

# MobiiHotspot 3G

## Manual



# Contents

<b>Getting started</b>	4
Logging in to the management page	4
<b>Status icons</b>	5
Quick setup	7
<b>Connection settings</b>	8
Viewing your network connection status	8
Accessing the internet	9
<b>Viewing and resetting network traffic statistics</b>	11
View the computers and other devices connected to your WLAN	11
<b>SMS</b>	12
Configuring SMS messaging	12
Creating and sending SMS messages	12
Viewing and managing your SMS messages	13
<b>Internet settings</b>	15
Setting up an internet connection	15
Profile management	17
<b>Mobile network settings</b>	18
Selecting a network type	18
Searching for and registering with a network	20
<b>PIN management</b>	21
Turning PIN verification on or off	21
Changing your PIN	22
Verifying your PIN	22
Enabling or disabling automatic PIN verification	23

<b>WLAN settings</b>	24
Enabling or disabling the WLAN feature	24
Setting your SSID	25
Configuring wireless security	26
Disabling the WLAN automatically	29
Selecting a country and channel	30
Setting AP isolation	31
Selecting a wireless protocol	31
Connecting to your wireless network with WPS	32
Setting up WLAN MAC filtering	33
<b>DHCP settings</b>	36
Configuring the DHCP server	36
Disabling the DHCP server	38
Configuring DHCP clients	39
<b>Security settings</b>	40
Configuring the firewall	40
Setting up LAN IP filtering	40
Configuring a virtual server	43
Port forwarding and configuring special applications	45
Setting up a DMZ	46
Enabling SIP ALG	47
Using UPNP	48
Configuring NAT	49

<b>System management</b>	50
Viewing device information	50
Viewing diagnostic information	51
Backing up and restoring settings	51
Changing your mobiibroadband 3G password	52
Restoring default settings	53
Rebooting your MobiiBroadband 3G	53
<b>Frequently asked questions</b>	54
My computer can't connect to the internet. What should i do?	54
My computer can't connect to the MobiiBroadband wireless LAN. What should i do?	54
Help - I've forgotten the login address for my MobiiBroadband 3G management page	55
I've forgotten my wireless LAN key - how can i connect?	55
<b>Acronyms and abbreviations</b>	56

## Getting started

### LOGGING IN TO THE MANAGEMENT PAGE

The first step required is setting up your MobiiHotspot 3G using its built-in web page.

To do this:

1. Open a web browser and enter `http://192.168.1.1` in the address bar
2. Enter the username and password and click LOG IN.



The default username is admin, password is **admin**.



## Status icons

The status icons on the top-right hand side of the management page tell you important information about your MobiiBroadband 3G.

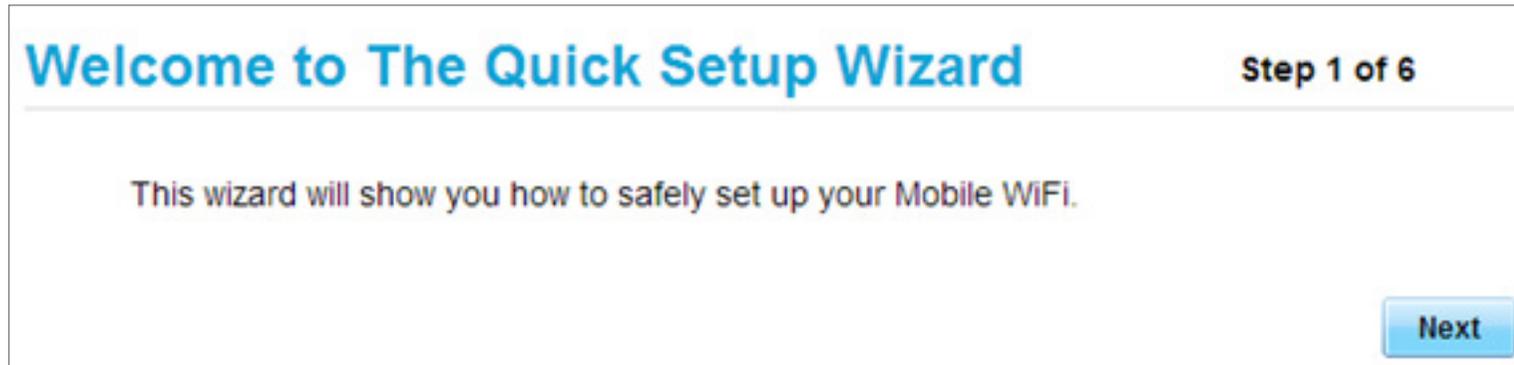


Item	Status
SIM/USIM/UIM card	 : Your SIM or UIM card is valid.  : Your SIM or UIM card is missing or faulty, the PIN or PUK is not verified, or no mobile signal is available.
Internet	 : You have Internet access.  : You don't have Internet access.
WLAN	 : Your MobiiHotspot 4G is acting as a hotspot and is ready for devices to connect to its home network.  : Your MobiiHotspot 4G's home network is disabled.

<p><b>Battery</b></p>	<p> : These icons indicate the battery level from weak to strong.</p> <p> : If the battery icon is filling up, it means the battery is being charged.</p> <p> : A flashing red battery icon indicates the battery is low and must be charged immediately.</p>
<p><b>Signal</b></p>	<p> : These icons indicate the signal strength from weak to strong.</p>
<p><b>Update</b></p>	<p> : A firmware update is available for your MobiiHotspot 4G.</p>
<p><b>Roaming</b></p>	<p> : Roaming is off.</p> <p> : Roaming is on.</p>
<p><b>SMS</b></p>	<p> : You have a new SMS message.</p> <p> : Flashing indicates a full SMS inbox.</p>

## QUICK SETUP

Use the Quick Setup wizard at any time to configure your MobiiBroadband 3G network settings



### To use the Quick Setup wizard

1. Click Settings > Quick Setup
2. Click Next
3. Follow the instructions to set up a profile, then click Next
4. Choose a connection mode for Internet access (Manual or Automatic), then click Next
5. Set your WLAN (Wireless Local Area Network) parameters, clicking Next after completing each page
6. Click Finish.

## Connection

### VIEWING YOUR NETWORK CONNECTION STATUS

This procedure shows you how to check whether you're connected to the Internet.

