SAGEM F@st™ 1201/1241

Reference Manual

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SAGEM

Sagem Communication assiduously monitors technical developments and is constantly seeking to improve its products in order to let its clients take full advantage of them. It therefore reserves the right to modify its documentation accordingly without notice.

All brands mentioned in this guide are registered by their respective owners:

- **SAGEM F@st™** is a registered brand of **Sagem Communication**.
- **SAGEM F@st™** is a registered brand of **Sagem Communication**.
- **Windows™** and **Internet Explorer™** are registered brands of Microsoft Corporation.
- **Apple®** and **Mac®OS** are registered brands of Apple Computer Incorporation.

The purpose of the present reference manual is to give users the functions for operating and managing the equipment. The only access level required (**Administrator**) is protected by a password and allows one to access these functions in read and write mode for all the user and network parameters (Standard values: Login: admin, password: admin).

Configuration of the router by HTTP is described in detail (cf. section 5).

For better legibility of the reference manual, the term "router" will be used throughout the document to designate SAGEM F@st™ 1201 and SAGEM F@st™ 1241 equipment. When description is addressed to a type of quite precise equipment, the name of this equipment will be mentioned.
By defect all the functions described on the SAGEM F@st™ 1201 are also available on the SAGEM F@st™ 1241.

Convention of symbols used in this manual

Warns you not to do an action, or commit a serious omission.

Gives you important information which you must take into account

How should the document be used?

The present reference manual is organised into sections and annexes. These sections and annexes cover the following subjects.

Section 1	Presentation of SAGEM F@st™ 1201 equipment
Section 2	Presentation of SAGEM F@st™ 1201 equipment
Section 3	Presentation of SAGEM F@st™ 1201 equipment
Section 4	Configuration of network parameters
Section 5	Configuration of the residential platform by HTTP
Section 6	Description of Internet access service
Section 7	Updating the application
Annex A	Troubleshooting
Annex B	CE compliance declaration
Annex C	Environment
Annex D	Technical Characteristics
Annex E	Default configuration
Annex F	Glossary
Annex G	Connection technology

Contents

1. Introduction

This section covers	➢ presentation of the SAGEM F@st™ 1201/1241 equipment	§ 1.1
	➢ composition of the packaging	§ 1.2
	➢ required hardware and software	§ 1.3

1.1 Presentation

The present reference manual is dedicated to the SAGEM F@st™ 1201 and SAGEM F@st™ 1241 product ranges. These products are routers which give users, via an ADSL/ADSL2/ ADSL2+ network, broadband Internet access from their computer or their games console by various Ethernet (10 or 100 BASE-T) or USB interfaces.

SAGEM F@st™ 1201 and SAGEM F@st™ 1241 products adapt the ADSL function respectively for POTS (UIT G.992.1/3/5 - Annex A) and for ISDN (UIT G.992.1/3/5 - Annex B).

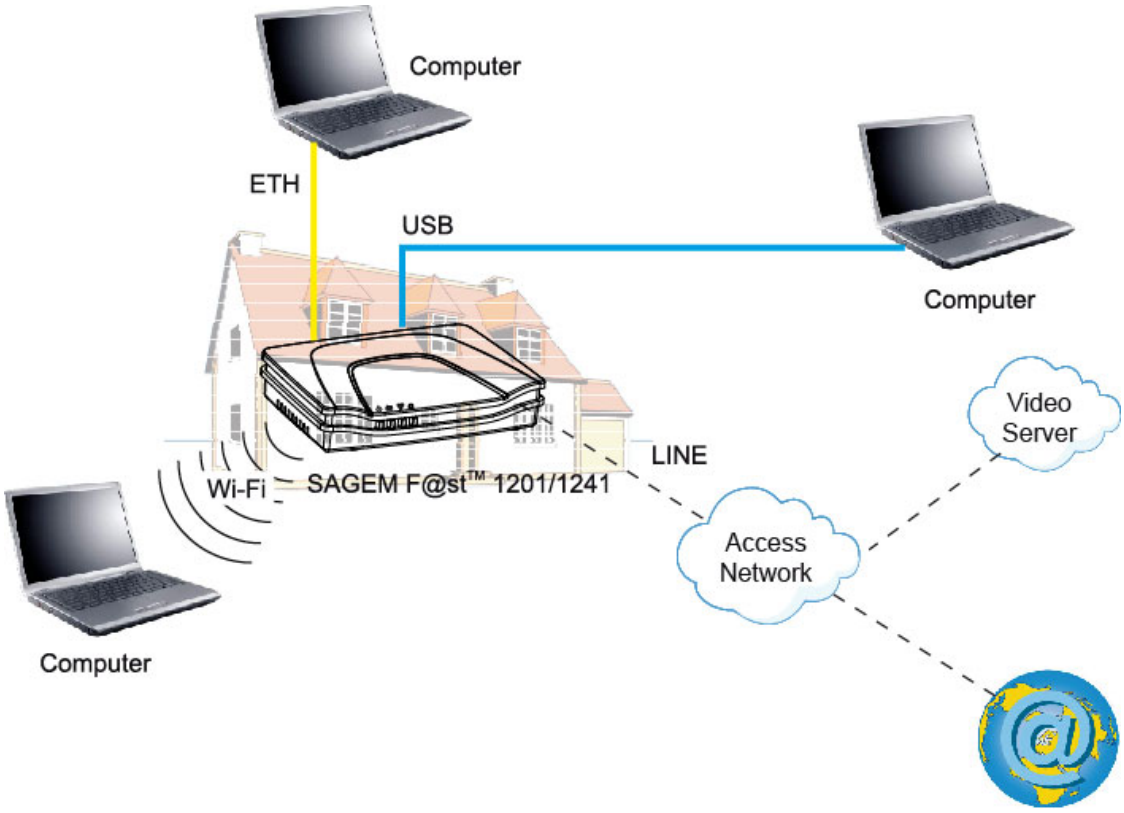


Figure 1.1 - Supervising your router

Its principal characteristics and functions are as follows:

- High-performance secure Bridge/Router with ADSL/ADSL2/ADSL2+ interface,
- User access:
  - 1 10/100BT Ethernet port,
  - 1 USB1.1 Slave port,
- DHCP Client/Server/Relay,
- DNS Server/Relay,
- FTP Client/Server,
- TFTP Client/Server,
- HTTP Client/Server,
- NAT/PAT router - FTP Compatibility, IRC, Net2Phone, Netbios, DNS, Netmeeting, SIP, VPN passthrough (IPSec, IKE, PPTP, L2TP), CUSeeMe, RealAudio, Microsoft IM and others,
- Firewall,
- Spanning tree,
- HTTP server for easy configuration,
- Manual update of the application version locally.

1.2 Composition of router pack

The router is supplied in a pack with the following contents:

- 1 SAGEM F@st™ 1201 or SAGEM F@st™ 1241,
- 1 mains adapter unit,
- 1 grey ADSL RJ11/RJ11 FDT line cord (length = 3 m),
- 1 yellow Ethernet RJ45/RJ45 linking cord (length = 1.75 m),
- 1 blue USB Type A male/Type B male cable (length = 1.5 m),
- 1 Quick Installation Guide,
- 1 Installation CD-ROM,
- microfilter(s) (option),
- 1 filter/splitter (option).

The CD ROM contains:

- the application for installing the USB interface.
- the present Reference Manual (SAGEM F@st™ 1201/1241) in PDF format file.
- the CE declaration of the chosen router.

Incomplete or damaged supply. If on its receipt the equipment is damaged or incomplete, contact the Supplier of your router.

1.3 Minimum prerequisite

Using a router requires at minimum:

- a computer equipped:
  - a type A USB interface

  or
  - an Ethernet interface (10BASE-T or 10/100BASE-T),
- a WEB browser (Internet Explorer version 5 or higher recommended).

The minimum configuration of your computer must be:

- for Windows: Pentium II, 400 MHz, RAM: 128 MB,
- for MacOS: Power PC G3, 233 MHz, RAM: 128 MB,
- a monitor of minimum resolution: 1024 x 768.

Before installing the router, we advise you to uninstall any modem or other router (for example, an ADSL router).

2. Description and connection of router

This section covers	➢ the description of your router	§ 2.1
	➢ connecting the ports of your router	§ 2.2
	➢ connecting to a power socket	§ 2.2.1
	➢ connecting the line cable	§ 2.2.2
	➢ connecting your computer	§ 2.2.3
	➢ installation instructions	§ 2.3

2.1 Description

Figure 2.1 gives an overview of a router SAGEM F@st™ 1201 or SAGEM F@st™ 1241.

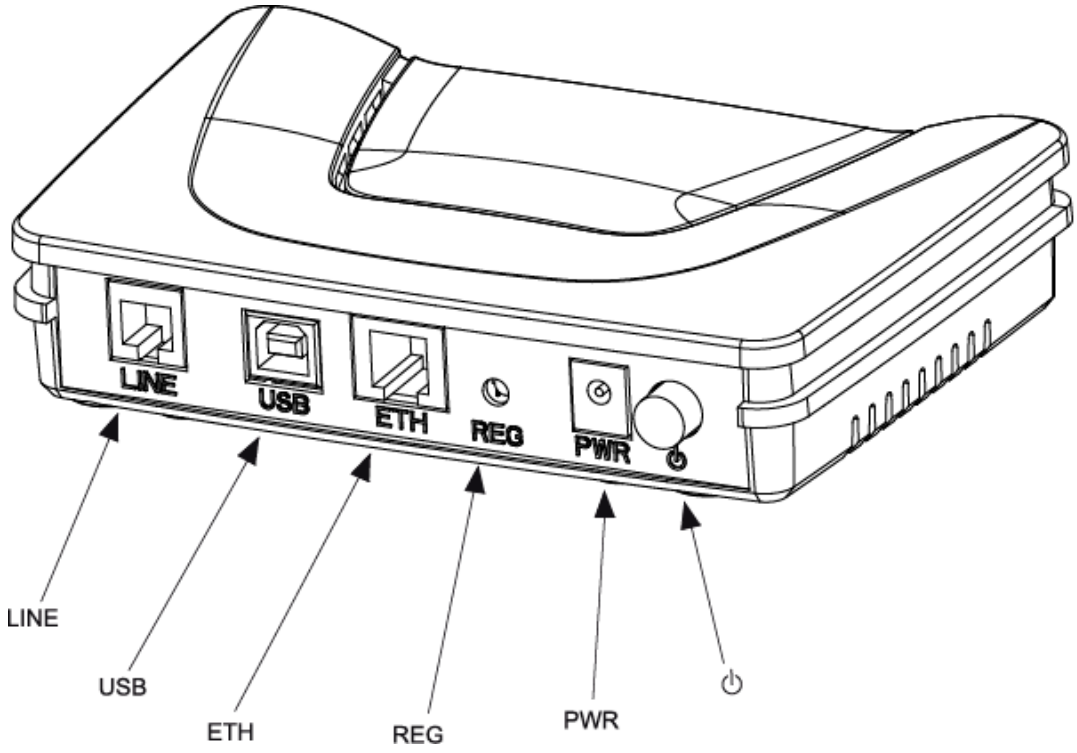
Figure 2.1 - Overview of case

This case consists principally of a lid and a base in which a printed circuit equipped with electronic components is located.

The front face has four display LEDs (cf.§ 2.1.2).
The base has the LEDs ideograms, SAGEM's mark and logo or the operator's marking as well.

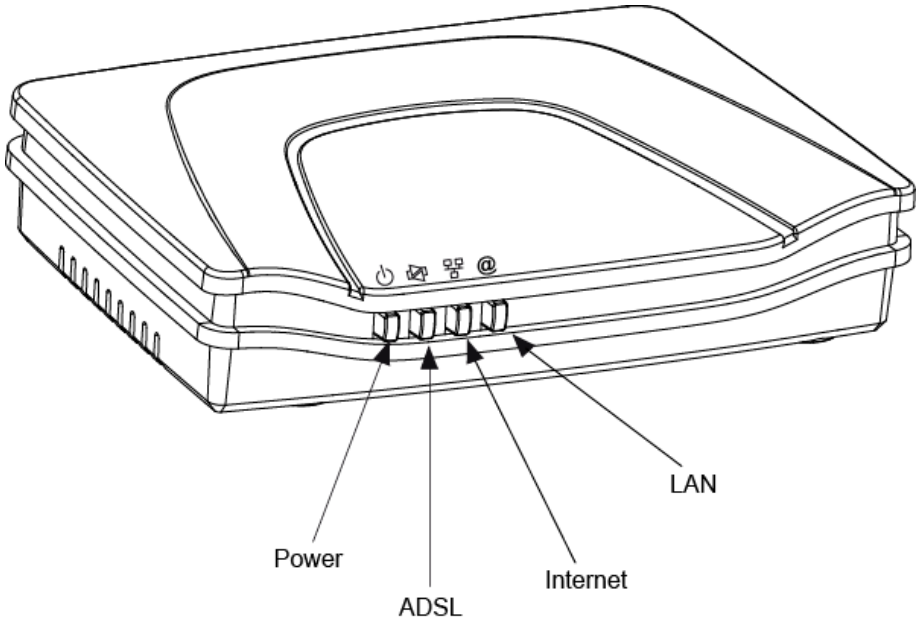
Below the base a label is glued on which the product's identification code, the series number and a barcode are shown.

2.1.1 "Connectors" side view



Marking	Meaning
LINE	RJ11 connector - 6 pts. This grey connector is used for the connection to an ADSL line (WAN interface).
USB	Type B USB female connector. This blue connector is used for connection to a computer (USB interface).
ETH	RJ45 connector - 8 pts (10/100BASE-T Ethernet Interface). This yellow connector is is used for connection to a computer (10/100BASE-T ETH interface).
REG	This button allows the router to be reset to the factory configuration (see § A.7). **Note:** It is set back relative to the other elements to prevent an accidental loss of configuration.
⏻	On/Off switch.
PWR	Miniature jack fixed connector. This connector enables the router to be supplied with direct current from a mains adapter unit.

2.1.2 "LEDs" view



The different LEDs of the figure below are described in the following table:

Marking	Abbreviation	Meaning
⏻	**PWR**	**Alarm LED** (bicolour LED Green/Red): • **lits green** if power is present, • **lits red** in the case of failure detected at the time of starting. • goes **out** if there is no power
	ADSL	**Green ADSL LED**: • **blinks slowly** when the ADSL is not detected, • **blinks quickly** when the ADSL line is being synchronised, • stays **lit** when the ADSL line is detected.
	LAN	**Green local network (LAN) LED**: This LED indicates data traffic between the router and the different USB and Ethernet (ETH) interfaces. • This LED is **off** if no interface (Ethernet or USB) is detected. • This LED **blinks** when traffic is detected on one of the interfaces. • This LED is **lit** when an Ethernet or USB interface is detected and if no traffic is detected.
@	**Internet**	**Internet connection LED** (bicolour LED Green/Red): • remains **lit** when the "PPP" connection is established or when the router is in "Bridge" mode, • **lits green** when the "PPP" connection is established, • **lits red** when the "PPP" connection is not established, • **blinks** when traffic is detected on the WAN interface.

2.2 Connecting the ports of your router

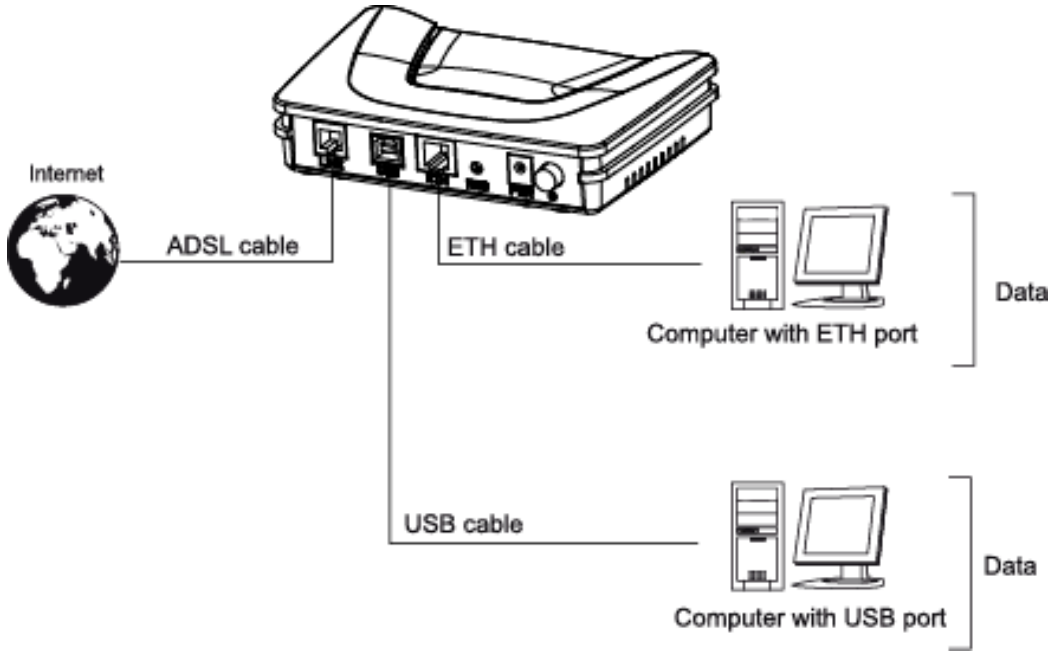
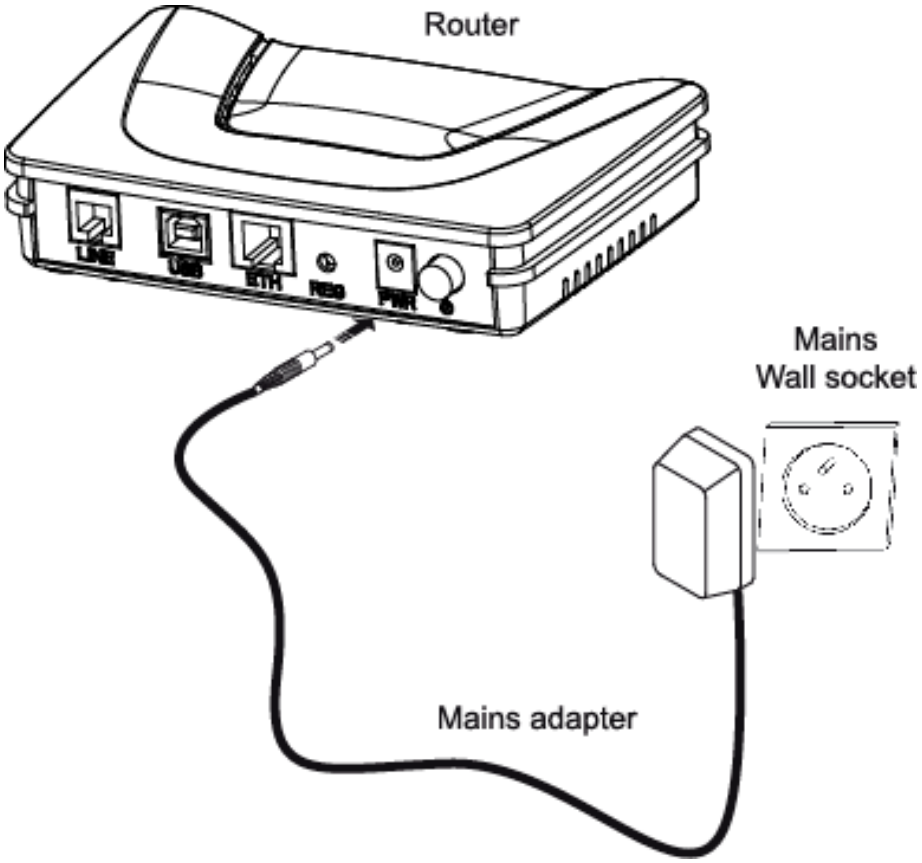


Figure 2.2 - Interconnection of ports of SAGEM F@st™ 1201/1241

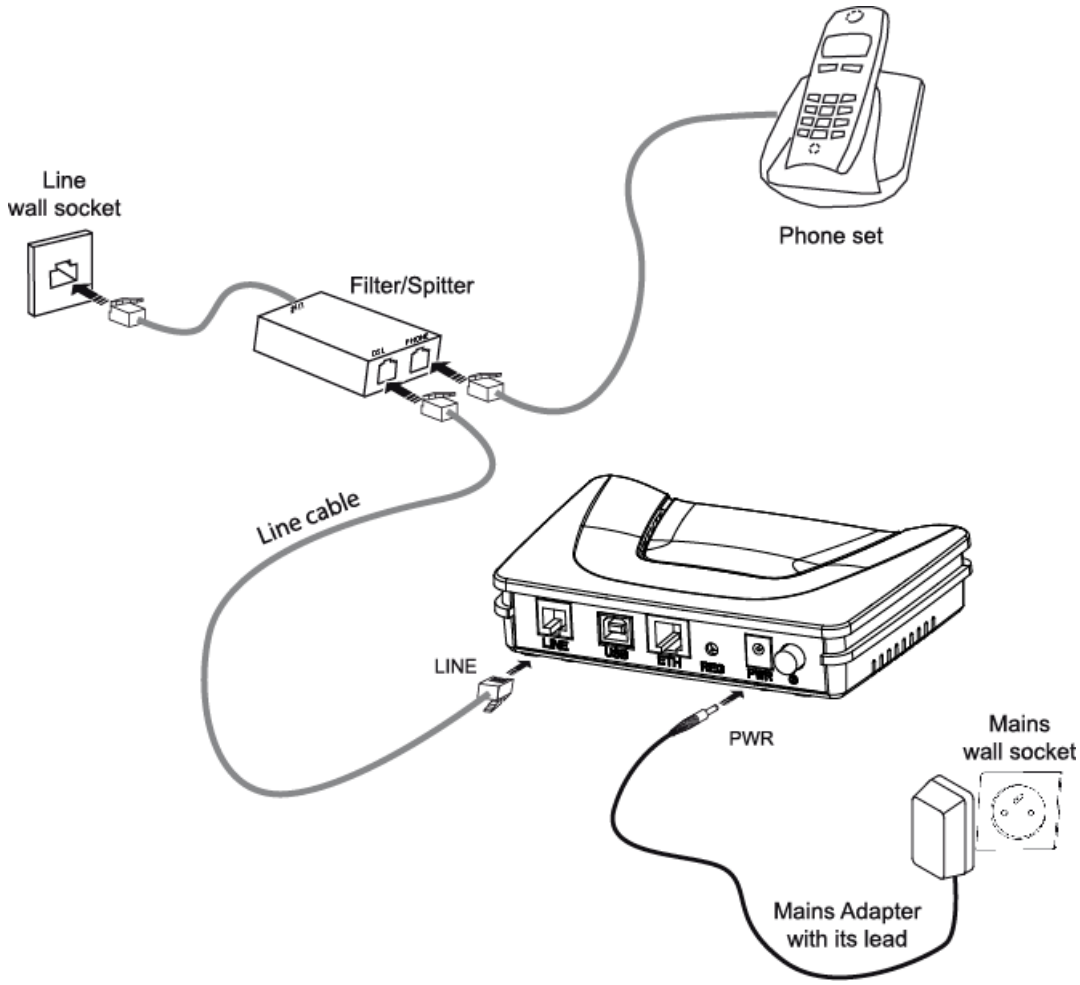
2.2.1 Connecting to a power socket

- First connect the end of the mains cord, supplied with the equipment, to the **PWR** base of your router.
- Connect the mains adapter to a nearby mains wall socket.
- Set the "On/Off" switch to On.



2.2.2 Connection of the ADSL cable to the router

- Connect an end of the supplied grey RJ11/RJ11 cable to the grey fixed connector marked **LINE** of your router.
- Connect the other end of this cable to the connector marked **ADSL** on the micro-filter connected to the RJ11 telephone wall socket of your home.



2.2.3 Connecting to your computer

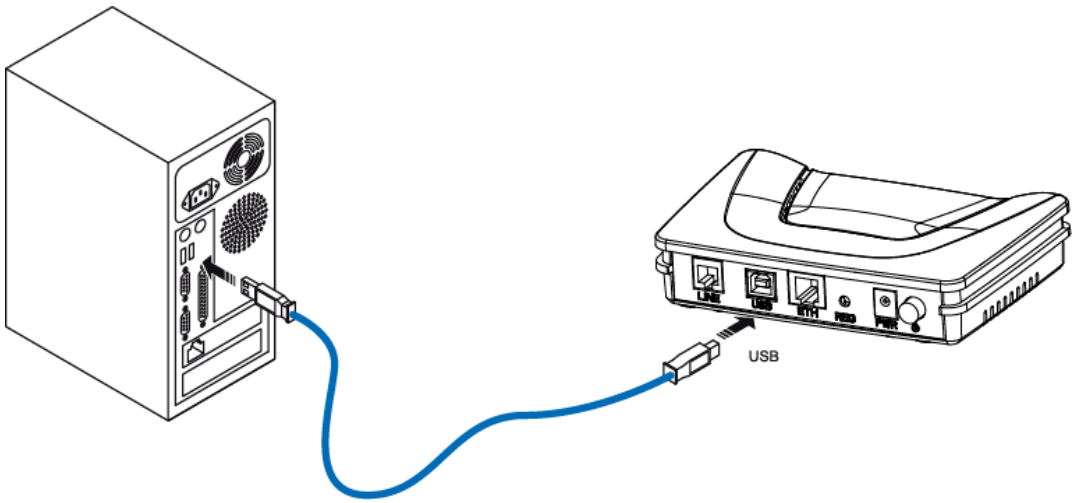
Two connections may have to be made:

- Connection of the USB interface of your router to your computer.
- Connection of the Ethernet interface of your router to your computer.

2.2.3.1 Connection of the USB interface of your router to your computer

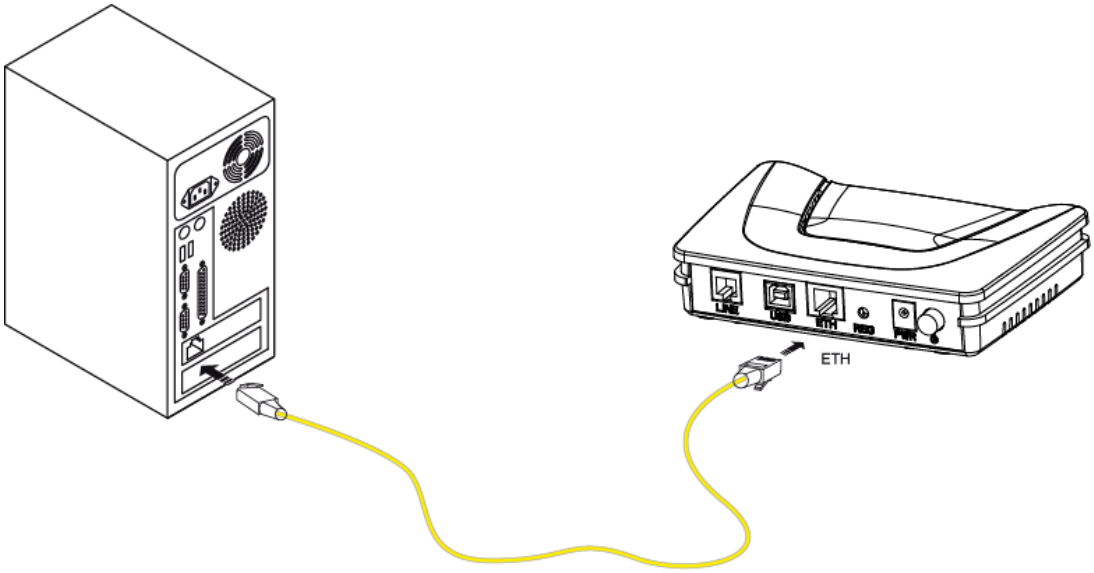
This connection is made **in all cases after installing the drivers** of the USB interface (see section 3).

- Connect the end of the blue **USB** cable fitted with a type B connector (square fixed connector) to the blue fixed connector marked USB of your router,
- Connect the other end of the cable fitted with a type A connector (rectangular fixed connector) to your computer.



2.2.3.2 Connecting the Ethernet interface of your router to your computer

- Connect the end of the yellow Ethernet cable (RJ45/RJ45) supplied in the pack to the yellow Ethernet fixed connector marked **ETH** of your router,
- Connect the other end of the cable to your computer.



2.3 Installation instructions

Environment

- The router must be installed and used inside a building.
- The ambient temperature must not exceed 45°C.
- The router must not be exposed to direct strong sunlight nor to an intense heat source.
- The router must not be placed in an environment subject to vapour condensation.
- The router must not be exposed to water projections.
- The router unit must not be covered.

Power source

- Use a network socket with easy access, which is close to the equipment. The power cord is 2 m in length.
- Arrange the power cord so as to prevent any accidental power cutoff of the router.
- The router is designed to be connected to a TT or TN type power network.
- The router is not designed to be connected to an electrical installation with an IT type diagram (neutral connected to earth through an impedance).
- Protection against short circuits and inter-phase leakages, neutral and earth must be made by the building's electrical installation. The power circuit of this equipment must be fitted with a 16 A protection against power surges, and with a differential protection.

Maintenance

- It is prohibited to open the case. Only qualified personnel approved by your supplier may do so.
- Do not use liquid or spray cleaning agents.

3. Installing and configuring the router

This section covers	➢ installing your router with the network card of your computer (Ethernet).	§ 3.1
	➢ installing your router in the USB port of your computer.	§ 3.2
	➢ installing an additional computer.	§ 3.3

3 - Installing and configuring the router

Your router can be installed and configured with the following interfaces:

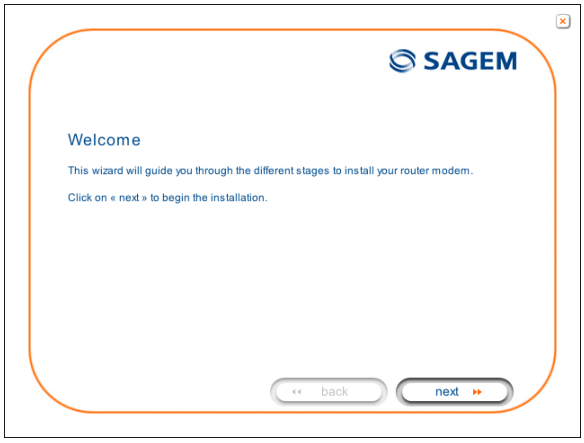
- Ethernet (ETH)(cf. § 3.1),
- USB (cf. § 3.2).

Before installing your router, we recommend you uninstall every ADSL router.

The **installation** procedure described below was undertaken in **Windows® XP**. Installation in other Windows operating systems® (98, ME and 2000) can be slightly different.

1 Insert the CD-ROM in the appropriate driver of your computer; the screen opposite is displayed.

Click button next to start the installation.



Observation: If this screen does not appear: Select, in the menu **Start**, the command **Execute**, then enter:
<letter of CD-ROM drive> :**autorun.exe** (for example, e:\autorun.exe) then click **OK**.

2 The screen opposite appears.

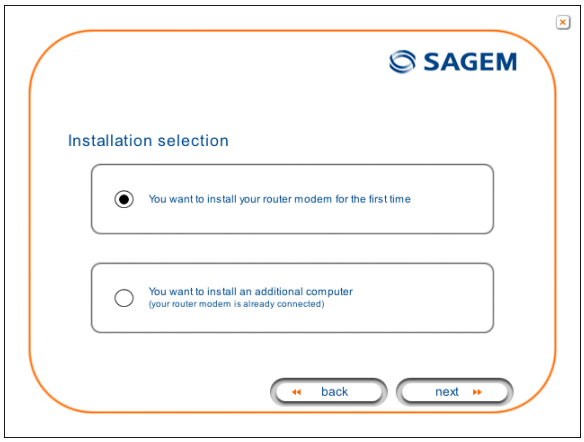
Carry out the operations described on the screen.

Click button next to continue the installation.

3 A screen enabling the type of installation to the chosen (first installation or installation of an additional computer) appears.

For a first installation, we recommend that you check the button

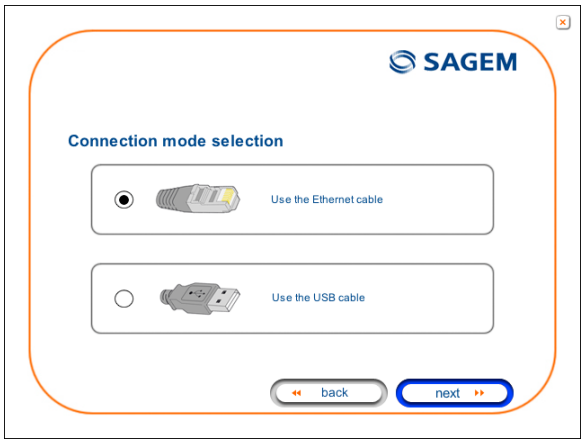
then click on next to continue the installation.



4 The screen opposite appears.

This screen enables you to choose to which interface (Ethernet or USB) you wish to connect your router to your computer.

Select the interface required and then click button next to continue the installation.



The installation of your router using different interfaces is described in detail below in the order displayed on the previous screen (choice of connection mode).

3.1 Installing and configuring your Router with the network card of your computer (Ethernet)

The Ethernet fixed connector marked **ETH** of your router is designed for connecting your computers or wired Ethernet network equipment. It supports 10 Mbit/s and 100 Mbit/s transmission rates in Half or Full Duplex mode on a category 5 double twisted pair cable.

This port is a RJ45 connector with wiring of the self-detecting MDI or MDI-x type.

With this port, you can connect using a straight or crossed Ethernet cord:

- either directly to a computer equipped with a 10/100BASE-T Ethernet network,
- or to an Ethernet local network connected to a network concentrator (HUB or Switch).

The **installation** procedure described below was undertaken in **Windows® XP**. Installation in other Windows operating systems® (98, ME and 2000) can be slightly different.

1 You have selected the **Ethernet** interface; the screen opposite appears.

Make the electrical connection as described on the screen.

Click button next to continue the installation.

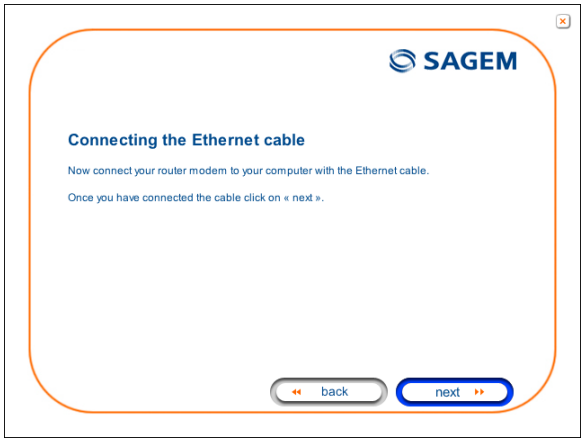
2 The screen opposite appears.

