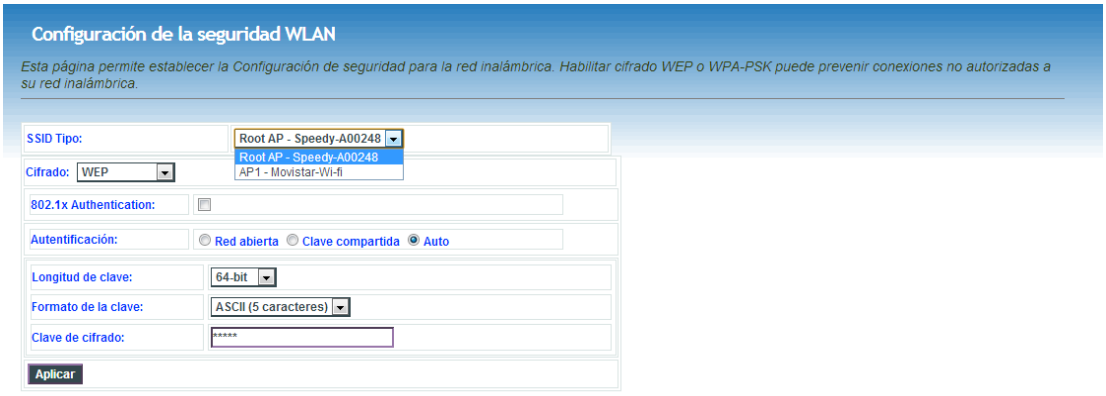
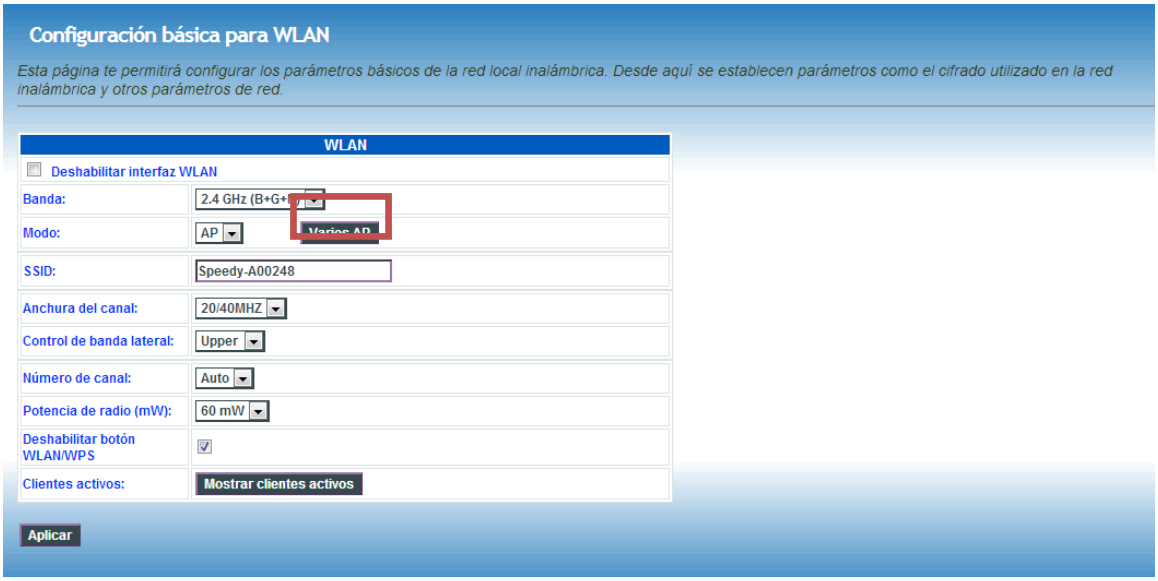


Figure showing how change security for SSID in the picture above (Movistar-Wi-fi)



Access to several SSID configuration through Varios AP button.



4.3.7 WLAN STATUS

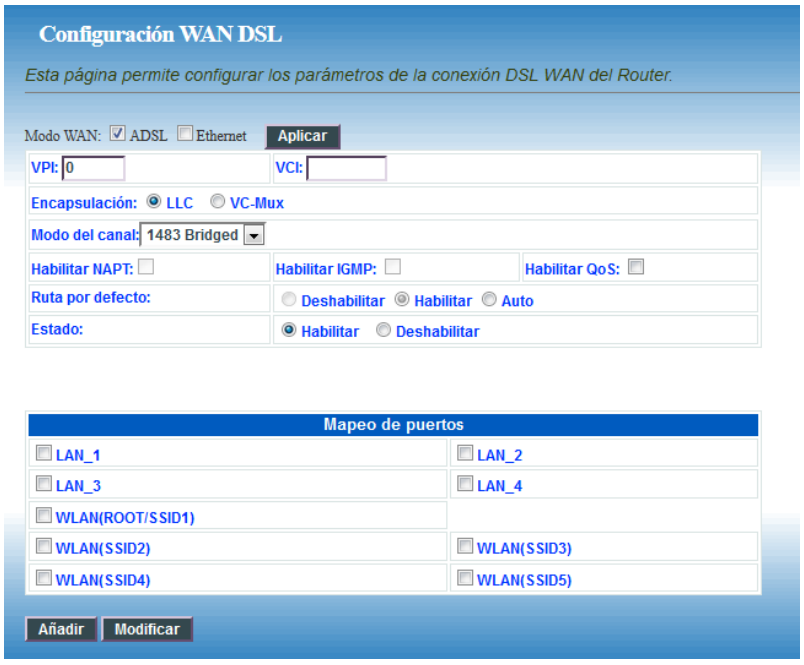
Click WLAN → Estado, you will find the page below.

4.4.- WAN

In this menu, user can manage all related to internet connection.

4.4.1 DSL WAN

To configure internet click on WAN → DSL WAN, page shown is the one below.



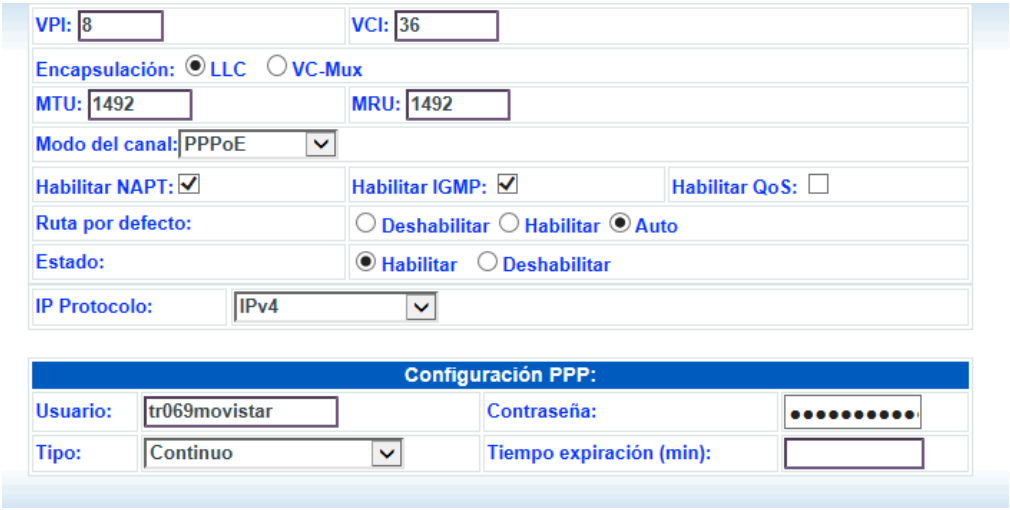
This page contains several configurable paramaters in order to configure an internet connection. Most important ones are listed below.

Field	Description
PVC Settings	**VPI**: The virtual path between two points in an ATM network, and its valid value is from **0** to **255**. **VCI**: The virtual channel between two points in an ATM network, ranging from **32** to **65535** (0 to 31 is reserved for local management of ATM traffic).
Protocol (Modo del canal)	You can select from the drop-down list. **1483 Bridged** **1483 MER** **PPPoE** **PPPoA** **1483 Routed** **1577 Routed** **DS-Lite** **6rd**
Encapsulation Mode	Select the method of encapsulation provided by your ISP. You can select **LLC** or **VCMUX**.

Set the VPI and VCI. Choose if the Protocol is PPPoE, PPPoA … as shown in the page below. In table **Configuración PPP**, it is also necessary enter user name and password, and connection kind. In the picture below connection is Continuous.