#### To create a network profile

1. Click Connection.
2. View your connection status for:
  - Internet access:

<b>Internet</b>	<a href="#">Connection Settings</a>
Profile name:	iinet(D) ▼
<b>Connection status:</b>	Connected
Upload speed:	0 B/s
IP address:	10.183.160.254

- WLAN access:

<b>WLAN status</b>	<a href="#">WLAN Basic Settings</a>
<b>WLAN status:</b>	On
Name (SSID):	MobileWiFi-03b3
Current WiFi user:	0/5
802.11 authentication:	WPAWPA2-PSK
WPA pre-shared key:	***** <a href="#">Show password</a>

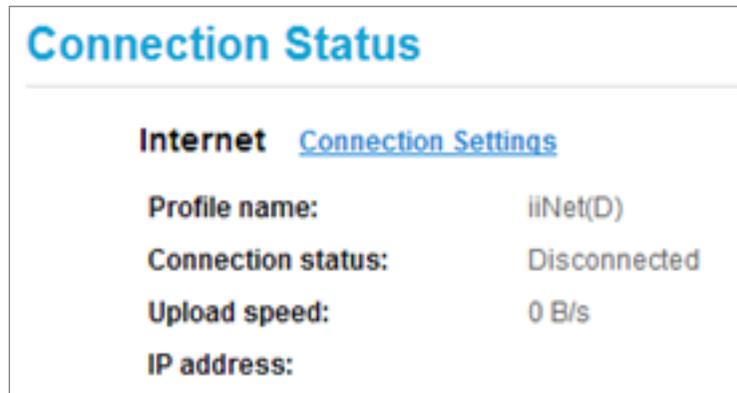


- To configure Internet settings, in the Internet section, click the Connection Settings link.
- To configure WLAN settings, in the WLAN section, click the WLAN Basic Settings link.

## ACCESSING THE INTERNET

To connect to the Internet with MobiiBroadband 3G:

1. From the Connection Status section, click Connection Settings



2. In the Mobile Connection section, from the Profile Name dropdown box, select a profile



If the Profile Name dropdown box is empty, or doesn't contain a profile for your mobile provider, you'll need to create a profile before you continue. See the section in this guide on Profile Management.

3. At the Connection mode dropdown box, select:
  - Auto to let your MobiiBroadband 3G decide when to open and close your Internet connection as needed
  - Manual if you'd prefer to switch your Internet access on and off yourself
4. Access the Internet.

- If you set your connection mode to Auto, simply open a web browser and start using the Internet
- If you set your connection mode to Manual, click the Connection tab, then click the Connect button.

## Connection Status

**Internet** [Connection Settings](#)

Profile name:	iiNet	<a href="#">Profile Management</a>
Connection status:	Disconnected	<b>Connect</b>
Upload speed:	0 B/s	Download speed: 0 B/s
IP address:		Network type: WCDMA

## Viewing and resetting network traffic statistics

View or reset traffic statistics for your current MobiiBroadband 3G Internet session.



The statistics shown by your MobiiBroadband 3G are just a guide. Contact your mobile service provider if you need accurate records of your network traffic.

### To view your traffic statistics:

1. Click Connection
2. Scroll down to the Traffic Statistics section to view a guide to your network traffic.

### To clear your traffic statistics:

1. Click Connection
2. Scroll down to the Traffic Statistics section.
3. Click Clear History.

## VIEW THE COMPUTERS AND OTHER DEVICES CONNECTED TO YOUR WLAN

Use this section to see the number of clients (computers and other devices) connected to your MobiiBroadband 3G WLAN (Wireless Local Area Network). You'll also be able to see the clients' IP addresses, host names and MAC addresses and the length of time they've been connected.

### To connect to the Internet with MobiiBroadband 3G:

1. Click Connection
2. Scroll down to the Connected Wi-Fi Clients section.

## SMS

This section helps you set up SMS messaging. It will also show you how to create, send, view and manage your SMS messages.

### CONFIGURING SMS MESSAGING

To set up SMS messaging:

1. Click SMS > SMS Settings
2. Set your SMS centre number
3. At SMS report, select Yes to receive reports when you've sent a text message. Select No if you don't want to receive these reports
4. Click Apply to save your settings.



The statistics shown by your MobiiBroadband 3G are just a guide. Contact your mobile service provider if you need accurate records of your network traffic.

### CREATING AND SENDING SMS MESSAGES

Send SMS messages with your MobiiBroadband 3G.

For new messages:

1. Click SMS > Inbox
2. Click New Message
3. Enter a number to send a text to
4. Enter the content of your text message
5. Click Send.

## VIEWING AND MANAGING YOUR SMS MESSAGES

Use this tool to view SMS messages and drafts that you've created with your 3G MobiiBroadband services.

### You have three message folders:

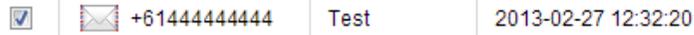
- Your Inbox saves the messages you've received.
- Your Sent messages folder saves the messages you've sent. In this folder, you'll also see any messages you've tried to send that have failed.
- Your Drafts folder stores any draft SMS messages you've created.

### Messages have an icon indicating whether or not they've been read:

-  shows a message has been read.
-  shows an unread message.

### To view your SMS messages:

1. Click SMS > Inbox
2. To use the text message page controls:

<p>Click the arrow buttons to page through your list of messages. To get to a particular page of your message list, type a page number and click Go.</p>	
<p>Click Refresh to refresh your inbox and check for new messages.</p>	
<p>Tick a message to select it.</p>	
<p>Click Delete to delete a selected message.</p>	

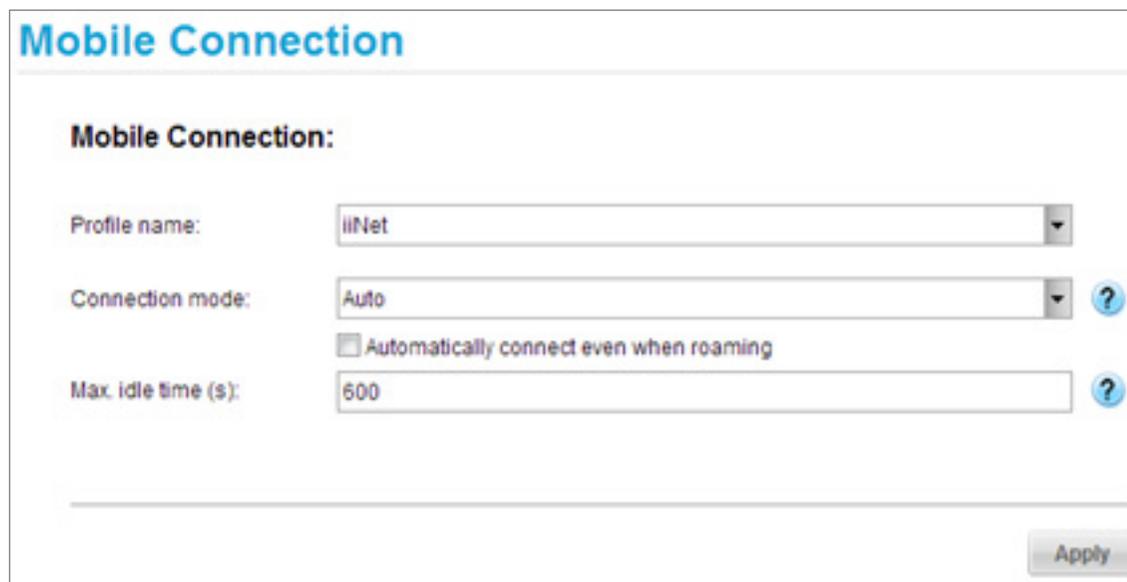
**To view, reply to, forward or delete an individual SMS message:**