Make the connection of the ADSL line as described on the screen.

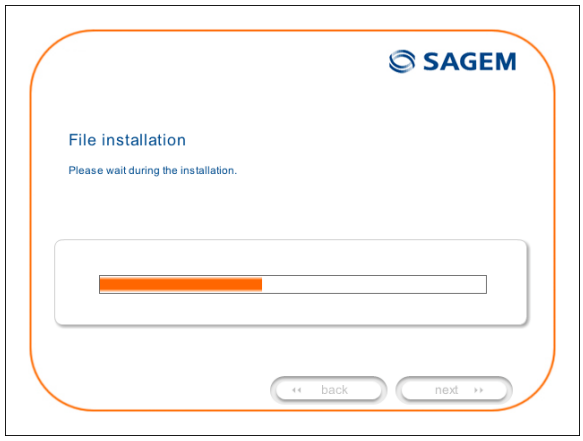
Click button next to continue the installation.

3 Connect the Ethernet cable as described on the screen.

Click button next to continue the installation.



4 The screen opposite appears and asks you to wait.



5 The screen opposite appears.

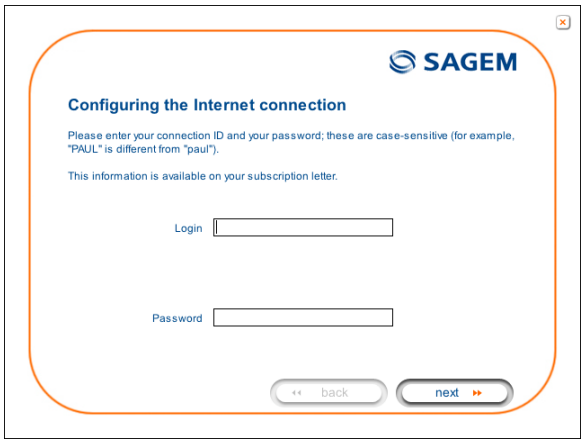
Please wait during the diagnostics of the connection to the Router via an Ethernet cable.

6 The screen opposite appears.

Enter the **connection identifier** followed by the **connection password**.

The latter are available from your subscription confirmation letter.

Click button next to continue the installation.



7 The screen opposite appears and asks you to wait during the successive diagnostics.

The rotating orange arrows are replaced by a green check mark after each successful test.

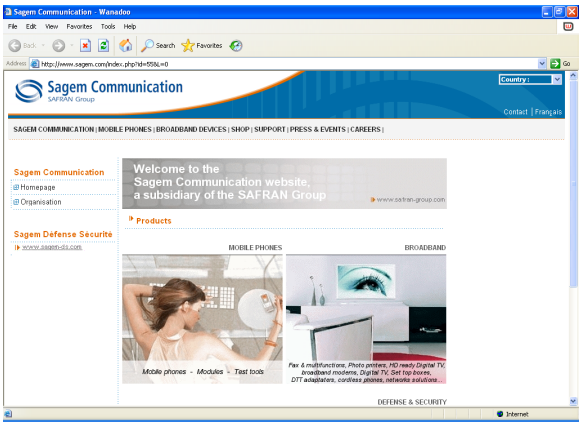
8 The screen opposite appears.

The installation has been correctly accomplished; your router is operational.

Click button finish to close the window.

9 The "SAGEM" welcome screen appears.

You can now use your Internet access.



3.2 Installing and configuring your Router in the USB port of your computer

The **USB** port of your router is of the USB 1.1 type allowing a maximum transmission rate of 12 Mbit/s.

With this port, you can connect directly to a computer located at a type A USB input, using a USB cord (supplied with the equipment).

The USB interface must **in all cases** be **installed before** the **USB connector is connected**.

The **installation** procedure described below was undertaken in **Windows® XP**. Installation in other Windows operating systems® (98, ME and 2000) can be slightly different.

1 You have selected the **USB** interface; the screen opposite appears.

Make the electrical connection as described on the screen.

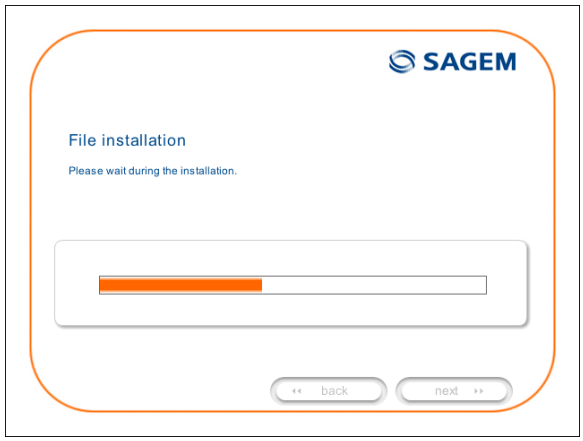
Click button next to continue the installation.

2 The screen opposite appears.

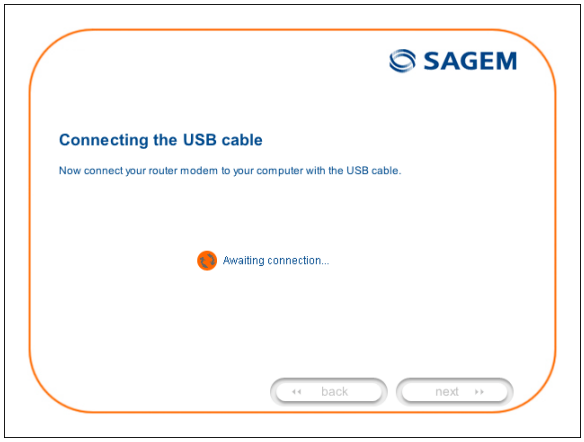
Make the connection of the ADSL line as described on the screen.

Click button next to continue the installation.

3 The screen opposite appears and asks you to wait.



4 Connect the USB cable as described on the screen.



5 The screen opposite appears.

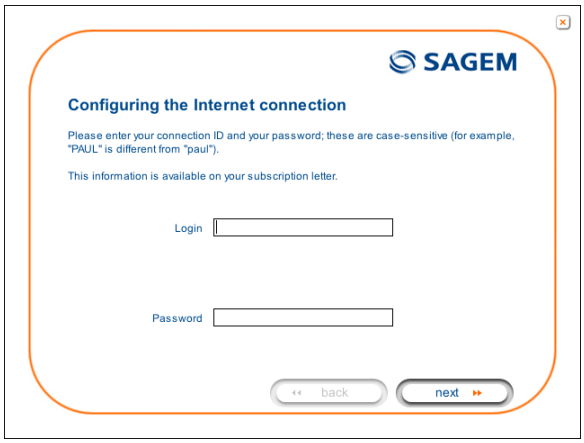
Please wait during the diagnostics of the connection to the Router via a USB cable.

6 The screen opposite appears.

Enter the **connection identifier** followed by the **connection password**.

The latter are available from your subscription confirmation letter.

Click button next to continue the installation.



7 The screen opposite appears and asks you to wait during the successive diagnostics.

The rotating orange arrows are replaced by a green check mark after each successful test.

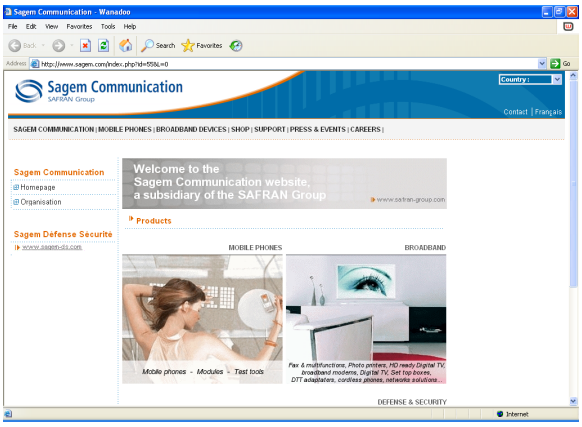
8 The screen opposite appears.

The installation has been correctly accomplished; your router is operational.

Click button finish to close the window.

9 The "SAGEM" welcome screen appears.

You can now use your Internet access.



If you wish to install your router with another interface, you must imperatively uninstall your router.
To do this:

Select **Start/All programs/SAGEM F@st™ 1201/Uninstall**

3.3 Installing and configuring an additional computer

You have chosen to install an additional computer by clicking button

; you have then clicked button

to continue the installation.

1 The screen opposite appears.

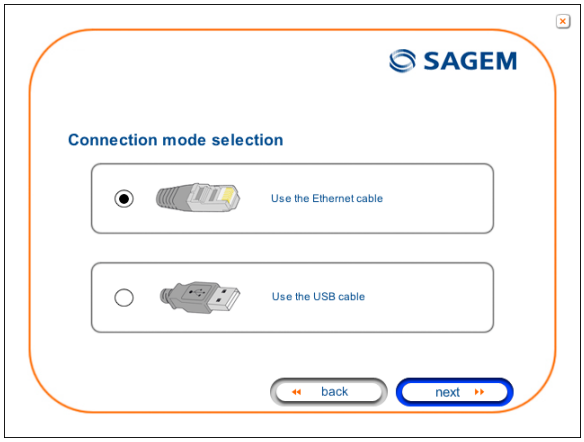
This screen enables you to choose to which interface (Ethernet or USB) you wish to connect your router to your computer.

Click "Use the Ethernet cable" (cf. § 3.1),

Click "Use the Ethernet cable" (cf. § 3.2),

and then click button 

to continue the installation.



The stages concerning:

- The electrical connection and connection to the ADSL line of the router,
- Together with configuration of the router (connection identifier, connection password, etc.).

are no longer to be accomplished when installing an additional computer, whatever the interface (Ethernet or USB).

4. Configuration of network parameters

This section covers	➢ configuring as a DHCP client	Page 4-3
	➢ reading data of the DHCP server	Page 4-4
	➢ reading data of the DHCP client	Page 4-6

4 - Configuration of network parameters

The aim of this section is:

1) to configure your computer so that it is able to communicate with your router.

2) and to display the "Networks" parameters of your router.

Your router implements the DHCP (**D**ynamic **H**ost **C**onfiguration **P**rotocol) server, relay and client functions in accordance with RFC 2131 and RFC 3132, whereas the computer connected directly to the router or via a local network by its LAN interface implements only the DHCP client function.

On receipt of a DHCP query from your computer (see ), whether or not it is connected to your router, the latter responds by indicating:

- an address from the range defined in the configuration,
- the sub-network mask,
- the default gateway (address of your router),
- the address of the gateway as DNS server. The "DNS Relay" function is activated automatically.

The configured range of IP addresses must be the same in the sub-network as in the LAN interface.

It is imperative that your computer is configured as a DHCP client or that it has a fixed IP address in the configuration range defined by the DHCP server.

Configuration as a DHCP client is the more commonly used solution.

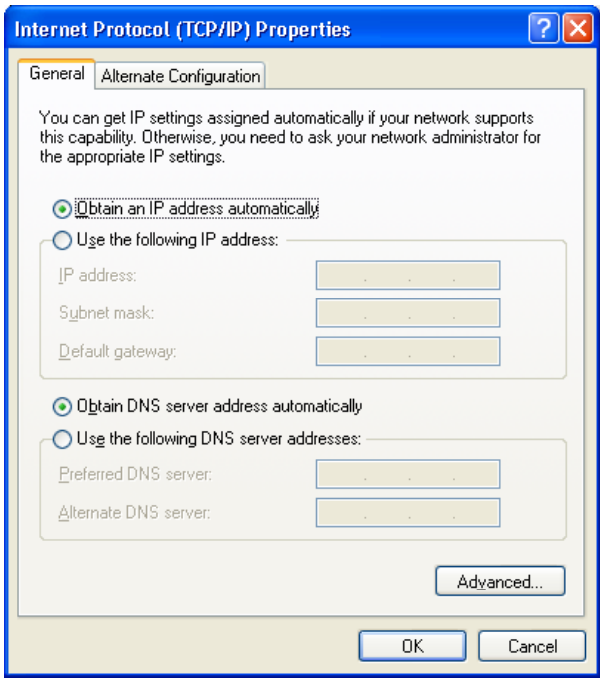
1) Configuring as a DHCP client

In Windows XP

- Click on **Start**/**Control** Panel/**Network Connections**.
- Right-click on the network which you are using, and then select **Properties**.
- Click on protocol TCP/IP of the network card, and then click on **Properties**.

The screen opposite appears.

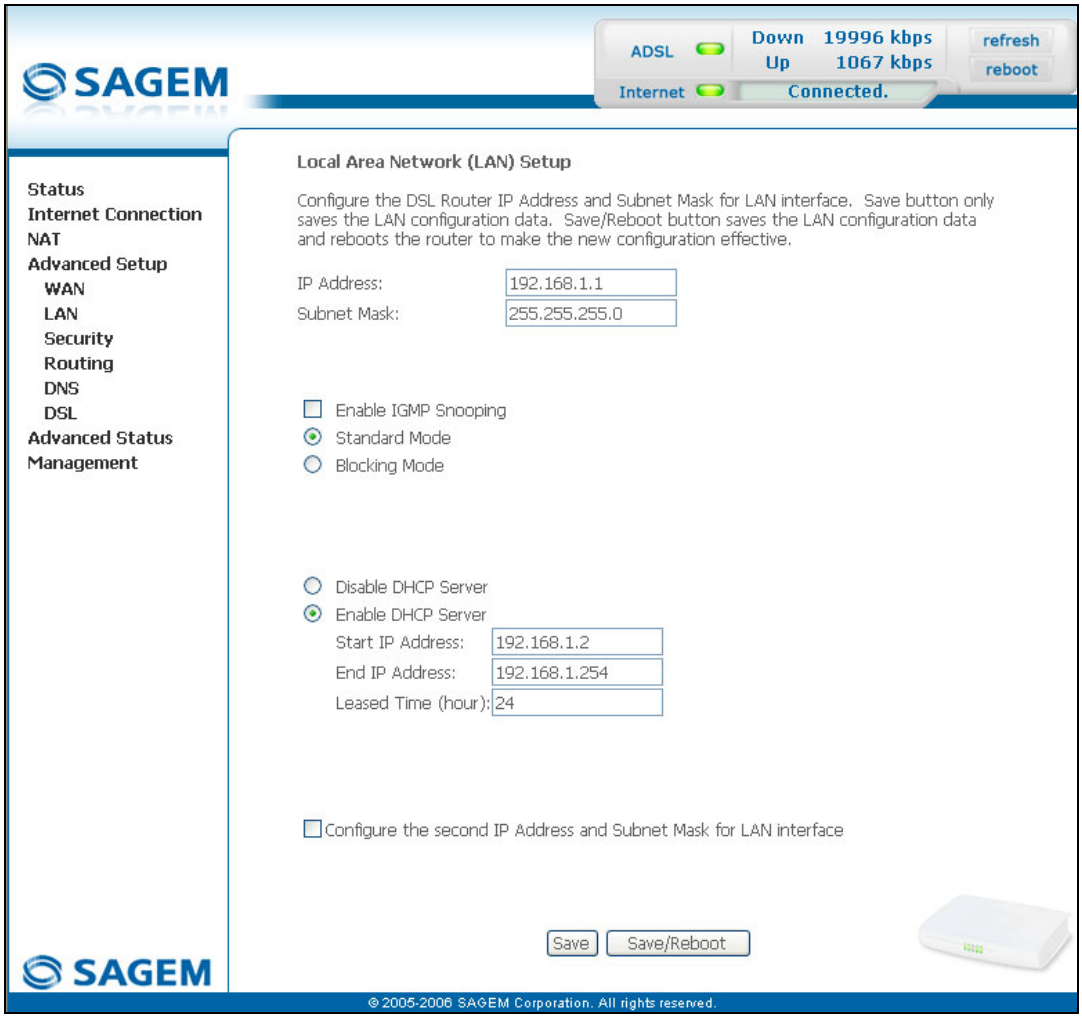
- Select the general tab, then the command "**Obtain an IP address automatically**" and the command "**Obtain the addresses of the DNS servers automatically**".
- Click button **OK** to confirm your choice.



2) Data of the DHCP server

To obtain this data:

- Open your browser and then enter **http://myrouter** or **http://192.168.1.1** (default IP address of the router) to access the welcome screen,
- Click the "**LAN**" menu of the heading **Advanced Setup**; the following screen appears:



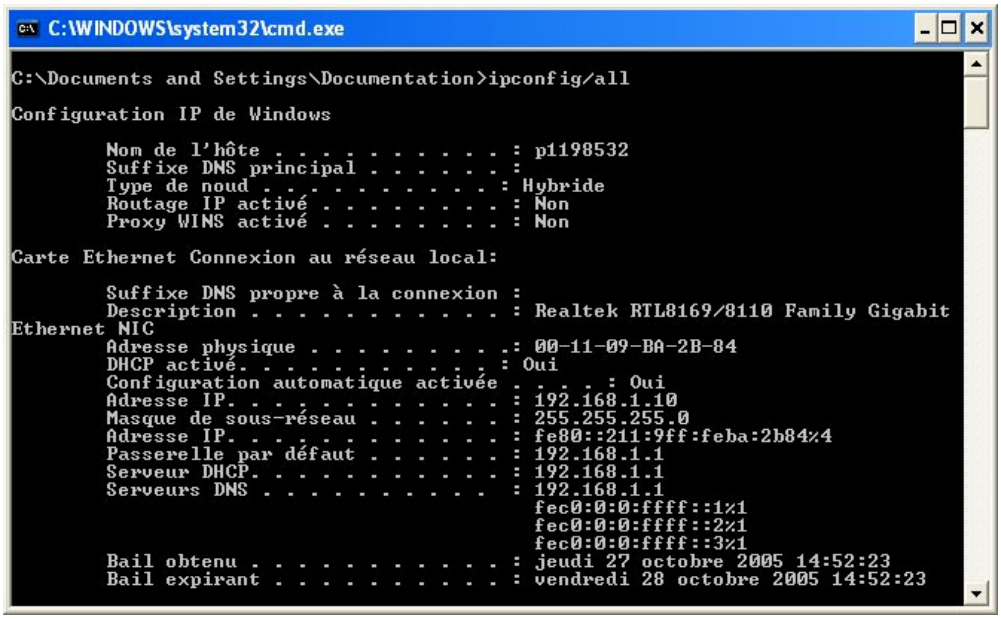
Field	Meaning	Display
IP Address	Displays the sub-network address	192.168.1.1
Subnet Mask	Displays the sub-network mask of the IP network.	255.255.255.0
Start IP Address	Displays the first address attributed by the DHCP server. **Note :** This IP address must belong to the same sub-network as that of the local network.	192.168.1.2
End IP Address	Displays the last address attributed by the DHCP server. **Note :** This IP address must belong to the same sub-network as that of the local network.	192.168.1.254
Leased Time (hour)	Displays the period for obtaining (in hours) an IP address for a terminal.	24

3) Data of the DHCP client

To obtain this data:

In Windows XP, 2000 and Me

- Click button **Start**, select **Execute**, enter **cmd** and then click **OK**; the command prompt screen appears. Enter **ipconfig /all** (or **ipconfig/all**) then confirm by pressing **Enter**.



5. Information / Configuration

This section covers	➢ Accessing the welcome screen	§ 5.1
	➢ Recommendations for using the configuration screens	§ 5.2
	➢ The ADSL connection status	§.5.3
	➢ Indications displayed on the display frame located in the HTTP configurer window	§ 5.4
	➢ The "**Status**" section	§ 5.5
	➢ The "**Internet Connection**" section	§ 5.6
	➢ The "**NAT**" section	§ 5.7
	➢ The "**Advanced Setup**" section	§ 5.8
	➢ The "**Advanced Status**" section	§ 5.9
	➢ The "**Management**" section	§ 5.10

5.1 Accessing the welcome screen

To access this screen, you must have configured your computer's network function Ethernet or USB interfaces using the installation CD-ROM provided with your router (cf. chapter 3).

If you are using your computer's Ethernet card to configure your router, connect it to the Ethernet port whose yellow socket is marked **ETH**.

Your router is then configured using a simple Web browser (e.g. Internet Explorer).

The router's DHCP server function is activated by default with an address range defined as indicated in §.5.8.2.

To access the configurer, proceed as follows:

1 In the **Start** menu, select **All Programs** / **SAGEM F@st 1201**, then left click on Configuration .

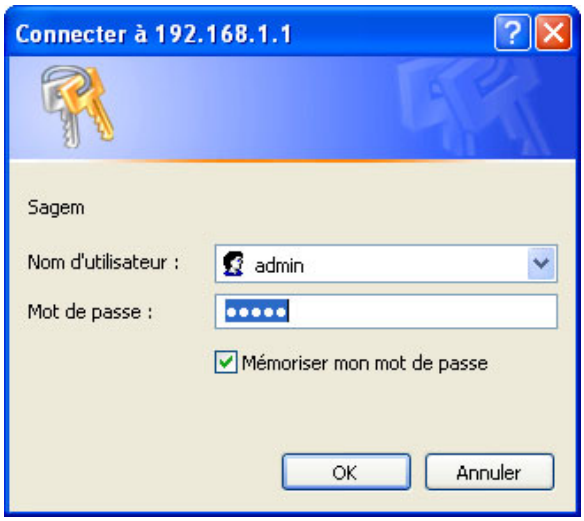
2 The following screen asks you to connect.

Enter **admin** by default in the "Username" field.

Enter **admin** by default in the "Password" field.

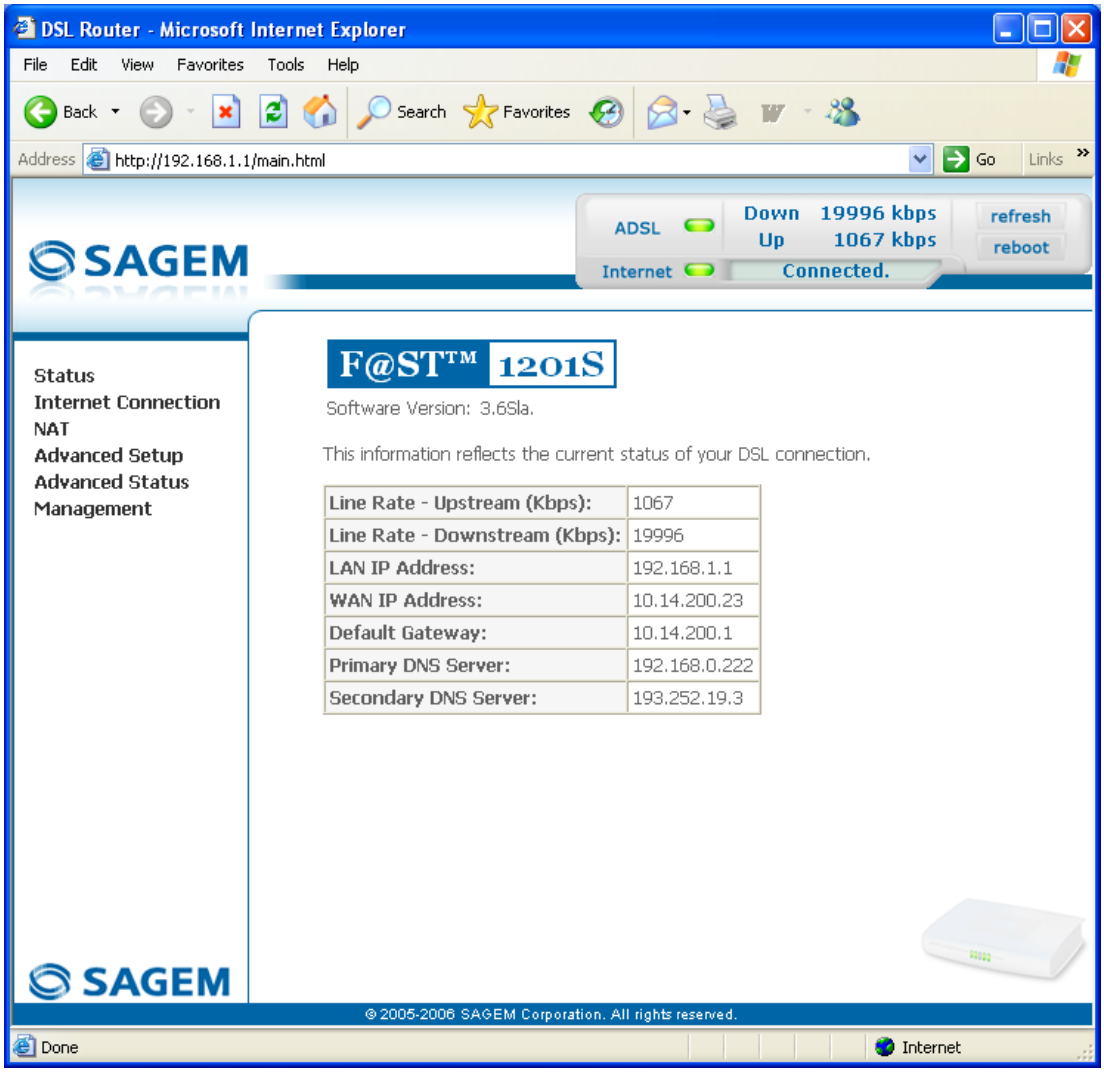
Then click on **OK** to confirm.

Note: The equipment's IP address (192.168.1.1) appears in the bar at the top of the screen.



3 Your computer's Web browser opens and displays the router's welcome screen. The equipment's name is displayed in title.

Equipment configuration sections appear in the left hand area in the welcome screen.



This screen displays:

- ☞ in the centre, an area which shows the current ADSL connection status (cf. § 5.3).
- ☞ in the top right, a display box which lets you know the status of the ADSL line, lets you refresh the window displayed and restart your router at any time (cf. § 5.4).
- ☞ to the left, a list of 6 sections (cf. § 5.5 to 5.10) made up of menus and sub-menus. These let you view and configure your router's parameters.

You can modify the password to access your router's configurer to optimise the safety of your network.

5.2 Recommendations

The meaning of the main buttons most commonly present in all the configuration windows is provided in the table below.

Add	Click on this button to add a new window to fill in the fields used to add an object.
Back	Click on this button to return to the previous screen.
Close	Click on this button to close the active window and return to the main screen.
Edit	Click on this button to display a new window to modify the fields that can be accessed for a previously selected object.
Next	Click on this button to display the next screen.
Remove	Click on this button to remove a selected object from a list. **Note:** You must check the "Remove" box to delete this object.
Save	Click on this button to save the entry in the router's non-volatile (flash) memory. **Note:** This value will only be taken into account when you restart your router.
Save/Apply	Click on this button to save the entry in the router's non-volatile (flash) memory. **Note:** This value will be taken into account immediately without you having to restart your router.
Save/Reboot	Click on this button to save the entry in the router's non-volatile (flash) memory then restart your computer.

Basic principles

1) To make this guide easier to read and understand, it does not state that each time you enter information into a screen you must click on **Save** or **Save/Apply** or **Save/Reboot** (except, of course, if this is necessary).
2) When you select a section, the screen for the first menu in the section is displayed. In the same way, when you select a menu, the screen for the first sub-menu is displayed.
3) All the fields in the different screens are explained in a table.

5.3 ADSL connection status

Refer to § 5.5.1 - **Status/Summary**.

5.4 Display frame

This supervision box is displayed permanently at the top right of each HTTP configurer window.

The different objects it contains are explained below.

LEDs

ADSL	**Green**	Synchronised ADSL line	
	Yellow	ADSL line synchronising	
	Red	ADSL line not connected	
Internet	**Green**	**Connected**	Public address (WAN) distributed to the router.
	Yellow	**Waiting for ISP**	ADSL line synchronising or public address (WAN) not distributed to the router
	Off	**ADSL Down**	Public address (WAN) not distributed to the router, or ADSL line not synchronised.
		Not configured	No VC (Virtual Channel) configured
		Router Rebooting	Router restarted
	Red	**Access denied**	Wrong Login and/or Password

Transmission rates

Down	Displays the nominal down line transmission rate
Up	Displays the nominal up line transmission rate

Buttons

refresh	Allows data displayed on the screen to be refreshed
reboot	Allows your router to be started

5.5 Status

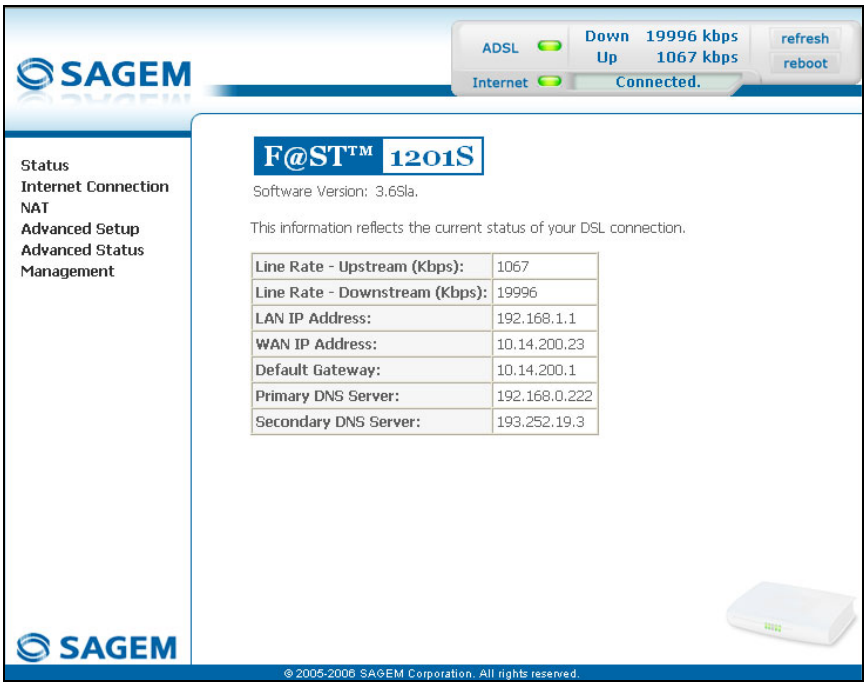
Clicking on this heading displays the following menus:

- Summary (cf. 5.5.1),
- Diagnostics (cf. 5.5.2).

5.5.1 Summary

Object: This menu lets you display the current status of your Internet connection.

- Select the **Summary** menu in the **Status** section; the following screen opens:



This screen also appears in the welcome screen (see § 5.1).

The following table provides the meaning of the different fields which are displayed.

Field	Meaning
Software Version	Software version currently installed.
Line Rate - Upstream (kbps)	Nominal up line rate
Line Rate - Downstream (kbps)	Nominal down line rate
LAN IP Address	Local network IP address (LAN)
WAN IP Address	Remote network IP address (WAN)
Default Gateway	Default gateway address
Primary DNS Server	Primary DNS server address
Secondary DNS Server	Secondary DNS server address

5.5.2 Diagnostics

Object: This menu is used to display all the tests performed on the connections made from your router to your **I**nternet **S**ervice **P**rovider (ISP). These tests concern:

- the connection to your local network (LAN),
- the connection to your "DSL Service Provider",
- Connection to your "Internet Service Provider".

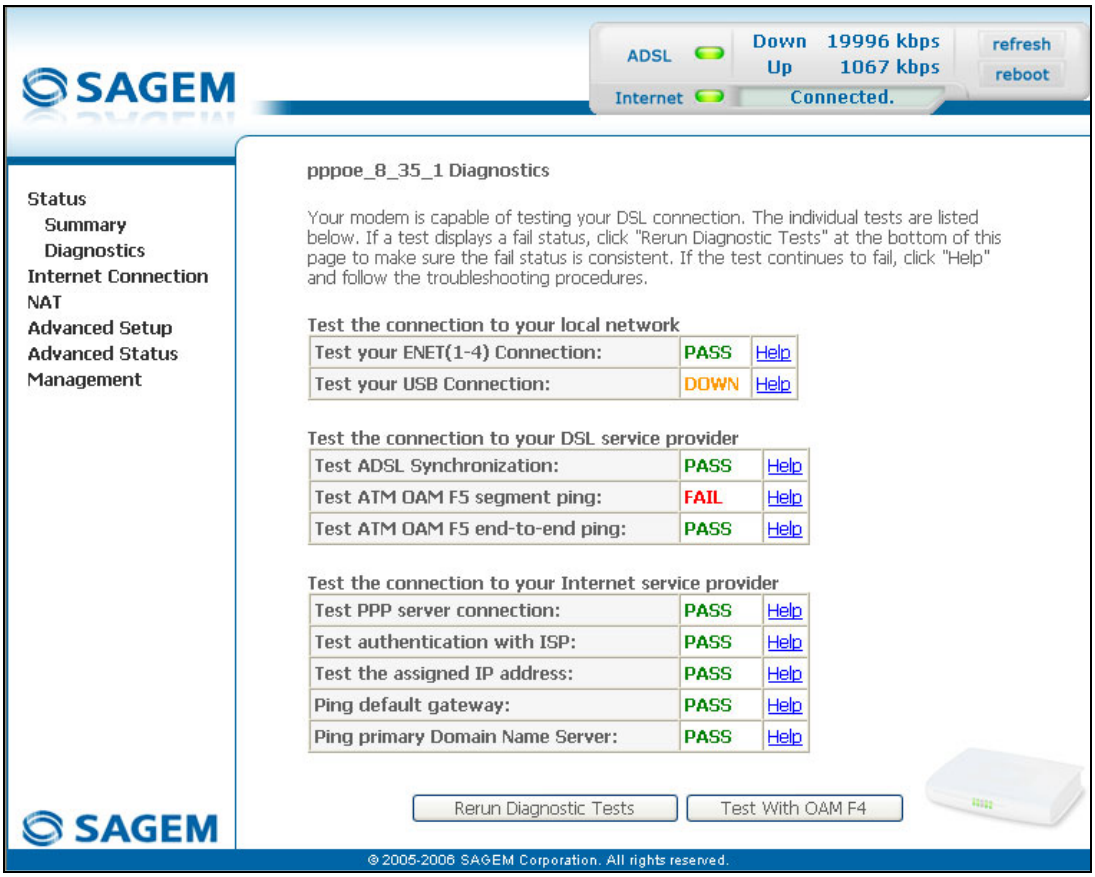
A hypertext link (help) enables the user to access context-related help. This help gives an explanation concerning the state of the connection (**PASS** in green, **DOWN** in orange and **FAIL** in red) and supplies the appropriate troubleshooting procedures.

The ADSL line translates the three statuses detailed in the table below.

State	Colour	Meaning
PASS	**Green**	Indicates that the test was completed successfully.
DOWN	**Orange**	Indicates that an interface (ETH or USB) has not been detected.
FAIL	**Red**	Indicates that the test has failed, or that it is impossible to start a command.

If a test displays a "FAIL" state, click on "Help" and then the button "Rerun Diagnostic Tests" at the bottom of the "Help" page, to check that the test has been conclusive. If the test still displays "FAIL", you must follow the troubleshooting procedure displayed on this page.