To enable/disable default route there are three options:

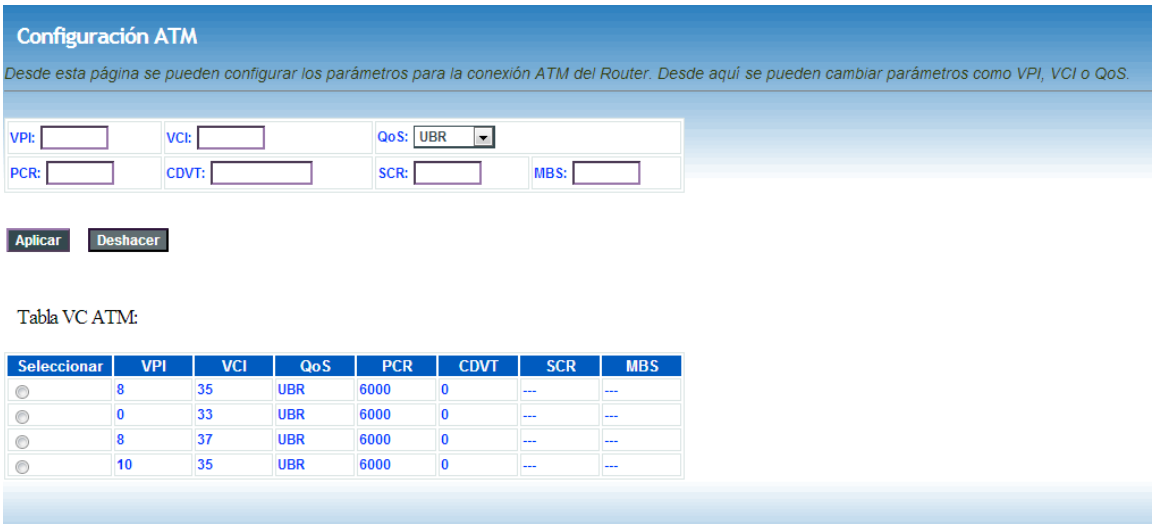
- *Habilitar*: default route will be enabled by default. Only one PVC can be configured like that.
- *Deshabilitar*: default route will be disabled by default.
- *Auto*: default route will be automatic and PVC will be up when DSL line matches. User can configure as much PVC's as wanted in mode Auto.



In table below it's possible to see how PVC's are configured. In the example below there are two PPPoE PVC's and one bridge. Both PPP connections are configured like Auto, but only one is up.

4.4.2 ATM CONFIGURATION

From this page is possible to configure ATM parameters for each PVC.

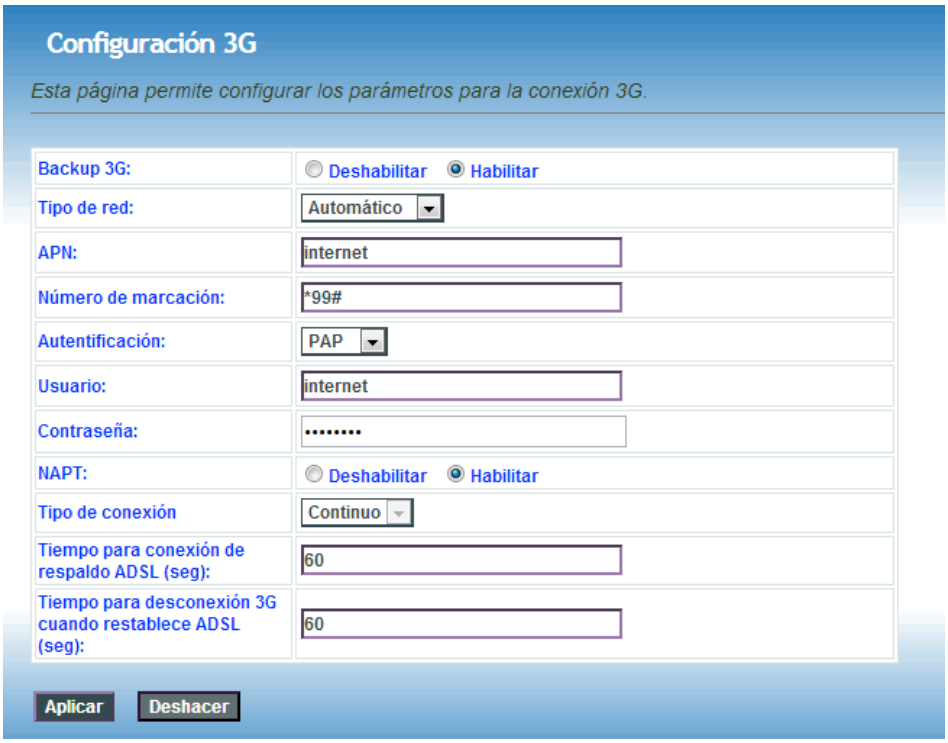


4.4.3 ADSL CONFIGURATION

This page allows configure ADSL modulation parameters.

4.4.4 3G configuration

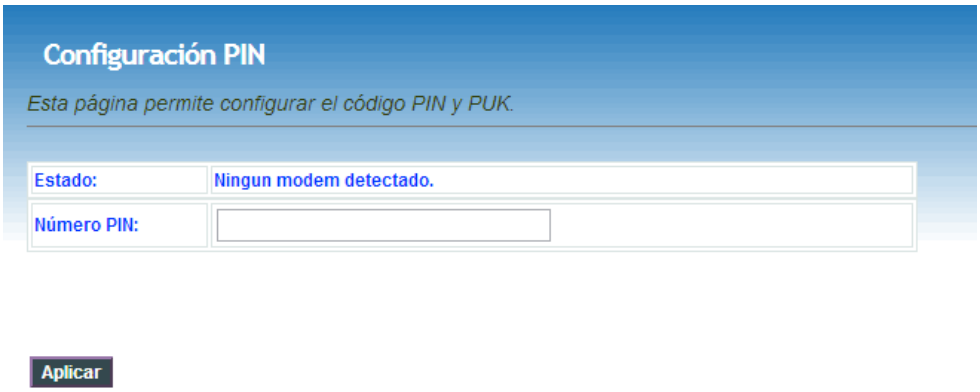
If you want to access the Internet through 3G connection, a 3G USB data card is required. Connect the 3G data card to the USB interface of the Router and go to this page. 3G backup is enable by default, which means that if a 3G dongle is plugged and there is a fail in DSL line, 3G will be up and Internet will be served through 3G dongle.



Field	Description
Enable 3G Backup	You may choose to enable or disable 3G backup.
Network type	It's possible to select 2G or 3Gby default is in Auto mode.
APN	Enter the access point.
Dial_Number	Enter the dial number.
Account	Enter the account.
Password	Enter the password.
NAPT	Enable or Disable.
Connection Mode	Continuous and On demand
Inactivity Timeout	Set the period without flow before disconnecting 3G connection. When 0 is set, 3G connection will always be connected regardless of flow.
Backup delay time	Set the period before starting 3G dial after ADSL disconnection.

4.4.5 PIN CONFIGURATION

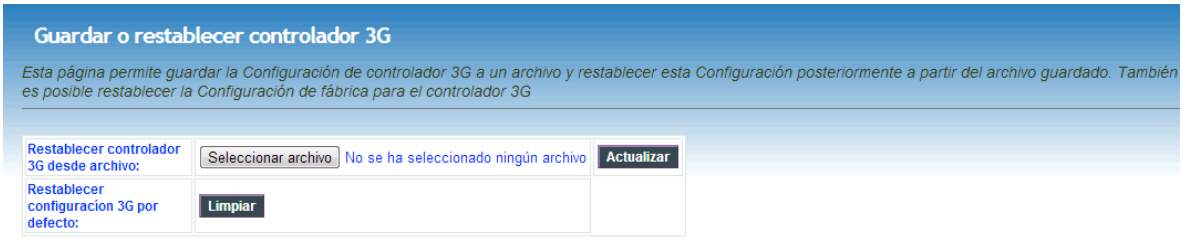
Click **Pin Configuration** to enable the 3G PIN code as shown in the following figure. Label “Estado” will inform you about dongle status, if PIN is needed or not, or if modem has been detected.



4.4.6 3G DRIVER

By default there is a list of dongles supported by HomeStation, but there will be some of them, that could be not supported. For this, Observa CPE allows to load new drivers in order to support new 3G dongles. If there is a restore to default settings, these loaded drivers will be removed.

Load new driver and reboot CPE in order to make effective the change. Also you can clean flash memory of these drivers by clicking on ‘Limpiar’ button.