1. Click SMS > Inbox
2. Click a message to view its details
3. Use the buttons on the bottom-right hand side of the SMS window to reply to, forward or delete a message.



## Internet Settings

### SETTING UP AN INTERNET CONNECTION



**Mobile Connection**

**Mobile Connection:**

Profile name: iiNet

Connection mode: Auto ?

Automatically connect even when roaming

Max. idle time (s): 600 ?

Apply

Use this section if you need to configure the 3G MobiiBroadband's connection to the Internet

#### To set up an internet connection:

1. Go to Settings > Dial-up > Mobile Connection
2. At the Profile name dropdown box, select a profile



If the Profile name dropdown is empty, you'll need to create a profile before you continue. See the section in this guide on Profile Management.

3. At the Connection mode dropdown box, select a connection mode
4. Click Apply.

## About the connection modes and options

<b>Auto</b>	Your MobiiBroadband 3G connects to and disconnects from the Internet automatically when it needs to.	
	Max. idle time	If you're not using the Internet, your MobiiBroadband 3G will close the connection after the amount of time you set here. Specify the maximum idle time in seconds.
	Automatically connect even when roaming	If you tick this option, your MobiiBroadband 3G will connect to the Internet even when your SIM card is roaming. Make sure you're aware of your provider's terms and costs for data roaming before selecting this option.
<b>Manual</b>	You'll need to log in to your MobiiBroadband 3G and click Connect before using the internet.	

## PROFILE MANAGEMENT

A profile stores the settings you'll use to connect to the Internet through your mobile provider.

### Creating a profile



Your iiNet MobiiBroadband 3G comes with profiles already set up for iiNet, Internode and TransACT. To set up a profile for a different mobile provider, contact them for the settings.

1. Go to Settings > Dial-up > Profile Management
2. Click New Profile
3. Enter the details supplied by your mobile provider
4. Click Save.

### Editing a profile

1. Go to Settings > Dial-up > Profile Management
2. At the Profile list dropdown box, select a profile to edit
3. Click Edit
4. Edit your profile
5. Click Save.

### Deleting a profile

1. Go to Settings > Dial-up > Profile Management
2. At the Profile list dropdown box, select a profile to delete
3. Click Delete
4. Click OK.

## Mobile network settings

### SELECTING A NETWORK TYPE

Select your mobile service provider's network type to help your MobiiBroadband 3G quickly find your network and log you in.

#### Common network types



These network types are for your reference only. For information about your network, please contact your mobile provider.

Type	Frequency Band
GSM	2G network: GSM 1900/1800/900/850 MHz
GPRS	2G network: GPRS 1900/1800/900/850 MHz
EDGE	2G network: EDGE 1900/1800/900/850 MHz
WCDMA	3G network: WCDMA 2100/1900/1700/900/850 MHz
HSDPA	3G network: HSDPA 2100/1900/1700/900/850 MHz
HSUPA	3G network: HSUPA 2100/1900/1700/900/850 MHz
HSPA	3G network: HSPA 2100/1900/1700/900/850 MHz

## Deleting a profile

1. Go to Settings > Dial-up > Mobile Network Settings
2. At the Preferred mode dropdown box, select a mode
3. At the Band dropdown box, select a frequency band
4. Click Apply.

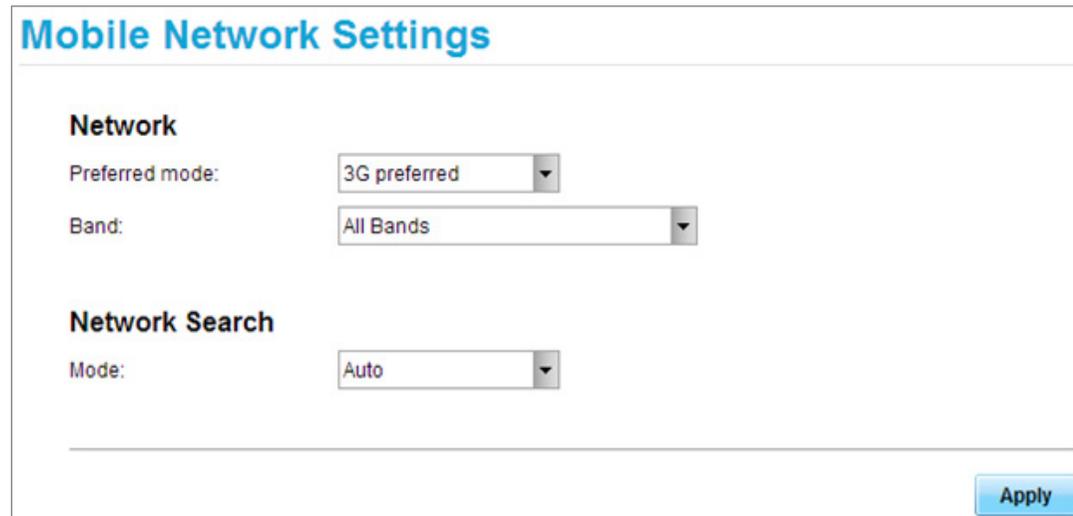


- If your service provider only offers 2G services and you set your preference to a 3G-only mode, you won't be able to connect to the Internet.
- Likewise, if your provider only offers 3G services, and you set your preference to a 2G-only mode, you won't be able to connect.

5. Click Apply.

## SEARCHING FOR AND REGISTERING WITH A NETWORK

Your MobiiBroadband 3G supports both automatic and manual network registration.