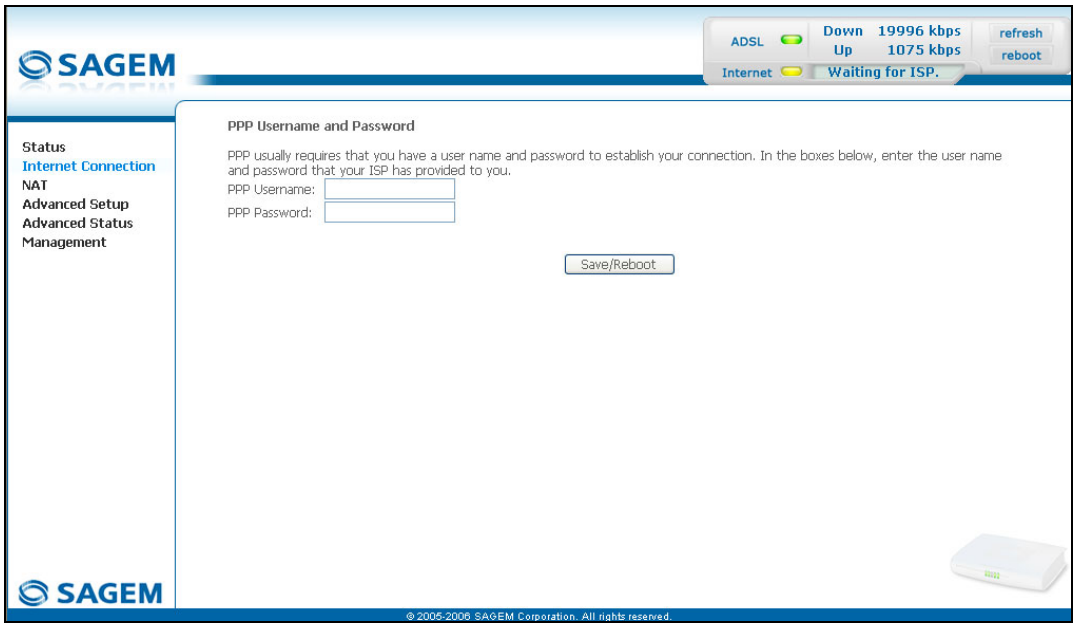
- Select the **Diagnostics** menu in the **Status** section; the following screen opens:



5.6 Internet Connection

Object: This menu lets you enter your connection ID and your connection password.

- Select the **Internet Connection** heading to display the following connection configuration screen:



Field	Action	Default:
PPP Username	Enter your connection ID. This information is provided to you by your **I**nternet **S**ervice **P**rovider (ISP).	**Empty**
PPP Password	Enter your connection password. This information is provided to you by your **I**nternet **S**ervice **P**rovider (ISP).	**Empty**

If the message "**There is no ppp connection**" appears, this means that the remote network (WAN) parameters have not been filled in (cf. § - 5.8.1 - Advanced Setup / WAN).

5.7 NAT

Object: NAT is a configurable IP address translation function which will be applied to the interfaces of your router which you will have activated for this function.
Several translation function configurations, the NAT actions, can be configured and may be activated as indicated in the 5.7.1 - **Add** paragraph.

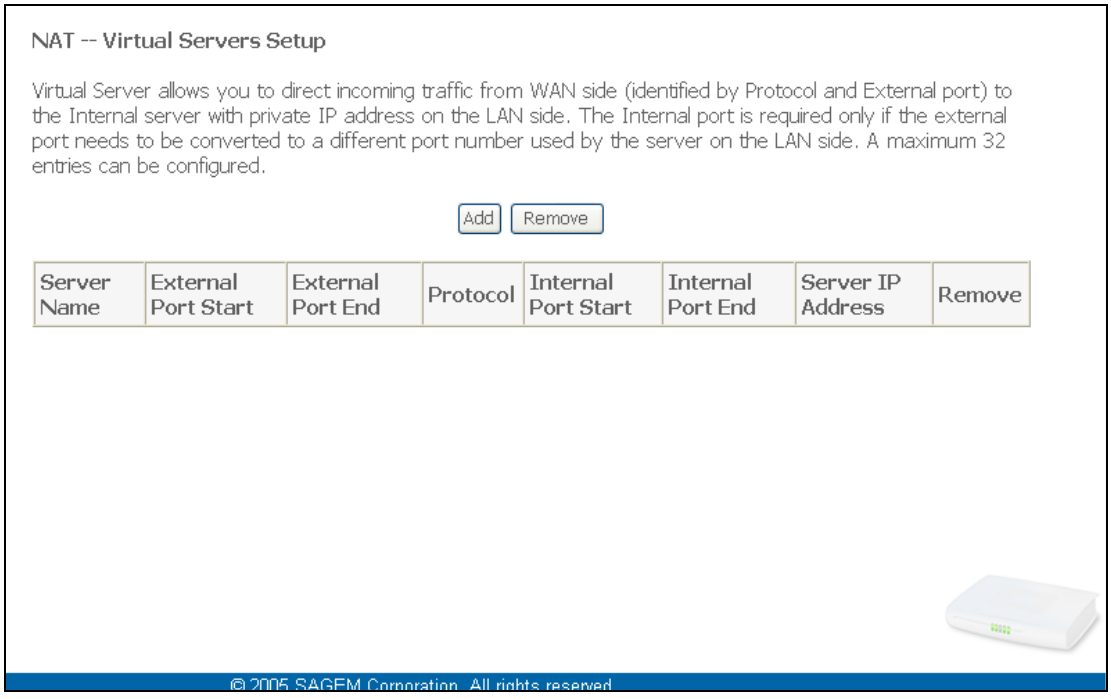
This section contains the following two menus:

- Port forwarding (cf. § 5.7.1),
- DMZ Host (cf. § 5.7.2),

5.7.1 Port forwarding

Object: This menu is used to route directly to the External Ports the incoming data from a Service server (such as, for example, FTP Server, SNMP, TFTP etc.) of the remote network (WAN) to computers on the local network (LAN) via the Internal Ports.

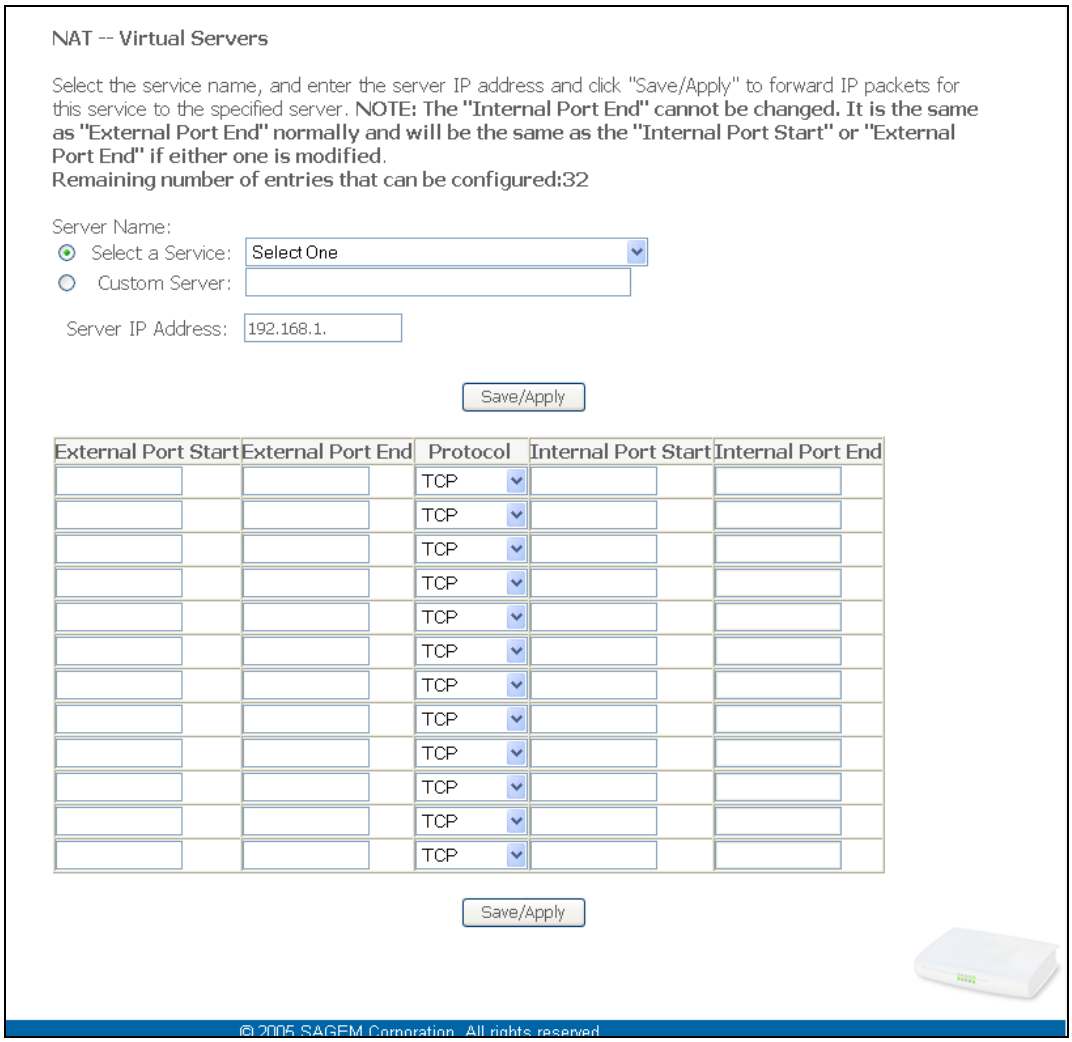
- Select the **Port forwarding** menu in the **NAT** section to display the following screen:



Field	Meaning
Server Name	
Select a Service	Service available over Internet (such as, for example FTP Server, SNMP, TFTP etc.).
Custom Server	Name you want to allocate to a local server.
External Port Start	Internal start port (WAN side).
External Port End	Internal end port (WAN side).
Protocol	Transport protocol (TCP, UDP or TCP/UDP).
Internal Port Start	Internal start port (LAN side).
Internal Port End	This internal end port (LAN side) is associated with the external end port (WAN) side. **Note:** This cannot be modified.
Server IP Address	Computer address delivered by your router's DHCP server.

Add

- Click on the **Add** button; the following screen appears:



Proceed as follows:

- Check the "**Select a Service**" box, then select the service of your choice from the scroll down list, for example "SNMP".

  The "**External Port Start**", "**External Port End**", "**Internal Port Start**", "**Internal Port End**" and **Protocol** fields (transport protocol associated with this service) are automatically filled in the table.

  Note: You may complete the table by adding other ports associated with a protocol.

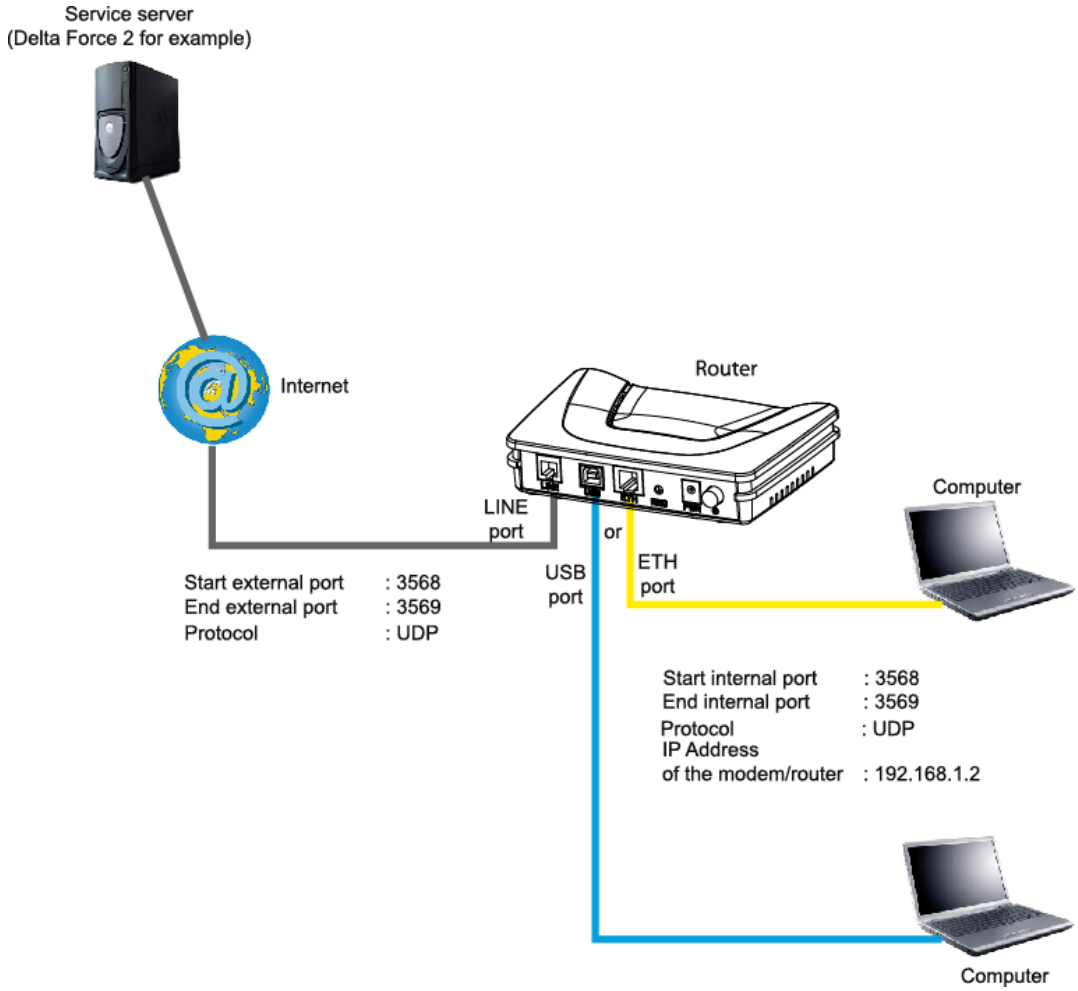
or

- Check the "**Custom Server**" box, enter the name of the server you want to connect to, then:
  - Complete the ID Host of your computer's IP address (this is attributed by your router's DHCP server).
  - Fill in the "**External Port Start**", "**External Port End**", "**Internal Port Start**", "**Internal Port End**" and "**Protocol**" fields.

A few rules for entering values:

- **When you want to select a single port, the start port ("External Port Start" or "Internal Port Start") and the end port ("External Port End" or "Internal Port End") must be identical.**
- **When you want to select a range of ports, the start port number must be lower than the end port number.**
- **You must always start entering with the "External Port Start" and "External Port End" ports,**
- **When you allocate a number to an "External Port Start", the same number is automatically allocated to the "Internal Port Start" and identically for "External Port End",**

The following diagram contains an example:



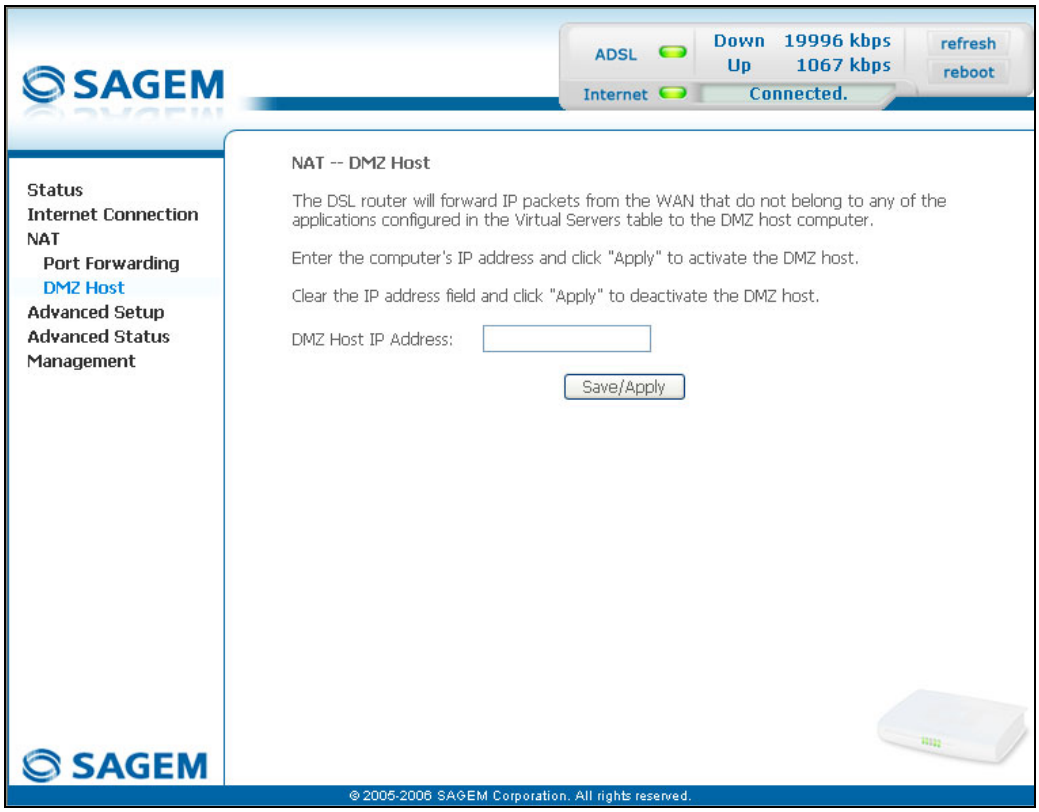
The "Delta Force 2" service is available on your computer via the external ports 3568 and 3569 (WAN side) and via the internal ports 3568 and 3569 (LAN side).

5.7.2 DMZ Host

Object: This "DMZ" (**De**-**M**ilitarized **Z**one) lets you access the server you selected directly via the Internet without going through the "Firewall".

Caution, this process presents an intrusion risk. It is therefore vital that you take precautions so that no connections may be initiated to the private network.

- Select the **DMZ Host** menu in the **NAT** section to display the following screen:



Field	Action	Default
DMZ Host IP Address	Enter the IP address of a server to activate the "DMZ" and therefore access it directly from the Internet. To deactivate the "DMZ" zone, erase the address entered in the field. **Note**: Click on the **Save/Apply** button to take account of the address or its erasure.	**Empty**

The "DMZ" zone is deactivated by default.

5.8 Advanced Setup

Object: This menu is used to configure the specific parameters for your router.

This menu must only be used by experienced users.

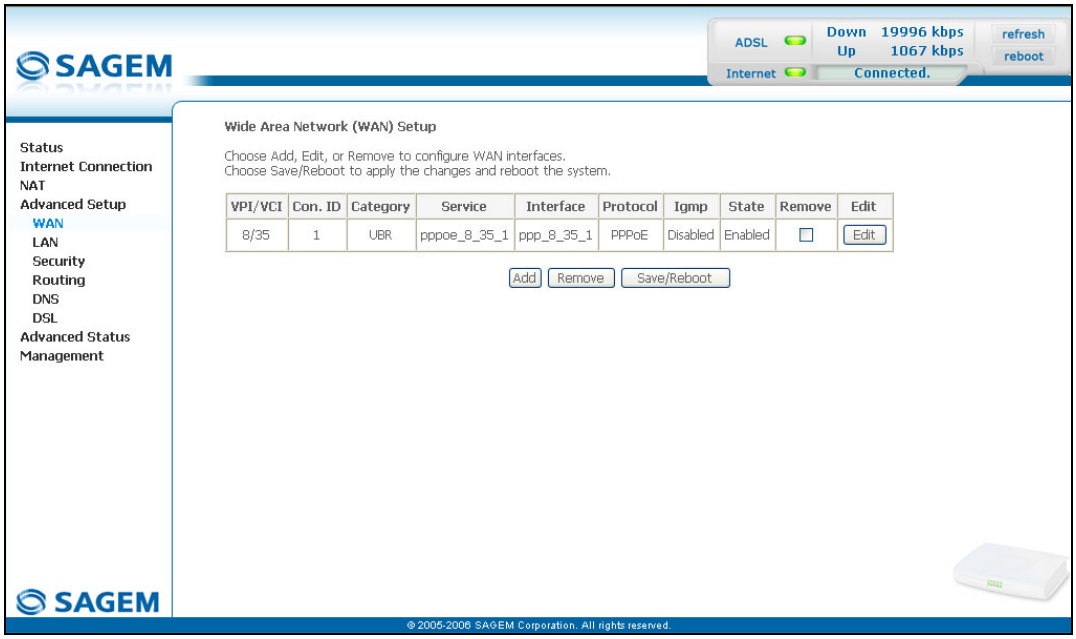
This section contains the following six menus:

- WAN (cf. § 5.8.1),
- LAN (cf. § 5.8.2),
- Security (cf. § 5.8.3),
- Routing (cf. § 5.8.4),
- DNS (cf. § 5.8.5),
- DSL (cf. § 5.8.6).

5.8.1 WAN

Object: This menu is associated with the remote network. It is used to display the list of all the configured PVCs, to add PVCs or remove them.

- Select the **WAN** menu in the **Advanced Setup** section to display the following screen:

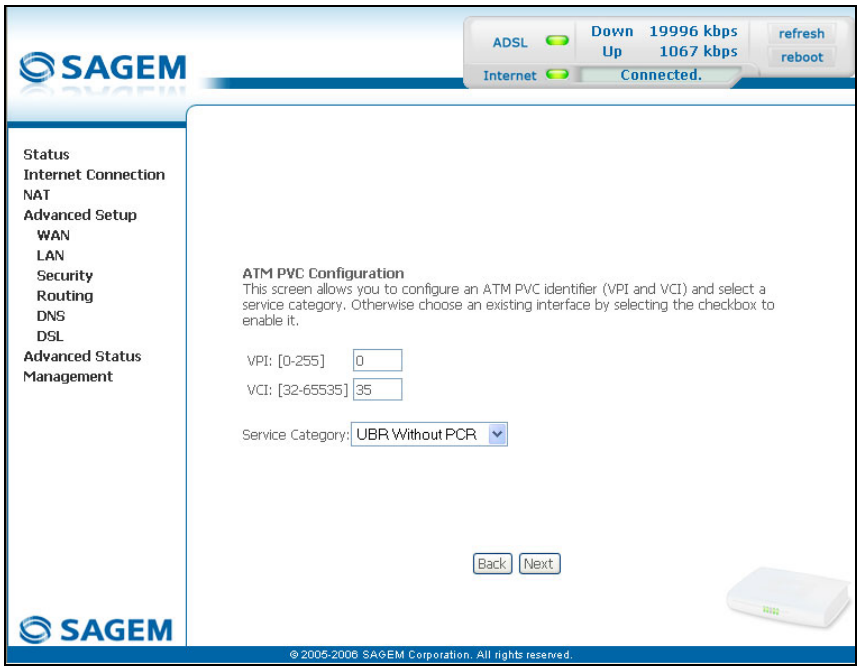


Field	Meaning
VPI/VCI	PVC identifier to configure.
Con. ID	Connection Identification. This is used to identify the different PPP connections which belong to the same PVC. To do so, you need only increment the "VC number" in the "Service" field when adding a new "PVC".
Category	ATM type of service
Service	Name of the ATM service. This name is made up as follows: VPI_VCI_Protocol_index For example: pppoe_0_35_1.
Interface	Name, allocated automatically, associated with the service name (for example, ATM interface "ppp_0_35_1" associated with the ATM service pppoe_0_35_1).
Protocol	Data flow encapsulation mode.
Igmp	Status (Enabled or Disabled) of the IGMP function. (see Note).
State	Status (Enabled or Disabled) of the WAN interface.

Note: This function enables the distribution of Multicast datagrams over the local network (LAN) and interaction between the router and the local network hosts.

Add

- Click on the **Add** button to display the following screen:

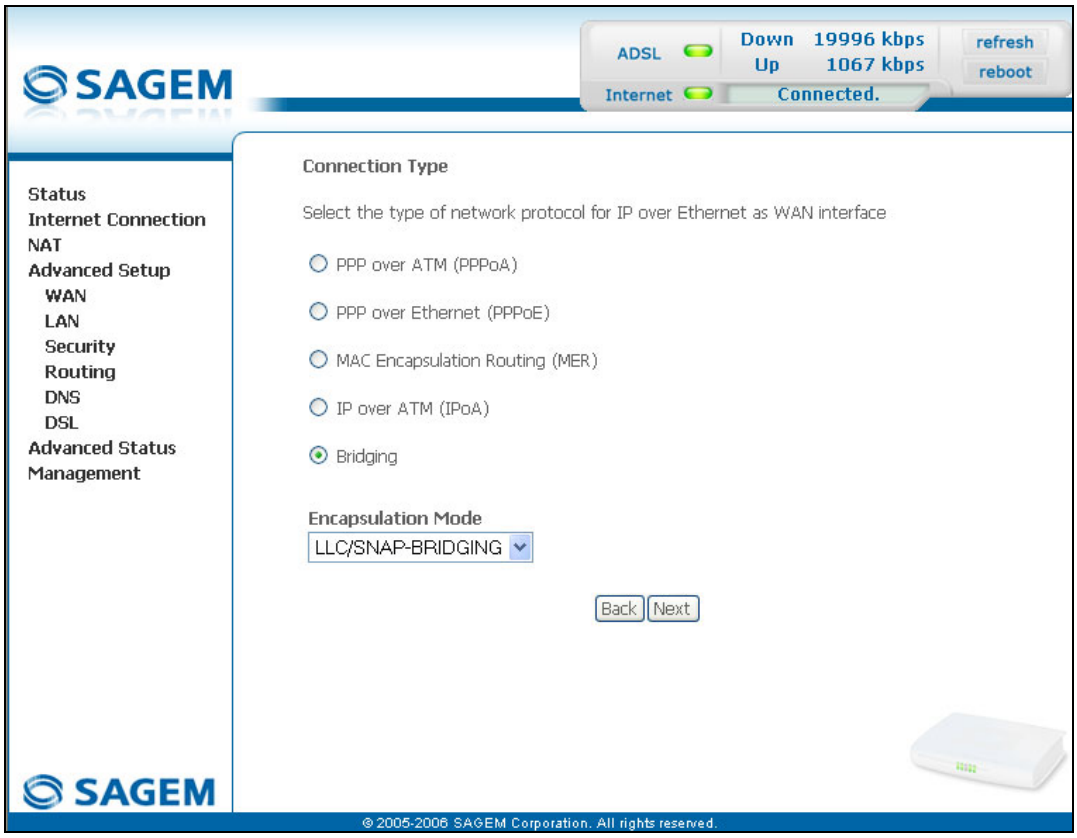


ATM PVC Configuration

Field	Action	Default
VPI	Enter a VPI value[1] between 0 and 255.	**0**
VCI	Enter a VPI value[1] between 32 and 65535.	**35**
Service Category	Select the type of service adapter to the traffic from the scroll down list: UBR without PCR : **U**nspecified **B**it **R**ate UBR with PCR : **U**nspecified **B**it **R**ate CBR : **C**onstant **B**it **R**ate Non Realtime VBR : **V**ariable **B**it **R**ate Realtime VBR : **V**ariable **B**it **R**ate	**UBR without PCR**

[1] This value is delivered to you by your **I**nternet **S**ervice **P**rovider (ISP).

- Click on the **Next** button to continue configuring the remote network (WAN) and display the following screen:



Depending on the type of network protocol selected, the encapsulation modes suggested in the scroll down list in the appropriate field are different.

Therefore, and to provide more clarity, a summary table will be presented below for each type of protocol.

PPP over ATM (PPPoA)

Field	Action	Default
Encapsulation Mode	Select the encapsulation of your choice from the scroll down list. • VC/MUX, • LLC/ENCAPSULATION.	**VC/MUX**

PPP over Ethernet (PPPoE)

Field	Action	Default
Encapsulation Mode	Select the encapsulation of your choice from the scroll down list. • LLC/SNAP-BRIDGING, • VC/MUX.	**LLC/SNAP-BRIDGING**

MAC Encapsulation Routing (MER)

Field	Action	Default
Encapsulation Mode	Select the encapsulation of your choice from the scroll down list. • LLC/SNAP-BRIDGING, • VC/MUX.	**LLC/SNAP-BRIDGING**

IP over ATM (IPoA)

Field	Action	Default
Encapsulation Mode	Select the encapsulation of your choice from the scroll down list. • LLC/SNAP-ROUTING, • VC/MUX.	**LLC/SNAP-ROUTING**

Bridging

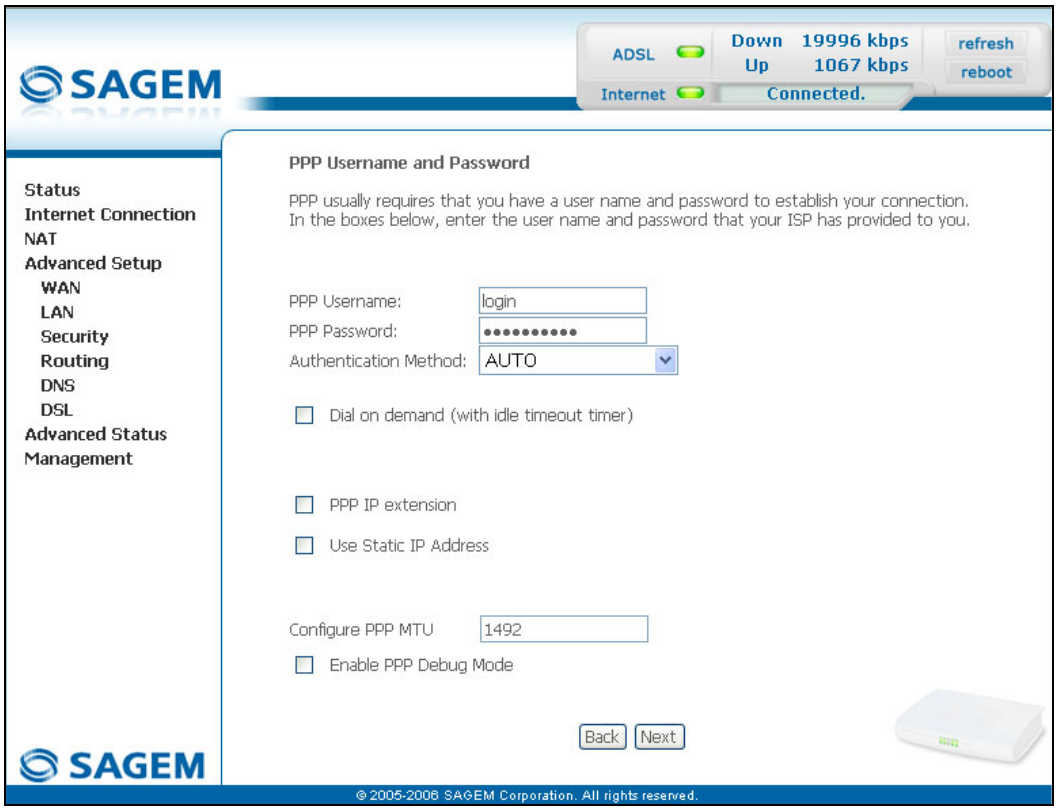
Field	Action	Default
Encapsulation Mode	Select the encapsulation of your choice from the scroll down list. • LLC/SNAP-BRIDGING, • VC/MUX.	**LLC/SNAP-BRIDGING**

- Click on the **Next** button to continue configuring the remote network (WAN).

Depending on the type of network protocol (PPPoA, PPPoE, MER, IPoA or Bridging) selected earlier, the content of the following WAN interface configuration screens differs.

Therefore, and for more clarity, each type of protocol will be dealt with separately (screens + associated summary tables) below.

PPP over ATM (PPPoA)

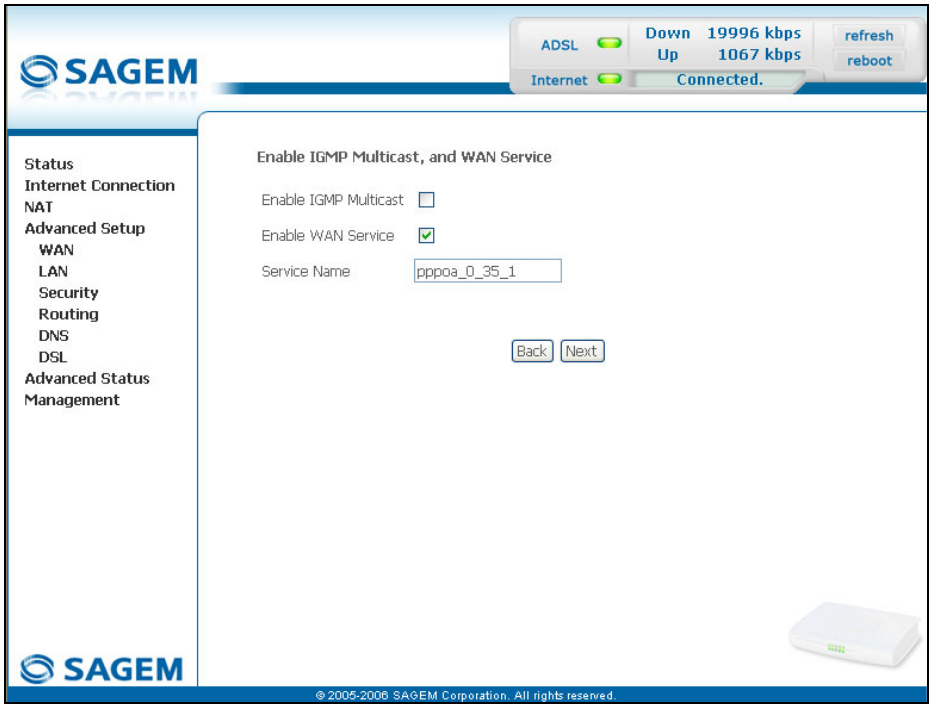


Field	Action	Default
PPP Username	Enter your connection ID. This information is provided to you by your **I**nternet **S**ervice **P**rovider (ISP).	**Empty**
PPP Password	Enter your connection password. This information is provided to you by your **I**nternet **S**ervice **P**rovider (ISP).	**Empty**
Authentification Method	Select the authentication method of your choice from the scroll down list: • AUTO, • PAP, • CHAP, • MSCHAP.	**AUTO**
Dial on demand (with idle timeout timer)	Check the box to connect to Internet only for "Traffic" on the ADSL line.	**Box Not checked**

Field	Action	Default
Inactivity Timeout (minutes) [1-4320]: [2]	Enter a value expressed in minutes between 1 and 4320 (i.e. 72 hours).	**0**
PPP IP extension	Check the box to allocate your computer the public address obtained from the DHCP server of your **I**nternet **S**ervice **P**rovider (ISP). Therefore, your router will act as a bridge between the server and your computer.	**Box Not checked**
Use Static IP Address	Check the box to use the static IP address.	**Box Not checked**
IP Address:[3]	Enter the static IP address	**0.0.0.0**
Configure PPP MTU	Enter an MTU (**M**aximum **T**ransfer **U**nit) value between 38 and 1492 (see Note).	**1492**
Enable PPP Debug mode	Check the box to use the PPP Debug mode. In the event of connection failure, this option will enable you to trace a possible problem in the SYSLOG file.	**Box Not checked**

Note: The MTU specifies the maximum size of the data used for packets expressed as a number of bytes.

