



Wireless 3G Gateway *HSDPA & HSUPA Station*

- Fast Internet **with 7.2 Mbps UMTS Technology**
- Simultaneous **Internet and Voice call**
- Send and Receive **SMS**
- Built-in **ADSL 2/2+** Router function (optional)



3G Gateway Series

Quick Guide

7D1668 rev. 2.0 09/2009

2 Mbps Upload transmission

INDEX

PREFACE	II
DECLARATION CE OF CONFORMITY	II
ASSISTANCE AND CONTACTS	II
Restriction of use of Wireless Radio Equipment using the 2.4GHz ISM frequency band	III
SAFETY WARNINGS	IV
1. INTRODUCTION	1.1
1.1. DESCRIPTION	1.1
1.2. CONNECTORS PANEL	1.2
1.2.1. 3G SOHO CONNECTORS	1.2
1.2.2. 3G SOHO PLUS CONNECTORS	1.2
1.2.3. 3G BACKUP CONNECTORS	1.3
1.2.4. 3G CORPORATE CONNECTORS	1.3
1.2.5. 3G WLL CONNECTORS	1.3
1.3. DISPLAY	1.4
1.4. LED	1.5
1.5. PARTS CHECK	1.5
2. HARDWARE INSTALLATION	2.1
2.1. BATTERY BACKUP	2.3
2.1.1. REPLACEMENT OF BATTERY	2.3
2.2. PIN AND PUK MANAGEMENT	2.4
3. WEB CONFIGURATION	3.1
3.1. QUICK CONFIGURATION	3.2
3.1.1. PHONE CALL	3.2
3.1.2. 3G DATA CALL	3.2
4. HOME	4.1
5. CONFIGURATION	5.1

INFORMATION FOR USERS

According to the 2002/95/CE, 2002/96/CE and 2003/108/CE Directives, relative to reduction in the use of hazardous substances in electrical and electronic apparatus, as well as to disposal of waste materials.



The symbol of a crossed box applied on the apparatus or on its package indicates that at the end of its useful life the product must be collected separately from other waste materials.

The user must therefore take the apparatus which has reached the end of its useful life to appropriate separate collection centres for electronic and electro-technical waste materials, or deliver it back to the reseller when purchasing new apparatus of an equivalent type, giving one piece in for one piece out.

Suitable separate waste collection for then sending the cast-off apparatus for recycling, treatment and environmentally friendly disposal, contributes towards preventing any possible negative effects on the environment and on health and encourages recycling of the materials the apparatus is made up of.

Unauthorised disposal of the product by the user will lead to payment of the administrative sanctions in force in the country where it is put on the market.

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PREFACE

In order to guarantee your safety and a correct functioning, be sure to follow these safety warnings. The whole set (with cables included) must be installed in a place lacking of or distant from:

- Dust, humidity, high temperatures and direct exposure to sunlight.
- Heat irradiating objects, which may damage your device or cause any other problem.
- Objects producing a high electromagnetic field (Hi-Fi speakers, etc.).
- Corrosive liquids or chemical substances.

ENVIRONMENTAL CONDITIONS

Environment temperature: from 0 °C to +40 °C Relative humidity: from 20 to 80 % n.c.

Any sudden change in temperature and humidity must be avoided.

CLEANING INFORMATION

Use a soft dry cloth and avoid any solvents or abrasive materials.

SHOCKS OR VIBRATIONS

Caution against shocks or vibrations.

BACKUP BATTERY (OPTIONAL)

WARNING: this device can be supplied with a backup battery.

This battery may get burnt, explode or cause serious burnings. DO NOT disassemble, weld, burn or throw the battery into water. Keep out of children. Replace only with a same model battery and reserve the operation only to qualified staff. The use of a different battery may cause fire hazard or explosions. Italian laws consider batteries as dangerous urban waste that must be disposed according to the law provisions in force (Italian DPR 915/82 and local provisions).

The backup battery is excluded from warranty.

DECLARATION OF CONFORMITY

We, Digicom S.p.A., with registered office at Cardano al Campo (VA - Italy) - Via Volta 39, declare under our sole responsibility, that the products named **3G SoHo**, **3G SoHo PLUS**, **3G BackUP**, **3G Corporare**, **3G WLL**, to which this declaration refers to, satisfy the essential requirements of following Directive:

- 1999/5/CE 9th March 1999, R&TTE (concerning radio equipment and telecommunication terminal equipment and the acknowledgment of their conformity) Law Decree 9th May 2001, n.269, (G.U. n. 156 of 7-7-2001).