The screenshot shows the 'Mobile Network Settings' window. It is divided into two main sections: 'Network' and 'Network Search'. In the 'Network' section, there are two dropdown menus: 'Preferred mode' set to '3G preferred' and 'Band' set to 'All Bands'. In the 'Network Search' section, there is one dropdown menu: 'Mode' set to 'Auto'. At the bottom right of the window is a blue 'Apply' button.

To search for and register with a network:

1. Go to Settings > Dial-up > Mobile Network Settings
2. In the Network Search section, select a mode from the Mode dropdown box:
  - Auto: Your MobiiBroadband 3G searches for an available network, then registers with it automatically
  - Manual: Your MobiiBroadband 3G finds a list of available networks, and you select one to register with
3. Click Apply
  - If you chose Auto mode, your MobiiBroadband 3G finds your network and registers with it
  - If you chose Manual mode, your MobiiBroadband 3G displays a list of available networks. Select your network from the list, then click OK.

## PIN management

### TURNING PIN VERIFICATION ON OR OFF

Your MobiiBroadband 3G supports PIN (Personal Identification Number) verification. If this feature is turned on, you'll need to enter your PIN whenever you start using your MobiiBroadband 3G.

#### To turn PIN verification on:

1. Go to Settings > Dial-up > PIN Code Management
2. From PIN code operation, select Enable
3. At PIN code, enter your PIN
4. Click Apply.

#### To turn PIN verification off:

1. Go to Settings > Dial-up > PIN Code Management
2. From PIN code operation, select Disable
3. At PIN code, enter your PIN
4. Click Apply.



- If you enter your PIN incorrectly three times in a row, your SIM or UIM card is locked, and you must enter the PIN Unlock Key (PUK).
- If you enter the PUK incorrectly 10 times in a row, your SIM or UIM card is locked permanently. You will need to then arrange with your mobile service provider for a new SIM or UIM card.
- The PIN and PUK are provided with your SIM or UIM card. If you didn't receive them, or forgot them, please contact your mobile service provider.

## CHANGING YOUR PIN

If PIN verification is turned on, you can change your PIN.

### To change your PIN:

1. Go to Settings > Dial-up > PIN Code Management
2. From the PIN code operation dropdown box, select Modify
3. Enter your current PIN
4. Enter a new PIN, and retype it to confirm it
5. Click Apply.

## VERIFYING YOUR PIN

If PIN verification is enabled, you'll need to enter your PIN each time you start using your MobiiBroadband 3G.

### To enable PIN verification:

1. Go to Settings > Dial-up > PIN code management
2. From the PIN code operation dropdown box, select Validate
3. Enter your PIN
4. Click Apply.

## ENABLING OR DISABLING AUTOMATIC PIN VERIFICATION

If PIN verification is enabled, you can set up your MobiiBroadband 3G to automatically verify your PIN. This way your MobiiBroadband 3G will remember your PIN and verify it automatically each time you start using it.

### To enable automatic PIN verification:

1. Go to Settings > Dial-up > PIN Code Auto Validation
2. Select:
  - Enable to enable automatic PIN verification
  - Disable to disable automatic PIN verification
3. Enter your current PIN
4. Click Apply.

## WLAN settings

### ENABLING OR DISABLING THE WLAN FEATURE

Toggle the ability for devices to connect to your MobiiBroadband's WLAN network.

#### To enable or disable your WLAN:

1. Go to Settings > WLAN > WLAN Basic Settings
2. At WLAN module, select an option:
  - Select Enable to turn the WLAN feature on
  - Select Disable to turn it off
3. Click Apply.



You can also turn the WLAN feature on or off from the Connection page by clicking the Turn On or Turn Off button.

### WLAN Basic Settings

WPS cannot be used if Encryption mode is set to NONE or WEP.

If Encryption mode is set to WEP or TKIP, a wireless network adapter working in 802.11n only mode may fail to access the Mobile WiFi.

WLAN module:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Name (SSID):	<input type="text" value="my_wireless_network_"/>
802.11 authentication:	<input type="text" value="WPA/WPA2-PSK"/>
Encryption mode:	<input type="text" value="AES+TKIP"/>
WPA pre-shared key:	<input type="text" value="*****"/>
SSID broadcast:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
<input type="checkbox"/> Show password	

Apply

## SETTING YOUR SSID

The SSID (Service Set Identifier) of your MobiiBroadband 3G is also known as its wireless network name. The SSID allows for easy network identification so wireless clients (other wireless-enabled computers and devices) can connect to it. For your security, we recommend that you change the SSID of your MobiiBroadband 3G from its default setting.

### Changing the SSID

**To change your MobiiBroadband 3G SSID:**

1. Go to Settings > WLAN > WLAN Basic Settings
2. At Name (SSID), enter a new SSID
3. Click Apply.

### Enabling or disabling SSID broadcast

The SSID (Service Set Identifier) of your MobiiBroadband 3G is also known as its wireless network name. The SSID allows for easy network identification so wireless clients (other wireless-enabled computers and devices) can connect to it. For your security, we recommend that you change the SSID of your MobiiBroadband 3G from its default setting.

**To enable or disable your WLAN:**

1. Go to Settings > WLAN > WLAN Basic Settings
2. At SSID broadcast, select:
  - Enable to let your MobiiBroadband 3G broadcast its network name
  - Disable to prevent your MobiiBroadband 3G from broadcasting its network name.
3. Click Apply.



- You might find it easier to set SSID broadcast set to Enable while you're connecting computers and devices to your MobiiBroadband 3G wireless network. When you've finished the setup process, disable SSID broadcast so no other devices can connect to your network.

## CONFIGURING WIRELESS SECURITY

Here's a quick run-down on the authentication and encryption methods your iiNet MobiiBroadband 3G supports. Both are important to consider when configuring your wireless network security.



- Authentication is the process of proving your identity before you can log in to a wireless network.
- Encryption is the process of making wireless data unreadable to people who aren't authenticated on a wireless network.

### Authentication modes

Auto	In Auto authentication mode, clients can connect to your MobiiBroadband 3G WLAN using Open or SHARE authentication.
Open	Open System authentication. If the encryption mode is set to NONE, clients can freely connect to your WLAN without a password.
SHARE	Shared Key authentication. To access your WLAN, clients must enter the WEP (Wired Equivalent Privacy) key you configure in the Encryption settings.
WPA-PSK	Stands for Wi-Fi Protected Access – Pre-Shared Key. This authentication method uses a 256-bit key generated from a passphrase you enter.
WPA2-PSK	The second version of WPA-PSK, with improved security.  This is the most secure method of protecting a wireless network. If all of your wireless client devices support WPA2-PSK, we recommend you use this setting.
WPA/WPA2-PSK	Allows client devices to connect to your network using either WPA-PSK or WPA2-PSK.