- Click on the **Next** button to continue configuring the remote network (WAN) in PPPoA mode.

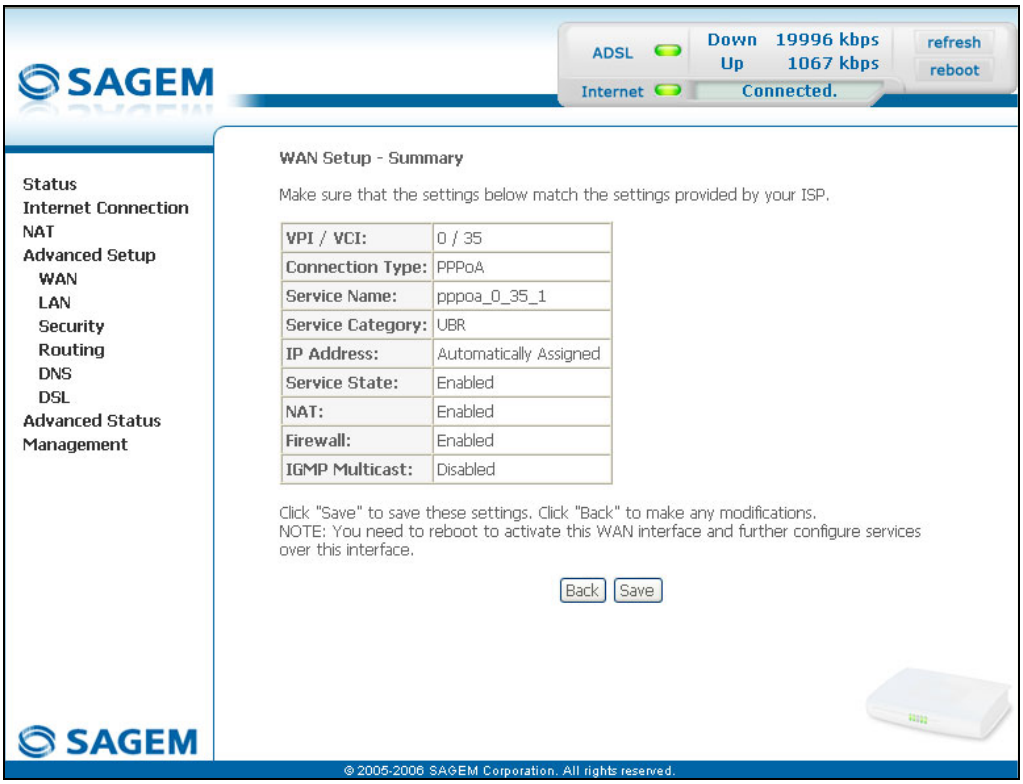


[2] This field only appears when the "Dial on demand (with idle timeout timer)" field is activated (box checked).

[3] This field only appears when the "Use Static IP Address" field is activated (box checked).

Field	Action	Default
Enable IGMP Multicast	Check the box to activate the IGMP function.	**Box Not checked**
Enable WAN	Check the box to activate the remote network service (WAN).	**Box checked**
Service	Displays the name of the service being configured. This name, which is allocated automatically, is made up as follows: Protocol_VPI_VCI_Index For example: pppoa_0_35_1. **Note:** You may enter another service name.	pppoa_0_35_1

- Click on the **Next** button to continue configuring the remote network (WAN) in PPPoA mode.

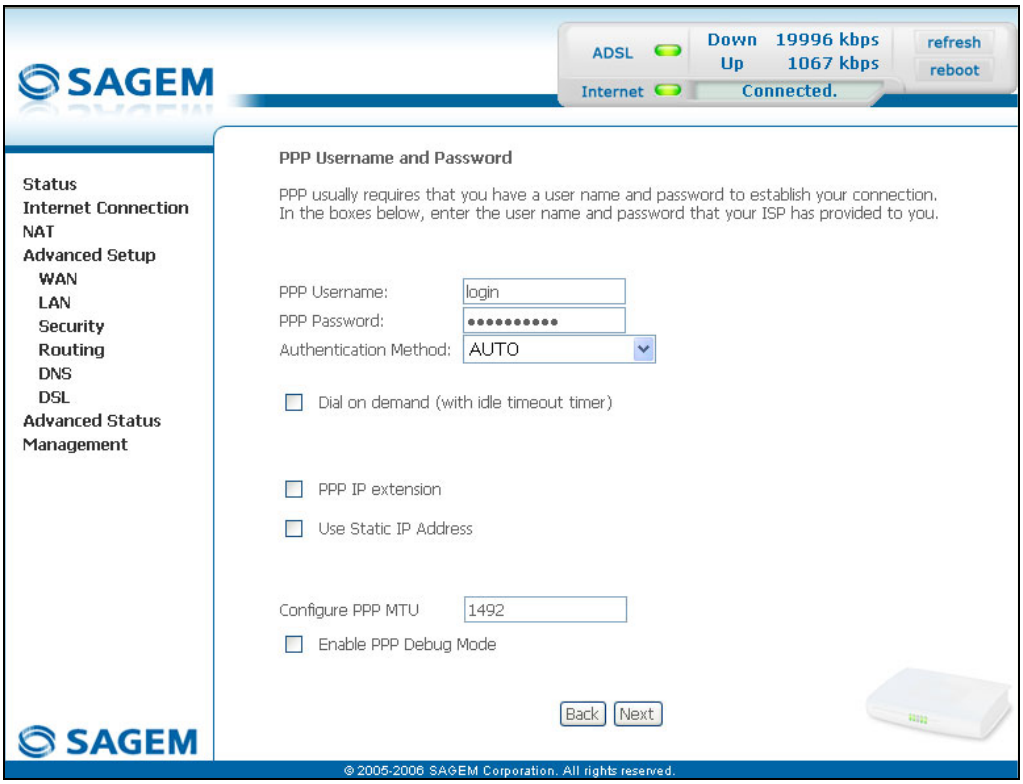


Field	Action
VPI/VCI	Displays the VPI/VCI specific to the "PPPoA" connection
Connection Type	Displays the "PPPoA" protocol
Service Name	Displays the name of the service: pppoa_0_35_1
Service Category	Displays the type of service adapted to the traffic required.
IP Address	Indicates that the IP address is allocated automatically: **Automaticaly Assigned**
Service State	Displays the status of the service: **Enabled**
NAT	Displays the status of the NAT: **Enabled**
Firewall	Displays the status of the firewall: **Enabled**
IGMP Multicast	Displays the status of the IGMP function: **Disabled**

- click on the 

button to save the WAN interface configuration.

PPP over Ethernet (PPPoE)

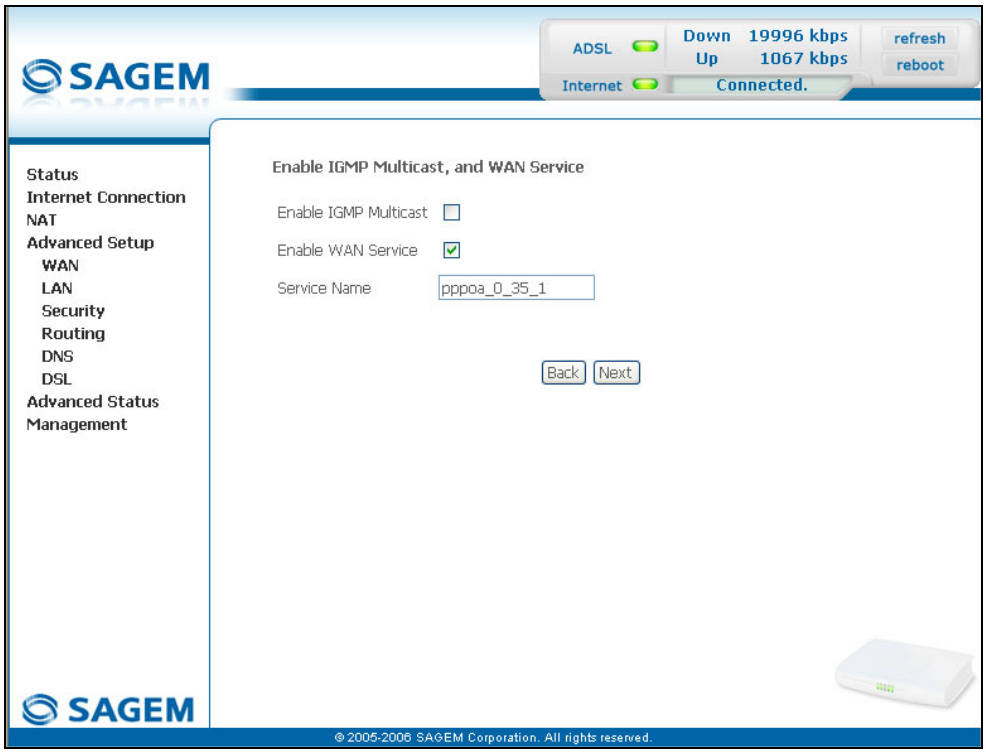


Field	Action	Default
PPP Username	Enter your connection ID. This information is provided to you by your **I**nternet **S**ervice **P**rovider (ISP).	**Empty**
PPP Password	Enter your connection password. This information is provided to you by your **I**nternet **S**ervice **P**rovider (ISP).	**Empty**
PPPoE Service Name	Enter the name of the PPPoE service. This information is provided to you by your **I**nternet **S**ervice **P**rovider (ISP).	**Empty**
Authentification Method	Select the authentication method of your choice from the scroll down list: • AUTO, • PAP, • CHAP, • MSCHAP.	**AUTO**
Dial on demand (with idle timeout timer)	Check the box to only connect to the Internet on "Traffic".	**–**
Inactivity Timeout (minutes) [1-4320]:[2]	Enter the inactivity time. This value expressed in minutes is between 1 and 4320 (i.e. 72 hours). If there is no traffic for a certain period of time, the PPPoE session is interrupted.	**0**

Field	Action	Default
PPP IP extension	Check the box to allocate your computer the public address obtained from the DHCP server of your **I**nternet **S**ervice **P**rovider (ISP). Therefore, your router will act as a bridge between the server and your computer.	–
Use Static IP Address	Check the box to use the static IP address.	–
IP Address:[3]	Enter the static IP address.	**0.0.0.0**
Configure PPP MTU	Enter an MTU (**M**aximum **T**ransfer **U**nit) value. This value, expressed in bytes, is between 38 and 1492 (see Note).	**1492**
Enable PPP Debug mode	Check the box to use the PPP Debug mode. In the event of connection failure, this option will enable you to trace a possible problem in the SYSLOG file.	**Box Not checked**

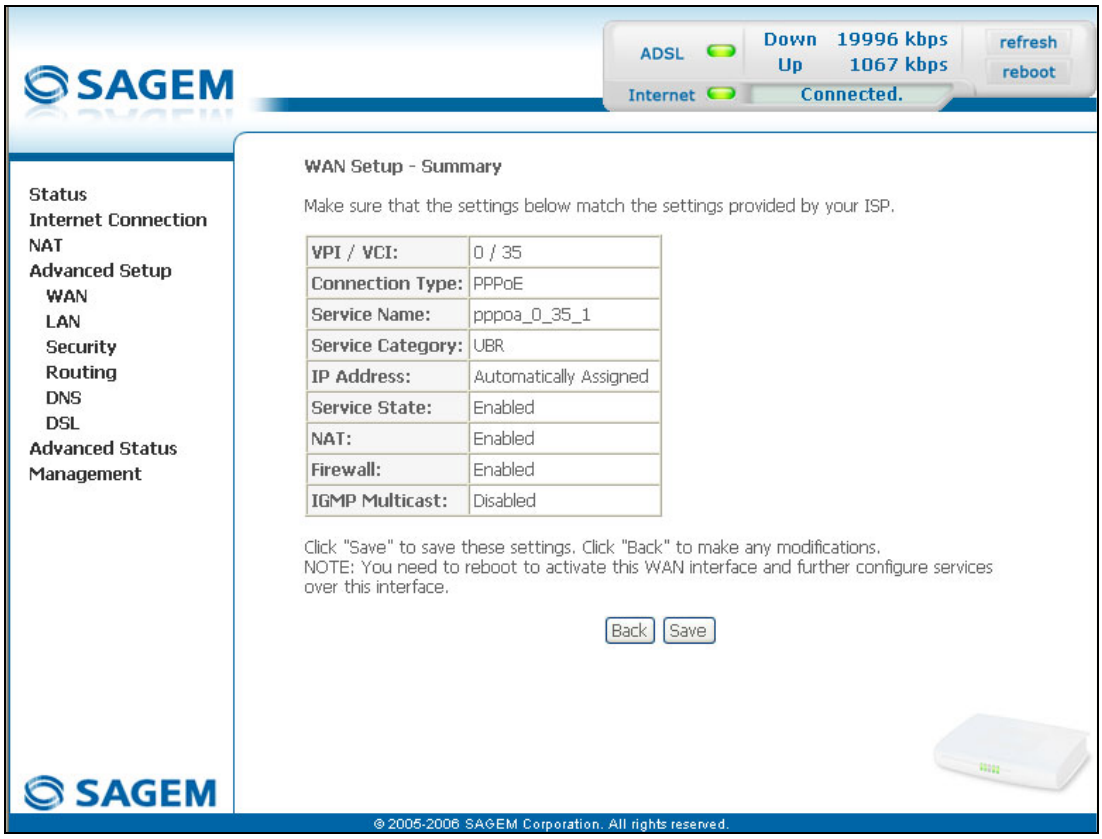
Note: The MTU specifies the maximum size of the data used (IP packets) expressed as a number of bytes.

- Click on the **Next** button to continue configuring the remote network (WAN) in PPPoE mode.



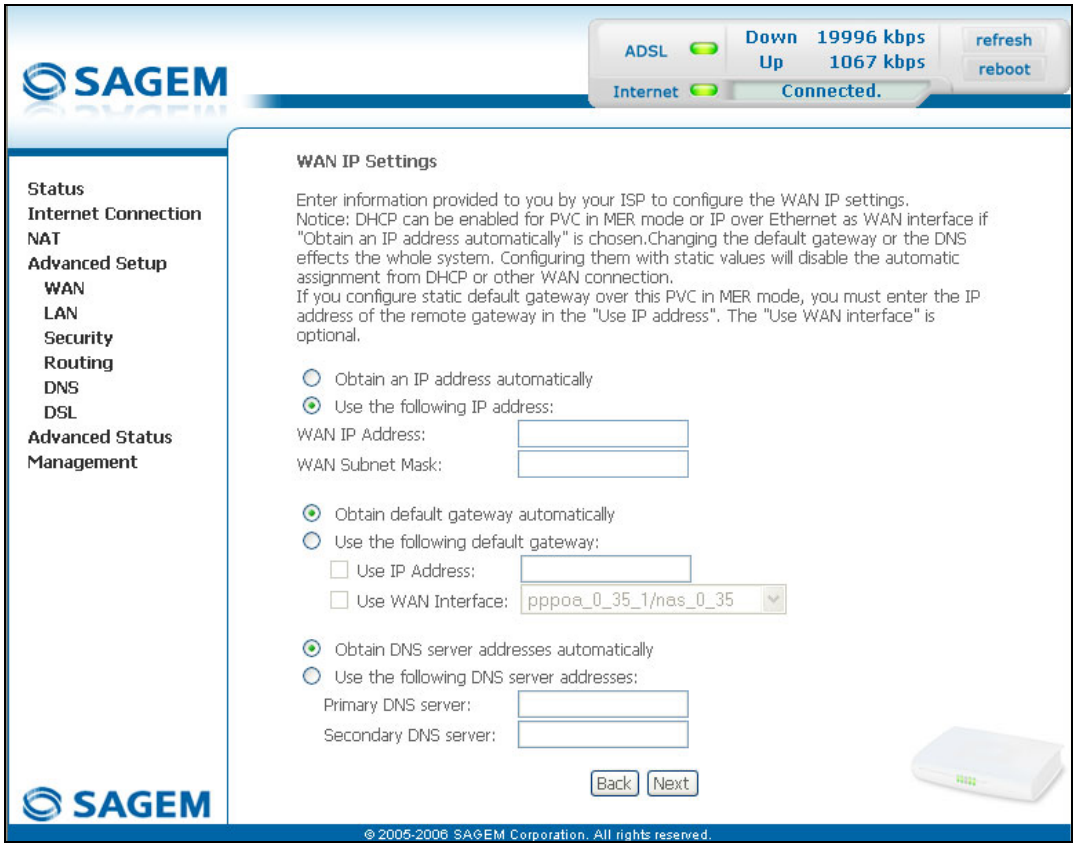
Field	Action	Default
Enable IGMP Multicast	Check the box to activate the IGMP function.	**Box Not checked**
Enable WAN Service	Check the box to activate the WAN service.	**Box checked**
Service	Displays the name of the service being configured. This name, which is allocated automatically, is made up as follows: Protocol_VPI_VCI_Index For example: pppoe_0_35_1. **Note:** You may enter another service name.	pppoe_0_35_1

Click on the **Next** button to continue configuring the remote network (WAN) in PPPoE mode.



Field	Action
VPI/VCI	Displays the VPI/VCI specific to the "PPPoE" connection
Connection Type	Displays the "PPPoE" protocol
Service Name	Displays the name of the service: pppoe_0_35_1
Service Category	Displays the type of service adapted to the traffic required.
IP Address	Indicates that the IP address is allocated automatically: **Automaticaly Assigned**
Service State	Displays the status of the service: **Enabled**
NAT	Displays the status of the NAT: **Enabled**
Firewall	Displays the status of the firewall: **Enabled**
IGMP Multicast	Displays the status of the IGMP function: **Disabled**

MAC Encapsulation Routing (MER)



Field	Action	Default
Obtain an IP address automatically	Check the box to obtain an IP address automatically by your router's DHCP server. **Note:** This box is not checked if a VCC has been created.	**Box checked**
Use the following IP address:	If you check this box, you must enter a static IP address and the dedicated subnet mask.	**–**
WAN IP Address[4]	Enter the static IP address.	**0.0.0.0**
WAN Subnet Mask:[4]	Enter a subnet mask.	**0.0.0.0**
Obtain default gateway automatically	Check the box to obtain the gateway IP address automatically by your router's DHCP server.	**Box checked**
Use the following default gateway:	If you check this box, you must enter the default gateway address.	**–**
Use IP Address[5]	Enter the default gateway address.	**–**
Use WAN Interface:[5]	Select the WAN interface of your choice from the scroll down list (optional)	**–**

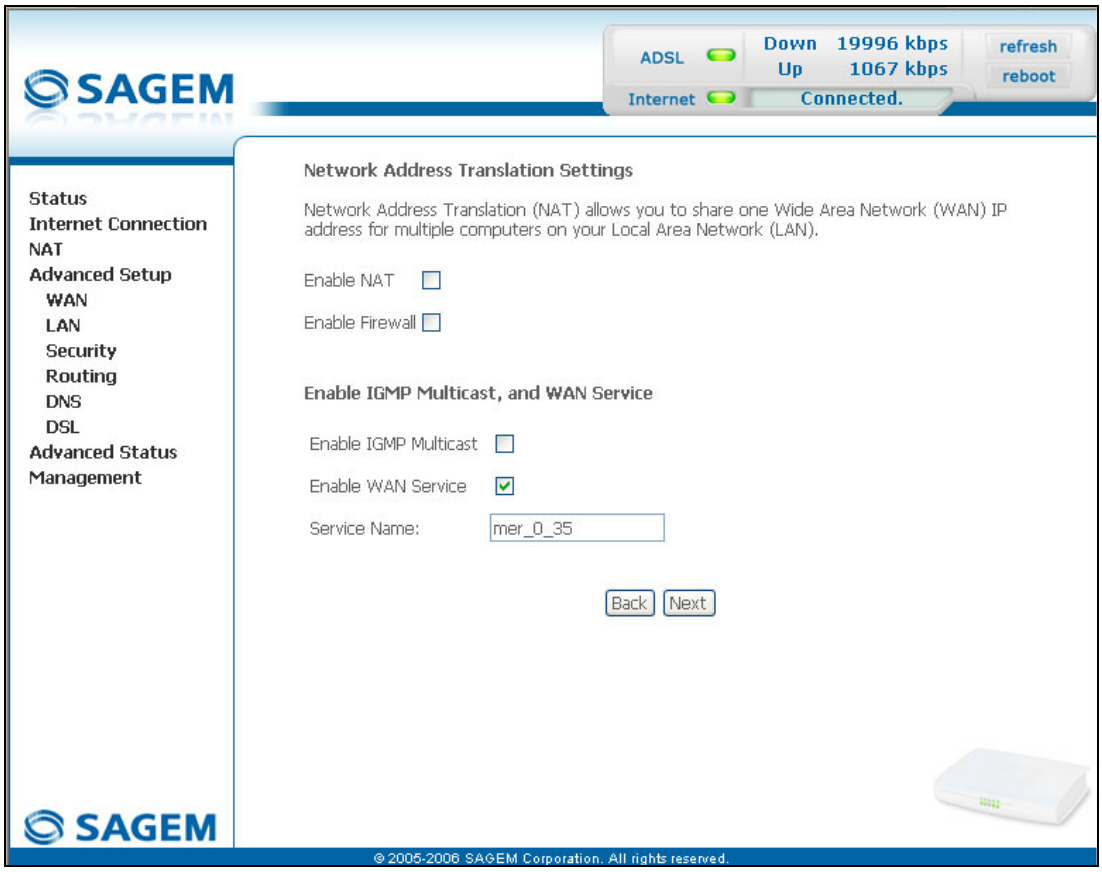
[4] This field only appears when the "Use the following IP address:" field is activated (box checked).

[5] This field only appears when the "Use the following default gateway:" field is activated (box checked).

Field	Action	Default
Obtain DNS server addresses automatically	Check the box to obtain DNS server Addresses automatically.	**Box checked**
Use the following DNS server addresses:	If you check this box, you must enter DNS server addresses.	_
Primary DNS server[6]	Enter a primary server DNS Address.	_
Secondary DNS server[6]	Enter a secondary server DNS Address.	_

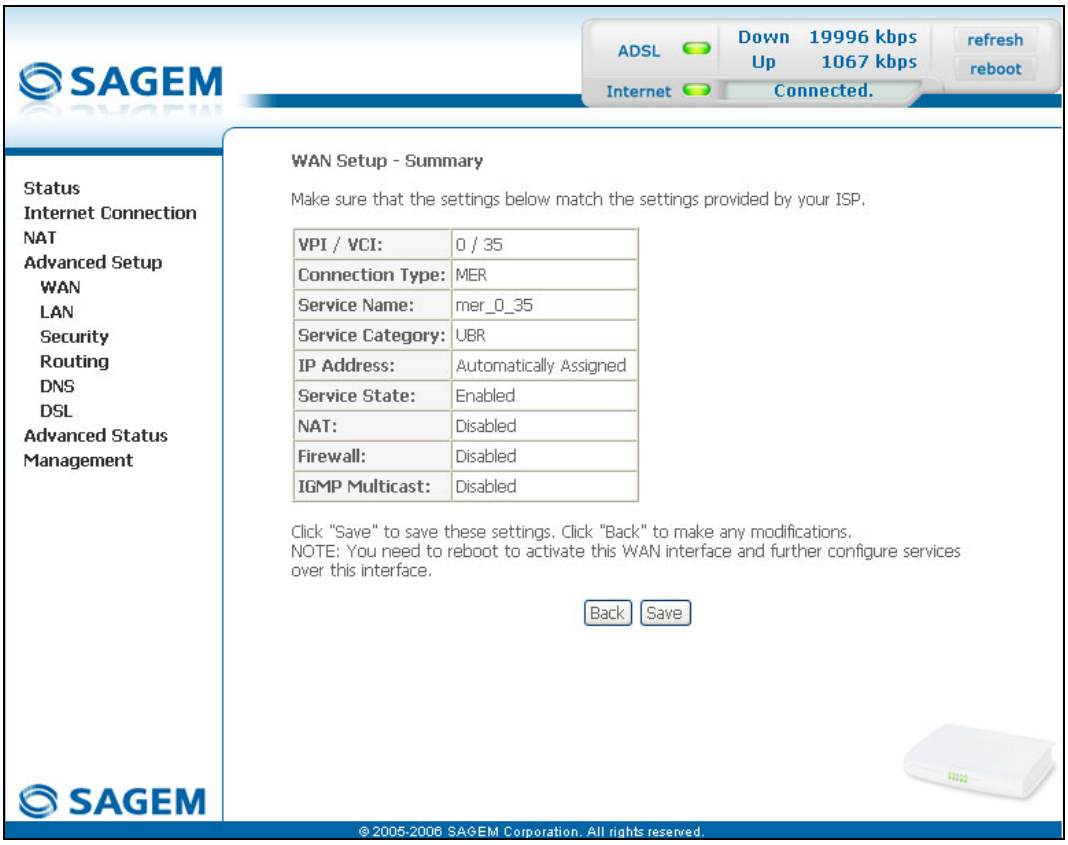
[6] This field only appears when the "Use the following DNS server addresses:" field is activated (box checked).

- Click on the **Next** button to continue configuring the remote network (WAN) in MER mode.



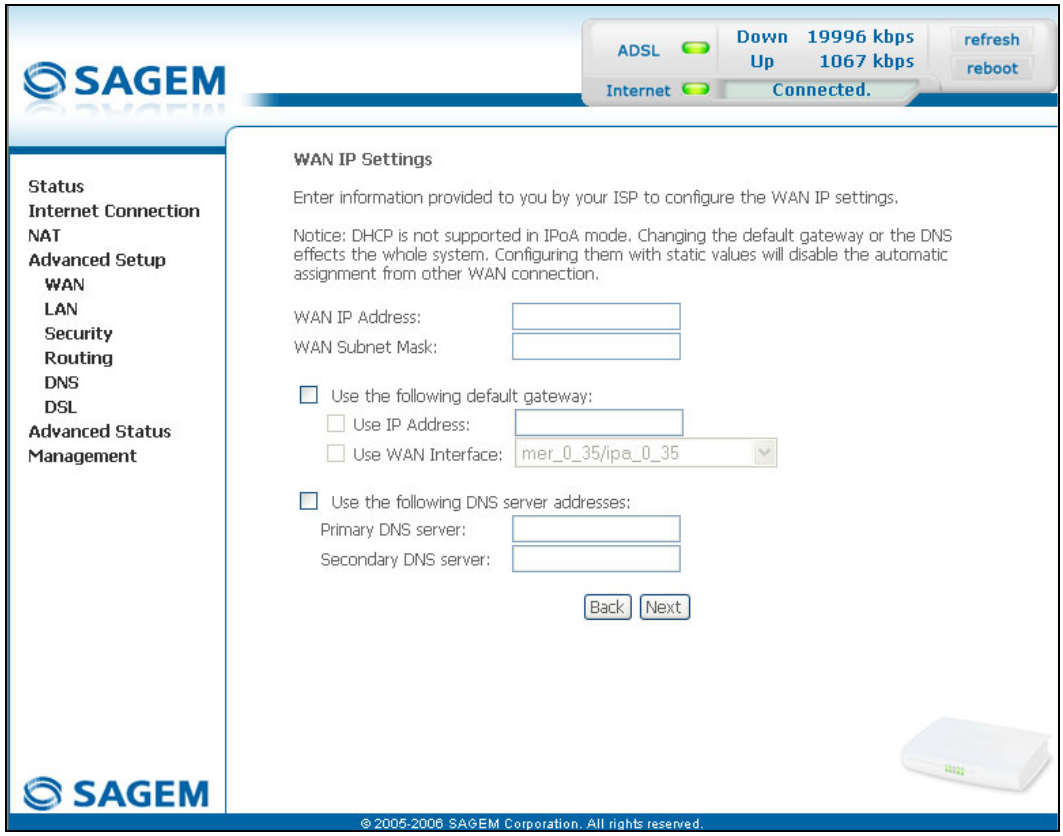
Field	Action	Default
Enable NAT	Check the box to activate the NAT function.	**Box not checked**
Enable Firewall	Check the box to activate the firewall service.	**Box not checked**
Enable IGMP Multicast	Check the box to activate the IGMP function.	**Box not checked**
Enable WAN Service	Check the box to activate the WAN service.	**Box checked**
Service	Displays the name of the service being configured. This name, which is allocated automatically, is made up as follows: Protocol_VPI_VCI_Index For example: mer_0_35_1. **Note:** You may enter another service name.	mer_0_35_1

- Click on the **Next** button to continue configuring the remote network (WAN) in MER mode.



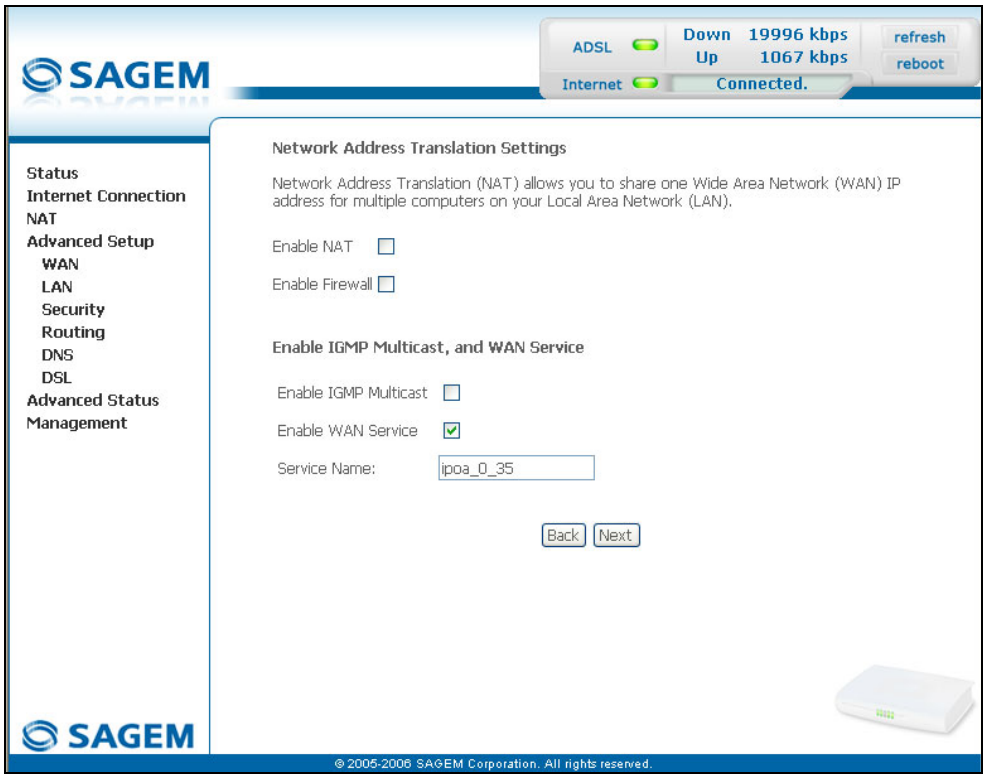
Field	Action
VPI/VCI	Displays the VPI/VCI specific to the "MER" connection
Connection Type	Displays the "MER" protocol
Service Name	Displays the name of the service: mer_0_35_1
Service Category	Displays the type of service adapted to the traffic required.
IP Address	Indicates that the IP address is allocated automatically: **Automatically Assigned**
Service State	Displays the status of the service: **Enabled**
NAT	Displays the status of the NAT: **Disabled**
Firewall	Displays the status of the firewall: **Disabled**
IGMP Multicast	Displays the status of the IGMP function: **Disabled**

IP over ATM (IPoA)



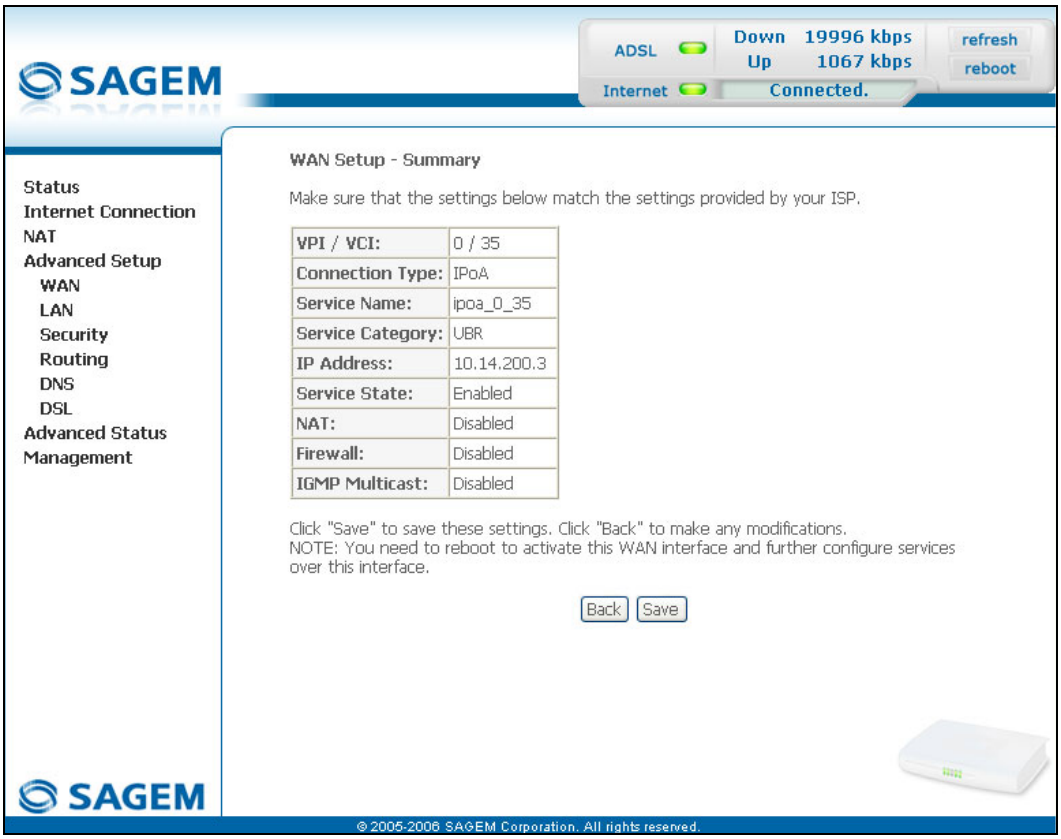
Field	Action	Default
WAN IP Address[4]	Enter the static IP address.	**0.0.0.0**
WAN Subnet Mask:[4]	Enter a subnet mask.	**0.0.0.0**
Use the following default gateway:	If you check this box, you must enter a default gateway address.	**_**
Use IP Address[5]	Enter the default gateway address.	**_**
Use WAN Interface:[5]	Select the WAN interface of your choice from the scroll down list (optional)	**_**
Obtain DNS server addresses automatically	Check the box to obtain DNS server addresses automatically.	**Box checked**
Use the following DNS server addresses:	If you check this box, you must enter DNS server addresses.	**_**
Primary DNS server[6]	Enter a primary server DNS Address.	**_**
Secondary DNS server[6]	Enter a secondary server DNS Address.	**_**

- Click on the **Next** button to continue configuring the remote network (WAN) in IPoA mode.