As indicated in conformity with the requirements of following Reference Standards or of other regulations documents:

EN 300 328
EN 301 489-1
EN 301 489-7
EN 301 489-24
EN 301-908-1
EN 301-908-2
EN 60950-1

This device can be used in the following countries: IT, DE, ES, PT, BE, NL, GB, IE, DK, GR, CH

ASSISTANCE AND CONTACTS

Most of questions can be answered by looking up in the Support > F.A.Q. section of our website at www.digicom.it.

If you can't find the answer you're looking for, please contact our Technical Support at support@digicom.it

RESTRICTION OF USE OF WIRELESS RADIO EQUIPMENT USING THE 2.4GHZ ISM FREQUENCY BAND

This equipment complies with european standards in matter of electromagnetic compatibility, interference and safety. This equipment operates in the 2.4GHz Wireless radio bandwidth, regulated by the European 1999/5/CE Directive. It can be freely used in those countries which are not specifically applying restrictions.

Restrictions of use in France

Indoor

- The maximum transmit power (EIRP) is limited to 100mW (20 dBm) within the 2400-2483,5MHz frequency range

Outdoor

- The maximum transmit power (EIRP) is limited to 100mW (20 dBm) within the 2400-2454MHz frequency range
- The maximum transmit power (EIRP) is limited to 10mW (10 dBm) within the 2454-2483,5MHz frequency range

Please check www.art-telecom.fr for updates and further informations.

Restrictions of use in France

This equipment can be used freely within private areas.

Should the equipment being used in public areas or outside private areas, the user must apply a general authorization and inform the national telecommunication organization. Please refer to www.comunicazioni.it for updates and further informations.

If the equipment allows to modify the transmit power level or change of the antenna type, the user must ensure not to exceed the 100mW (20 dBm) limit in any case or final setup.



SAFETY WARNINGS

Read these instructions and norms carefully before powering the 3G Gateway. Violation of such norms may be illegal and cause hazard situations.

For any of the described situations please refer to the specific instructions and norms.

The 3G Gateway is a low power radio transmitter and receiver. When it is ON, it sends and receives radio frequency (RF) signals.

The 3G Gateway produces magnetic fields. Do not place it next to magnetic supports such as floppy disks, tapes, etc.

Operating your 3G Gateway close to other electrical and electronic equipment - such as a television, phone, radio or a personal computer - may cause interferences.

INTERFERENCES



The 3G Gateway, like all other wireless devices, is subject to interferences that may reduce its performances.



ROAD SAFETY

Do not use your 3G Gateway while driving. In case of use on cars, you must check that the electronic equipment is shielded against RF signals. Do not place the 3G Gateway in the air bag deployment area.



AIRCRAFT SAFETY

Switch off your 3G Gateway when on board aircrafts by disconnecting the power supply and deactivating the internal backup battery. Using GSM devices on aircrafts is illegal.



HOSPITAL SAFETY

Do not use the 3G Gateway near health equipment, especially pacemakers and hearing aids, in order to avoid potential interferences. Take care when utilizing the 3G Gateway inside hospitals and medical centres, which make use of equipment that could be sensitive to external RF signals. Switch it off when use is expressly forbidden.



EXPLOSIVE MATERIALS

Do not use the 3G Gateway in refuelling points, near fuel or chemicals. Do not use the 3G Gateway where blasting is in progress. Observe restrictions and follow any specific regulation or instruction.



INSTRUCTIONS FOR USE

Do not use the 3G Gateway in direct contact with the human body and do not touch the antenna if not strictly necessary.

Use approved accessories only. Consult documentation regarding any possible device connected to the 3G Gateway. Do not connect incompatible products.

1. INTRODUCTION

Dear Customer,
thanks for purchasing 3G Gateway.

You will now be able to access the Internet using 3G connection or ADSL connection (optional).
This User's Guide will show you how to connect your 3G Gateway and to customize its configuration to get the most out of your new product.