## Encryption modes

NONE	Data on your wireless network is not encrypted. We don't recommend you use this setting. An encrypted network protects your data and computers.
WEP	Wired Equivalent Privacy. An older method of securing a wireless network.
AES	Advanced Encryption Standard.
TKIP	Temporal Key Integrity Protocol.
AES+TKIP	Lets clients encrypt data in either AES or TKIP mode.

### To configure your WLAN security settings:

1. Go to Settings > WLAN > WLAN Basic Settings
2. From the 802.11 authentication dropdown box, select an authentication method
3. From the encryption mode dropdown box, select an encryption mode



For an explanation of authentication and encryption modes, refer to the Authentication modes and Encryption modes tables above.

4. Enter a security key



You can choose to display the security key by ticking Show password.

5. Click Apply.

## Example: Setting a WPA2 security key for your wireless network

### WLAN Basic Settings

WPS cannot be used if Encryption mode is set to NONE or WEP.  
If Encryption mode is set to WEP or TKIP, a wireless network adapter working in 802.11n only mode may fail to access the Mobile WIFI.

WLAN module:  Enable  Disable

Name (SSID):

802.11 authentication:

Encryption mode:

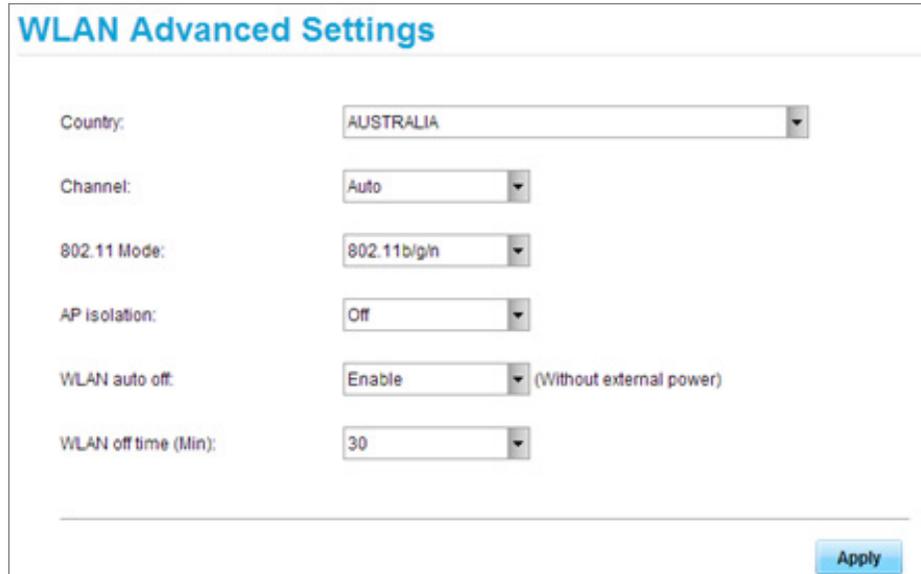
WPA pre-shared key:

SSID broadcast:  Enable  Disable

Show password

1. From the 802.11 authentication dropdown box, select WPA2-PSK
2. From the encryption mode dropdown box, select AES
3. At WPA pre-shared key, enter a security passphrase
4. Click Apply.

## DISABLING THE WLAN AUTOMATICALLY



**WLAN Advanced Settings**

Country: AUSTRALIA

Channel: Auto

802.11 Mode: 802.11b/g/n

AP isolation: Off

WLAN auto off: Enable (Without external power)

WLAN off time (Min): 30

Apply

When you set your MobiiBroadband 3G wireless network to disable automatically, it will turn itself off if all of the following apply:

- Your MobiiBroadband 3G is running on battery power
- No computers or devices have accessed the WLAN for a period of time
- Your MobiiBroadband 3G internet connection has been idle for longer than WLAN off time.



If your wireless network automatically switches off, you'll need to re-enable it before you can use it. See the section in this manual on Enabling or disabling the WLAN feature.

**To enable or disable your WLAN:**

1. Go to Settings > WLAN > WLAN Advanced Settings
2. From WLAN auto off, select
  - Enable to let your MobiiBroadband 3G broadcast its network name
  - Disable to prevent your MobiiBroadband 3G from broadcasting its network name.
3. If you set your wireless network to auto off, enter a time period at WLAN off time (Min)
4. Click Apply.

**SELECTING A COUNTRY AND CHANNEL**

A channel is a frequency range used for wireless communications. Different countries use different channels. If you're not sure which channel to use, select Auto. If you've set your country, your MobiiBroadband 3G will find a channel to use.

**To select a country and channel:**

1. Go to Settings > WLAN > WLAN Advanced Settings
2. From the Country dropdown box, select the country you're in
3. From the Channel dropdown box, select a channel, or select Auto
4. Click Apply.

## SETTING AP ISOLATION

If AP (access point) isolation is enabled, the clients on your MobiiBroadband 3G wireless network won't be able to see each other on the network, or communicate with each other. If AP isolation is disabled, clients on your wireless network can communicate with each other.

### To set AP isolation:

1. Go to Settings > WLAN > WLAN Advanced Settings
2. At AP Isolation, select:
  - On to enable AP isolation
  - Off to disable AP isolation
3. Click Apply.

## SELECTING A WIRELESS PROTOCOL

Your MobiiBroadband 3G supports the 802.11b, 802.11g, 802.11n wireless protocol standards.

### Wireless protocol options

802.11b	Only clients that support the 802.11b wireless protocol are allowed to access your wireless network. The maximum data rate is 11 Mbit/s.
802.11g	Only clients that support the 802.11g wireless protocol are allowed to access your wireless network. The maximum data rate is 54 Mbit/s.
802.11b/g	Clients that support the 802.11b or 802.11g wireless protocol are allowed to access your wireless network.
802.11b/g/n	Clients that support the 802.11b, 802.11g or 802.11n wireless protocol are allowed to access your wireless network.



To find out which protocols your client device uses, contact its manufacturer or supplier.

#### To select a wireless protocol option:

1. Go to Settings > WLAN > WLAN Advanced Settings
2. At 802.11 mode, select a wireless protocol
3. Click Apply.

### CONNECTING TO YOUR WIRELESS NETWORK WITH WPS

WPS (Wi-Fi Protected Setup) is an easy and secure way to connect a device to a wireless network without needing to enter an SSID or a security key. Your wireless client device must support WPS for this to work.