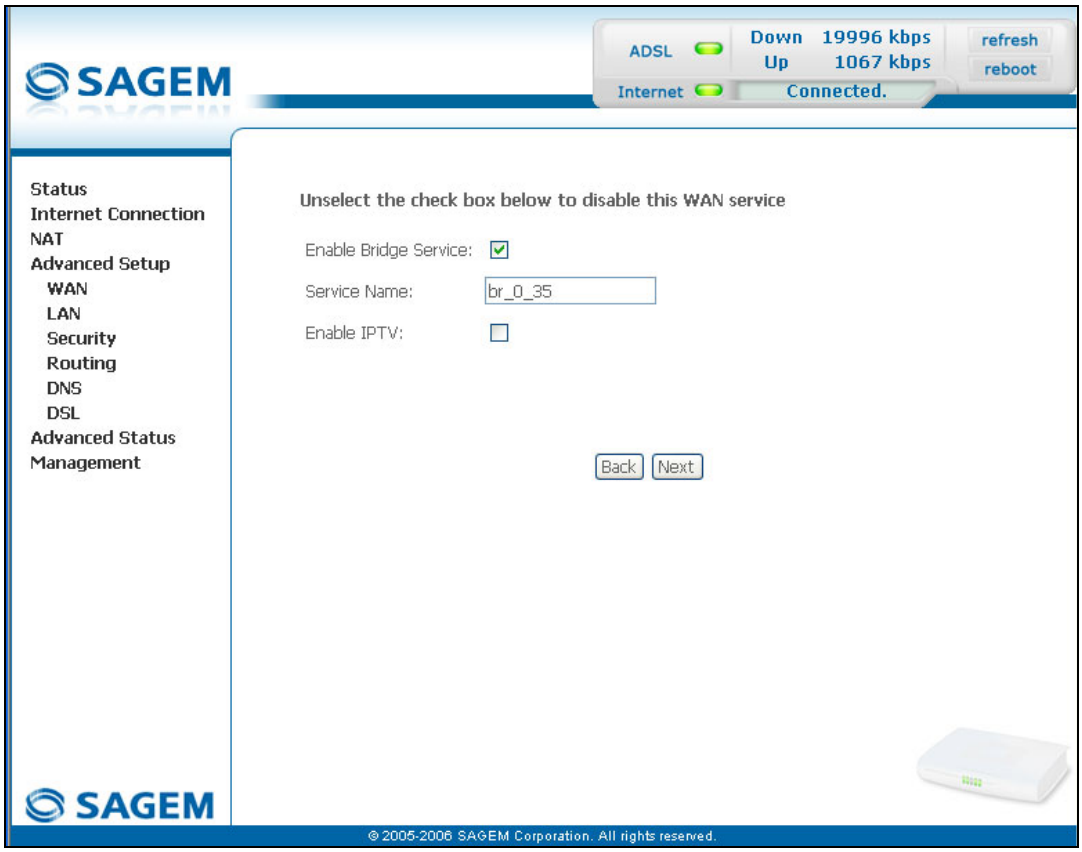
Field	Action	Default
Enable NAT	Check the box to activate the NAT function.	**Box not checked**
Enable Firewall	Check the box to activate the firewall service.	**Box not checked**
Enable IGMP Multicast	Check the box to activate the IGMP function.	**Box not checked**
Enable WAN Service	Check the box to activate the WAN service.	**Box checked**
Service	Displays the name of the service being configured. This name, which is allocated automatically, is made up as follows: Protocol_VPI_VCI_Index For example: ipoa _0_35_1. **Note:** You may enter another service name.	ipoa_0_35_1

- Click on the **Next** button to continue configuring the remote network (WAN) in IPoA mode.

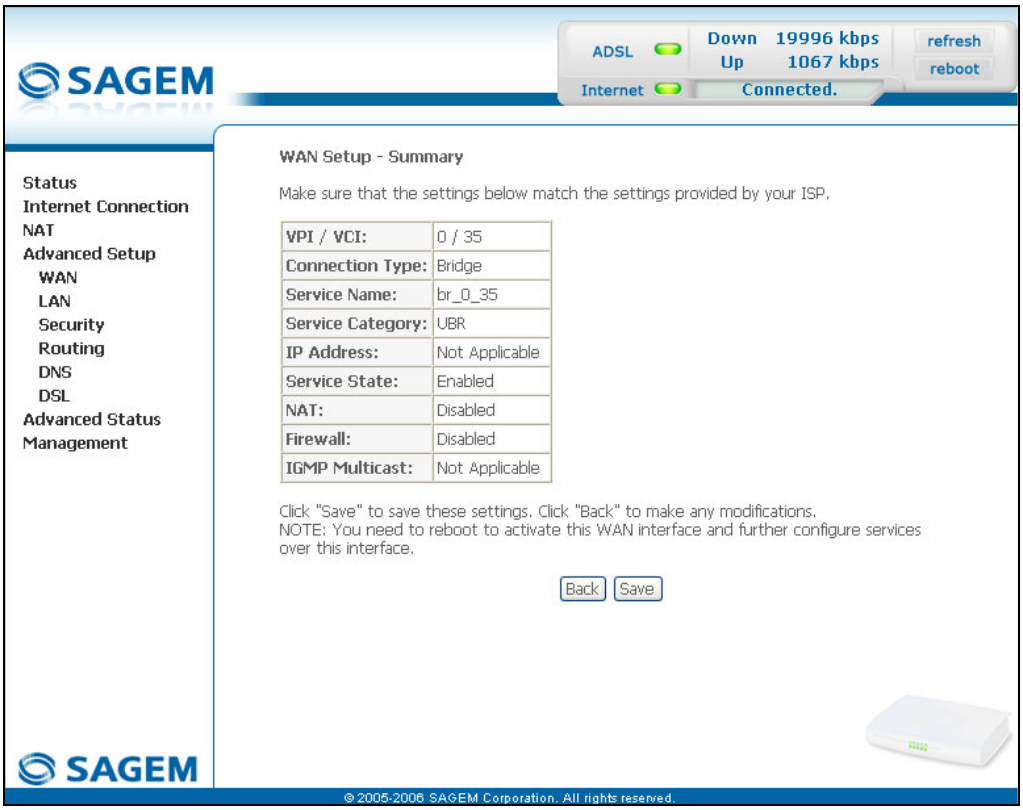


Field	Action
VPI/VCI	Displays the VPI/VCI specific to the "IPoA" connection
Connection Type	Displays the "IPoA" protocol
Service Name	Displays the name of the service: ipoa_0_35_1
Service Category	Displays the type of service adapted to the traffic required.
IP Address	Displays the IP address entered: 192.168.1.10
Service State	Displays the status of the service: **Enabled**
NAT	Displays the status of the NAT: **Disabled**
Firewall	Displays the status of the firewall: **Disabled**
IGMP Multicast	Displays the status of the IGMP function: **Disabled**

Bridging



Field	Action	Default
Enable Bridge service	Check the box to activate the "Bridge" service.	**Box checked**
Service Name	Displays the name of the service being configured. This name, which is allocated automatically, is made up as follows: Protocol_VPI_VCI_Index. For example: br_8_35_1. **Note:** You may enter another service name.	**–**
Enable IPTV	Check the box to be able to enter another IP address of the external network of the "Set Top Box" connected virtually to this "PVC".	**Box not checked**
IPTV Name	This field only appears if the **Enable IPTV** box in the previous field is checked. Enter the IP address of the external network of the "Set Top Box" connected virtually to this "PVC".	**–**



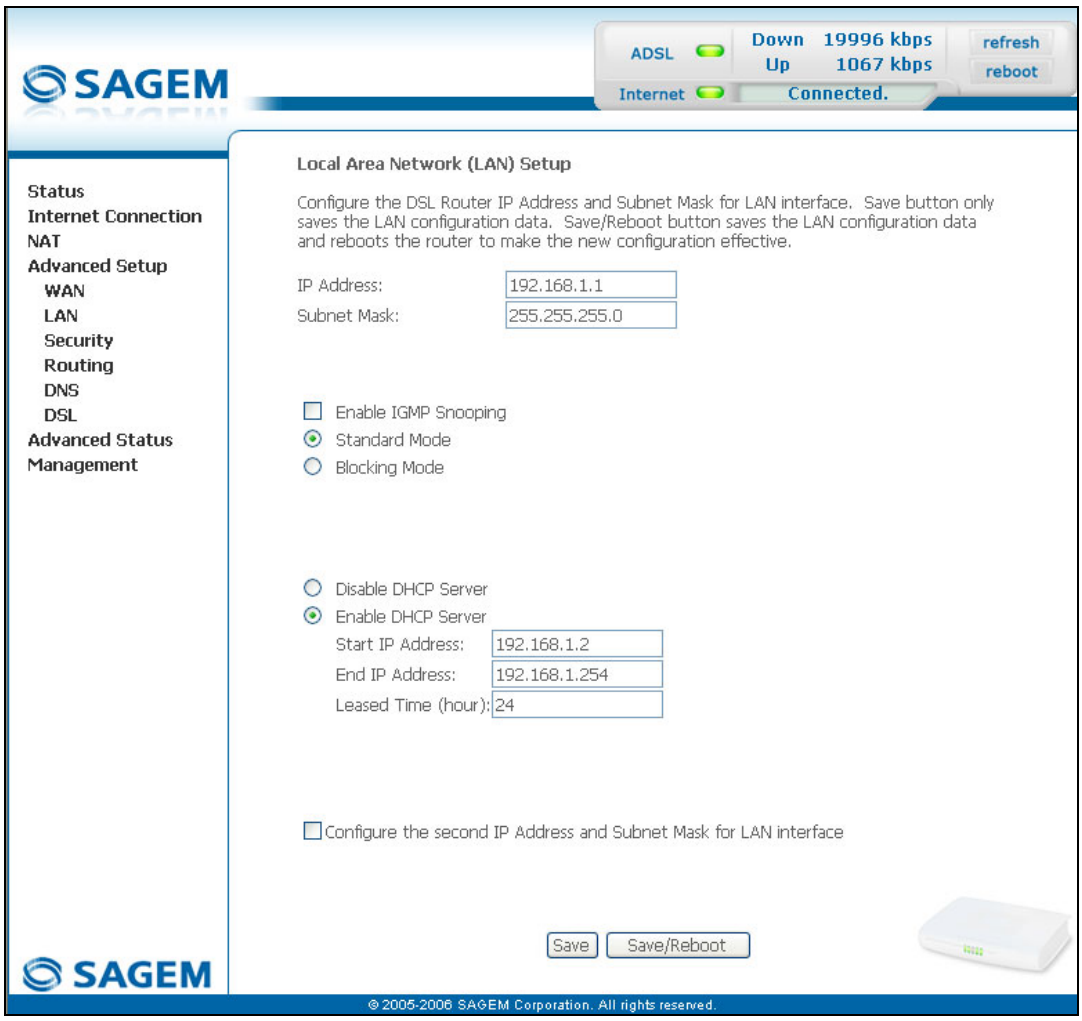
Field	Action
VPI/VCI	Displays the VPI/VCI specific to the "Bridge" connection
Connection Type	Displays the "Bridge" protocol
Service Name	Displays the name of the service: br_0_35_1
Service Category	Displays the type of service adapted to the traffic required
IP Address	In the "Bridge" connection, this field is: **Not Applicable**
Service State	Displays the status of the service: **Enabled**
NAT	Displays the status of the NAT: **Disabled**
Firewall	Displays the status of the firewall: **Disabled**
IGMP Multicast	In the "Bridge" connection, this field is: **Not Applicable**

- click on the Save button to save the WAN interface configuration.

5.8.2 LAN

Object: This is used to configure the IP parameters for the local network (LAN).

- Select the **LAN** menu in the **Advanced Setup** section to display the following screen:



Field	Action	Default
IP Address	Enter the address of your local network	**192.168.1.1**
Subnet Mask	Enter your network's subnet mask.	**255.255.255.0**
Enable IGMP Snooping	Check this box to activate the IGMP (**I**nternet **G**roup **M**anagement **P**rotocol) protocol. This lets you manage the declarations of belonging to one or more groups with Multicast routers.	**Box not checked**

Field	Action	Default
Standard Mode	Check the box if you wish the IGMP snooping runs in normal mode (transparency with IGMP frames).	**Box checked**
Blocking Mode	Check the box if you wish the IGMP snooping runs in blocking mode (interception and removal of IGMP frames).	**Box not checked**
Disable DHCP	Check the box to not activate your router's DHCP server. **Note:** You must configure your computer with the parameters appropriate to your local network (IP address, subnet mask and default gateway) as well as enter the primary and secondary DNS server addresses.	**Box not checked**
Enable DHCP	Check the box to activate your router's DHCP server. **Note**: You must configure your computer as DHCP client and DNS client (or enter the primary and secondary DNS server addresses).	**Box checked**
Start IP Address	Enter the first address attributed by your router's DHCP server.	**192.168.1.2**
End IP Address[7]	Enter the last address attributed by your router's DHCP server.	**192.168.1.254**
Lease Time (hour)[7]	Enter an unavailability time for each address attributed expressed in hours.	**24**
Configure the second IP Address and Subnet Mask for LAN interface	Check the box to configure the IP parameters (IP address, subnet mask) of a second address for the local network (LAN).	**Box not checked**
IP Address[8]	Enter a second address for your local network (LAN).	**_**
Subnet Mask[8]	Enter a subnet mask for the second address for your local network (LAN).	**_**

[7] This field only appears when the "Enable DHCP" field is activated (box checked).

[8] This field only appears when the "Configure the second IP Address and Subnet Mask for LAN interface" field is activated (box checked).

5.8.3 Security

This menu contains 2 sub-menus:

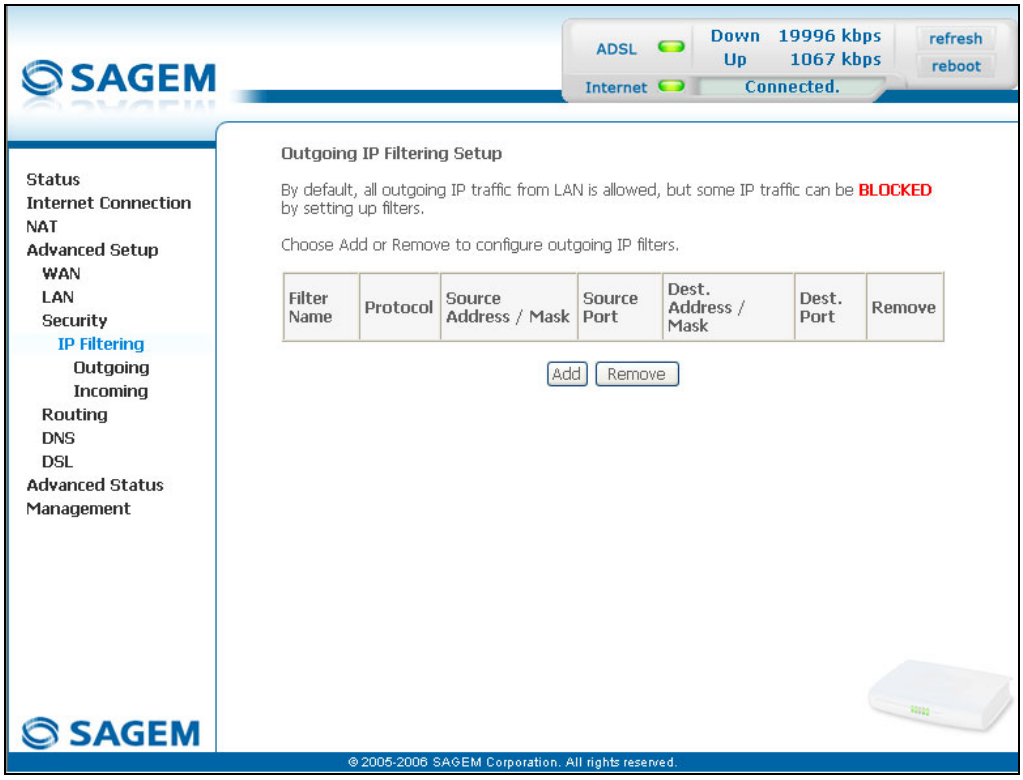
- Outgoing (cf. § 5.8.3.1),
- Incoming (cf. § 5.8.3.2).

5.8.3.1 Outgoing

Object: This menu is used to create outgoing IP filters to refuse data from the LAN to the WAN and list the existing outgoing IP filters.

By default, all the outgoing data is accepted.

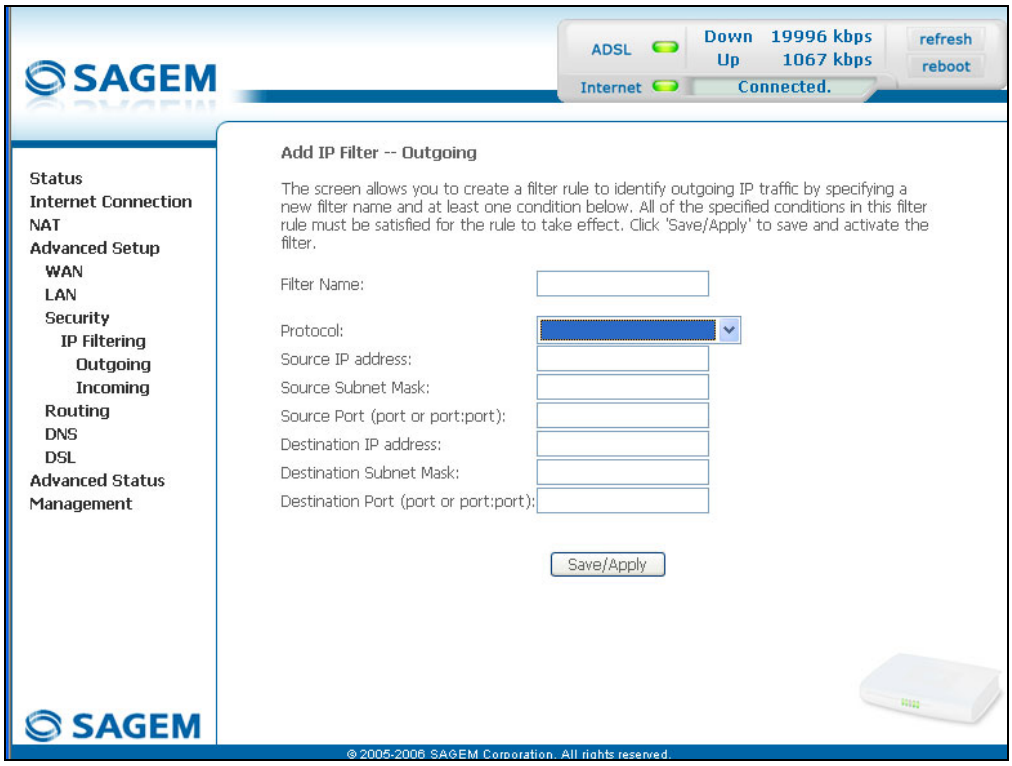
- Select the **Outgoing** sub-menu in the **Security** menu in the **Advanced Setup** section to display the following screen:



Field	Meaning
Filter Name	Name of the filter.
Protocol	Transport protocol.
Source Address / Mask	Source IP address / Subnet mask.
Source Port	Source port
Dest. Address / Mask	Destination IP address / Subnet mask.
Dest. Port	Destination port.

Add

- Click on the **Add** button to display the following screen:



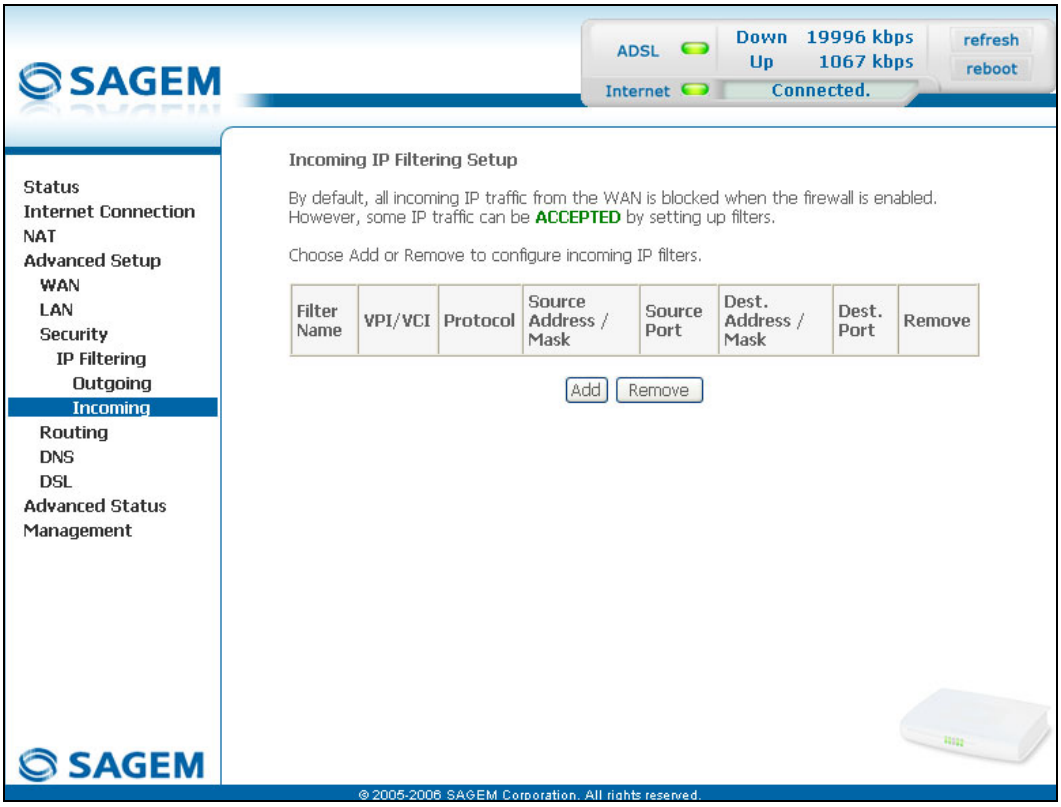
Field	Action
Filter Name	Enter a representative name for the filter.
Protocol	Select the dedicated protocol from the scroll down list (TCP/UDP, TCP, UDP, ICMP).
Source IP Address	Enter the Source IP address (LAN).
Source Subnet Mask	Subnet mask.
Source Port (port or port:port)	Enter a "Source" port (LAN) or range of ports. **Note:** For one port, for example, enter 80. For a range of ports, enter 80:90.
Dest. IP Address	Enter the Destination IP address (WAN).
Dest. Subnet Mask	Subnet mask.
Dest. Port (port or port:port)	Enter a "destination" port (WAN) or range of ports. **Note:** For one port, for example, enter 80. For a range of ports, enter 80:90.

5.8.3.2 Incoming

Object: This menu is used to create incoming IP filters to refuse data from the WAN to the LAN and list the existing incoming IP filters.

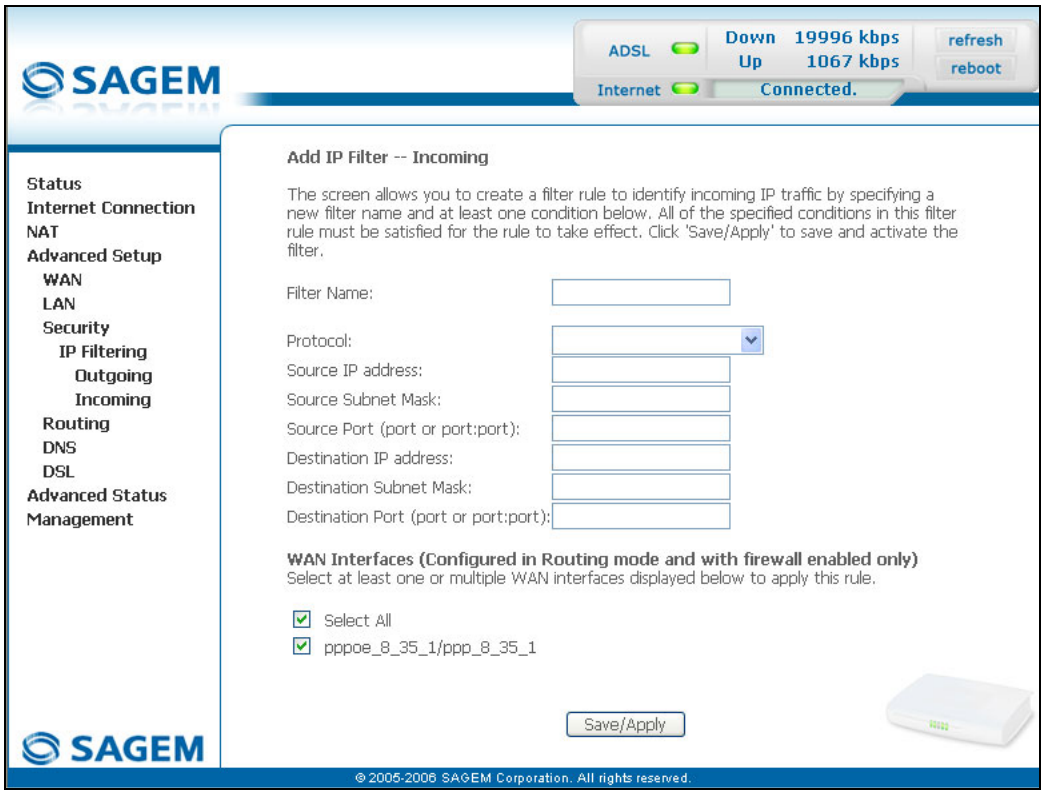
By default, all the incoming data is refused when the Firewall is activated.

- Select the **Incoming** sub-menu in the **Security** menu in the **Advanced Setup** section to display the following screen:



Add

- Click on the **Add** button to display the following screen:



Field	Action
Filter Name	Enter a representative name for the filter.
Protocol	Select the dedicated protocol from the scroll down list (TCP/UDP, TCP, UDP, ICMP).
Source IP Address	Enter the Source IP address (WAN).
Source Subnet Mask	Subnet mask.
Source Port (port or port:port)	Enter a "Source" port (WAN) or range of ports. **Note:** For one port, for example, enter 80. For a range of ports, enter 80:90.
Dest. IP Address	Enter the destination IP address (LAN).
Dest. Subnet Mask	Subnet mask.
Dest. Port (port or port:port)	Enter a "destination" port (LAN) or range of ports. **Note:** For one port, for example, enter 80. For a range of ports, enter 80:90.

WAN interfaces

Field	Action	Default
Select all	Check the box to select all WAN interfaces. **Note:** Checking out the box, you do not select any interface and you also check out the **pppoe_8_35_1/ ppp_8_35_1** box.	**Box checked**
pppoe_8_35_1/ ppp_8_35_1	Check the box to select the displayed interface.	**Box checked**

5.8.4 Routing

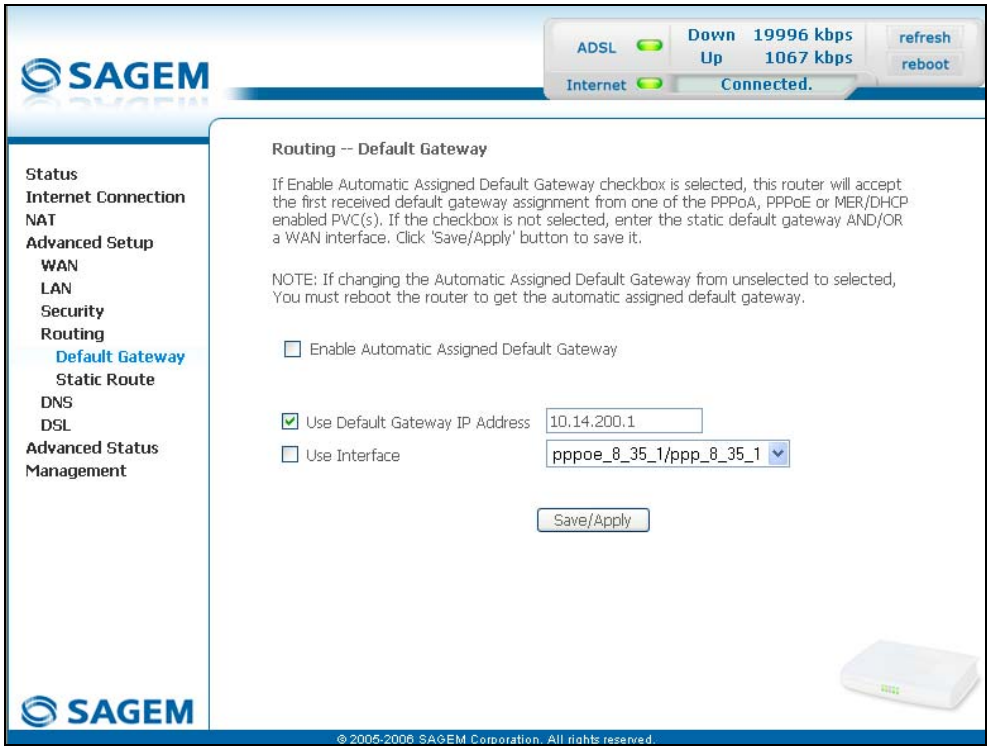
This menu contains two sub-menus:

- Default Gateway (cf. § 5.8.4.1),
- Static Route (cf. § 5.8.4.2).

5.8.4.1 Default Gateway

Object: This menu is used either to allocate dynamically a default gateway address to the router from a PVC or to enter an address or choose an interface.

- Select the **Default Gateway** sub-menu in the **Routing** menu in the **Advanced Setup** section to display the following screen:



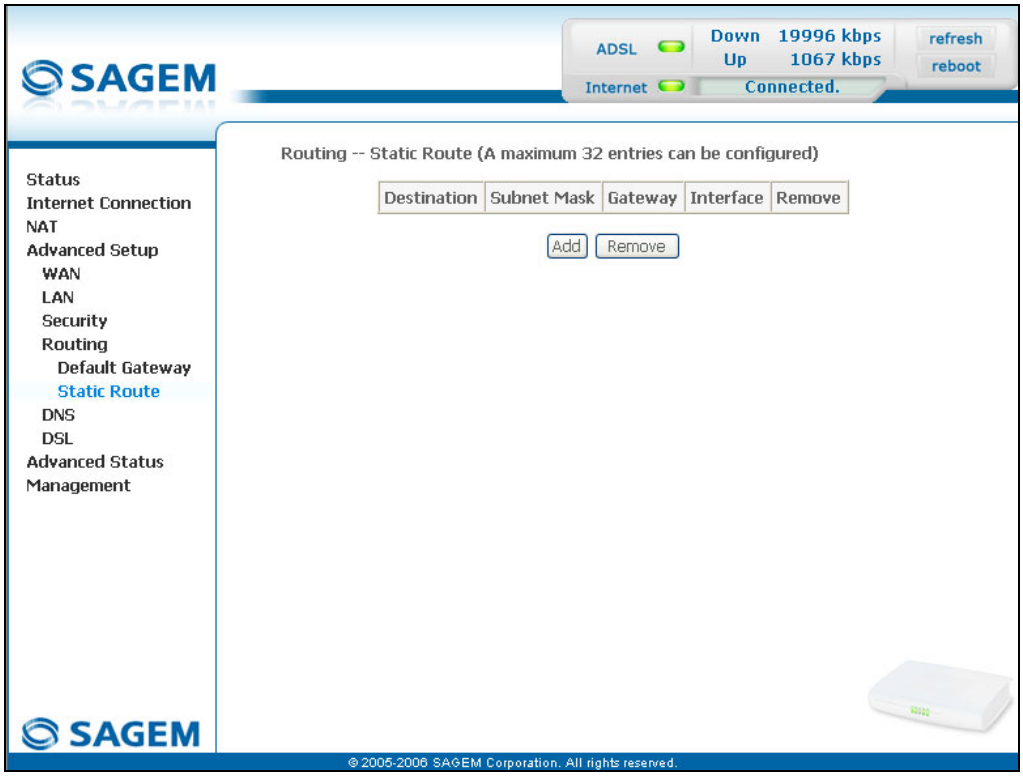
Field	Action	Default
EnableAutomatic Assigned Default Gateway	Check the box to allocate automatically a default gateway for your router.	**Box checked**
Use Default Gateway IP Address[9]	Check the box to use a default address.	**Box checked** **empty**
Use Interface[9]	Check the box then select the interface you want to use from the scroll down list (pppoe_8_35_1 for example).	**Box not checked** **Interface used**

[9] this field only appears when the "Enable Automatic Assigned Default Gateway" field is deactivated (box not checked).

5.8.4.2 Static Route

Object: This menu is used to add a static route.