1.1. DESCRIPTION

3G Gateway identifies a range of Digicom 3G routers: 3G SoHo, 3G SoHo PLUS, 3G BackUP, 3G Corporate and 3G WLL.
This user manual describes all the functionalities of 3G Gateway.



The table shows the main differences among 3G Gateway versions:

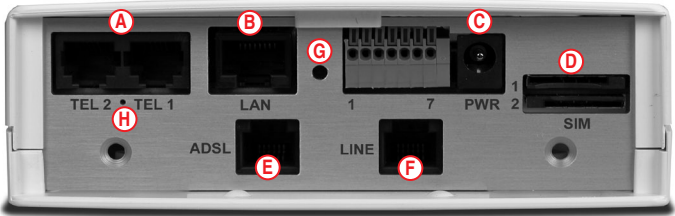
Functionality	3G SoHo	3G SoHo PLUS	3G BackUP	3G Corporate	3G WLL
UMTS (HSPA)	Yes	Yes	Yes	Yes	Yes
ADSL (2/2+)	No	Yes	Yes	Yes	No
1 LAN 10/100	Yes	Yes	Yes	Yes	Yes
Tel FXS	Yes	Yes	No	Yes	Yes
Line FXO	No	Yes	No	Yes	No
1 SIM Holder	Yes	Yes	Yes	Yes	Yes
2 SIM Holder	No	No	Optional	Optional	No
In/Out	No	No	No	Optional	No
Display	Yes	Yes	No	No	No
WiFi	Yes	Yes	Yes	Yes	Yes
Battery Backup	Optional	Optional	Optional	Optional	Yes

Housing



1.2. CONNECTORS PANEL

CONNECTOR	DESCRIPTION
A	TEL (1,2) RJ11 FXS connectors for analog phones or PABX trunks (parallel)
B	LAN RJ45 connector for ethernet cable
C	PWR Power supply connector
D	SIM SIM connector. The models supporting double SIM will have 2 SLOTS
E	ADSL RJ11 connector for ADSL line (available on models with ADSL router only)
F	LINE RJ11 FXO connectors for PABX extensions
G	RESET (Power OFF/ON). For Backup battery models, power the device OFF and press it for 10 sec
H	FACTORY Reset to factory default



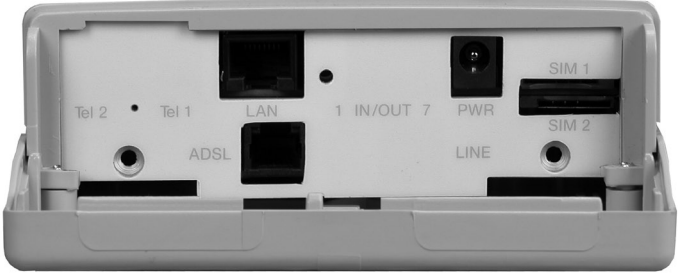
1.2.1. 3G SoHo Connectors



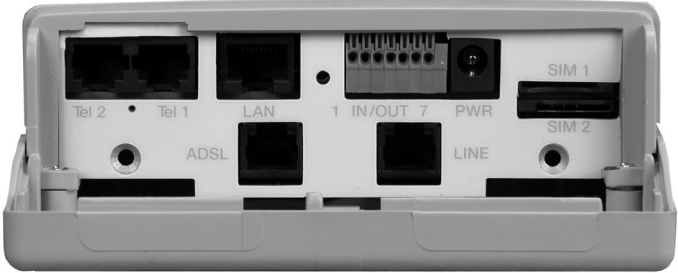
1.2.2. 3G SoHo PLUS Connectors



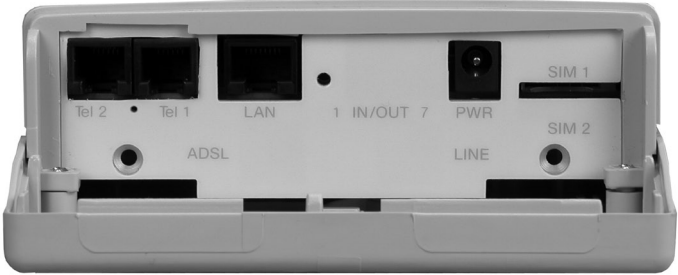
1.2.3. 3G BackUP Connectors



1.2.4. 3G Corporate Connectors

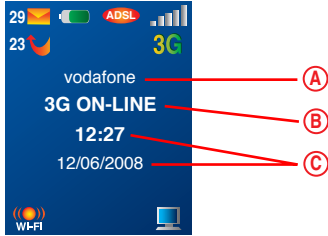


1.2.5. 3G WLL Connectors



1.3. DISPLAY

3G Gateway (SoHo models) is equipped with a 65,000 colors display where you can see the information on the gateway operation status.