There are 2 ways to use WPS:

- Push-button method: Press and hold the WPS button on your MobiiBroadband 3G.
- PIN method: Enter your client device's WPS PIN. You'll need to know your client device's WPS PIN to use this method.

#### WPS Push-button method:

1. Press and hold the WPS button on your MobiiBroadband 3G for four seconds. The WPS connection will stay open for 2 minutes.
2. Use your client device's wireless network connection feature to find the network and connect to it.

#### WPS PIN method:

1. Go to Settings > WLAN > WPS Settings
2. Enter your client device's WPS PIN
3. Click Apply.

## SETTING UP WLAN MAC FILTERING

A MAC (Media Access Control) address, or physical address, is the unique ID number for a piece of hardware. It is a set of digits in this format: 00:1D:0F:10:2D:D9

To improve the security of your MobiiBroadband 3G wireless network, you can specify which devices are permitted to use your network by their MAC address.

### WLAN MAC Filter

Set MAC address filtering mode in the WLAN MAC Filter drop-down list box.

(1) Disable: Disable the WLAN MAC filter.

(2) Allow: Allow a client to connect to the device using the WLAN if the client's MAC address exists in the MAC Address list.

(3) Deny: Deny a client's connection to the device using the WLAN if the client's MAC address exists in the MAC Address list.

WLAN MAC Filter:

**MAC Address**

<input type="text" value="d4:24:dd:d4:24:09"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

eg: 00:1D:0F:10:2D:D9

---

**To configure WLAN MAC filtering:**

1. Go to Settings > WLAN > WLAN MAC Filter.
2. At the WLAN MAC Filter dropdown box, select an option:
  - Disable turns off MAC filtering
  - Allow will permit the computers you list to access your network. Any computers not listed here will be denied access to your wireless network
  - Deny to prevent the computers you list from accessing your network. Any computers listed here will be denied access to your wireless network
3. At the MAC address list, enter the MAC addresses of devices you wish to allow or deny. You can list up to 10 devices here.

**Example: Allowing a specified client to access your wireless network**

In this example, we'll set up a MAC address filter to allow a computer to use the MobiiBroadband 3G wireless network. Since the computer is already connected to our network, to find its MAC address, we'll look it up in the Connected Wi-Fi Clients section of the Connection page.

**Part 1: Find the computer's MAC address on the Connection page**

1. Click Connection
2. In the Connected Wi-Fi Clients section, find the MAC address of a connected computer. In this example, it's d4:24:dd:d4:24:09.

Connected WiFi Clients				
ID	IP Address	Host Name	MAC Address	Duration
1	192.168.1.101	balgruuf	d4:24:dd:d4:24:09	00:00:18

**Part 2: Set the MAC address filter.**

1. Go to Settings > WLAN > WLAN MAC Filter
2. At WLAN MAC Filter, select Allow
3. At MAC Address, enter the MAC address you found in Part 1
4. Click Apply.

WLAN MAC Filter:

**MAC Address**

d4:24:dd:d4:24:09	

## DHCP Settings

### CONFIGURING THE DHCP SERVER

DHCP stands for Dynamic Host Configuration Protocol. Your MobiiBroadband 3G has a built-in DHCP server. When the DHCP server is enabled, your MobiiBroadband 3G automatically allocates IP addresses to clients that connect to it.

### DHCP

IP address:	<input type="text" value="192.168.1.1"/>
Subnet mask:	<input type="text" value="255.255.255.0"/>
DHCP server:	<input checked="" type="radio"/> Enable <input type="radio"/> Disable
Start IP address:	<input type="text" value="192.168.1.100"/>
End IP address:	<input type="text" value="192.168.1.200"/>
DHCP lease time (s):	<input type="text" value="86400"/>



- Start IP address, End IP address and DHCP lease time are only available when the DHCP server is enabled. They'll be greyed out otherwise.
- When you enable the MobiiBroadband 3G DHCP server, you'll also need to make sure your client devices and computers are set to automatically receive an IP address and DNS server address from their DHCP server.

## DHCP server settings

IP Address	The internal IP address of your MobiiBroadband 3G on its own local network. This is also known as the default gateway. The default setting is 192.168.1.1.
Subnet mask	The subnet mask corresponding to the range of IP addresses your MobiiBroadband 3G will allocate. The default is 255.255.255.0.
DHCP server	Select Enable to use your MobiiBroadband 3G's built-in DHCP server.
Start and End IP addresses	The Start and End IP addresses define the range of local IP addresses your MobiiBroadband 3G will allocate to the devices that connect to your network. By default, your MobiiBroadband 3G will allocate IP addresses within the range 192.168.1.100 - 192.168.1.200.
DHCP lease time	The length of time (in seconds) a computer will keep its IP address before your MobiiBroadband 3G re-allocates it. The default is 86400 seconds, or 24 hours.

### To configure the MobiiBroadband 3G DHCP server:

1. Go to Settings > DHCP
2. At IP Address, enter the local network address of your MobiiBroadband 3G – for example, 192.168.1.1
3. At Subnet mask, enter the subnet mask of your MobiiBroadband 3G – for example, 255.255.255.0
4. At DHCP server, select Enable.
5. At Start IP address, enter the start of a range of local IP addresses to allocate to client devices – for example, 192.168.1.100.
6. At End IP address, enter the end of the range of local IP addresses to allocate to client devices – for example, 192.168.1.200
  - The Start IP address must be smaller than the End IP address
  - You'll need to allow at least one IP address between the start and end IP addresses

7. At DHCP lease time, enter a lease time in seconds – for example, 8yo6400. This works out to 24 hours
8. Click Apply.

## DISABLING THE DHCP SERVER

When the DHCP server is disabled, your MobiiBroadband 3G will not allocate IP addresses to clients that connect to it. In this case, you'll need to choose an IP address for each client device.