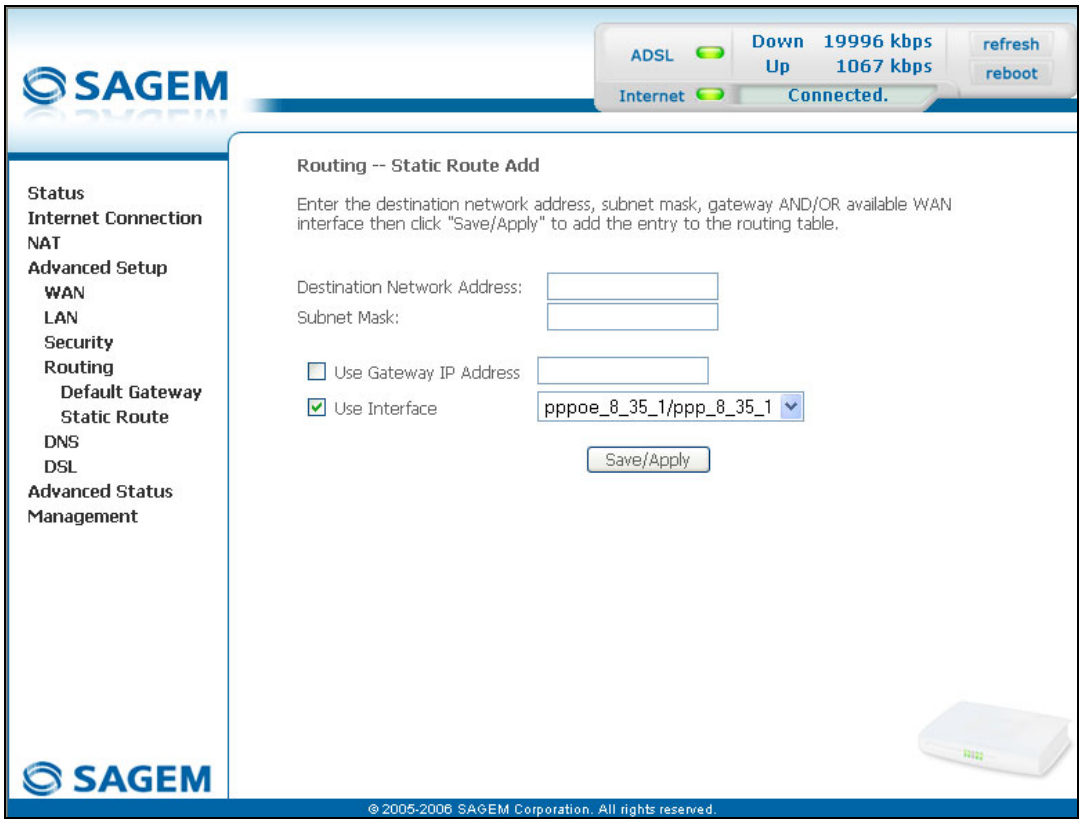
- Select the **Static Route** sub-menu in the **Routing** menu in the **Advanced Setup** section to display the following screen:



Field	Meaning
Destination	Remote network IP address
Subnet Mask	Remote subnet mask
Gateway	Default gateway of the remote network
Interface	Remote network interface

Add

- Click on the **Add** button to display the following screen:

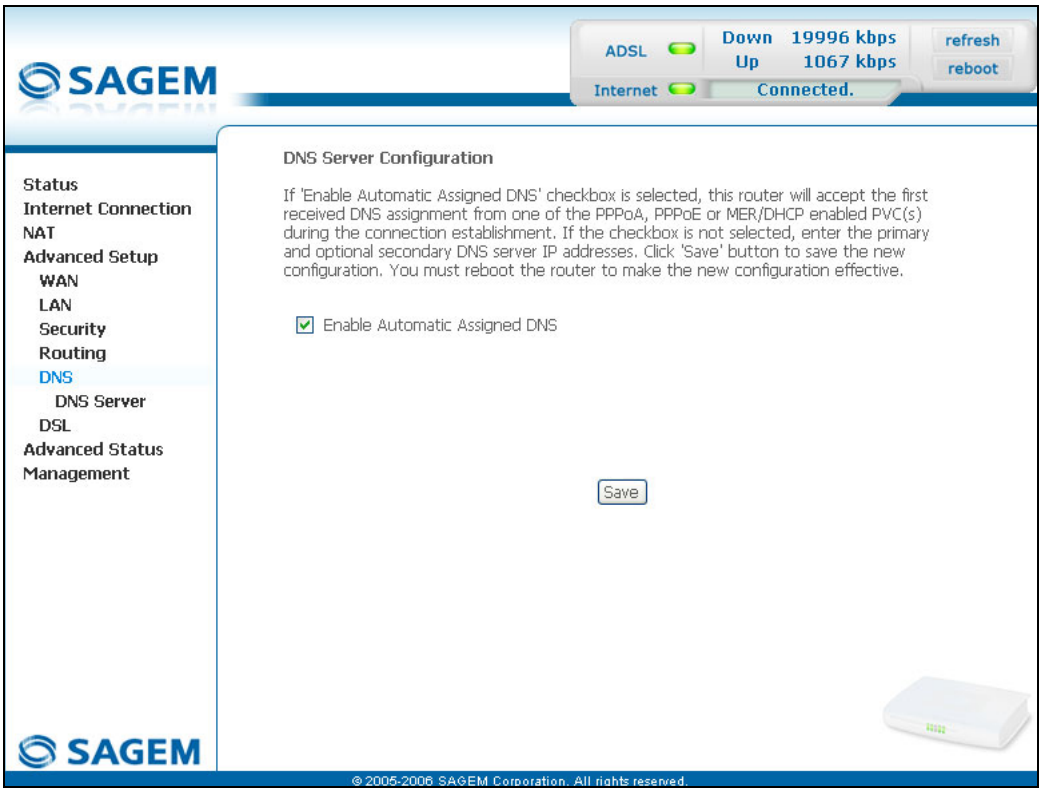


Field	Action	Default
Destination Network Address	Enter the IP address of the remote network.	**Empty**
Subnet Mask	Enter the remote subnet mask.	**Empty**
Use Gateway IP Address	Check the appropriate box then enter the IP address of the gateway.	**Box not checked** **Empty**
Use Interface	Select the interface you want to use from the scroll down list (pppoe_8_35_1 for example).	**Box checked** **Interface used**

5.8.5 DNS

Object: This menu enables the automatic resolution of domain names by polling remote servers.

- Select the **DNS** menu in the **Advanced Setup** section to display the following screen:



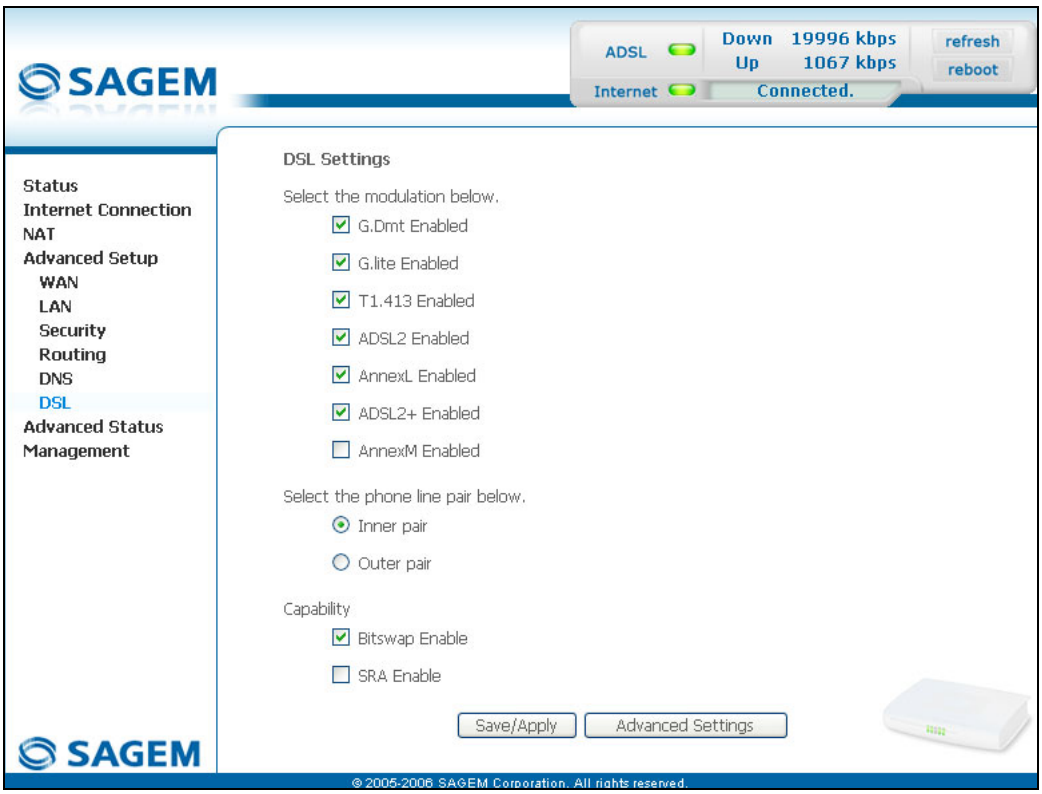
Field	Action	Default
Enable Automatic Assigned DNS	Check the appropriate box to allocate a domain name address.	**Box checked**
Primary DNS server[10]	Enter a primary DNS server address.	_
Secondary DNS server[10]	Enter a secondary DNS server address.	_

[10] This field only appears when the "Enable Automatic Assigned DNS" field is deactivated (box not checked).

5.8.6 DSL

Object: The purpose of this menu is to parameter your ADSL line.

- Select the **DSL** menu in the **Advanced Setup** section to display the following screen:



Modulation

Field	Default
G.Dmt Enabled	**Box checked**
G.lite Enabled	**Box checked**
T1.413 Enabled	**Box checked**
ADSL2 Enabled	**Box checked**
AnnexL Enabled	**Box checked**
ADSL2+ Enabled	**Box checked**
AnnexM Enabled	**Box not checked**

Check the boxes according to the characteristics of your line.

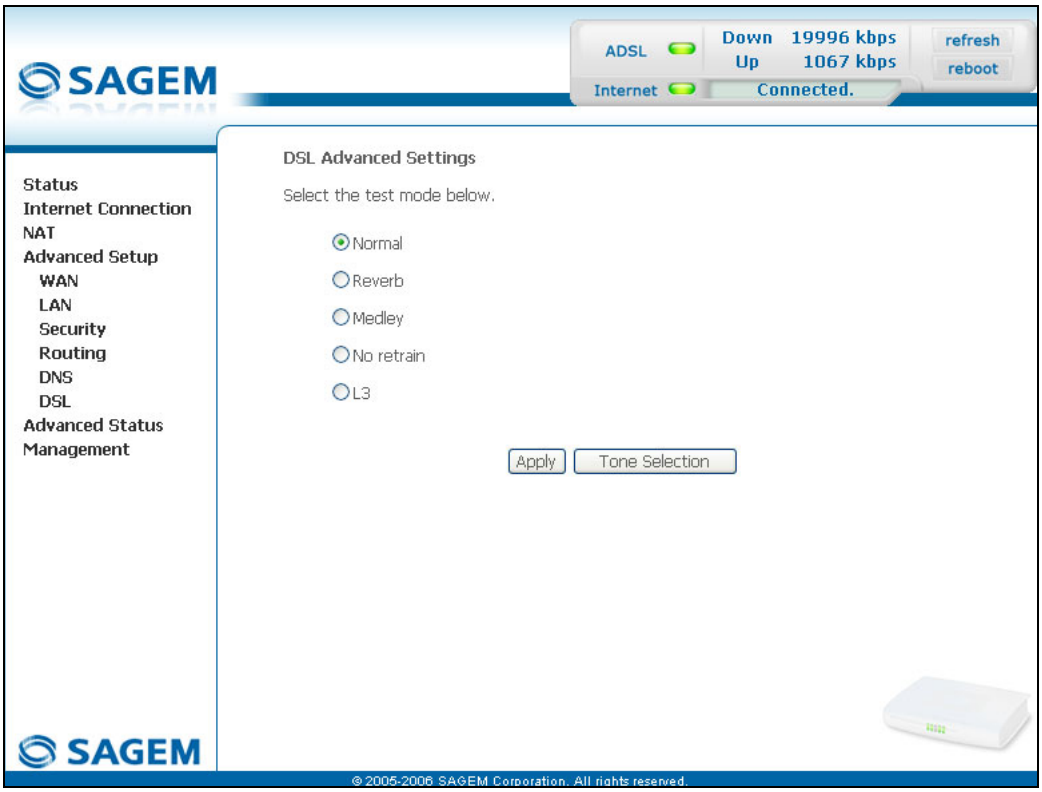
Phone line pair

Field	Default
Inner pair	Selected box
Outer pair	Box not selected

Capability

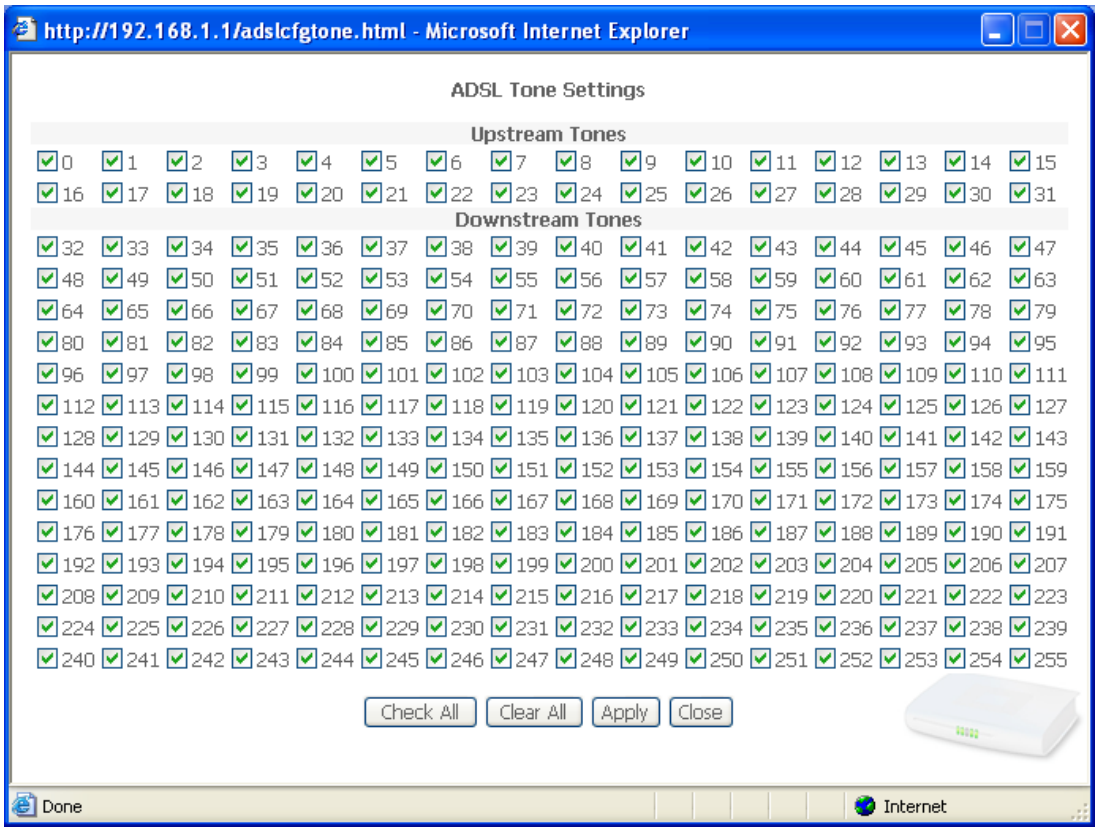
Field	Default
Bitswap Enable	Box checked
SRA Enable	Box not checked

- Click on the **Advanced Settings** button to display the following screen:



Field	Default
Normal	Selected box
Reverb	Box not selected
Medley	Box not selected
No retrain	Box not selected
L3	Box not selected

- Click on the **Tone Selection** button to display the following screen:



Note: There are 32 ascending tones and 224 descending tones.

- Click on the **Check All** button to select all the tones or the **Clear All** button to select none of them.

All the tones are selected by default.

To select a tone, simply check the associated box.
To not select a tone, simply leave its associated box empty.

5.9 Advanced Status

Object: This heading is used to display the status of your router.

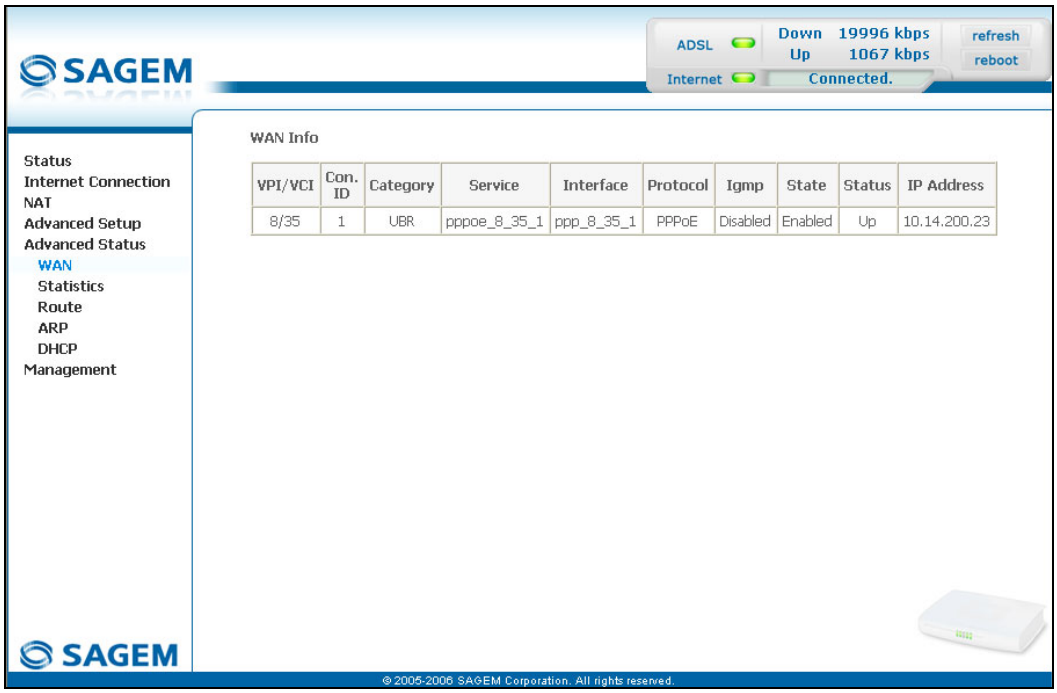
This section contains the following cinq menus:

- WAN (cf. § 5.9.1),
- Statistics (cf. § 5.9.2),
- Route (cf. § 5.9.3),
- ARP (cf. § 5.9.4),
- DHCP (cf. § 5.9.5).

5.9.1 WAN

Object: This menu is used to display all the parameters which concern the remote network.

- Select the **WAN** menu in the **Advanced Status** section to display the following screen:



5.9.2 Statistics

Object: This menu is used to display all the router's statistics.

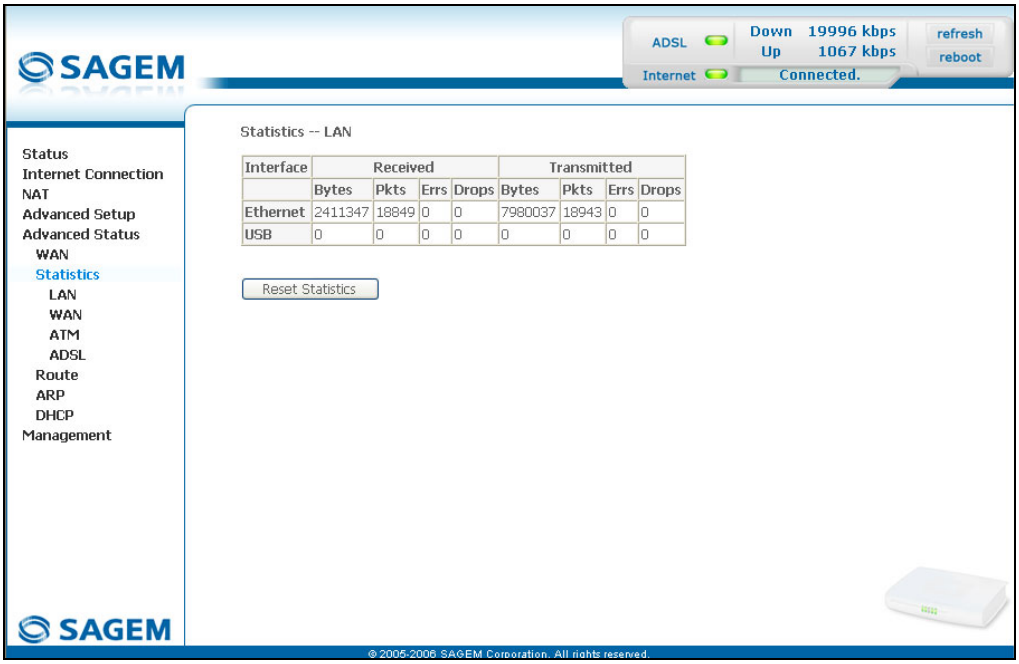
This menu contains the following four sub menus:

- LAN (cf. § 5.9.2.1),
- WAN (cf. § 5.9.2.2),
- ATM (cf. § 5.9.2.3),
- ADSL (cf. § 5.9.2.4).

5.9.2.1 LAN

Object: This menu is used to display all the parameters which concern the local network (LAN).

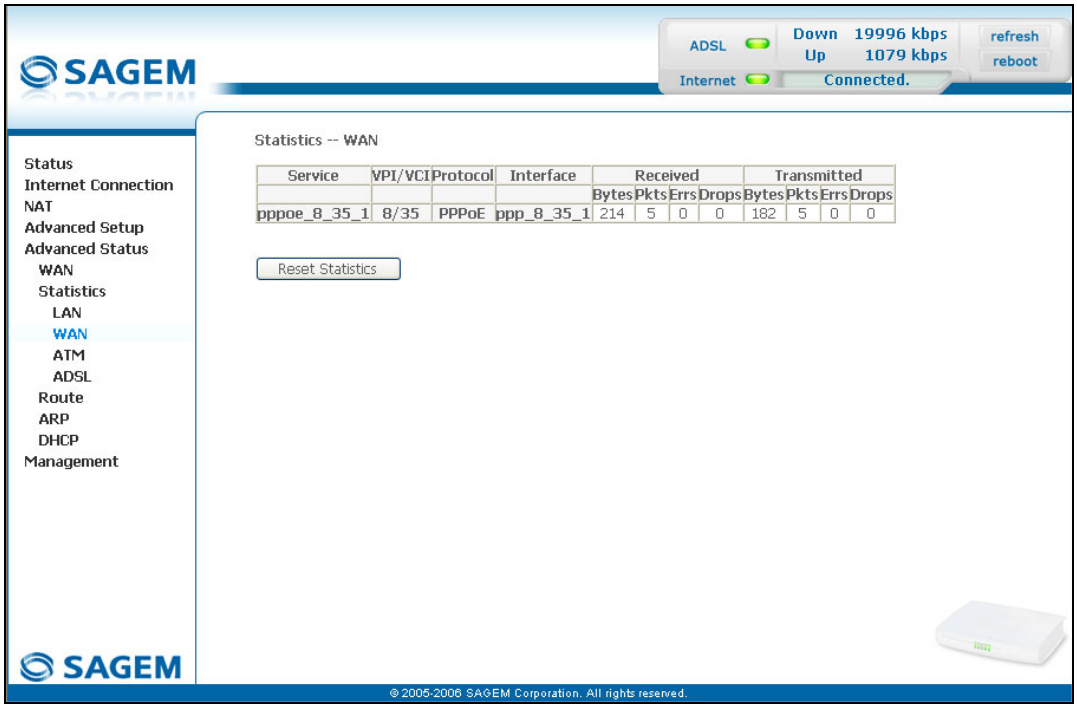
- Select the **LAN** sub menu in the **Statistics** menu in the **Advanced Status** section to display the following screen:



5.9.2.2 WAN

Object: This menu is used to display all the parameters which concern the remote network (WAN).

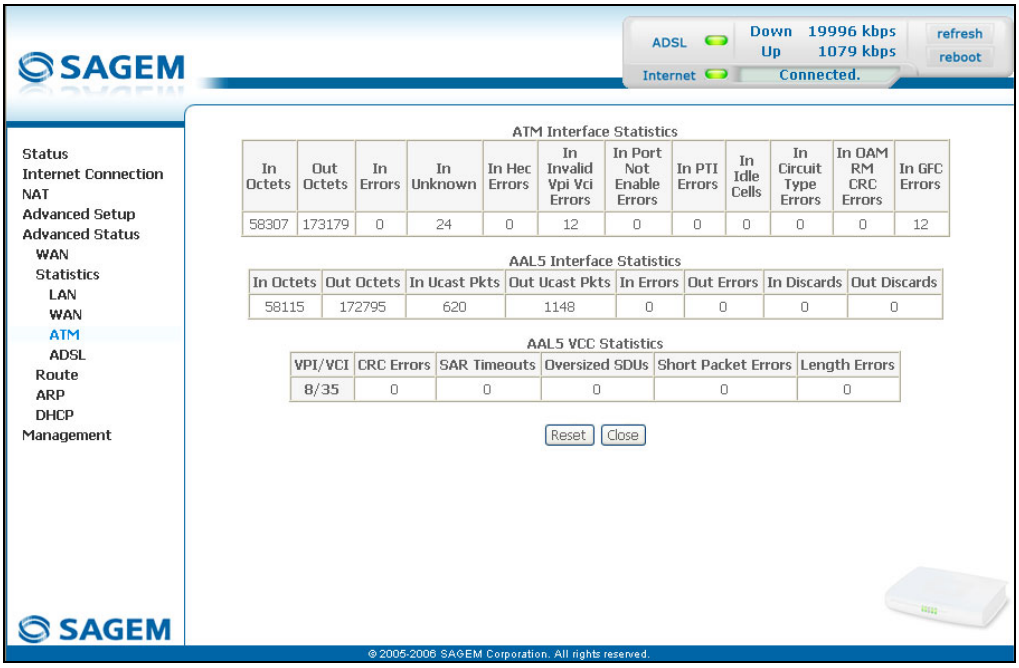
- Select the **WAN** sub menu in the **Statistics** menu in the **Advanced Status** section to display the following screen:



5.9.2.3 ATM

Object: This menu is used to display all the ATM statistics of the line.

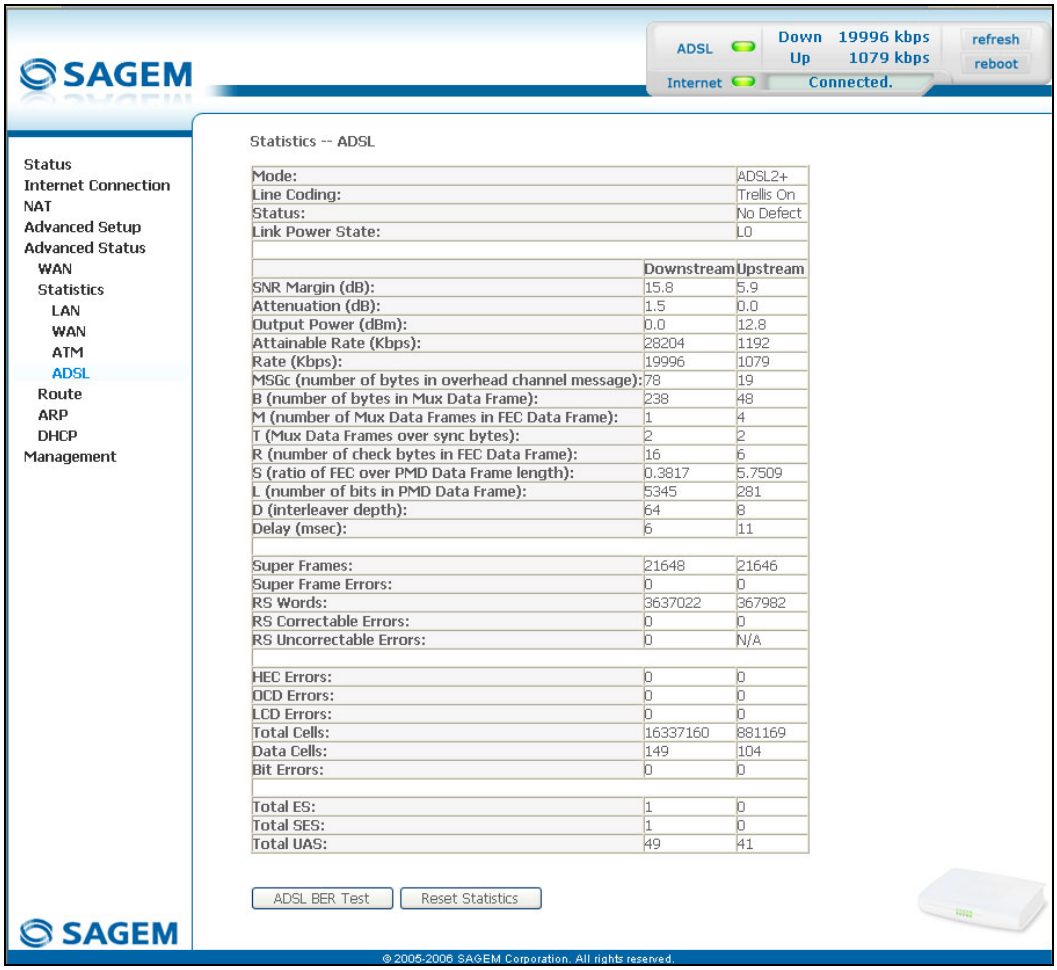
- Select the **ATM** sub menu in the **Statistics** menu in the **Advanced Status** section to display the following screen:



5.9.2.4 ADSL

Object: This menu is used to display all the ADSL statistics of the line.

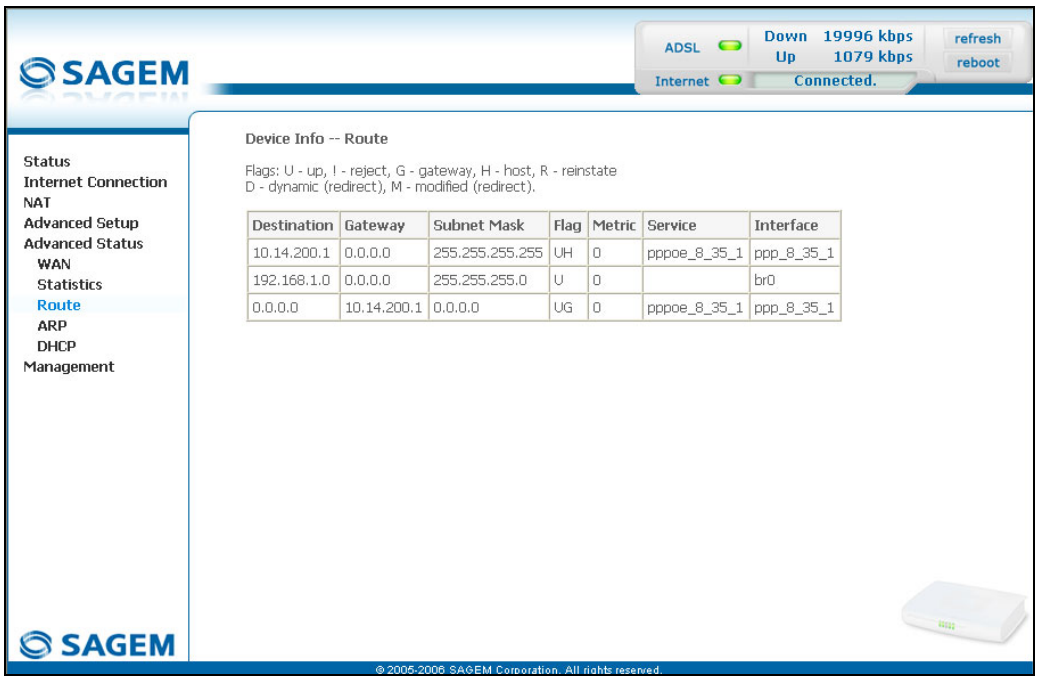
- Select the **ADSL** sub menu in the **Statistics** menu in the **Advanced Status** section to display the following screen:



5.9.3 Route

Object: This menu is used to display all the information concerning your router's routing.

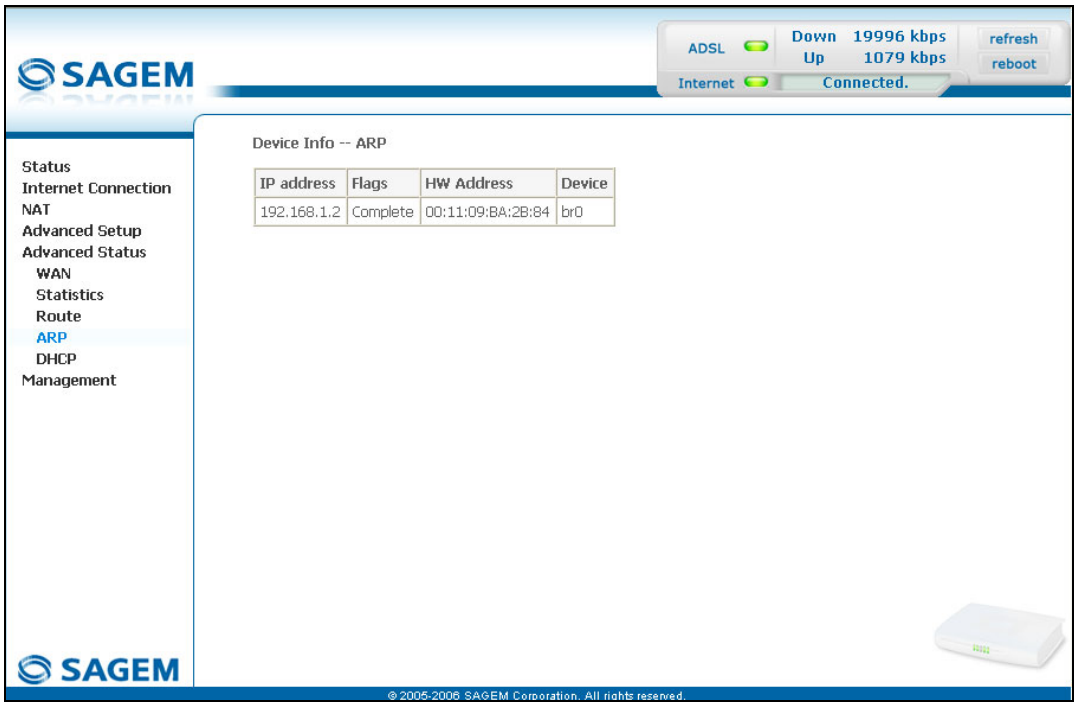
- Select the **Route** menu in the **Advanced Status** section to display the following screen:



5.9.4 ARP

Object: This menu is used to display all the information concerning address resolution (ARP: **A**ddress **R**esolution **P**rotocol). This lets you find out the physical address of a computer's network card, corresponding to an IP address.