4.5.- SERVICES

4.5.1 DHCP

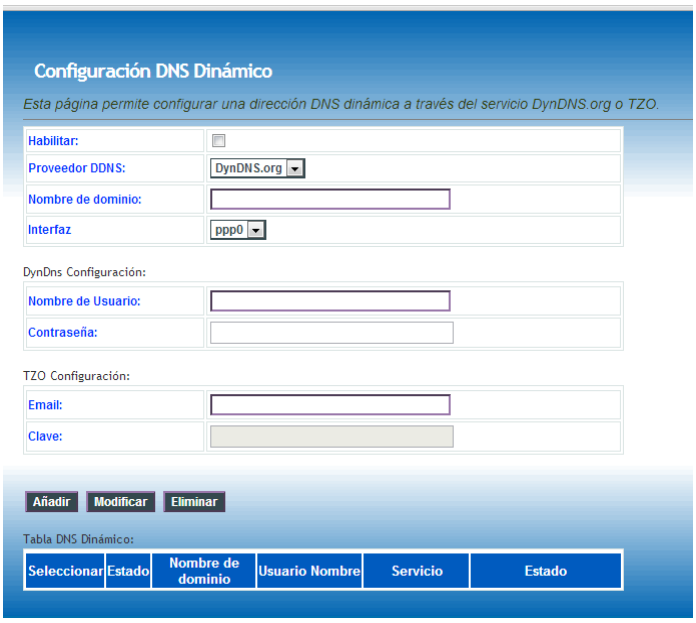
By default, **Enable DHCP Server** is selected for the Ethernet LAN interface of the device. DHCP service supplys IP settings to workstations configured to automatically obtain IP settings that are connected to the device through the Ethernet port. When the device is used for DHCP, it becomes the default gateway for DHCP client connected to it. If you change the IP address of the device, you must also change the range of IP addresses in the pool used for DHCP on the LAN. The IP address pool can contain up to 253 IP addresses.

4.5.2 DNS

By clicking on DNS → Servidor DNS we can configure manually or automatically DNS for ipv4 and ipv6. By default DNS are set automatically.

To configurate Dynamic DNS, click on DNS → DNS Dinámico

The device supports dynamic domain name service (DDNS). The dynamic DNS service allows a dynamic public IP address to be associated with a static host name in any of the many domains, and allows access to a specified host from various locations on the Internet. Click a hyperlinked URL in the form of hostname.dyndns.org and allow remote access to a host. Many ISPs assign public IP addresses using DHCP, so locating a specific host on the LAN using the standard DNS is difficult. For example, if you are running a public web server or VPN server on your LAN, DDNS ensures that the host can be located from the Internet even if the public IP address changes. DDNS requires that an account be set up with one of the supported DDNS service providers (DyndDNS.org or dlinkddns.com).

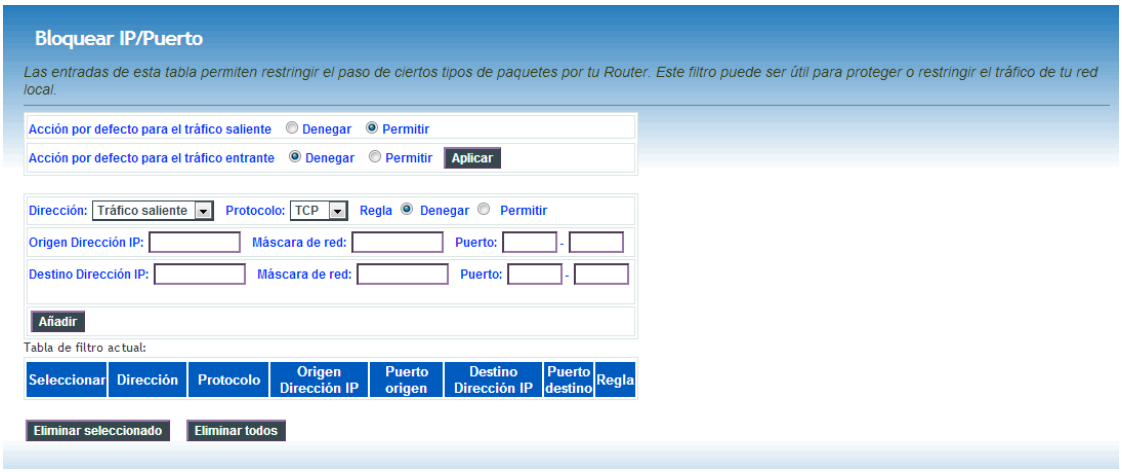


4.5.3 Firewall

Block IP or port

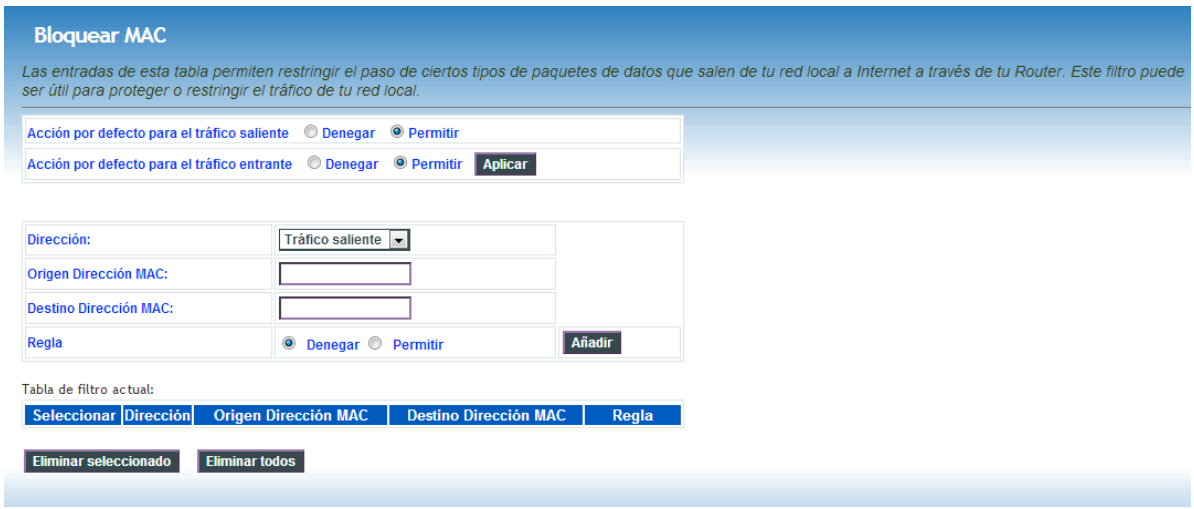
Click on Servicios →Firewall→Bloquear IP/Puerto to access this page.

To enable a rule is necessary to fill if the action is for outgoing/incoming traffic, choose Deny or Accept and click Apply. Then, it's possible to add the rule based on the kind of traffic, protocols, ip's and ports. Rules added will be shown on the table "Tabla de filtro actual".



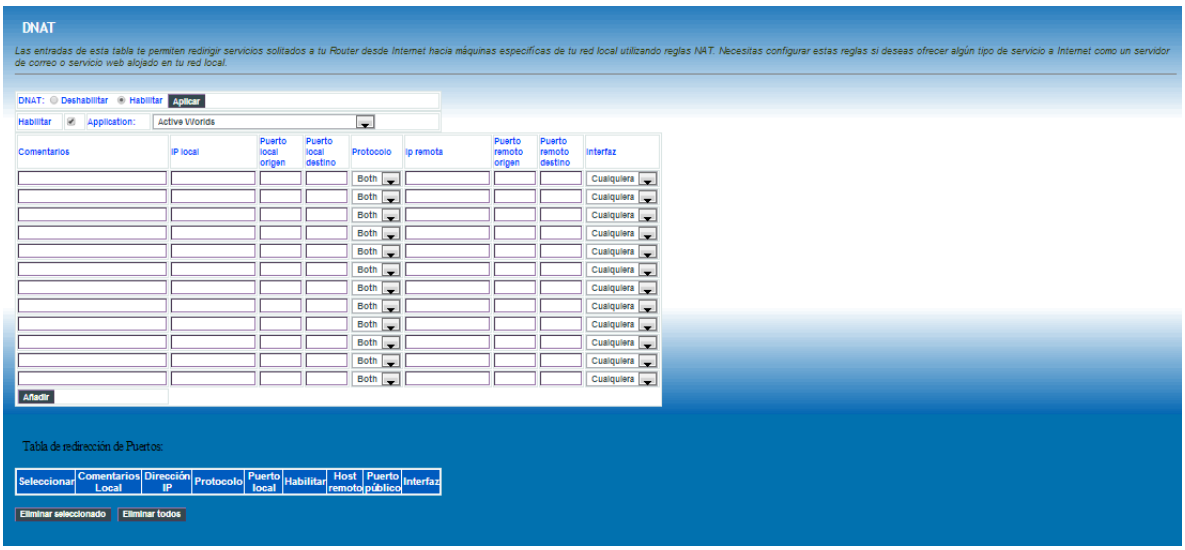
Bloquear MAC

Click on Servicios → Firewall → Bloquear MAC to access to this page. In this page you can block the access depending on MAC address. In this configuration page it's possible also to choose if the restriction is for outgoing or incoming traffic and if the rule denies or accepts the traffic.



DNAT

Click on Servicios → Firewall → DNAT to access to this page. Inputs on this table allows you to redirect those services required to the router from Internet, to those specific devices in your LAN using NAT.



Bloquear URL

Click on Servicios → Firewall → Bloquear URL to access this page. This page allows user to block domain name FQDN and filter by words. Page is divided in two sections, first one to filter by domain FQDN and second one to filter by words.