**To disable the MobiiBroadband 3G DHCP server:**

1. Go to Settings > DHCP
2. At DHCP server, select Disable
3. Click Apply.

### DHCP

IP address:	<input type="text" value="192.168.1.1"/>
Subnet mask:	<input type="text" value="255.255.255.0"/>
DHCP server:	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
Start IP address:	<input type="text"/>
End IP address:	<input type="text"/>
DHCP lease time (s):	<input type="text"/>

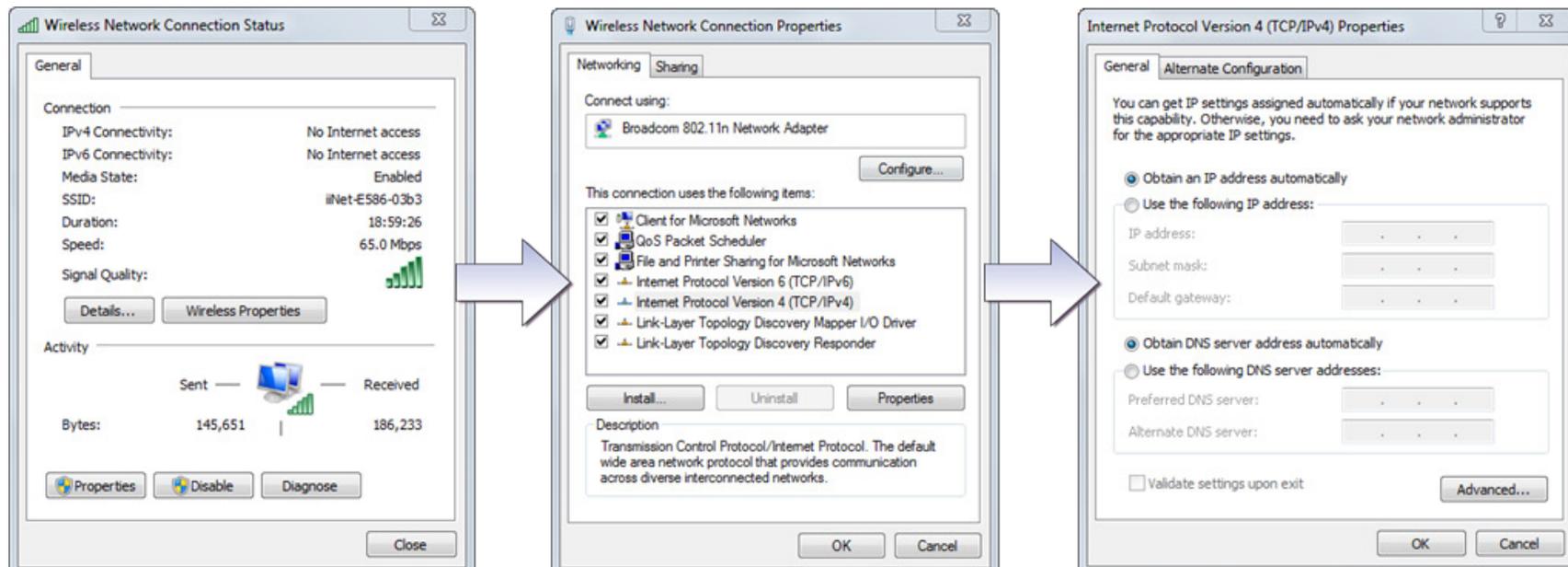
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## CONFIGURING DHCP CLIENTS

If the DHCP server is enabled, you'll need to configure certain settings on a client computer. Here's how to set up a Windows 7 computer:

**To disable the MobiiBroadband 3G DHCP server:**

1. Click Start > Control Panel > Network and Internet > Network and Sharing Centre
2. Under View your active networks, click your MobiiBroadband 3G SSID or network name
3. Click Properties
4. Select IPv4
5. Click Properties
6. Select Obtain an IP address automatically and Obtain DNS server address automatically
7. Click OK.



## Security Settings

### CONFIGURING THE FIREWALL

Your MobiiBroadband 3G has a firewall feature to protect your network from unauthorised access.

**To configure your firewall:**

1. Go to Settings > Security > Firewall Switch
2. Tick Enable firewall to turn the firewall on. Un-tick this box to turn the firewall off.



You'll only be able to select Enable IP address filter and Disable WAN port ping if you've turned the firewall on.

3. Select Enable IP address filter to turn on IP filtering
4. Select Disable WAN port ping to prevent your MobiiBroadband 3G from responding to ping requests
5. Click Apply.

### SETTING UP LAN IP FILTERING

You can use the LAN IP address filter to restrict access to specific internet services from certain computers on your LAN.



To set up LAN IP filtering, you must enable the IP address filter in the firewall. See [Configuring the firewall](#) for more information.

This table lists some common Internet services you may want to filter from particular computers on your network.

Protocol	Default port	Service
HTTP	80	Access web pages.
SMTP	25	Send emails.
POP3	110	Receive emails.
FTP	21	Transmit files.
Telnet	23	Log in to remote computers.



These are default service ports. You may need to refer to provider-specific documentation to confirm which port a provider uses.

#### To set up a LAN IP filter:

1. Go to Settings > Security > LAN IP Filter
2. Click Add
3. Enter settings for each column:
  - LAN IP Address: The computer on your local network to which the filter will apply
  - LAN Port: The local service port to be filtered
  - WAN IP address: Traffic from this external IP address will be filtered
  - WAN Port: Traffic from this service port from the specified WAN IP address will be filtered
  - Status: On means the filter will be applied. Off means the filter settings will be saved, but not applied.

4. Click OK to save the settings of your filter.



Click Edit or Delete to edit or delete the filter you've just created.

5. Click Apply when you've finished configuring LAN IP filters.

### EXAMPLE: BLOCKING A COMPUTER FROM VISITING A SPECIFIC WEB SITE

Let's block the computer with IP address 192.168.1.102 from visiting the website www.abc.com.

#### Part 1: Find the WAN IP address of www.abc.com.

We'll use a computer running Windows 7 for this example.

1. Click the Start button
2. At Search programs and files, type cmd and press Enter
3. At the command prompt, type ping www.abc.com
4. Find the IP address your computer pinged. For this example, we'll assume it was 123.123.123.123.

#### Part 2: Set up a LAN IP filter for web sites at 123.123.123.123

1. Go to Settings > Security > LAN IP Filter
2. Click Add
3. At LAN IP Address, enter 192.168.1.102
4. At LAN Port, enter 80
5. At WAN IP Address, enter 123.123.123.123
6. At Protocol, select All.



If you don't know the protocol to enter here, select All. Your MobiiBroadband 3G will block both TCP and UDP traffic.

7. At Status, select On
8. Click OK
9. Click Apply.

### CONFIGURING A VIRTUAL SERVER

Your MobiiBroadband 3G has a virtual server that provides Internet services to external users. Internet services your MobiiBroadband 3G supports include HTTP (Hypertext Transfer Protocol) and FTP (File Transfer Protocol).

#### To set up a virtual server:

1. Go to Settings > Security > Virtual Server
2. Click Add
3. At Name, enter a name for your virtual server
4. At WAN Port, enter the service port external users will use to access the service
5. At LAN IP Address, enter the IP address of the computer hosting the service
6. At LAN Port, enter the service port the host computer will use to provide the service
7. At Protocol, select TCP or UDP.
8. At Status, select On
9. At Options, click OK.