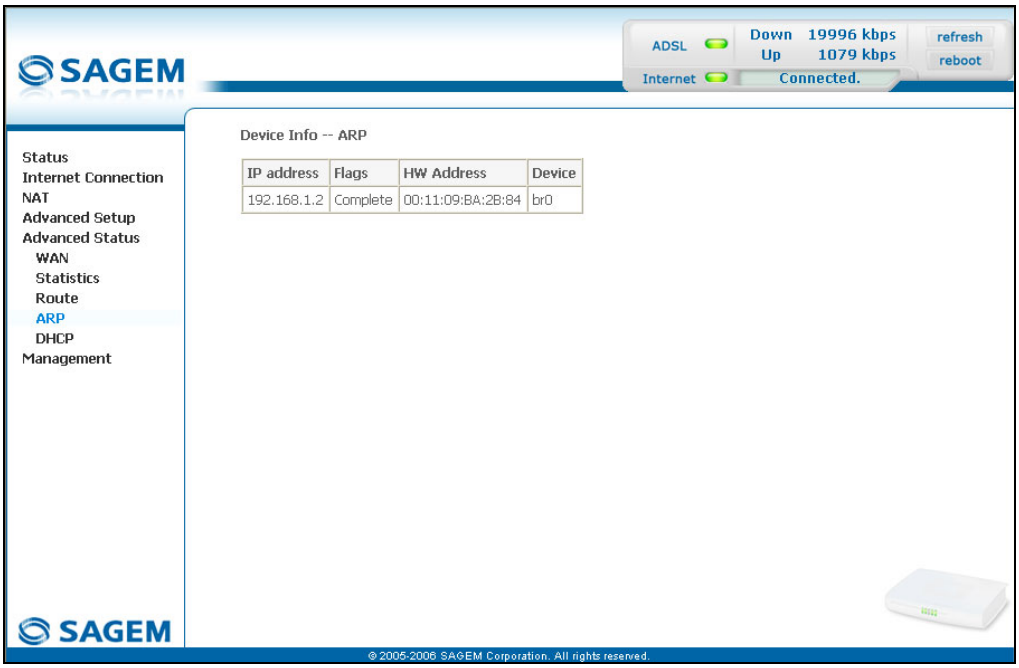
- Select the **ARP** menu in the **Advanced Status** section to display the following screen:



5.9.5 DHCP

Object: This menu is used to display all the computers which obtained an IP address from the router's DHCP server.

- Select the **DHCP** menu in the **Advanced Status** section to display the following screen:



5.10 Management

Object: This menu lets you manage your router.

This section contains the following five menus:

- Settings (cf. § 5.10.1),
- System Log (cf. § 5.10.2),
- Access Control (cf. § 5.10.3),
- Update Software (cf. § 5.10.4),
- Save/Reboot (cf. § 5.10.5).

5.10.1 Settings

This menu contains the following three sub menus:

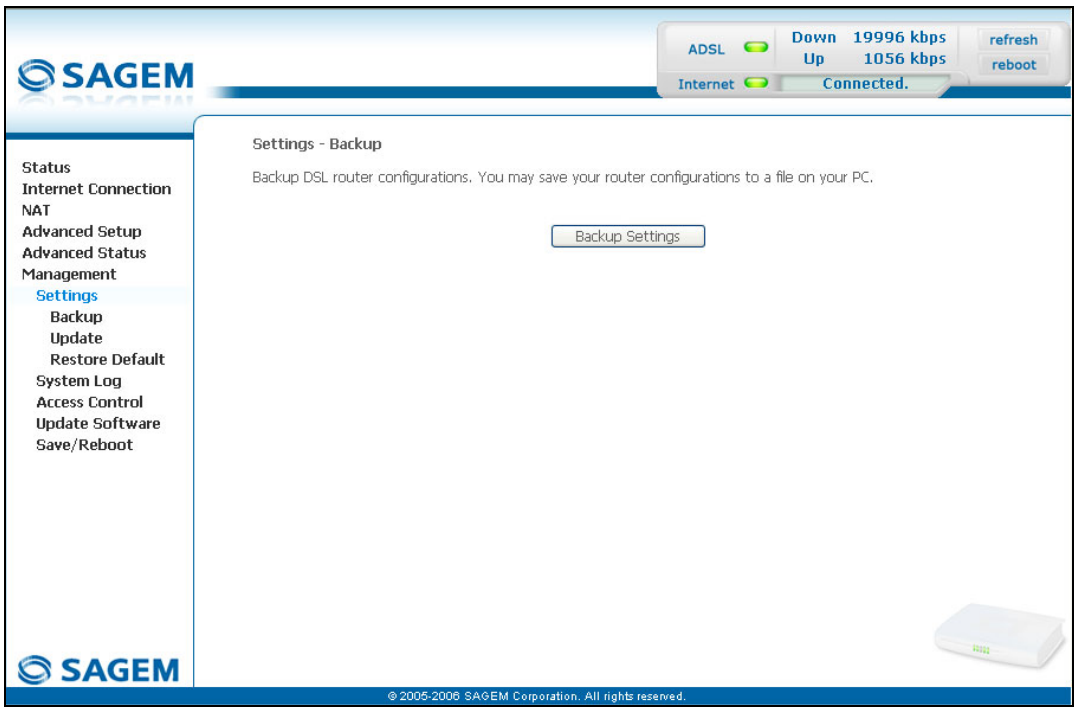
- Backup (cf. § 5.10.1.1),
- Update (cf. § 5.10.1.2),
- Restore Default (cf. § 5.10.1.3).

5.10.1.1 Backup

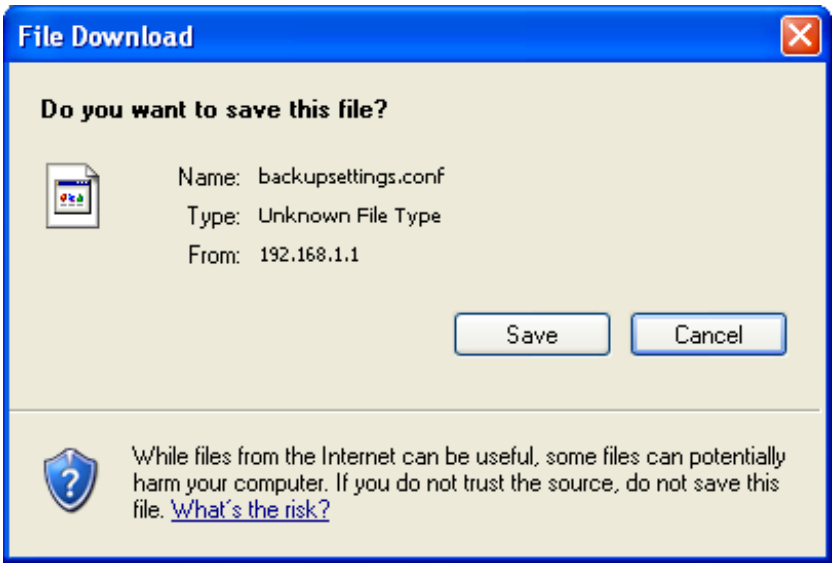
Object: This menu is used to backup the current configuration to a file with a .conf extension.

It is recommended to save the current configuration on your computer to a file

- Select the **Backup** sub menu in the **Settings** menu of the **Management** section to display the following screen:



- Click on the **Backup Settings** button; the following screen appears:



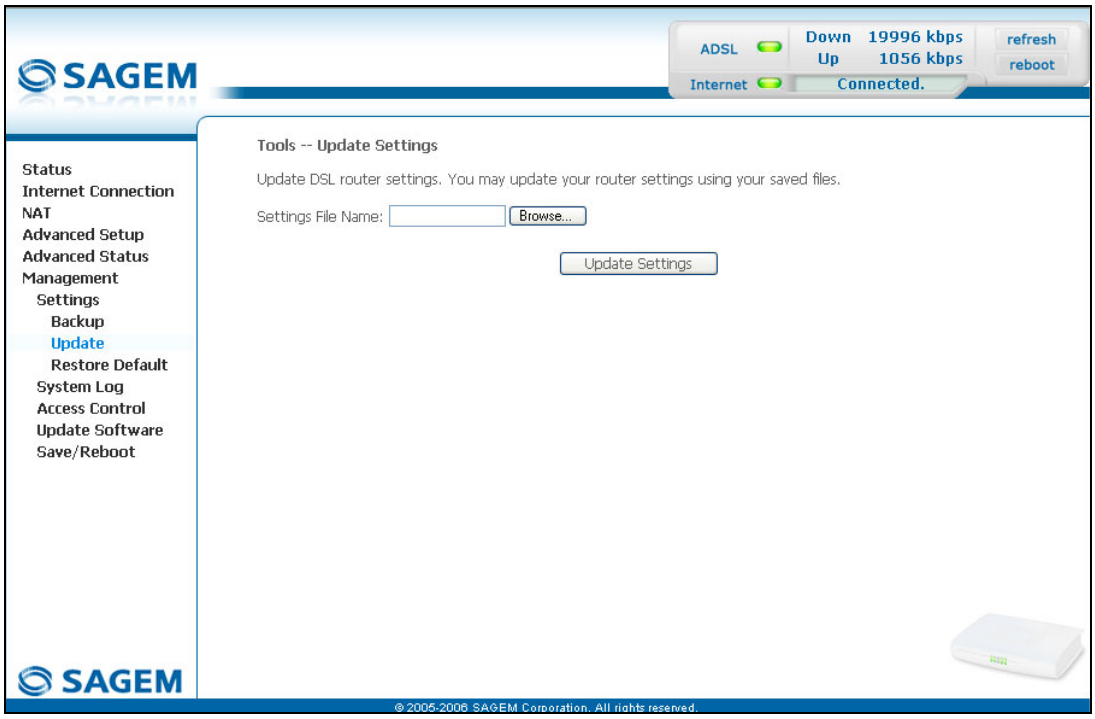
- Click on the **Save** button to save the current configuration file, for example, on your computer.
- Select the directory where you want to save the "backupsettings.conf" configuration file.

The process takes a few seconds.

5.10.1.2 Update

Object: This menu enables the router to recover a configuration which has already been saved to a file with a .conf extension.

- Select the **Update** sub menu in the **Settings** menu of the **Management** section to display the following screen:



Proceed as follows for your router configurer to display a configuration which has already been saved:

- Enter the path then the name of the configuration file,

or

- Click on the **Browse** button and select the path then the configuration file,

- Select the configuration file then click on the **Update Settings** button to recover a configuration which has already been saved.

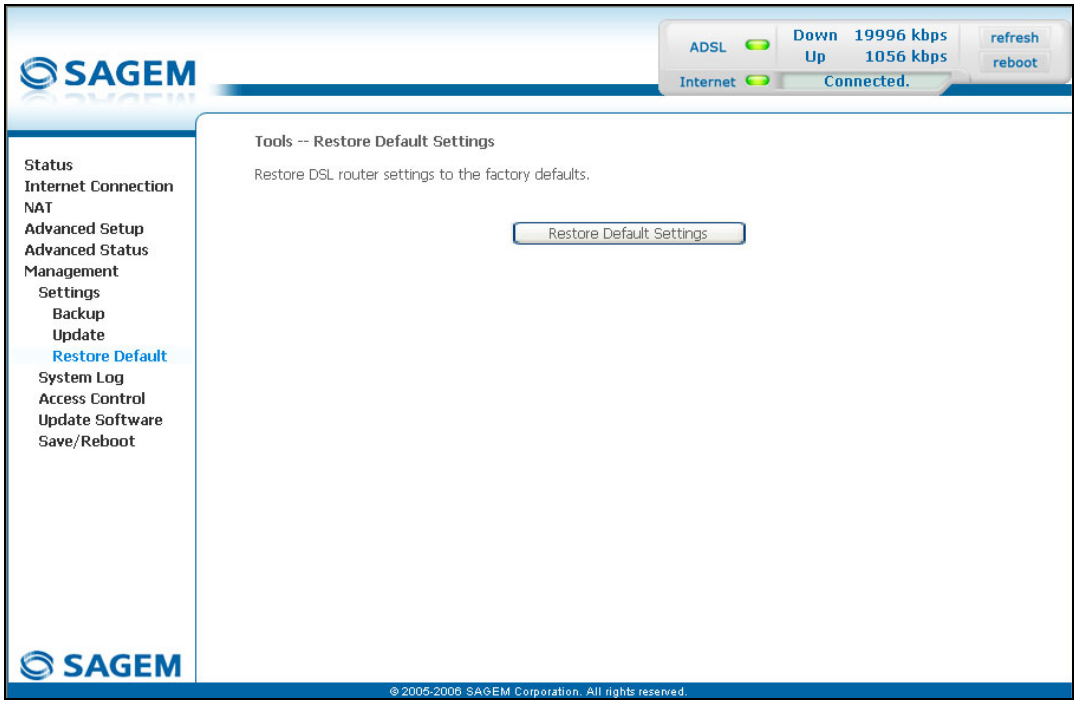
The process takes around 2 minutes.

5.10.1.3 Restore Default

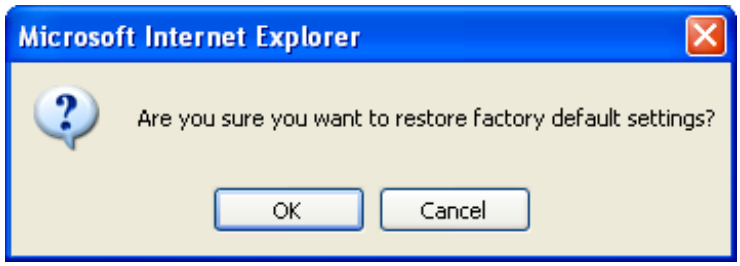
Object: This menu is used to return to factory configuration.

The existing configuration is completely overwritten.

- Select the **Restore Default** sub menu in the **Settings** menu of the **Management** section to display the following screen:



- Select the configuration file then click on the **Restore Default Settings** button and the following screen appears:



- Click on the **OK** button if you really want to return to the factory configuration.

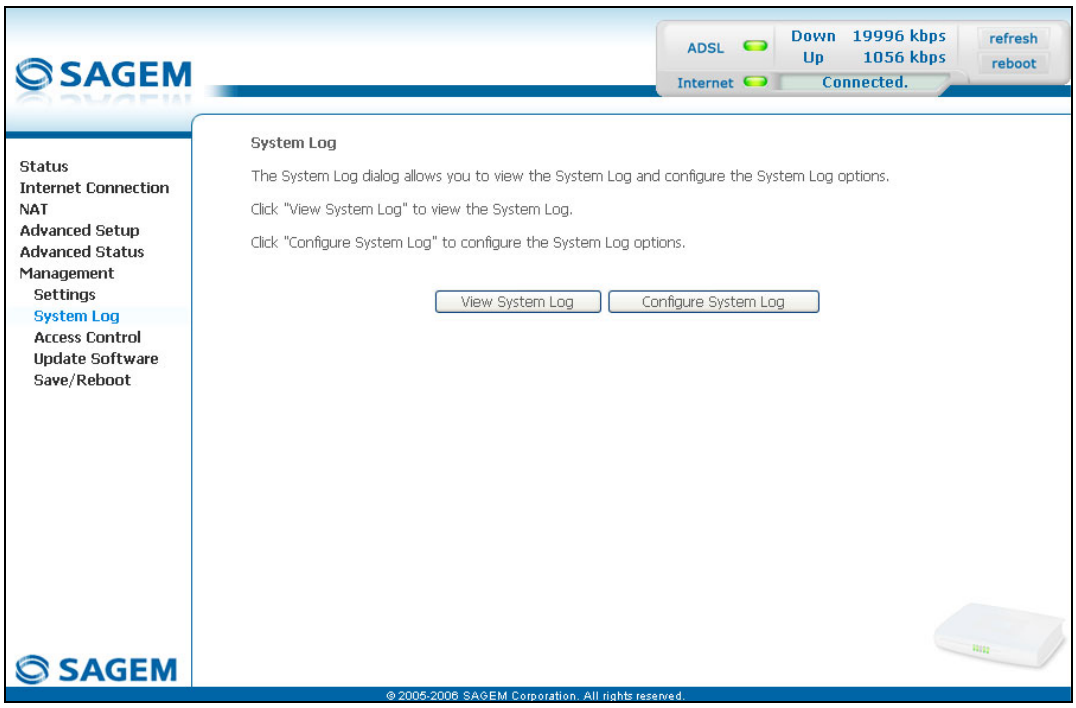
A few moments after, the screen of the "Internet Connection" menu appears. To refer to paragraph 5.6.

The process takes around 2 minutes.

5.10.2 System Log

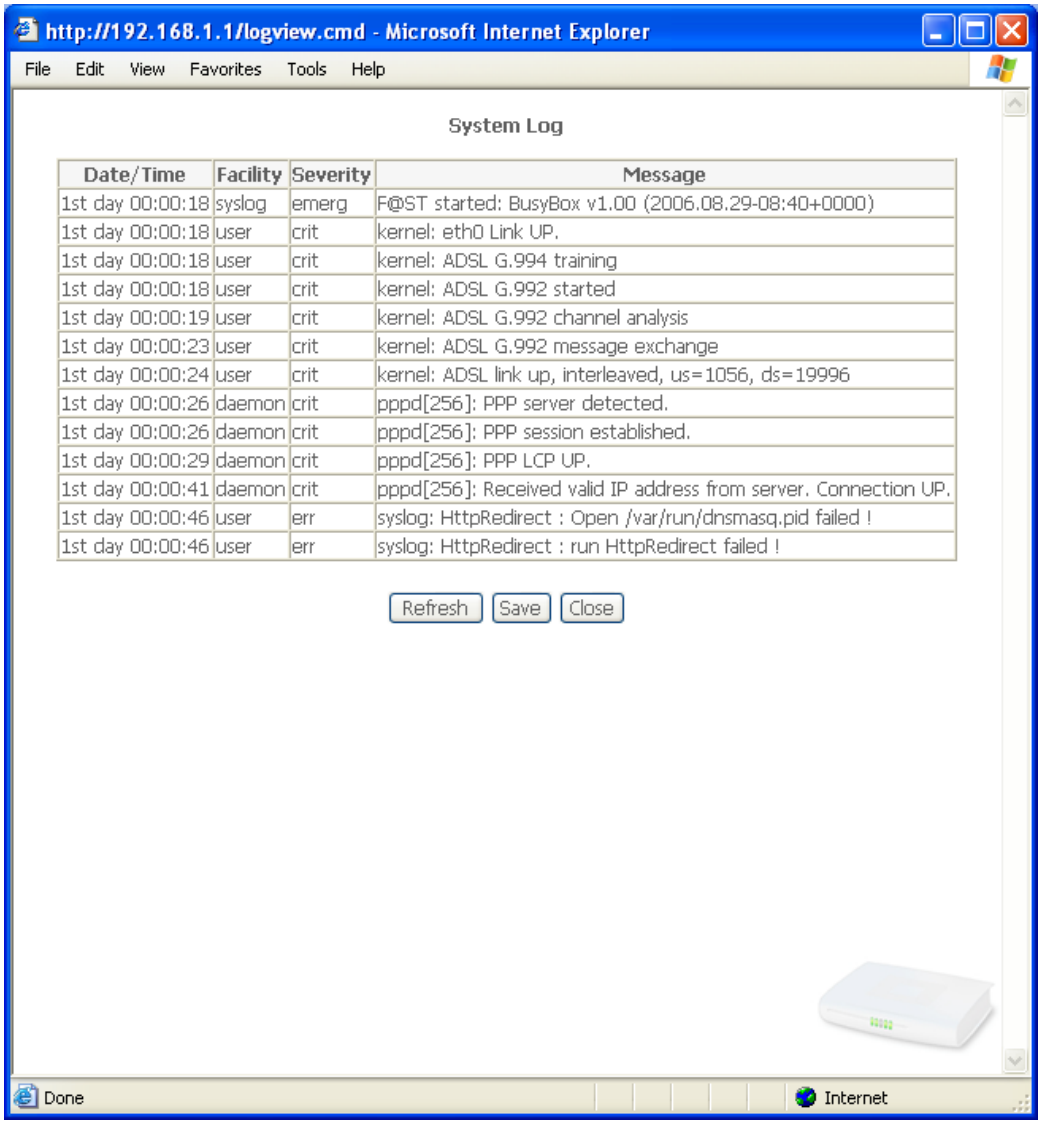
Object: This menu is used to view and/or configure the events which occur on your router.

- Select the **System Log** menu in the **Management** section to display the following screen:



View System Log

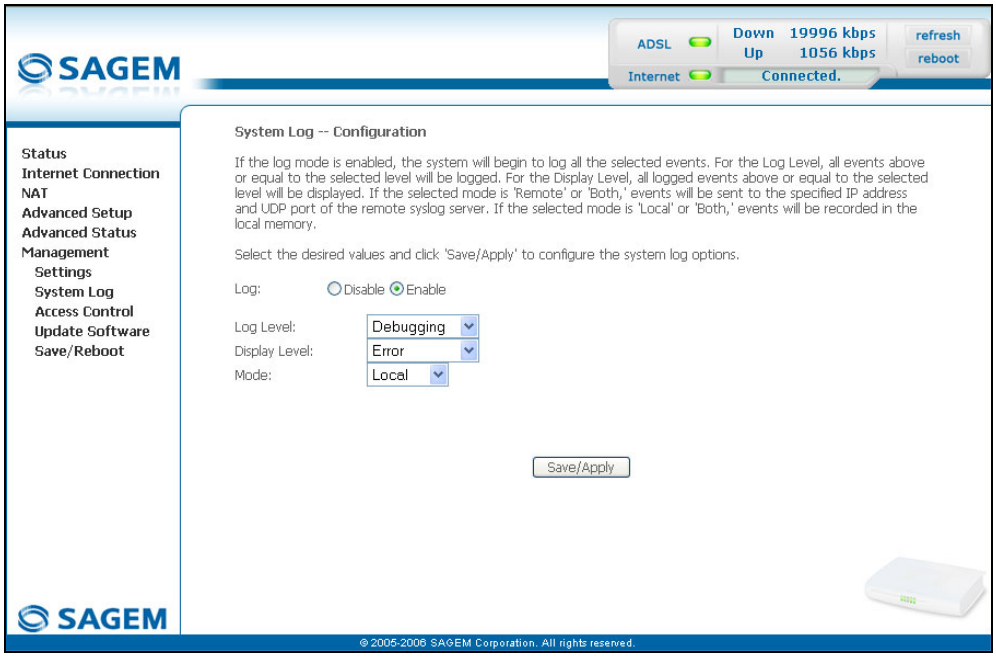
- Click on the **View System Log** button to display the events with the severity you configured (see table in the next paragraph - "**Configure System Log**").



- Click on the **Save** button to save all the events allocated to the severity you configured.

Configure System Log

- Click on the **Configure System Log** button to configure the events which occur on your router.



Field	Action	Default
Log	Select **Enable** to activate the saving of all the events to a log and display on screen or **Disable** to deactivate.	**Enable**
Log Level	Select the appropriate severity from the scroll down list. All the events with this severity, or a higher severity, will be saved to your router's volatile "flash" memory. The severities are classified in decreasing order of importance. • Emergency, • Alert, • Critical, • Error, • Notice, • Informational, • Debugging.	**Debugging**
Display Level	Select the appropriate severity from the scroll down list. All the events with this severity, or a higher severity, can be viewed by pressing the "**View System Log**" button. The severities are classified in decreasing order of importance. • Emergency, • Alert, • Critical, • Error, • Notice, • Informational, • Debugging.	**Error**

Field	Action	Default
Mode	Select the destination ID from the scroll down list: • **Local**: All the events are returned to your router via a "Buffer" memory. • **Remote**: All the events are returned to the "Syslog" server. • **Both** : Both modes.	**Local**
Server IP Address[11]	Enter the IP address of the "Syslog" address on which all the events will be saved.	**0.0.0.0**
Server UDP Port[11]	Enter the number of the port associated with the "Syslog" server.	**514**

[11] This field only appears when the mode selected is "Remote or "Both".

5.10.3 Access Control

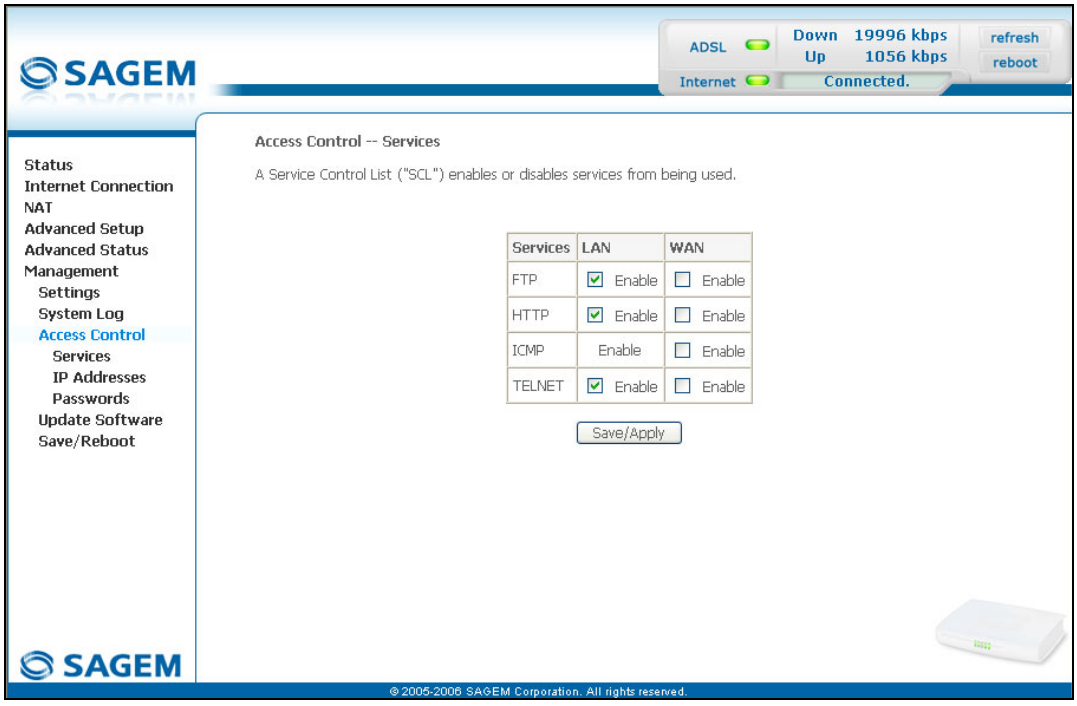
This menu contains the following three sub menus:

- Services (cf. § 5.10.3.1),
- IP Address (cf. § 5.10.3.2),
- Passwords (cf. § 5.10.3.3).

5.10.3.1 Services

Object: this sub menu is used to activate or deactivate Services such as FTP, FTPP etc.

- Select the **Services** sub menu in the **Access Control** menu of the **Management** section to display the following screen:



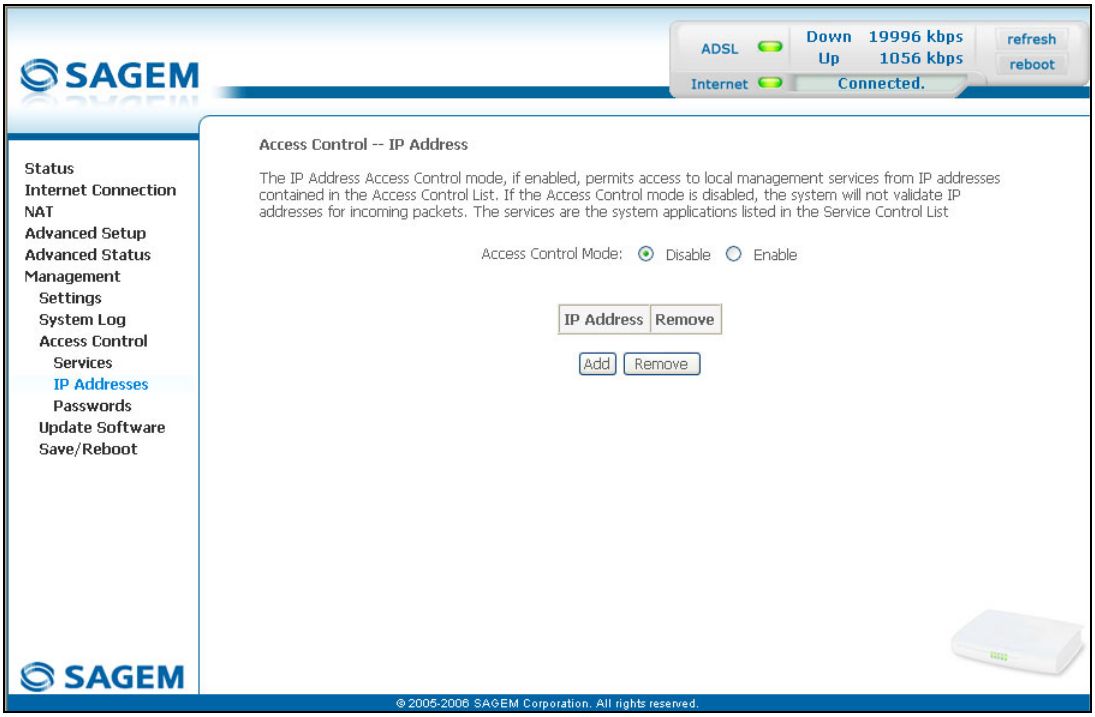
The table displayed in the screen above indicates that the services listed such as FTP, HTTP, ICMP, SSH and TELNET are all activated ("Enable" box checked) on the local network (LAN) and deactivated ("Enable" box not checked) on the remote network (WAN).

Check the **Enable** box to activate the selected service on the local network (LAN) or on the remote network (WAN).

Note: The ICMP service is always activated on the local network (LAN) and may be activated or deactivated on the remote network (WAN).

5.10.3.2 IP Address

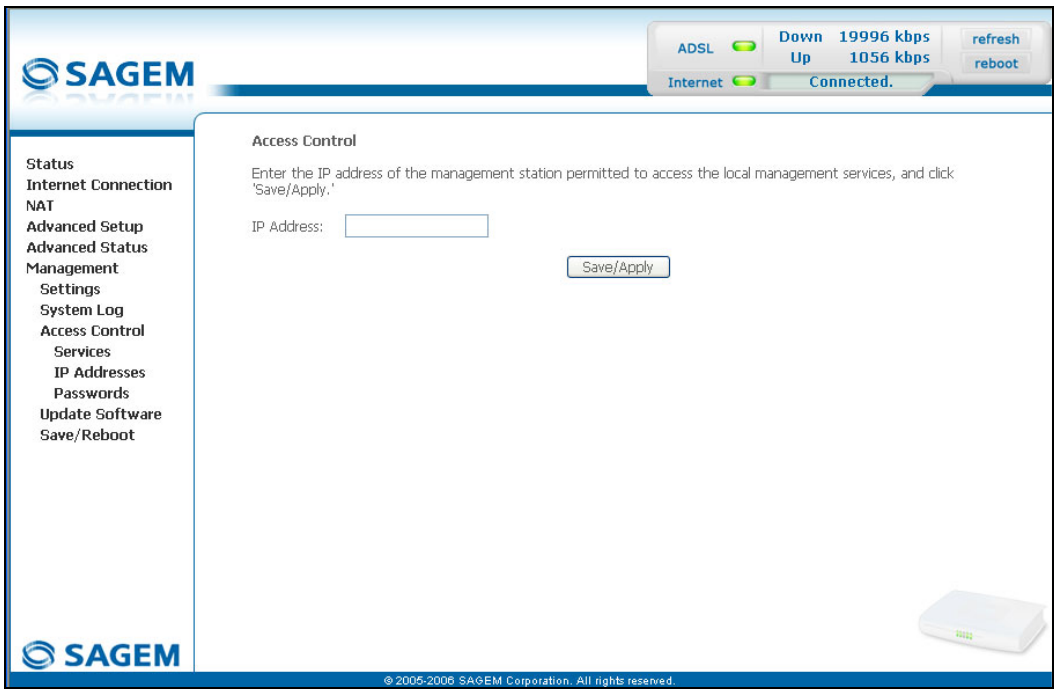
- Select the **IP Address** sub menu in the **Access Control** menu of the **Management** section to display the following screen:



Field	Action	Default
Access Control Mode	Select **Enable** to activate the access control mode or **Disable** to not activate it.	**Box not checked**

Add

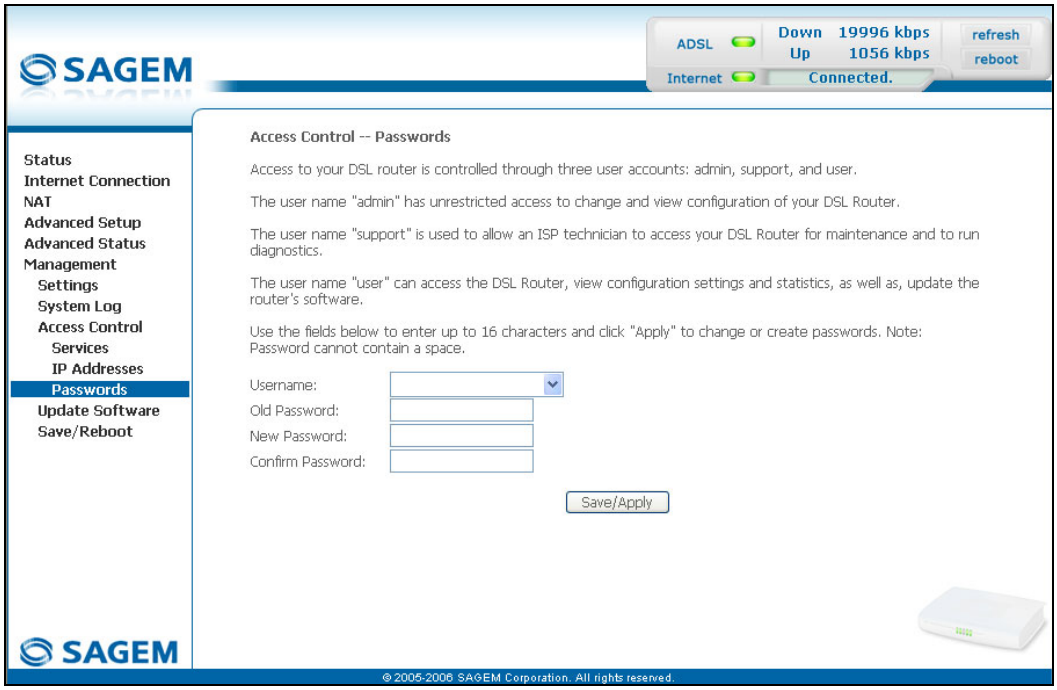
Click on the **Add** button to add an IP address.



Note: From this address you may access the local management services when the access control is active.