SYMBOL		DESCRIPTION
	SMS	It indicates the presence and the numbers of unread SMS in the SIM
	Missed calls	It indicates the presence and the number of missed calls
	Battery Backup	It indicates the Backup battery status (optional)
	ADSL	ADSL connected
	ADSL	ADSL disconnected
	Signal	It indicates the status of GSM signal
	GSM Mode	3G indicates the roaming range of 3G network
A	Operator	Operator where the SIM is registered
B	Connession	It indicates the status of data connection
C	Time & Date	It indicates the time and date
	WiFi	WiFi enabled
	LAN	A computer, switch or other network device is correctly connected to the LAN port

1.4. LED

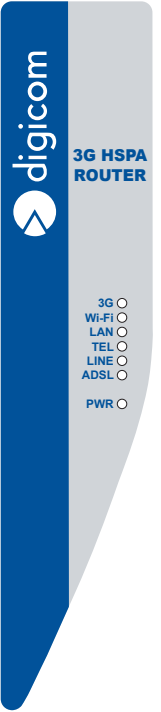
3G gateway version with no display, will supply the information about the device status through 7 leds.

LED	STATUS	DESCRIPTION
Power	Off	Device off
	On	Device correctly powered
3G	Off	SIM not ready
	Flashing Green	SIM ready and no 3G data connection on
	On Green	SIM ready and 3G data connection on
	Flashing Red	SIM ready and no 2G data connection on
	On Red	SIM ready and 2G data connection on
	Fast Flashing Red	Insert PIN/PUK
WiFi	Off	WiFi disabled
	On	WiFi enabled
LAN	Off	No device connected on the Ethernet port
	On	Computer, switch or other network device correctly connected to the LAN port
TEL	Off	Line not engaged
	Flashing	Line engaged
LINE	Off	Line not engaged
	Flashing	Line engaged
ADSL	Flashing	ADSL line (physical level) not available
	On	ADSL line (physical level) available

1.5. PARTS CHECK

The package will contain the following items:

- 3G Gateway
- Power adapter
- Quick Guide
- Wi-Fi antenna
- GSM antenna
- Ethernet cable RJ45-RJ45



2. HARDWARE INSTALLATION

2

Just three steps to operate with 3G Gateway:

1. Connect the **GSM antenna** and the **WiFi antenna** (the pictures show two different models).



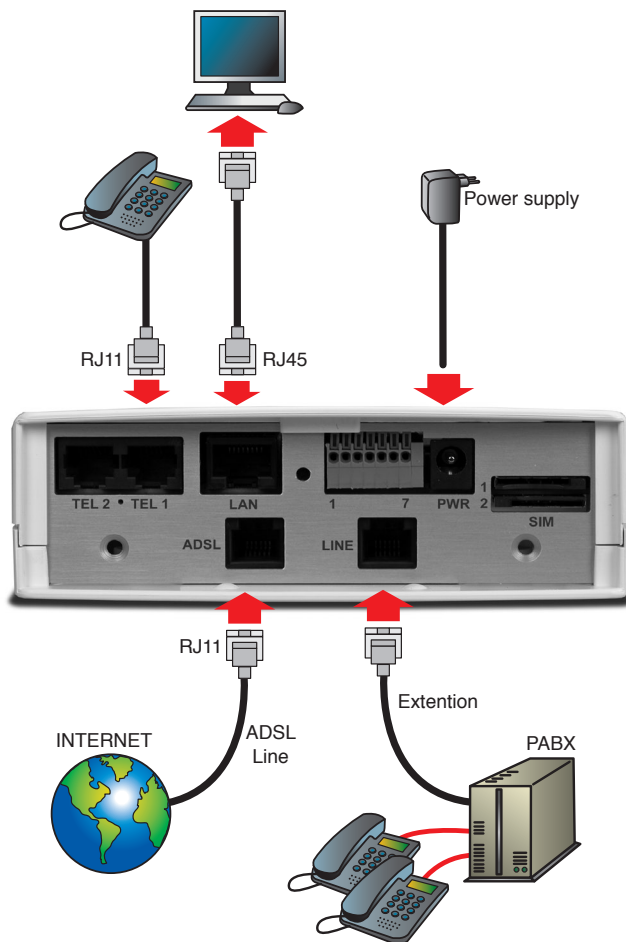
2. Insert the **SIM** (we recommend to disable the PIN). For a correct operation turn 3G Gateway off.