Block domains

Click on Servicios → Firewall → Bloquear Dominios to access to this page. From this page can configure those domains that are blocked, user can remove or add new domains.

DMZ

Click on Servicios → Firewall → DMZ to access this page. Since some applications are not compatible with NAT, the device supports the use of a DMZ IP address for a single host on the LAN. This IP address is not protected by NAT and it is visible to agents on the Internet with the correct type of software. Note that any client PC in the DMZ is exposed to various types of security risks. If you use the DMZ, take measures (such as client-based virus protection) to protect the remaining client PCs on your LAN from possible contamination through DMZ.

4.5.4 UPnP

Click on Servicios → Upnp to access this page. In this page, you can configure universal plug and play (UPnP). The system acts as a daemon after you enable UPnP.
UPnP is used for popular audio visual software. It allows automatic discovery of your device in the network. If you are concerned about UPnP security, you can disable it. Block ICMP ping should be enabled so that the device does not respond to malicious Internet requests.

By default UPnp is enabled for any interface, once Internet is up, UPnP will be linked automatically to that active interface unless user force the connection to another interface.

4.5.5 RIP

Click on Servicios → RIP to access to this page.
This page is used to select the interfaces on your device that use RIP and the version of the protocol used.
If you are using this device as a RIP-enabled device to communicate with others using the routing information protocol, enable RIP and click Apply to save the settings. Then, you can configure interface.

4.5.6 DMS

Click on Servicios → DMS to enable disable “Servidor Digital Multimedia” or DLNA.

4.6.- ADVANCED

Go to menu “Avanzado” to configure several advanced settings.

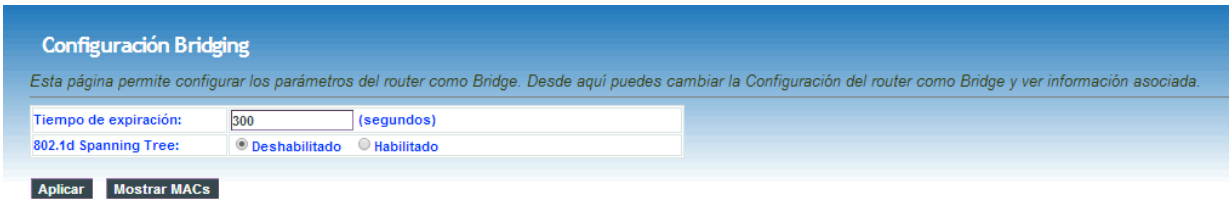
4.6.1 ARP Table

Table ARP shows the list with MAC addresses known by the router.

4.6.2 Bridging

This page is used to configure bridge parameters. In this page, you can change the settings or view some information of the bridge and its attached ports.

Click on Avanzado → Bridging to access to this page.



4.6.3 Routing

Click on Avanzado → Encaminamiento to access to the Routing page.

This page is used to configure the routing information. In this page, you can add or delete IP routes.

Field	Description
Destination Network Address (Destino)	The destination IP address of the router.
Subnet Mask (Máscara de red)	The subnet mask of the destination IP
Next Jump (Siguiente salto)	Next jump in the routing configuration.
Metric	Determine whether one particular route should be chosen over another
Use Interface	The interface name of the router output port.

Click on button “Mostrar rutas” to see info below.

4.6.4 SNMP

Click on Avanzado → SNMP to access this page. In this page, you can set SNMP parameters

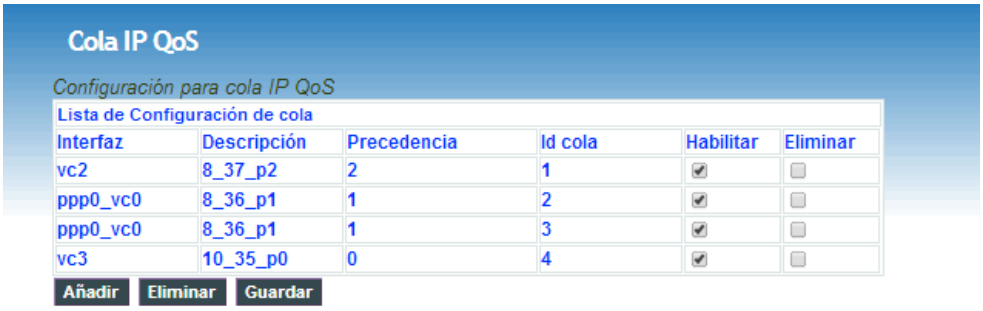
4.6.5 IP QoS

Click on Avanzado → IP QoS, to get IP QoS configuration menu.

There are two pages to configure it: Cola QoS and Clasificación.

Cola QoS

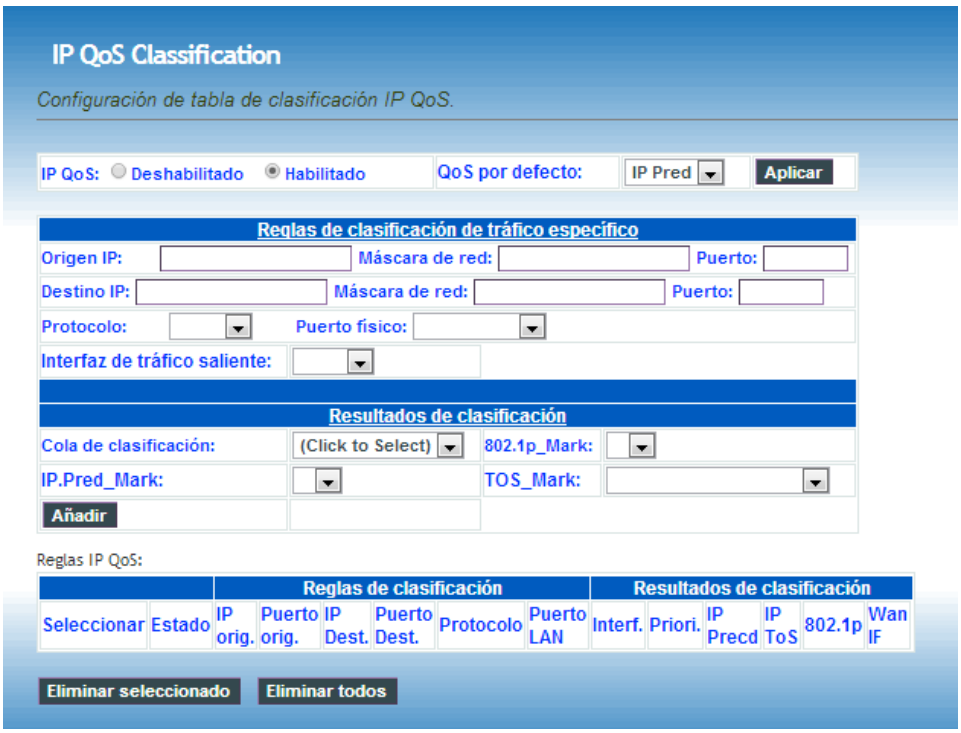
In this page it's possible to see QoS queue list.



Clasificación

Here is possible to configure QoS queue rules.

Quality of service (**QoS**) allows you to configure the overall performance and priority given to each network service. First row can be used for enabling QoS on the router while choosing if the classifications rules will be based on the IP precedence field or 802.1p (VLAN) field. Rules for specific traffic can be configured in the second table so specific traffic can be marked with desired values for IP Type of Service and 802.1p specification.



4.6.6 Remote access

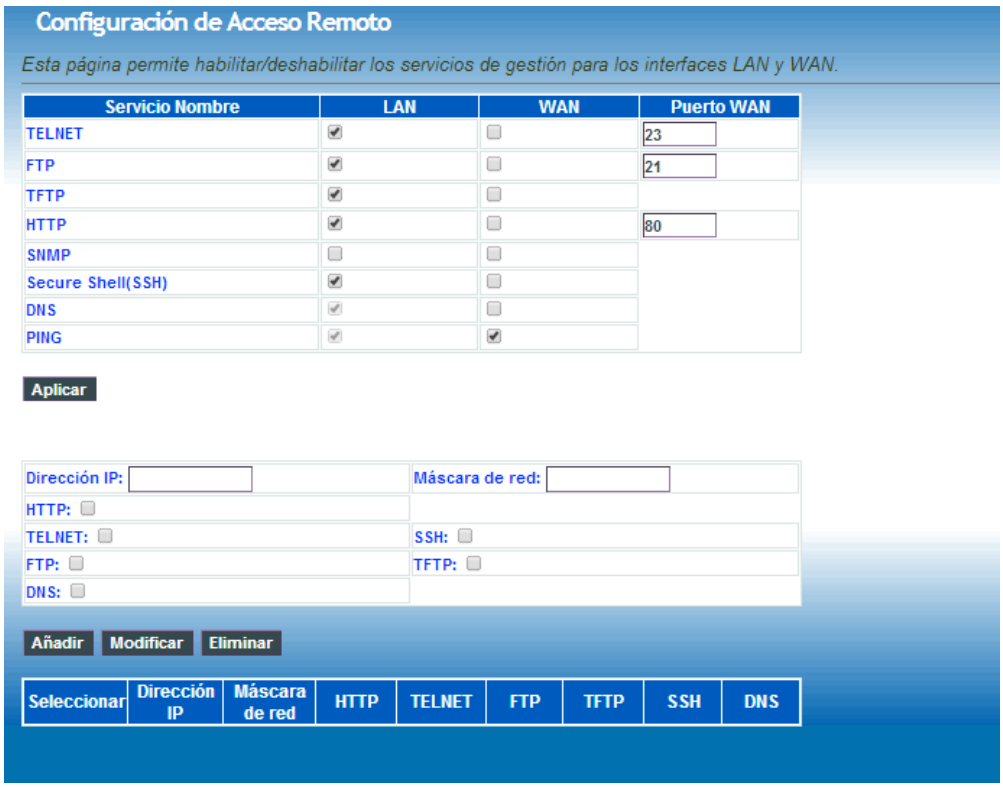
Click on Avanzado → Acceso Remoto to see this page.