5.10.3.3 Passwords

- Select the **Passwords** sub menu in the **Access Control** menu of the **Management** section to display the following screen:



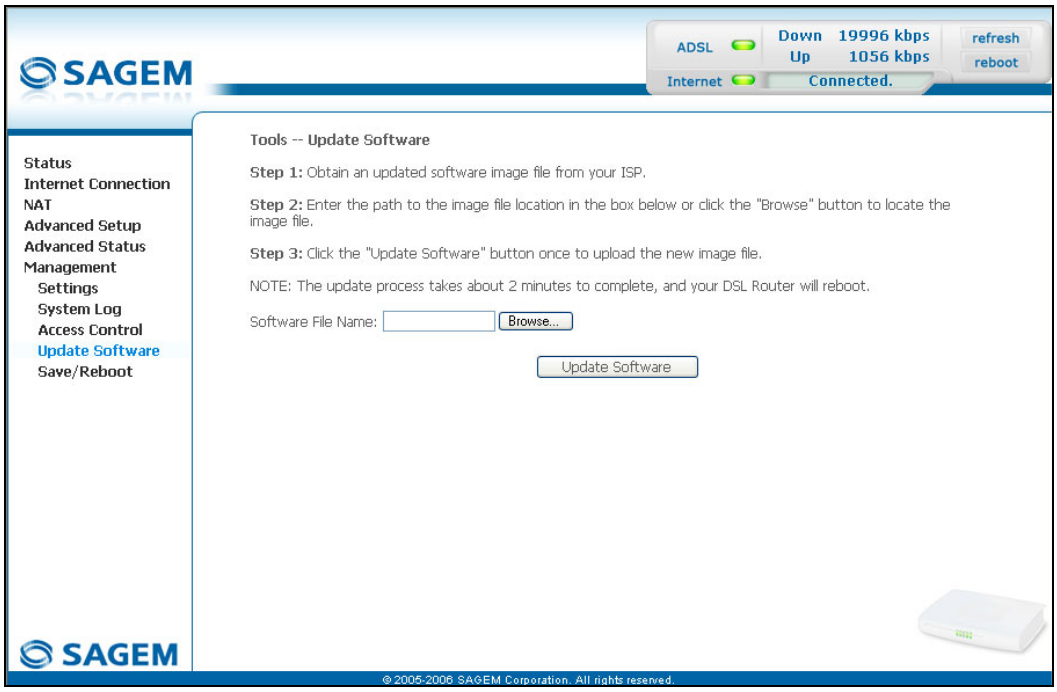
Field	Action
User Name	Select a user name from the scroll down list: • Admin, • Support, • User. **Note:** This list has been established in increasing order of restriction.
Old Password	Enter your old password
New Password	Enter your new password
Confirm Password	Confirm your new password

Note: The password is a string of a maximum of 16 alphanumerical characters.

5.10.4 Update Software

Object: This menu lets you update the latest version of the router software.

- Select the **Update Software** menu in the **Management** section to display the following screen:



Proceed as follows to update your router's software version:

- Enter the path then the name of the software version file,

or

- Click on the **Browse** button and select the path then the software version file,

- Click on the **Update Software** button to update the software version.

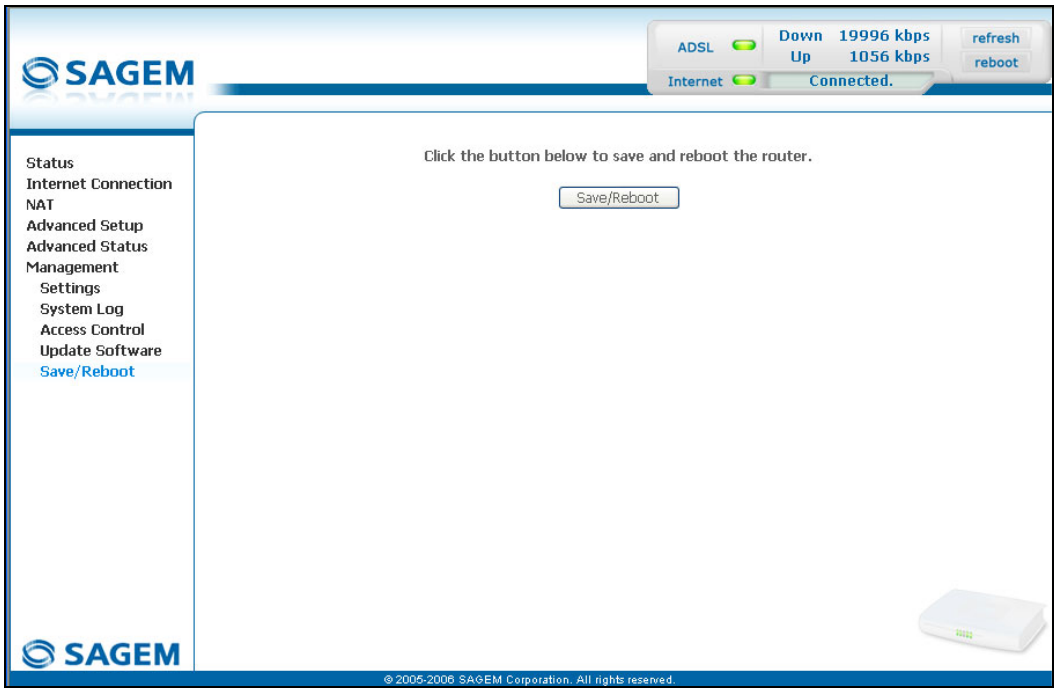
The process takes around 2 minutes.

The application of a new software version for the router does not modify the current configuration at all.

5.10.5 Save/Reboot

Object: This menu lets you save all the modifications made to the current configuration and restart the router with its new parameters.

- Select the **Save/Reboot** menu in the **Management** section to display the following screen:



Click on the **Save/Reboot** button to restart the router.

The process takes around 1 minute.

A countdown is displayed to tell the user how long is left to wait.

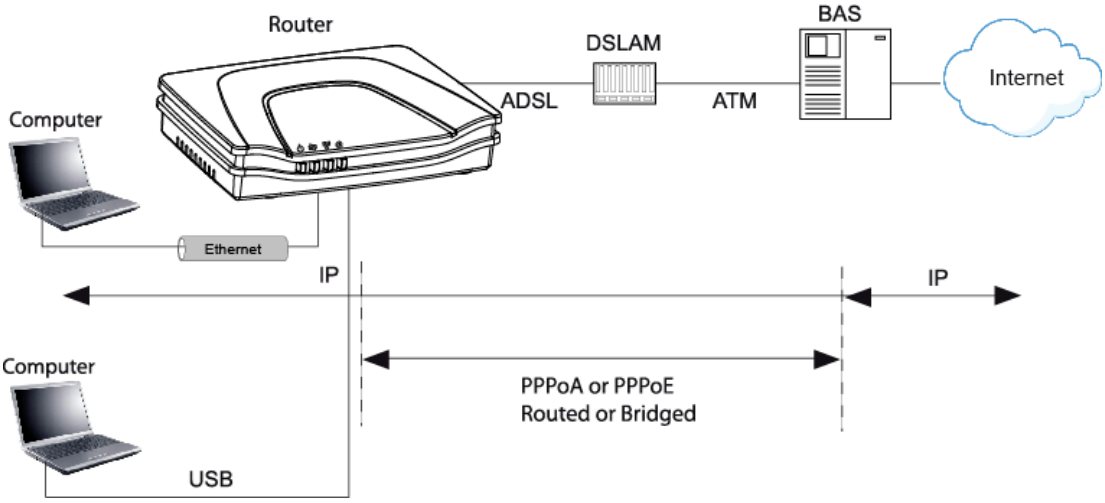
6. Internet access service

This section covers	➢ the introduction	§ 6.1
	➢ connecting to Internet access	§ 6.2

6.1 Introduction

The router has been designed to enable you to access the Internet as simply as possible. Most of the router's parameters are already set:

- It is configured by default as a DHCP server.
- It relays to the Internet DNS queries from the local network.



Using your installation CD-ROM you can quickly obtain Internet access.

The configuration parameters of your router are entered during installation (connection identifier, connection password). These parameters can also be entered or modified in the menu **Internet connection** of the HTTP configurator (PPP Username, PPP Password).

However, your computers (PC, Mac) must still be configured. To surf the Internet, your PC (or any other type of terminal) must also belong to the network. To do so it requires an address by which it can be identified. All these necessary parameters can be supplied automatically by the router if your **computers** are in **DHCP client** mode (default mode for PCs running Windows). Depending on the OS installed on your PC, it may be necessary to restart your PC (or other terminal) after configuring and restarting the router.

Observation: If the terminals are not DHCP clients, your local network then uses a static addressing plan. Check that:

- the router belongs to this addressing plan,
- the default gateway of the equipment in the local network matches the address of your router,
- the DNS addresses are correctly configured in each terminal. The router enables DNS queries to be relayed.

6.2 Connection for Internet access

When installation is complete the "SAGEM" welcome page appears.

You can now surf the Internet.

7. Updating the application

This section covers	➢ updating the application version.	P 7-2

7 - Updating the application

The router's application version is updated manually by the HTTP configurator (download of a file without extension). Refer to § 5.10.4 of section 5 (Management/Update Software).

To check that the new version has been correctly downloaded, click the command **Status/Summary** at the top left of the welcome screen of the HTTP configurator.

A. Annex A - Troubleshooting

This section covers	➢ checking the attribution of an IP address	§ A.1
	➢ Front Face LEDs	§ A.2
	➢ Supervision of your router	§ A.3
	➢ the "Diagnostics" tool	§ A.4
	➢ interpreting the lights.	§ A.5
	➢ reinitialising your router	§ A.6
	➢ resetting with the factory configuration.	§ A.7
	➢ no-connection mode.	§ A.8

A.1 Checking the attribution of an IP address

A.1.1 In Windows

In Windows 98 and Me

- Click button **Start**, select **Execute**, enter **winipcfg** and then click **OK**; the dedicated application appears.
- Check that the entry IP Address contains a value other than **0.0.0.0** (**192.168.1.10** for example, for interface ETH).

In Windows XP, 2000

- Click button **Start**, select **Execute**, enter **cmd** and then click **OK**; the command prompt screen appears. Enter **ipconfig** and then confirm by pressing **Enter**.
- Check that the entry IP Address contains a value other than **0.0.0.0** (**192.168.1.10** for example, for interface ETH).

If no address is displayed on the screen, enter **ipconfig /release** followed by **ipconfig /renew**.

A.1.2 On a Mac (for example MacOS X)

- Click **Apple**, in the menu bar.
- Select **System Preferences**, and then click the **Network** icon.
- Check that the entry IP Address contains a value other than **0.0.0.0** (**192.168.1.10** for example, for interface ETH).
- Check that the entry IP Address contains a value other than **0.0.0.0** (**192.168.1.10** for example, for interface ETH).

If no address is displayed on screen, click button **Apply** for the computer to send a DHCP query to the router.

All the troubleshooting procedures described below are undertaken in **Windows® XP**. These procedures in other Windows operating systems® (98, ME and 2000) can be slightly different.

To help locate the fault, the user has the following sources:

- States of Front Face LEDs,
- Data accessible by the configurator by "DSL Router" onboard HTTP of your router:
  - supervision of the router,
  - "Diagnostics" tool.

A.2 Front Face LEDs

When the router is switched on, the "@" LED (Internet) lights in green and gets off then the " ⏻ " LED (PWR) lights in green.

Status	Colour	⏻			@
On steady	Green	Power present	Synchronised ADSL line	USB or ETH line active	Public Address available
	Red	Failure detected at the tim of starting	x	x	Unconnected line or Public Address unavailable
Blinking	Green	x	x	At LAN traffic rate	At WAN traffic rate
Blinking quickly	Green	X	ADSL synchronisation training	x	x
Blinking slowly	Green	x	Line not connected		
Off	_	Power not present	x	USB or ETH line inactive	Power not present or "Bridge" mode

A.3 Supervising your router

The supervision box is permanently displayed in a frame at the top right of each window of the configurator.

LEDs

ADSL	**Green** : Synchronised ADSL line. **Red** : ADSL line not connected.
Internet	**Green** : Public IP address (WAN) distributed to the router. **Yellow** : Synchronised ADSL line. **Red** : Public IP address (WAN) not distributed to the router, or ADSL line not connected.

Transmission rate

Down	Displays the nominal down line transmission rate
Up	Displays the nominal up line transmission rate

Buttons

Refresh	Allows data displayed on the screen to be refreshed.
Reboot	Allows your router to be started.

A.4 "Diagnostics" tool

To access this tool:

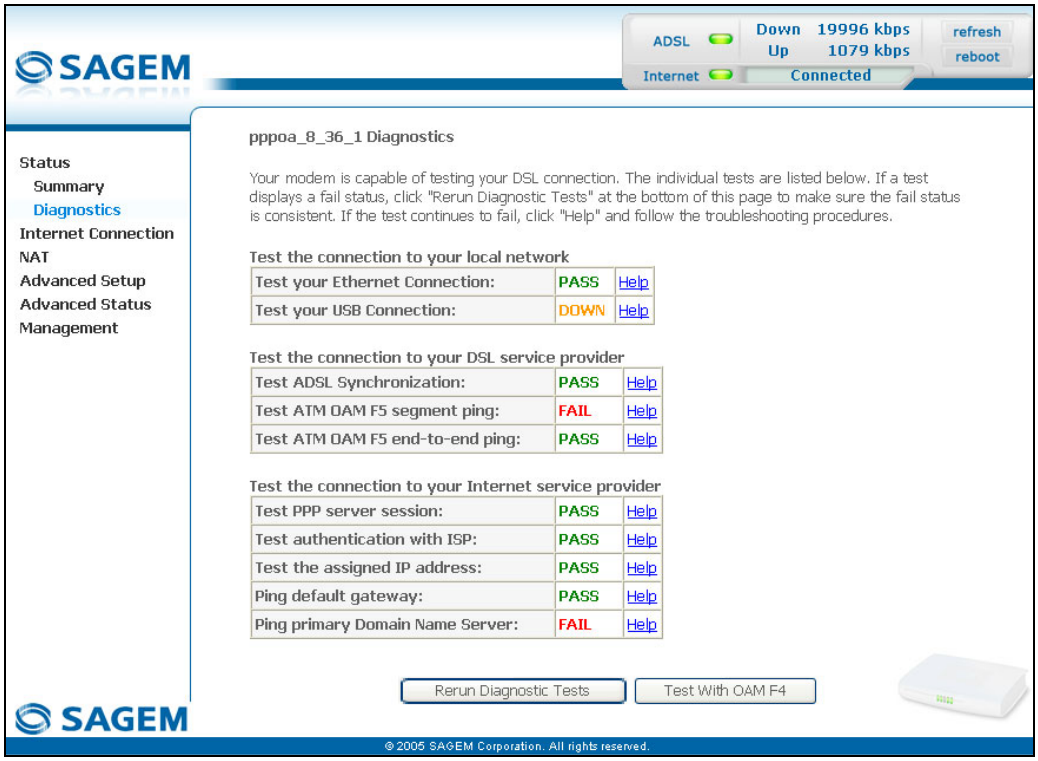
- open your browser and then, in the address bar, enter:
  - the following URL : http://myrouter,
  - or the following address : http://192.168.1.1.

a "Login" window appears; enter the login and password. Default:

- **admin** in the "User name" field,
- **admin** in the "Password" field.

You have access to the HTTP configurator of your router.

- select the heading "Diagnostics" in the suitable list to the left of each window; the following screen appears:



The results of the tests made by the "DSL router" configurator on your modem/router are displayed in the "Diagnostics" window. These tests concern the connections to the LAN, to your DSL Service Provider and to your **I**nternet **S**ervice **P**rovider (ISP).

A hypertext link (help) enables the user to access context-related help. This help gives an explanation concerning the state of the connection (**PASS** in green, **DOWN** in orange and **FAIL** in red) and supplies the appropriate troubleshooting procedures.

State of connection

State	Colour	Meaning
PASS	Green	Indicates that the test has completed successfully.
DOWN	Orange	Indicates that an interface (ETH, USB or Wi-Fi) has not been detected.
FAIL	Red	Indicates that the test has failed, or that it is impossible to start a command. **Note:** Depending on the nature of the test, it is possible that operation of the router or access to the Internet may not be prejudiced. For example if you do a "Ping" either to an ATM OAM F5 segment or to a DNS primary address.

If a test displays a "FAIL" state, click on "Help" and then the button "Rerun Diagnostic Tests" at the bottom of the "Help" page, to check that the test has been conclusive. If the test still displays "FAIL", you must follow the troubleshooting procedure displayed on this page.

IMPORTANT

If you experience difficulties connecting to the Internet, we recommend that you restart your router (cf.A.6) or possibly re-establish the factory configuration (cf. § A.7).

A.5 Interpreting the LEDs

A.5.1 The "ADSL" LED blinks slowly

- Check the connection of your ADSL filters. Each telephone socket of your installation which is used must be equipped with an ADSL filter.
- Check that the RJ11 type line cord delivered with your router is connected to one of your sockets. It is recommended that no telephone extension is used.
- Finally, check with your ISP on the availability of the ADSL service on your telephone line.

A.5.2 All LEDs are off

- Check that the type of power available in your premises is compatible with the mains voltage required for powering your router.
- Check that the delivered power cord is properly connected at one end to the mains power network.
- Check that the power connector is inserted correctly in the corresponding connector (power) of the router.

A.6 Reinitialising your router

To Reinitialise your router, click button "Reboot" at the top right of the welcome page of your HTTP configurator. When you click this button all the LEDs get off ; the "@" LED (Internet) lights in green and gets off then the " " LED (PWR) lights in green and the initialisation process starts. It lasts for around a minute.

Note : The green " " (LINE) and " " (LAN) LEDs light if they are connected.

The "@" LED (Internet) lights in green if "PPP" link is established.

A.7 Re-establishing the factory configuration

To undertake the procedure, there are two possibilities:

1) Using the HTTP configurator

- In the welcome screen of your HTTP configurator, select the heading **Management** followed by the sub-menu **Restore Default** in the **Settings menu** (cf. 5.10.1.3).

2) Using the "REG" button

- press the **REG** pushbutton for at least 15 seconds; all the LEDs get off; the "@" LED (Internet) lights in green and gets off then the " " LED (PWR) lights in green and the process for returning to the factory configuration starts.

This operation deletes the entire personalised configuration of your router: Password, Configuration, etc. It lasts for around 2 minutes.

After a return to factory configuration, it is **necessary to install your router again** using the installation CD-ROM, or to enter again the ADSL connection data supplied by your **I**nternet **S**ervice **P**rovider (ISP) (cf. Internet Connection section - § 5.6).

A.8 Offline mode

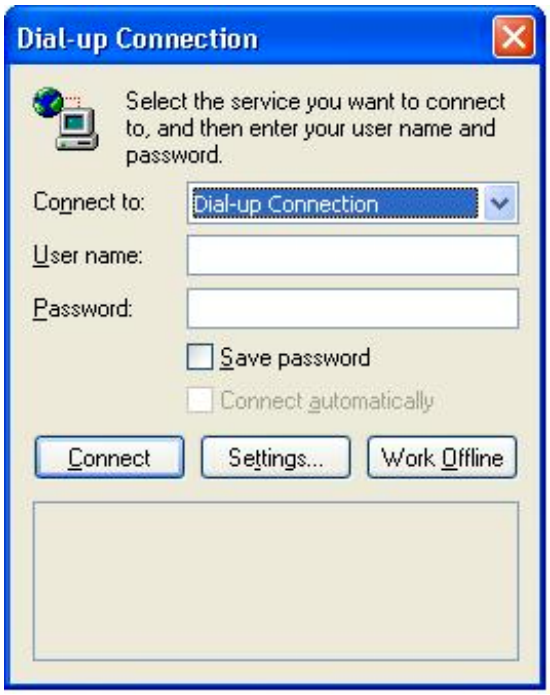
To start configuring the router in HTTP mode, the browser opens, the default IP address of the router's LAN interface appears in the browser's Address field **but the home screen does not appear**.

The screen opposite appears.

Click Connect .

The screen opposite appears.

Click Settings... .



The screen opposite appears.

Select the Connections tabs and then the "**Never dial a connection**"[1].

Click OK to confirm your choice.

In the menu bar, select the "**File**" menu then deselect the "**Work Offline**" command.

Click **OK** in the browser's "**Address**" field to display the home screen.

[1] When the router is installed, this box is checked.

B. Annex B - Warnings for safety

This section covers	➢ Warnings for safety	§ B.1
	➢ the CE conformity declaration	§ B.2

B.1 Warnings for safety

The router is in compliance with standard EN 60950 Ed December 2001.
The safety levels in the sense of this standard are as follows:

B.1.1 Safety levels in relation to the case

Connectors	*Position*	*Safety level*
LINE	ADSL port	TNV3[1]
USB	USB interface port	SELV[2]
ETH	Ethernet port	SELV[2]
PWR	Primary power port	HPV[3]

[1]Level **3** **T**elecommunication **N**etwork **V**oltage
[2]**S**afety **E**xtra **L**ow **V**oltage Circuit
[3]**H**azardous **P**rimary **V**oltage circuit

B.2 CE compliance declaration

Products bearing this symbol are in compliance with EMC regulations and the Low Voltage Directive published by the **E**uropean **C**ommunity **C**ommission (CCE)

Sagem communication declares that the SAGEM F@st™ 1201 and SAGEM F@st™ 1241 products are in compliance with the requirements of European directives 1995/5/CE and with the essential requirements of directives 89/336/CEE of 03/05/1989 and 73/23/CEE of 19/02/1973, and that they efficiently use the spectrum attributed to terrestrial or space radio communications.

The CE conformity declaration of each product (SAGEM F@st™ 1201 or SAGEM F@st™ 1241) is made in the context of the R&TTE directive.

This conformity is presumed through the complete compliance with European harmonised standards.

Sagem communication declines all liability if the regulations in force in the place of installation are not followed.

The CE conformity declaration of each product (SAGEM F@st™ 1201 or SAGEM F@st™ 1241) is present in the form of a file with pdf extension in the CD-ROM delivered with the product.

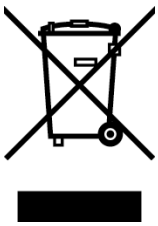
C. Annex C - Environment

This section covers	➢ directive E 2002/96/CE	§ C.1

C.1 Directive E 2002/96/CE

ENVIRONMENT

Preservation of the environment as part of a sustainable development logic is an essential concern of **Sagem Communication**.
Sagem Communication's aim is to operate systems safeguarding the environment and consequently it has decided to integrate environmental performance considerations in the life cycle of its products, from manufacturing to commissioning, use and disposal.



THE PRODUCT

The crossed-out waste bin marked on the product or its accessories means that the product belongs to the family of electrical and electronic equipment.

In this respect, the European regulations require you to dispose of it selectively:

- At sales points on purchasing similar equipment,
- At the collection points made available to you locally (drop-off center, selective collection, etc.).

In this way, you can participate in the re-use and upgrading of **E**lectrical **E**lectronic **E**quipment **W**aste, which can have an effect on the environment and health.

D. Annex D - Technical Characteristics

This section covers	➢ mechanics and displays	§ D.1
	➢ the characteristics of the different interfaces	§ D.2
	➢ environmental characteristics	§ D.3
	➢ the application and the protocols	§ D.4

D.1 Mechanics; Display

Mechanical characteristics		
Dimensions (mm)	• Width	: 140 mm
	• Depth	: 95 mm
	• Thickness	: 32 mm
Weight of router		: 200 gr

Display		
Marking	**Abbreviation**	**Meaning**
	**PWR**	• **Green/Red Power LED**
	**ADSL**	• **Green ADSL LED**
	**LAN**	• **Green local network (LAN) LED**
@	**Internet**	• **Green/Red Internet LED**

D.2 Characteristics of the different interfaces

Ethernet LAN interface	
Transmission rate	• 10 Mbit/s or 100 Mbit/s, self-configurable
	• Half/Full Duplex
Standard	• 802.3 mm
Connection technology	• RJ45 • Type MDI or MDI-x self-detecting port • Crossed or straight cord

ADSL/ADSL2/ADSL2+ interface	
Transmission code	• DMT
Standards supported	• High-performance secure Bridge/Router with ADSL/ADSL2/ADSL2+ interface,
	• G.994.1 (G.Handshake)
Maximum upward transmission rate	• 1.3 Mbit/s
Maximum downward transmission rate	• 24.5 Mbit/s
Latency	• Simple (Fast or Interlaced)

USB Interface	
Transmission rate	• 1.5 Mbit/s to 12 Mbit/s
Standard	• USB 1.1
Data	• Asynchronous
Transmission mode	• bidirectional
Consumption	• none (only a voltage detection for the high-impedance port of a computer)
Connection technology	• USB - Type B

Input/Output supply	
Type	• Plug-in external adapter unit
Class	• II
Input	• 198 to 253 VAC, 50/60 Hz, 0.4 A
Output	• +7.5 VDC/700 mA
Mains connection technology	• Europlug type C socket

D.3 Environmental characteristics

Climatic and mechanical environment	
Storage	• ETS 300 019-1-1 Category T1.2
Transport	• ETS 300 019-1-2 Category T2.3
Operation	• ETS 300 019-1-3 Category T3.2 Temperature: +5°C/+45°C

Electrical robustness	
Standard	• UIT-T K21 Ed 2000 : basic level

Electromagnetic compatibility	
Susceptibility/Emission	• EN 301 489-1 Ed . 2002
	• EN 301 489-17 Ed . 2002

Radio part for ISM band at 2.4 GHz	
Emission 802.11g/b	• ETR 300 328-2 Ed . July 2000

D.4 Application and protocols

IP characteristics	
TCP-IP, UDP, ICMP, ARP	
DHCP Client/Server/Relay	
DNS Server/Relay	
FTP Client/Server	
TFTP Client/Server	
HTTP Client/Server	
Routing (LAN and WAN)	• Static
NAT/PAT	• 8 maps maximum

Encapsulation protocols	
PPP over ATM (PPPoA)	• RFC 2384
PPP over Ethernet (PPPoE)	• RFC 2516
Routed or Bridged	• RFC 2684

Configuration	
HTTP	• LAN or WAN port (with specific option)
Management	• From ETH, USB and WAN (with specific option)
Downloading of version	• Client by http mode

E. Annex E - Default configuration

This section covers	➢ the default username and password	§ E.1
	➢ the default configuration for the local network (LAN)	§ E.2
	➢ the default configuration for the remote network (WAN)	§ E.3

This section indicates the values of the default parameters of your router when it leaves the factory.

These default parameters can be modified by a particular preconfiguration of your router.

E.1 Default username and password

The default access level is **Administrator**. Its associated "username" and "password" are:

Username	**admin**
Password	**admin**

E.2 Default configuration for the local network(LAN)

The following table gives the values of the principal LAN parameters of your router (**ETH**, **USB**):

LAN characteristics	Value	State
ETH IP address	192.168.1.1	Internet and HTTP configurator access or to a TV decoder
USB IP address		Internet and HTTP configurator access
BROADCAST, ARP, MULTICAST		Activated
Router		The LAN traffic is routed to your ISP
NAT/PAT		Activated

E.3 Default configuration for the remote network (WAN)

Designation	Value
VPI	8
VCI	35
Linking protocol	PPPoA
	DNS relay
	DHCP server
ADSL/ADSL2/ADSL2+	Multimode

F. Annex F - Glossary

Glossary

ACL	**A**ccess **C**onfiguration **L**ist
ADSL	**A**synchronous **D**igital **S**ubscriber **L**ine
ARP	**A**ddress **R**esolution **P**rotocol
CC	**C**ontinuity **C**heck
CCK	**C**omplimentary **C**ode **K**eying
CHAP	**C**hallenge **H**andshake **A**uthentification **P**rotocol
CLI	**C**ommand **L**ine **I**nterface
CTS	**C**lear **T**o **S**end
DBPSK	**D**emodulator **B**aseband **P**hase **S**hift **K**eying
DECT	**D**igital **E**nhanced **C**ordless **T**elephone
DHCP	**D**ynamic **H**ost **C**onfiguration **P**rotocol
DMT	**D**iscrete **M**ulti**T**one
DNS	**D**omain **N**ame **S**erver
DQPSK	**D**ifferential **Q**uadrature **P**hase **S**hift **K**eying
DSSS	**D**irect **S**equence **S**pread **S**pectrum
DTIM	**D**elivery **T**raffic **I**ndication **M**essage
DTMF	**D**ual **T**one **M**ulti-**F**requency
ESSID	**E**xtended **S**ervice **S**et **ID**entifier
FAI	**F**ournisseur d'**A**ccès à **I**nternet
FHSS	**F**requency **H**opping **S**pread **S**pectrum
FTP	**F**ile **T**ransfert **P**rotocol
HTML	**H**yper **T**ext **M**arkup **L**anguage
HTTP	**H**yper **T**ext **T**ransfer **P**rotocol
ICMP	**I**nternet **C**ontrol **M**essage **P**rotocol
IEEE	**I**nstitute of **E**lectrical and **E**lectronics **E**ngineers
IEEE 802.11b/g	Specifications which use the MAC protocol suitable for the wireless local network (WLAN) in the 2.4 GHz band
IGMP	**I**nternet **G**roup **M**embership **P**rotocol
IP	**I**nternet **P**rotocol
IPQoS	**Q**ualité **IP**
ISP	**I**nternet **S**ervice **P**rovider
LAN	**L**ocal **A**rea **N**etwork
LCP	**L**ink **C**ontrol **P**rotocol
LLC	**L**ogical **L**ink **C**ontrol (encapsulation avec en-tête)
MAC	**M**edium **A**ccess **C**ontrol
MDI	**M**edia **D**ependent **I**nterface
MER	**M**AC **E**ncapsulation Routing
MTU	**M**aximum **T**ransfer **U**nit

NAPT	**N**etwork **A**ddress **P**ort **T**ranslation
NAT	**N**etwork **A**ddress **T**ranslation
OAM	**O**peration, **A**dministration and **M**aintenance
PA	**P**oint d'**A**ccès
PAP	**P**assword **A**uthentification **P**rotocol
PCI	**P**eripheral **C**omponent **I**nterconnect
PCM	**P**ulse **C**ode **M**odulation
PCMA	**P**ulse **C**ode **M**odulation Loi **A**
PCMCIA	**P**ersonal **C**omputer **M**emory **C**ard **I**nternational **A**ssociation
PCMU	**P**ulse **C**ode **M**odulation Loi **mu**
PID	**P**rotocol **ID**entifier
PING	**P**acket **I**nter**N**et **G**roper
PLC	**P**aquet **L**oss **C**oncealment
POP	**P**oint de **P**résence
POTS	**P**lain **O**ld **T**elephone **S**ervice
PSTN	**P**ublic **S**witching **T**elephonic **N**etwork
PPP	**P**oint to **P**oint **P**rotocol
PPPoA	**PPP o**ver **A**TM
PPPoE	**PPP o**ver **E**thernet
PVC	**P**ermanent **V**irtual **C**ircuit
QoS	**Q**uality of **S**ervice
RADIUS	**R**emote **A**uthentication **D**ial-**I**n **U**ser **S**ervice
RFC	**R**equest **F**or **C**omments
RGW	**R**esidential **G**ate**W**ay (Passerelle Résidentielle)
RNIS	**R**éseau **N**umérique **I**ntégration de **S**ervices
RIP	**R**outing **I**nformation **P**rotocol
RTCP	**R**eal **T**ime **C**ontrol **P**rotocol
RTP	**R**eal-time **T**ransport **P**rotocol
SCR	**S**ustained **C**ell **R**ate
SMTP	**S**imple **M**ail **T**ransfer **P**rotocol
SNDCP	**S**ub **N**etwork **D**ependent **C**onvergence **P**rotocol
SNAP	**S**ubNetwork **A**ttachment **P**oint
SNMP	**S**imple **N**etwork **M**anagement **P**rotocol
SSID	**S**ervice **S**et **ID**entifier
STB	**S**et **T**op **B**ox
TCP	**T**ransmission **C**ontrol **P**rotocol
TELNET	**TEL**ecommunication **NET**work
TFTP	**T**rivial **F**ile **T**ransfer **P**rotocol
UBR	**U**nspecified **B**it **R**ate
UDP	**U**ser **D**atagram **P**rotocol
URL	**U**niformed **R**esource **L**ocator
USB	**U**niversal **S**erial **B**us
UTP	**U**nshielded **T**wisted **P**air
VAD	**V**oice **A**ctivity **D**etection

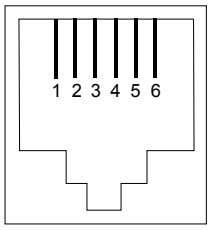
VBR-nrt	**V**ariable **B**it **R**ate - **n**on **r**eal **t**ime
VBR-rt	**V**ariable **B**it **R**ate - **r**eal **t**ime
VC	**V**irtual **C**hannel
VCC	**V**irtual **C**hannel **C**onnection
VCI	**V**irtual **C**hannel **I**dentifier
VC MUX	**VC** M**u**ltiple**X**ing (encapsulation sans en-tête)
VP	**V**irtual **P**ath
VPI	**V**irtual **P**ath **I**dentifier
VPN	**V**irtual **P**rivate **N**etwork
WAN	**W**ide **A**rea **N**etwork
WEB	Meshed network of information servers
WFQ	**W**eighted **F**air **Q**ueuing
WLAN	**W**ireless **L**ocal **A**rea **N**etwork

G. Annex G - Connector Technology

This section covers	➢ pinouts of the "**LINE**" connector	§ G.1
	➢ pinouts of the "**PWR**" connector	§ G.2
	➢ pinouts of the "**ETH**" connector	§ G.3
	➢ pinouts of the "**USB**" Connector	§ G.4

G.1 Pinouts of the "LINE" connector

The equipment is connected to ADSL using a RJ11 fixed connector (6 contacts).



Contact N°	Signal	Meaning
3	LINE-A	Line A signal
4	LINE-B	Line B signal
1	NC	Not connected
2	NC	Not connected
5	NC	Not connected
6	NC	Not connected

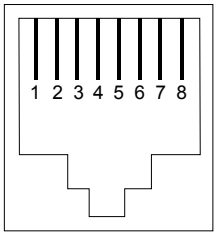
G.2 Pinouts of the "PWR" connector

The mains unit is connected to the equipment using the miniature fixed connector of the case.

Pin	Signal	Meaning
Internal	+7.5 V	DC "+" connection
External	Earth	DC "-" connection

G.3 Pinouts of the "ETH" connector

The Ethernet interface is connected to the equipment using a RJ45 fixed connector (8 contacts).

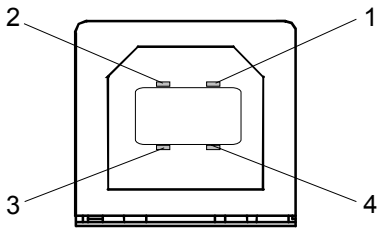


Contact N°	Signal	Meaning
1	TXD+	(+) Emission to terminal
2	TXD-	(-) Emission to terminal
3	RXD+	(+) Reception of terminal
4	NC	Not connected
5	NC	Not connected
6	RXD-	(-) Reception of terminal
7	NC	Not connected
8	NC	Not connected

The Ethernet port is self-detecting. You can use either straight or crossed cables. An emission or reception signal is detected automatically.

G.4 Pinouts of the "USB" connector

The "USB" interface is connected to the equipment using a type B female USB fixed connector.



Contact N°	Signal	Meaning
1	Vcc	PC power (+)
2	- Data	Subscriber line signal
3	+ Data	Subscriber line signal
4	Ground	Earth

Siège social : 27, rue Leblanc - 75512 PARIS CEDEX 15 - FRANCE
Tél. : +33 1 58 11 77 00 - Fax : +33 1 58 11 77 50
http://www.sagem.com

Société Anonyme au capital de 300 272 000 € - 480 108 158 RCS Paris