3. Connect the **power supply** and turn 3G Gateway on.

Now you can connect a phone to the connector Tel 1 and you will be able to make and receive calls. (Function not supported by 3G BackUP).

The next image shows the other connection types:



LAN

To configure 3G Gateway and/or surf the internet, connect the computer through the LAN port. If more than one device must be connected, use an external switch. To use the WiFi, simply enable this option in the configuration web pages.

ADSL

If your 3G Gateway supports the ADSL router, connect the line to the ADSL port.

LINE

If your 3G Gateway supports the FXO interface, connect the PABX extension or public line to the LINE port.

Display & LED

Through the display or the LEDs it is possible to check 3G Gateway status.

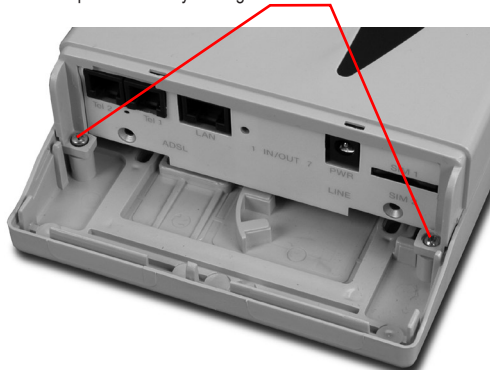
2.1. BATTERY BACKUP

The battery backup is placed into the product. The connection of the battery is at the installer or at the end user's care.

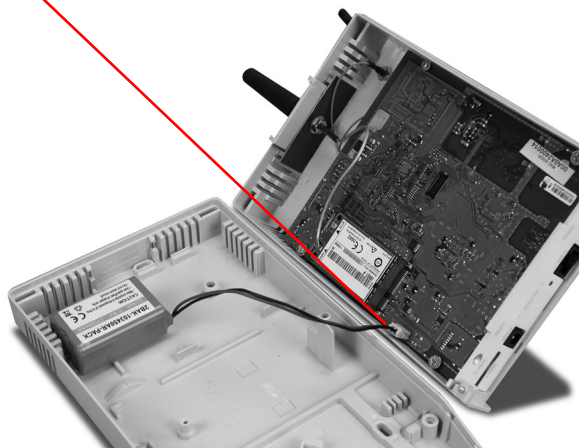
Battery backup features: Li-ion 7,4V 1700mAh

To connect the battery backup:

- Power off the device and remove the plastic cover by turning the screws



- Insert the connector into the card as shown in picture



- Close the upper plastic cover and secure it by using the two screws.

2.1.1. Replacement of battery

The battery is stuck on the device.

To replace it, disconnect the connector from the card and gently remove the battery.



Note: You are advised to use battery supplied by Digicom only.

2.2. PIN AND PUK MANAGEMENT

The PIN request is always enabled on the SIMs; to use them inside 3G Gateway you can:

1. Disable the PIN request on the SIM (through a cellular phone).
2. Insert the PIN in the 3G Gateway configuration. At power on, the device will send the PIN to the SIM.

3G Gateway will show the PIN request from the SIM on the display (Insert PIN) or through the fast blinking of 3G led (red) in the versions without display.

You can setup 3G gateway in two ways:

- A. WEB based configuration (3G Umts menu). Click Save&Reboot to enable the configuration.

- B. Through the phone keyboard (set the DTMF selection) connected to TEL1 or TEL2 connector (**available in the version with TEL-FXS port only**).

Lift the receiver, you will hear the tone of PIN code request (two close beeps repeated with a pause).