At access remote page you can choose whether services are accessible or not via LAN/WAN. When one service is enabled for WAN, user can enter an IP range in the table below:

An example of the working is explained here:

For instance, if Telnet is accessible via WAN then:

- *Is there any IP range enabled for this service?*
  - *Yes →telnet is accessible just for those IP's set in the table.*
  - *No → then, telnet is accessible from any IP.*



4.6.7 Printer

In this page it's possible to see what is the url assigned to the printer. Click on Avanzado → Servidor de impresora, to access here.

4.6.8 SAMBA

To enter this page, click on Avanzado → Servidor de Archivos.

Field	Description
Enable SAMBA	Select the check box “Servidor de Archivos” to enable the samba service. By default is enabled.
Access Route	Enables/disables access via WAN or LAN by clicking on check box.
Access mode	Choose if access mode is Only read or Read/Write.

There is also a table showing information about the USB device plugged into the router. In order to access using SAMBA to USB device, user must enter \\192.168.1.1 in an explorer window, or //homestation/fileserver. Both url’s are valid.

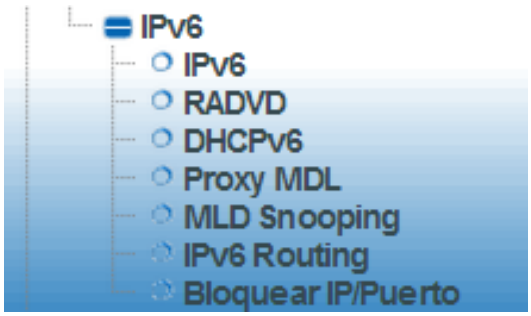
4.6.9 Other configuration

IP passthrough is an option for your DSL modem to turn into a "Bridge" or be just a simple modem - whatever comes down the pipe from the internet goes right on through to your network without any filtering or routing

4.6.10 IPv6

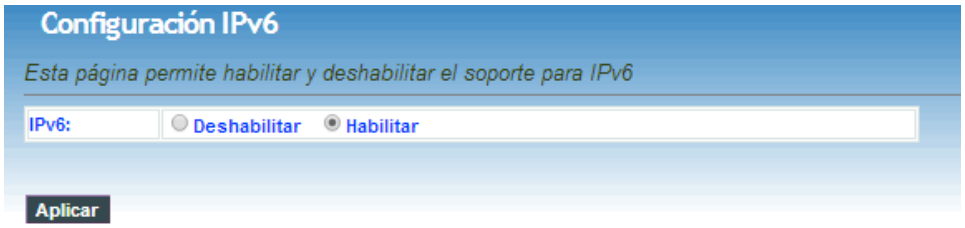
This device supports IPv6, and there is a complete menu where user can configure main parameters for an IPv6 connection.

To access to this menu go to Avanzado IPv6. Options available are:



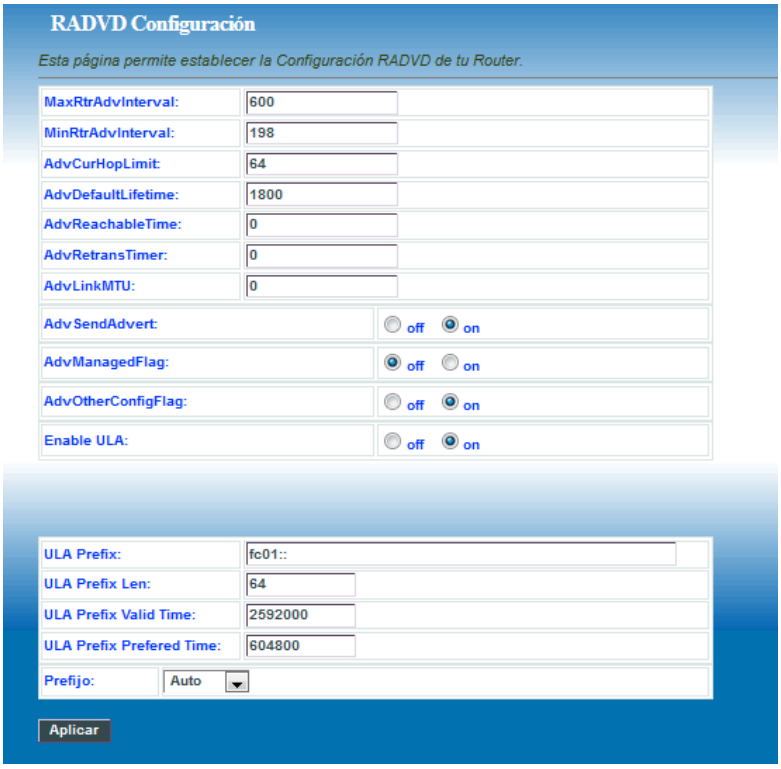
IPv6

This page allows you enable/disable Ipv6 support.



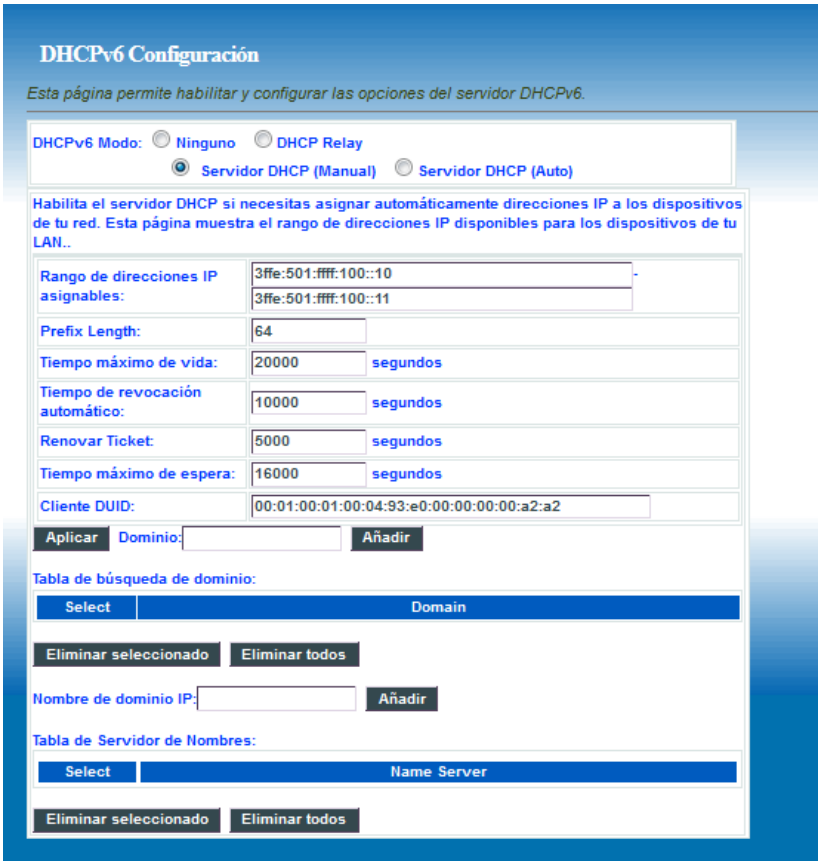
RADVD

In this page you can configure router advertisement daemon, It sends Router Advertisement messages, to a local Ethernet LAN periodically and when requested by a node sending a Router Solicitation message. These messages are required for IPv6 stateless autoconfiguration.

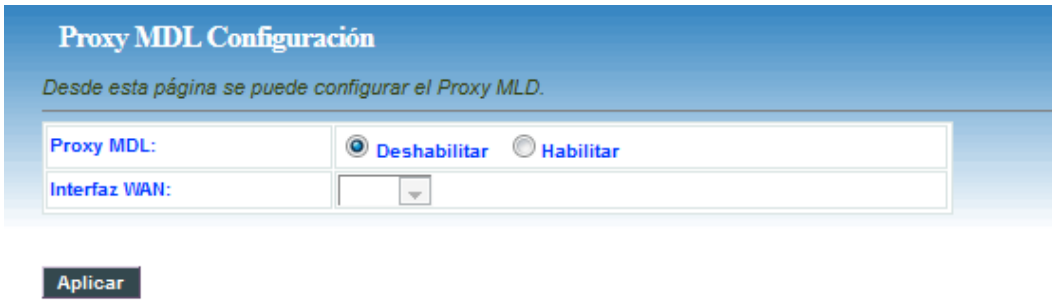


DHCPv6

IPv6 hosts that use stateless autoconfiguration may require information other than an IP address. DHCPv6 can be used to acquire this information, even though it is not being used to configure IP addresses. DHCPv6 is not necessary for configuring Domain Name System servers—they can be configured using Neighbor Discovery Protocol, which is needed anyway for stateless autoconfiguration.



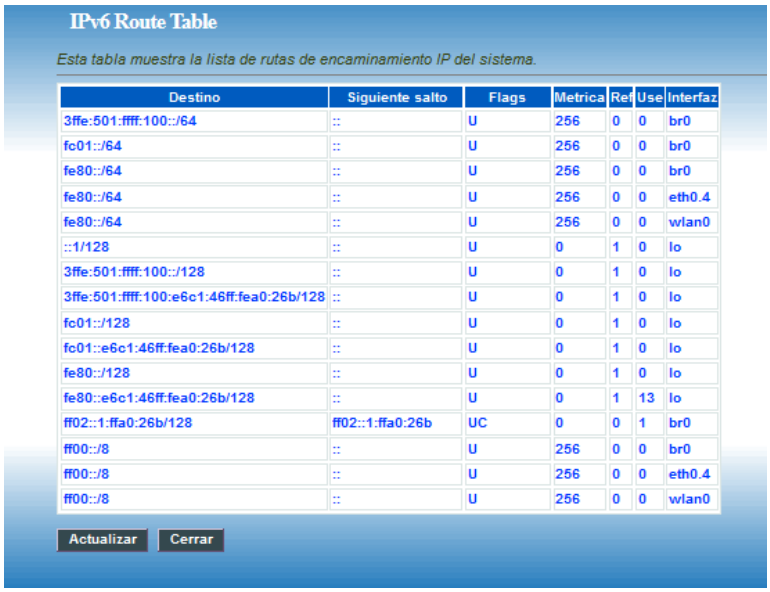
Proxy MDL



MLD Snooping

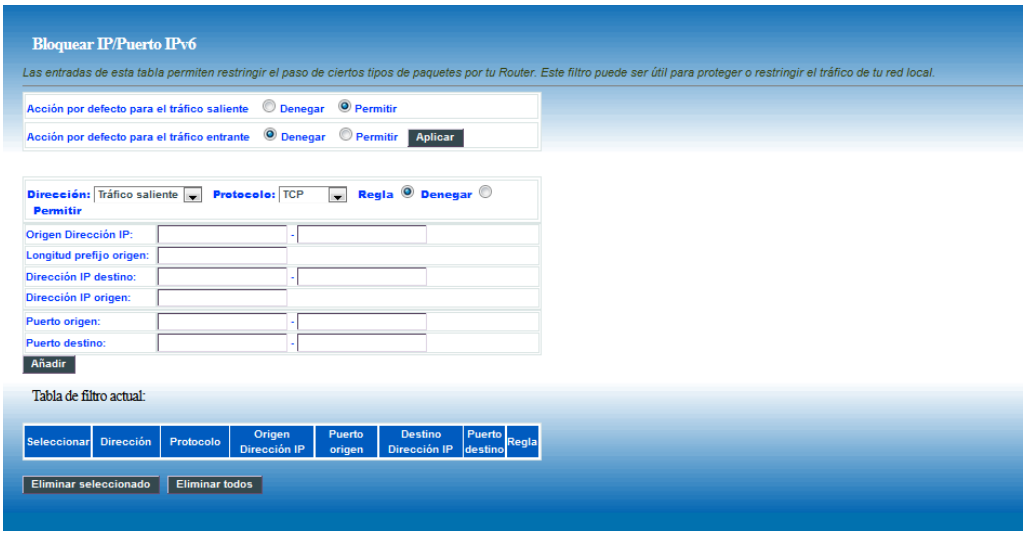
IPv6 Routing

This page can be used to configure static routing for ipv6. From this page, user can add or remove new routes.



Block IP/Port

In this page, it's possible to block an specific IP and ports. User must choose between outgoing/incoming traffic, protocol and accept or deny that traffic.

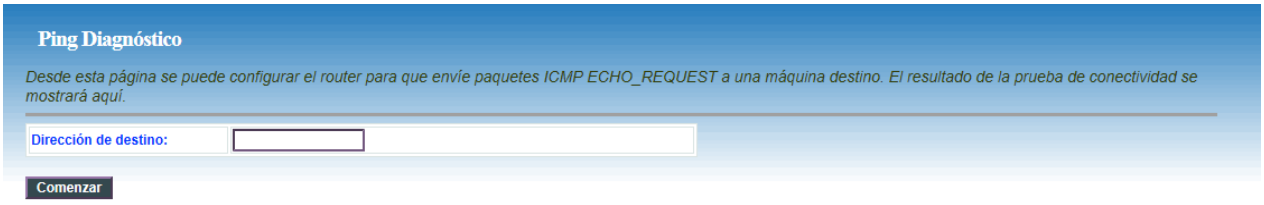


4.7.- Diagnostics

From these pages, user can use many Diagnostic tools to know which the router state is.

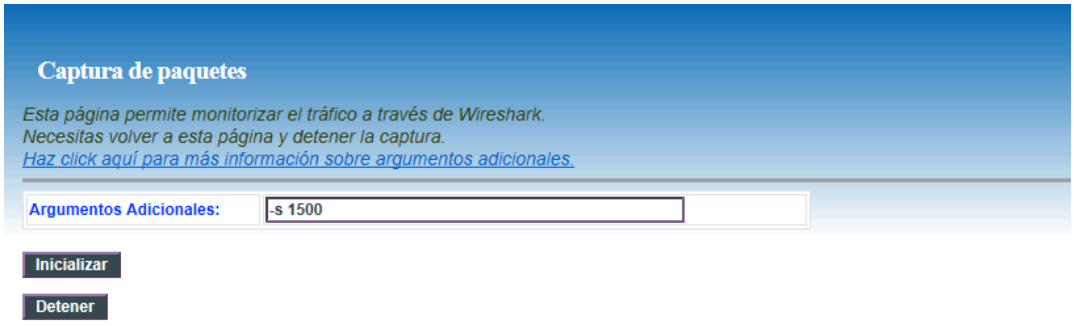
4.7.1 Ping

Click on Diagnóstico → Ping, then insert a destiny address and click "Comenzar" button. Router will show the response after a while, if ping has successed or failed.



4.7.2 Packet Dump

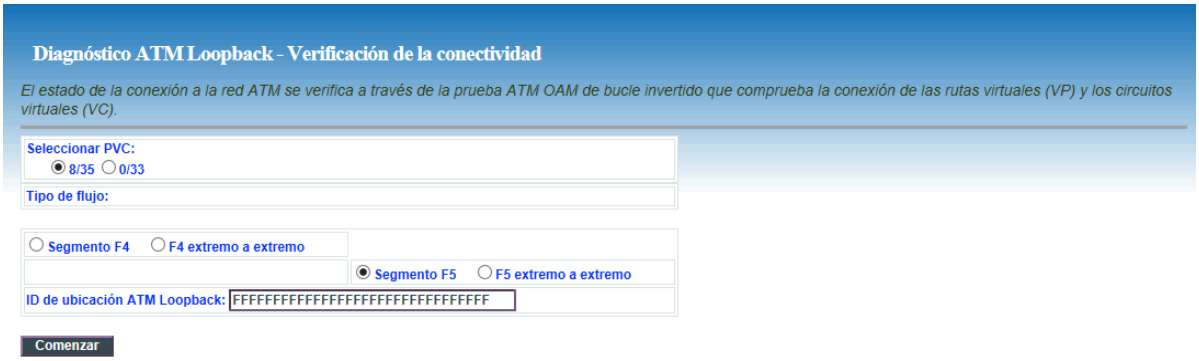
Packet Dump is a useful tool to capture traffic. Open wireshark and follow instructions listed in the page. You may enter interface you want to capture, for instance –s 1500 –i wlan0.



4.7.3 ATM Loopback

ATM state connection is verified through ATM OAM test loopback. This test checks virtual paths (VP) and virtual circuits (VC).

Choose PVC to be tested and the flow type.