1. Digit the PIN code using the phone keyboard and confirm by pressing “#” (set on the phone the DTMF selection) PIN# code (i.e.0123#)
2. To cancel the PIN code insertion, hang up before you confirm the PIN code with “#”.
3. If the PIN code is correct, you will hear the correct configuration tone (two tones repeated), or the tone for wrong PIN (three tones repeated).
4. Hang up to complete the procedure. Now 3G Gateway will automatically save the PIN in the configuration and it will **make a Reset**.
5. At 3G Gateway start up, the PIN is no more asked for and the SIM will register to the network.

PUK management

The PUK code can be inserted with the same procedure as for the PIN insertion, through the phone keyboard (available in the version with TEL-FXS port only) or by inserting the SIM inside a mobile phone.



ATTENTION: the PIN and PUK codes are indicated on the PIN-PUK card supplied by the Telecom Operator when you buy the SIM card. If a wrong PIN number is inserted for 3 times, it will be necessary to insert the PUK code followed by a new PIN code. After 10 wrong PUK codes, the SIM card will be blocked permanently and you have to substitute it.

3. WEB CONFIGURATION

3

Getting Started with the Web pages

3G Gateway includes a series of Web pages that provide an interface to the software installed on the device. It allows you to configure the device settings to meet the needs of your network. You can access it through a web browser on a PC connected to the device.

Accessing the Web pages

To access the web pages, you need the following:

- A laptop or PC connected to the LAN port on the device.

To enter the configuration menu you must set on the computer an IP address of the same LAN of 3G Gateway; you can set the address statically or using the assignment through the DHCP Server.

Windows® XP

- From the **Start** menu select -> **Control Panel** -> **Network connections**.
- Select **LAN Connection**, display the **Properties**, select **Internet Protocol (TCP/IP)** and press on **Properties** button.

☐ Ottieni automaticamente un indirizzo IP
☒ Utilizza il seguente indirizzo IP:

Indirizzo IP:	192 . 168 . 1 . 119
Subnet mask:	255 . 255 . 255 . 0
Gateway predefinito:	192 . 168 . 1 . 254

- If using a DHCP Server, set **Obtain automatically an IP Address**, 3G Gateway will appropriately configure the IP addresses.
- A web browser installed on the PC. For the best display quality, use latest version of Internet Explorer, Netscape or Mozilla Firefox. from any of the LAN computers, launch your web browser, type the following URL in the web address (or location) box, and press **Enter** on your keyboard:

http://192.168.1.254 (user: admin, pwd: admin)

The web pages for the configuration have a column on the left, where you find the configuration menus, and a central part where you can see the settings and modify them.

The main menus are the following: Home, Configuration, Save & Reboot and Logout.



3.1. QUICK CONFIGURATION

This paragraph describes the main parameters to be set to make and receive calls (if the FXS “TEL” interface is supported) and to start the Internet surfing in 3G mode.

3.1.1. Phone Call



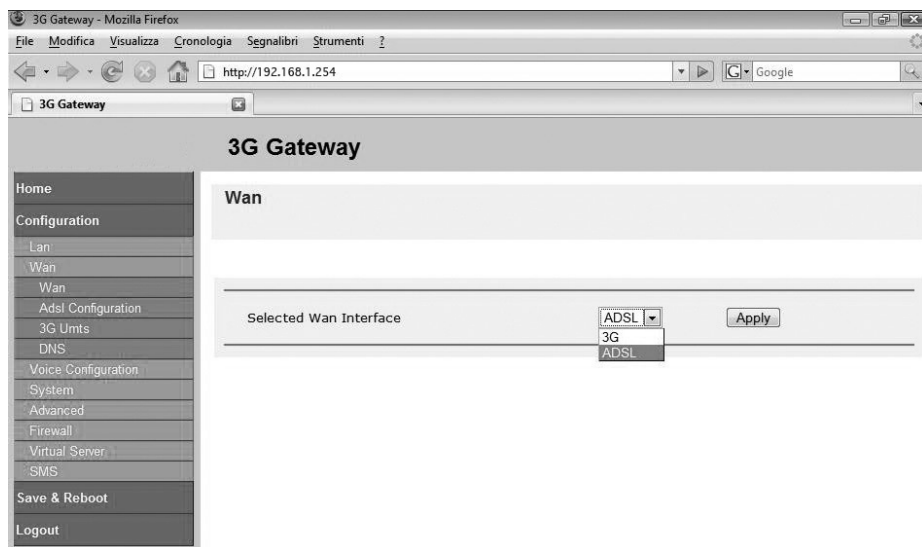
For FxS interface versions only.