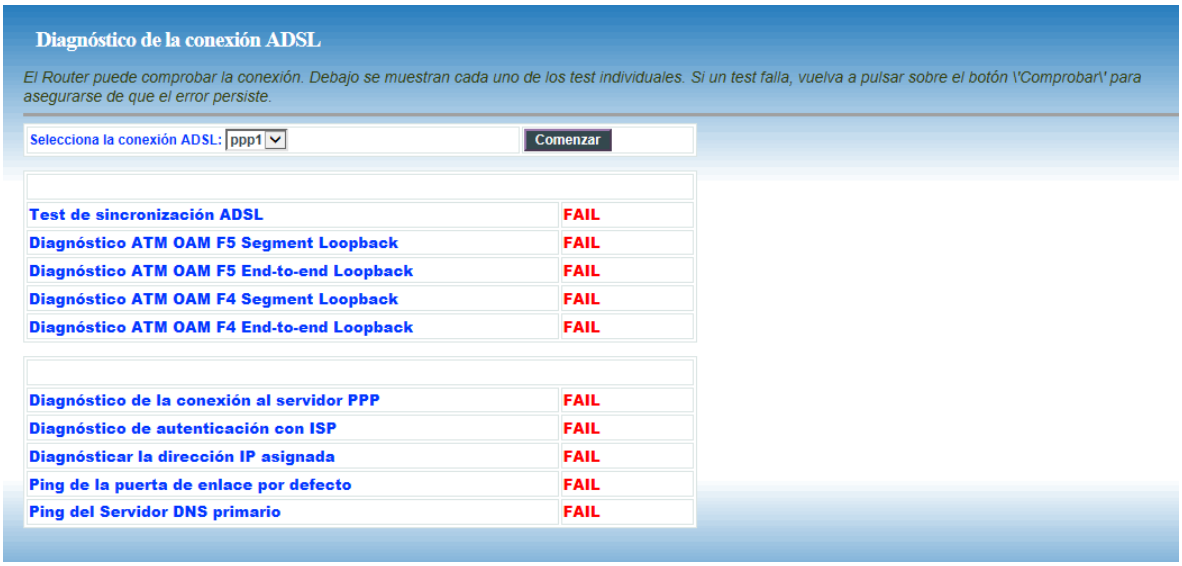
4.7.4 ADSL Tone

Click on Diagnóstico → Tono Adsl to access this page. This function will list SNR tones by channel. This list showing tone vs. SNR will show you how good ADSL line quality is.

4.7.5 ADSL Conectivity

Click on Diagnóstico → Conectividad ADSL to access to this page.

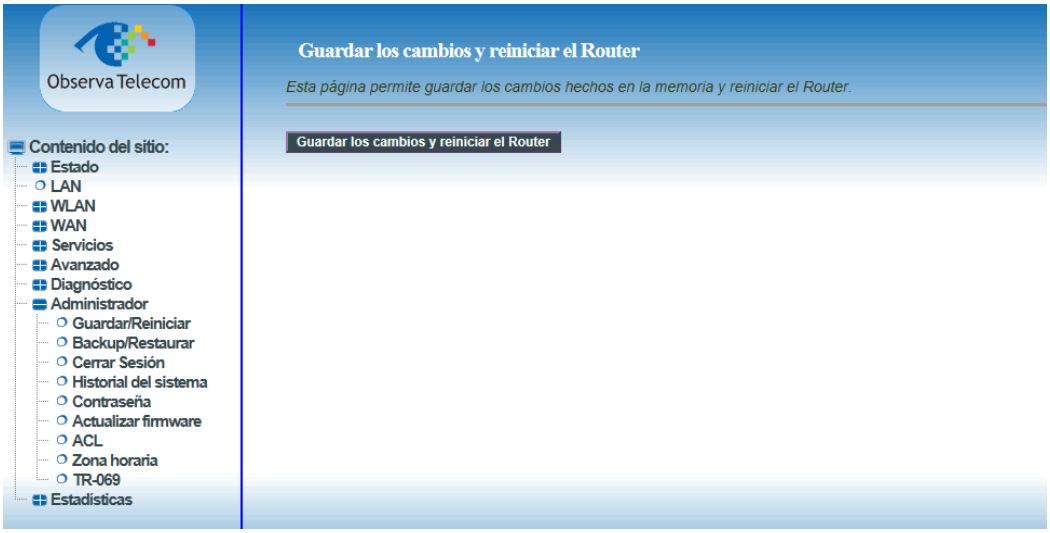
Choose ppp interface and click on “Comenzar” button. This page will show you a list of individuals tests and if these ones have been passed or not.



4.8.- ADMINISTRATOR

4.8.1 Save and Reboot

In this page you can reboot the device. CPE will save changes in your configuration and they will be stored and ready even after the reboot.



4.8.2 Backup and restore

In this page, you can back up the current settings to a file, update settings from the file saved previously and restore the factory defaults.
Buttons in this page are described as follows.

Field	Description
Backup Setting	Click this button to save the settings to the local hard drive. Select a location on your computer to back up the file. You can name the configuration file.
Update setting	Click **Browse** to select the configuration file of device and then click **Update Settings** to begin updating the device configuration.
Restore Default Setting	Click this button to reset the device to default settings.

4.8.3 Close Session

This page closes current session. User will be log out and router will ask again for credentials. This way user profile can be changed.

4.8.4 System log

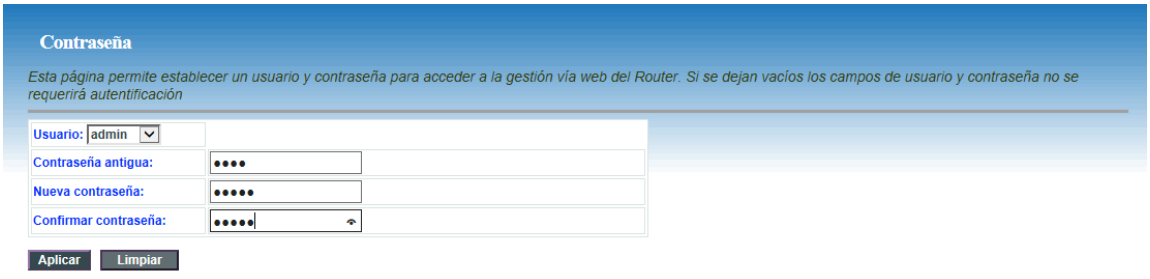
This page displays event log data in the chronological manner. You can read the event log from the local host or send it to a system log server. Available event severity levels are as follows: Emergency, Alert, Critical, Error, Warning, Notice, Informational and Debugging. In this page, you can enable or disable the system log function.

Step 1 Select **Enable Log** check box.
Step 2 Select the display mode from the **Mode** drop-down list.

Step 3 Click **Apply** to apply the settings.
Step 4 Click **View System Log** to view the detail information of system log.

4.8.5 Password

In the page Administrador → Contraseña, user can change the current password for accessing management web. This change can be performed for different profiles. if user does not fill those fields requiring new password, no authentication will be asked.



4.8.6 Upgrade Firmware

In this page user can upgrade firmware.

To update the firmware, take the following steps.

- Click Browse… to find the file. File must have an extension *.img.
- Click Update to load the file into the flash memory.

The device loads the file and reboots automatically.

Note:
Do not turn off your device or press the Reset button while an operation in this page is in progress. In case this happens, second memory stack will boot up and will show you previous firmware.

4.8.7 ACL

In this page, you can configure the IP address for access control list (ACL). If ACL is enabled, only devices with the specified IP addresses can access the device.

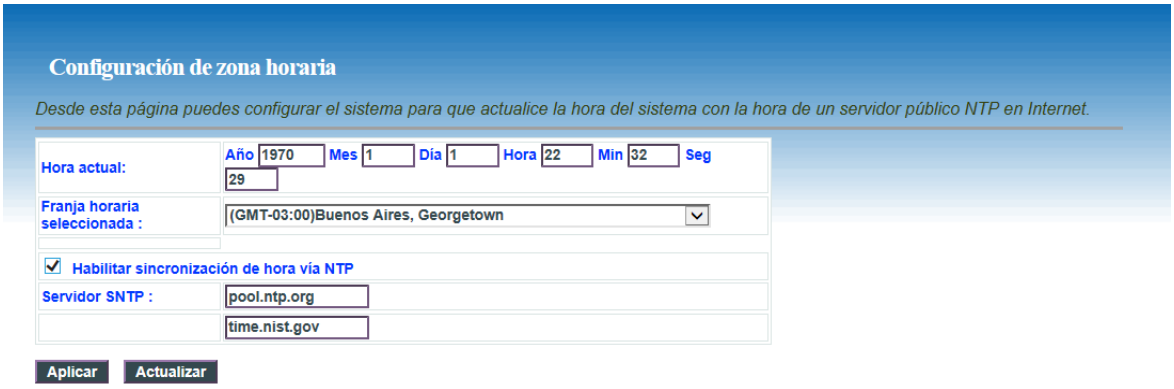
Choose **Enable (Habilitar)** to enable ACL and click on **Apply (Aplicar)** button to save changes.

Note:
If you enable the ACL, ensure that IP address of the host is in the ACL list.

To add an IP address to the IP list, click **Add**. The page shown in the following figure appears.

4.8.8 Time Zone

By default, NTP Server synchronization is disabled. We can enable it in **Administrador → Zona horaria,** checking "**Habilitar sincronización de hora vía NTP**". Then we apply changes.
In the **Time and Date** page, you can configure, update, and maintain the correct time on the internal system clock. You can set the time zone that you are in and the network time protocol (NTP) server. You can also configure daylight saving to automatically adjust the time when needed.



4.8.9 TR-069

It's possible to access to TR069 page clicking on **Administrador → TR-069.** CPE WAN Management Protocol (CWMP) is a protocol for communication between a CPE and Auto-Configuration Server (ACS). The function supports TR-069 protocol which collects information, diagnoses the devices and configures the devices automatically via ACS (Auto-Configuration Server).

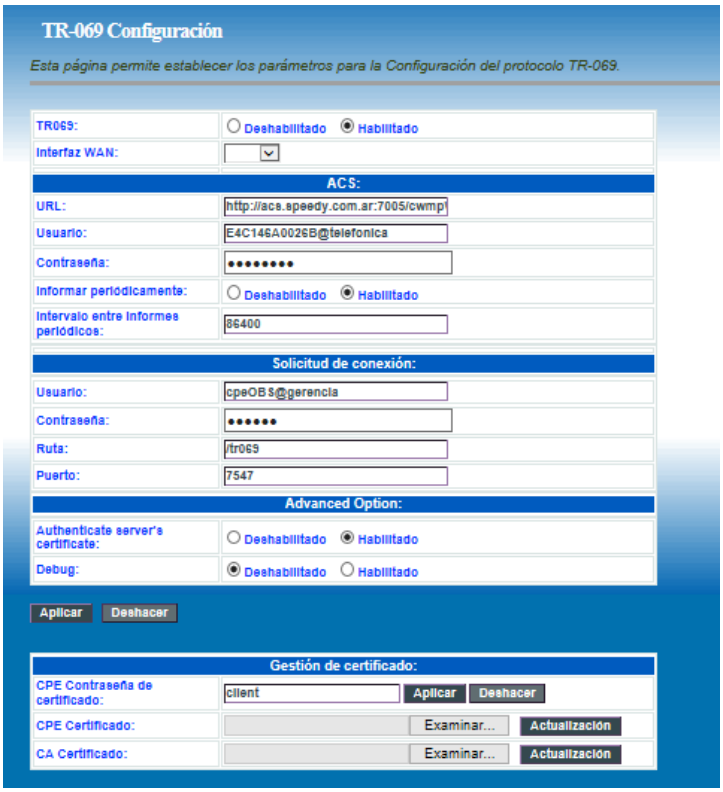
TR-069 is enabled by default. From this page is possible to manage ACS parameters, connection request parameters and also those parameters linked to certificate.

ACS parameters

- **URL:** Enter the website of ACS which is provided by your ISP.
- **User Name/Password:** Enter the User Name and password the device should use when connecting to the ACS.
- **Periodic Inform Enable:** When this field is enabled, the device will send an Inform RPC to the ACS server at the system startup, and will continue to send it periodically at an interval defined in "Periodic Inform Interval" field; when this field is disabled, the device will only send Inform RPC to the ACS server once at the system startup.
- **Periodic Inform Interval:** The interval to send Inform RPC.

Connection Request parameters

- **User Name/Password:** Enter the User Name and Password the remote ACS should use when connecting to the device.
- **Path:** The path of the device ConnectionRequestURL.
- **Port:** The port of the device ConnectionRequestURL.



4.9.- Statistics

Go to **Statistics** menu to see ADSL and Interface statistic. In this menu it's possible to check network statistics and data transfer. This information helps technicians to identify if the device is functioning properly. The information does not affect the function of the device.

4.9.1 Interface

Click on Estadísticas → Interfaz and you will find the page below. It shows a table containing Tx/Rx packets information related to each interface.

Estadísticas de Interfaces

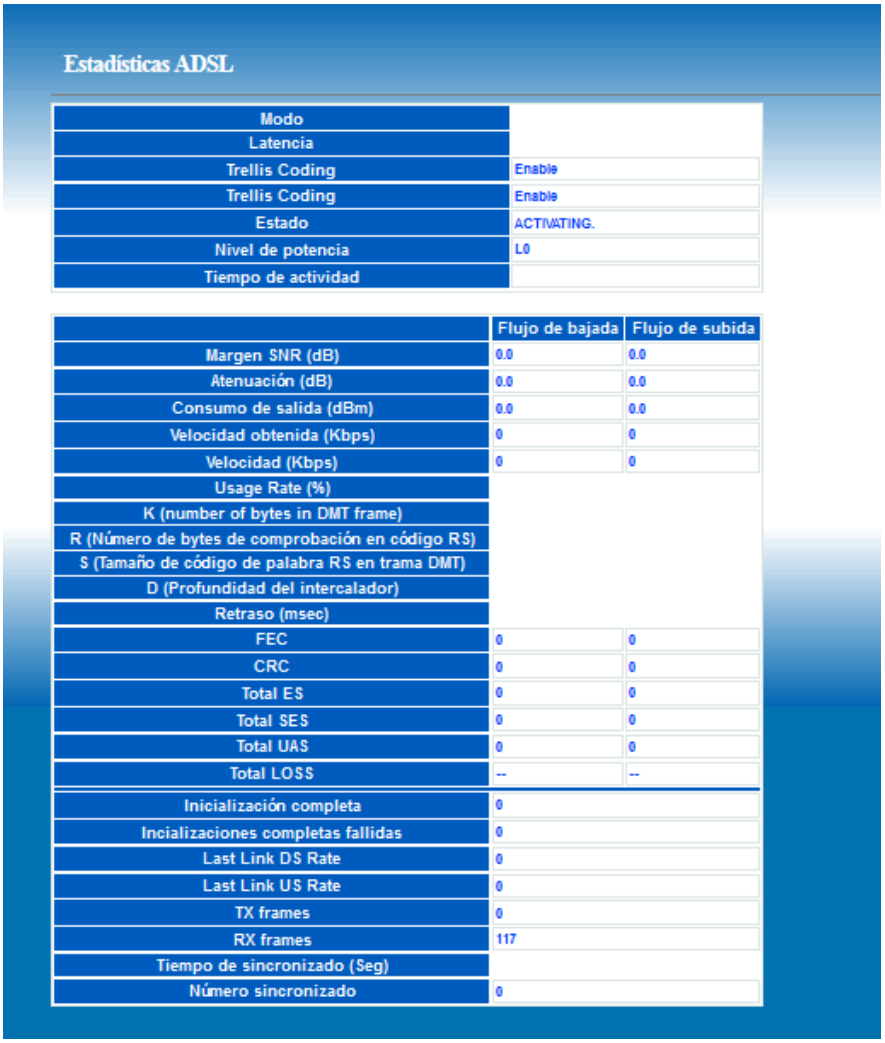
Esta página muestra estadísticas sobre transmisión y recepción de paquetes para cada interfaz de red.

Interfaz	Rx pkt	Rx err	Rx drop	Tx pkt	Tx err	Tx drop
eth0.5	0	0	0	0	0	0
eth0.4	2970	0	0	2297	0	0
eth0.3	0	0	0	0	0	0
eth0.2	0	0	0	0	0	0
wlan0	57665	0	0	1045	0	0
ppp0_vc0	0	0	0	0	0	0
ppp1_vc1	0	0	0	0	0	0
3G_ppp8	0	0	0	0	0	0

Actualizar | Limpiar Estadísticas

4.9.2 ADSL

Choose ADSL to see statistics related to DSL line working.



Estadísticas ADSL

Modo	
Latencia	
Trellis Coding	Enable
Trellis Coding	Enable
Estado	ACTIVATING.
Nivel de potencia	L0
Tiempo de actividad	

	Flujo de bajada	Flujo de subida
Margen SNR (dB)	0.0	0.0
Atenuación (dB)	0.0	0.0
Consumo de salida (dBm)	0.0	0.0
Velocidad obtenida (Kbps)	0	0
Velocidad (Kbps)	0	0
Usage Rate (%)		
K (number of bytes in DMT frame)		
R (Número de bytes de comprobación en código RS)		
S (Tamaño de código de palabra RS en trama DMT)		
D (Profundidad del intercalador)		
Retraso (msec)		
FEC	0	0
CRC	0	0
Total ES	0	0
Total SES	0	0
Total UAS	0	0
Total LOSS	--	--

Inicialización completa	0
Incializaciones completas fallidas	0
Last Link DS Rate	0
Last Link US Rate	0
TX frames	0
RX frames	117
Tiempo de sincronizado (Seg)	
Número sincronizado	0