To start making/receiving calls you must have followed the instructions of the Hardware Installation chapter:

- Connect the GSM antenna
- Insert the SIM (we recommend to disable the PIN)
- Connect a phone to the connector Tel 1
- Connect the power supply and turn 3G Gateway on
- As soon as the display (or 3G led) will show the operator name, you will be able to make and receive calls.

3.1.2. 3G Data Call

To make a call in 3G mode, check that the WAN is set to 3G (Configuration menu, WAN, WAN configuration).



- In the **3G UMTS** menu insert the information (depending on the GSM operator you are using) for APN, Username and Password (for some operators the APN is sufficient).

- Define the connection mode:

Always on: 3G Gateway will enable 3G connection at power on. If some disconnections should occur, the Gateway will try to restore them automatically.

Manually: In this mode the user manually decides when the connection must be enabled and for how long. To enable (connect) and disable (disconnect) 3G connection, use the push buttons in the Home page.



Note: Verify with your telecom operator the profile of the SIM you are using for the Internet connection.

3G Configuration

Advanced 3G Configuration

Connection	Manually ▾
SMS service centre	<input type="text"/>
Apn	ibox.tim.it
Username	<input type="text"/>
Password	<input type="text"/>
Pin	<input type="text"/>
Idle timeout	20
Obtain DNS automatically	<input checked="" type="checkbox"/>

Apply

- **Save** the configuration and reboot the gateway (menu Save & Reboot).

Commit & Reboot

Save Configuration & Reboot Page

This page allows you to save configuration to flash to retain configuration across reboots. You can also use this page to reboot modem with the configuration file you wanted, simply select the configuration file and press reboot

Commit Configuration

Use to save current Router's configuration to flash

Commit

Reboot Router

Use to Reboot Router with the listed configuration files

Reboot From

Last ▾

Reboot

- If the ethernet card of the computer connected to 3G Gateway is set to DHCP mode, 3G Gateway will appropriately configure the IP addresses and you will be able to start surfing.
- If the ethernet card is configured with static IP addresses, check that the preset Gateway address is the one of 3G Gateway.

☐ Ottieni automaticamente un indirizzo IP

☒ Utilizza il seguente indirizzo IP:

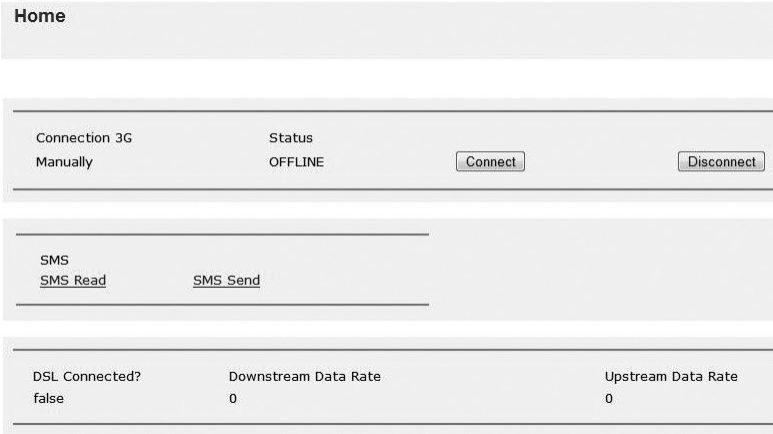
Indirizzo IP:	192 . 168 . 1 . 119
Subnet mask:	255 . 255 . 255 . 0
Gateway predefinito:	192 . 168 . 1 . 254

4. HOME

- The Home menu has various options that allow to verify the device status.



- The Home and Status pages display the device overview:



Status

Device Information

Model Name	3G Gateway
Host Name	MyModem
System Up-Time	00:17:24s
Current Time	Synchronize Client with NTP Server now! <input type="button" value="Synchronize"/>
Hardware Version	Solos 4615 RD / Solos 461x CSP v1.0
Software Version	10.0.3.23
MAC Address	00:A0:A2:55:55:05
Home URL	digicom s.p.a

LAN

IP Address	192.168.2.1
Subnet Mask	255.255.255.0
DHCP Server	On
WAN	

Italy 21010 Cardano al Campo VA
via Alessandro Volta 39
<http://www.digicom.it>