## EXAMPLE: CONFIGURE AND ACCESS AN FTP SERVER

In this example, the computer with local IP address 192.168.1.101 is hosting an FTP server. We'll set it up so that external users can access it.

### Part 1: Find the WAN IP address of www.abc.com.

1. Set up a virtual server like this:

Virtual Servers List						
Name	WAN Port	LAN IP Address	LAN Port	Protocol	Status	Options
my ftp server	21	192.168.1.101	21	TCP	On	<a href="#">Edit</a> <a href="#">Delete</a>

2. Click Connection. Under Connection status, view the WAN IP address of your MobiiBroadband 3G – for example, 120.2.1.123.
3. As an external user, open a browser window. In the address bar, enter ftp://120.2.1.123.



By default, the FTP service uses port 21. If you set it up differently – for example, using port 8021 – the external user will need to enter the service port in their request like this: ftp://120.2.1.123:8021.

## PORT FORWARDING AND CONFIGURING SPECIAL APPLICATIONS

Sometimes an application running on a computer inside your LAN will need to allow an external service to get through your firewall. This is common for online games, VoIP and videoconferencing. Your MobiiBroadband 3G supports this with port forwarding.

### EXAMPLE: SETTING UP PORT FORWARDING FOR THE MSN GAME SERVER

Suppose someone using a computer on your LAN to play a game wants to access the MSN game server. The game on their computer uses TCP to access MSN through port 47624. When the game starts, the game server uses TCP and port 2400 to set up a connection to the computer.

Without port forwarding, this inbound communication from the game server would be blocked for two reasons:

- Your MobiiBroadband 3G firewall blocks external data access.
- The game server can send a connection request to the external IP address of your MobiiBroadband 3G, but the request can't reach the computer on your LAN. Local IP addresses are hidden by your MobiiBroadband 3G, and are not visible to the outside world.

To solve this problem, you must set up port forwarding rules for the game. When the computer on your LAN sends data through TCP port 47624 (the trigger port), the port forwarding rules will allow the server to respond through TCP port 2400 (the open port). Your MobiiBroadband 3G accepts data from the game server and passes it to the computer on your LAN that used the trigger port.

#### To set up a port forwarding rule:

1. Go to Settings > Security > Special Applications
2. Click Add
3. Enter the details for your port forwarding rule. Here's what you'd enter for MSN Gaming Zone:

### Special Applications List

Name	Status	Trigger Port	Trigger Protocol	Open Protocol	Open Port	Options
MSN game server	On	47624	TCP	TCP	2300-2400;28900-29000	<a href="#">Edit</a> <a href="#">Delete</a>

4. Click OK
5. Click Apply.



To find out the Trigger Port, Trigger Protocol, Open Protocol and Open Port for a specific application, refer to the service provider documentation.

### SETTING UP A DMZ

Sometimes due to security settings, external users may have trouble accessing internet services provided by a computer on your LAN. Placing this computer in the DMZ (Demilitarized Zone) removes all firewall protection for that device and completely exposes it to the Internet.



This feature should be used by advanced users only. Computers in the DMZ are not protected by your MobiiBroadband 3G firewall. Also, the security of other users on your LAN may be compromised by a DMZ.

### To set up a DMZ:

1. Go to Settings > Security > DMZ Settings.
2. Select:
  - Enable to turn the DMZ feature on
  - Disable to turn the DMZ feature off
3. At DMZ IP address, enter the IP address of the computer to be placed in the DMZ (the DMZ host)
4. Click Apply.



Only one computer at a time can be set as the DMZ host.

### ENABLING SIP ALG

SIP (Session Initiation Protocol) is part of the technology used to control VoIP sessions, as well as other Internet services. Your MobiiBroadband 3G uses SIP to create, change and end VoIP sessions. To use a SIP application, you'll need to enable your MobiiBroadband 3G's SIP ALG (Application Level Gateway) - the technology that checks the status of SIP data packages.

### To enable the SIP ALG:

1. Go to Settings > Security > SIP ALG Settings
2. Tick Enable SIP ALG
3. At SIP port, enter the SIP port number supplied by your service provider
4. Click Apply.

## USING UPNP

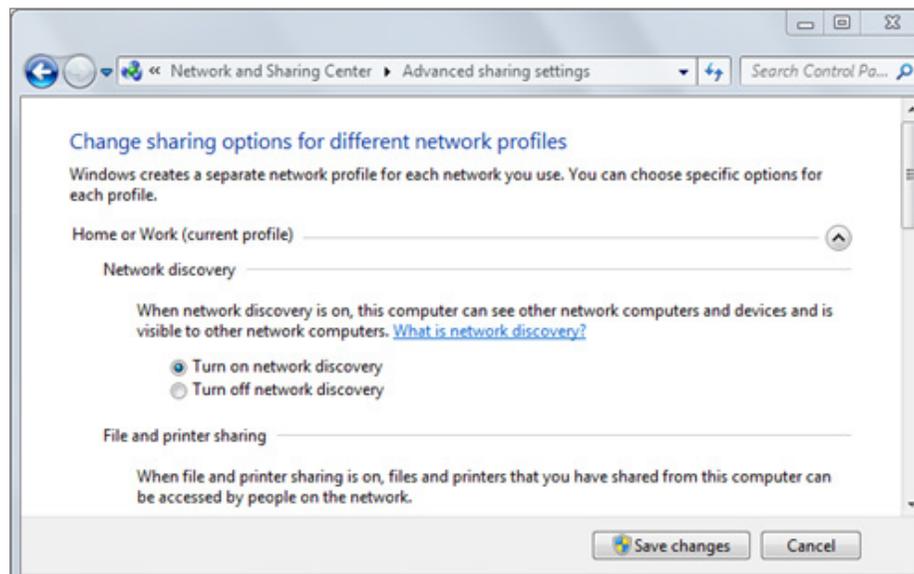
UPnP (Universal Plug and Play) is a technology that allows computers and other devices on your LAN to find each other automatically.

### To enable UPnP:

1. Go to Settings > Security > UPnP Settings
2. Select Enable
3. Click Apply.

After turning on UPnP on your MobiiBroadband 3G you'll also need to enable it on the computers on your network. Here's an example using Windows 7:

1. Go to Start > Control Panel > Network and Internet > Network and Sharing Centre
2. Click Change advanced sharing settings
3. Select Turn on network discovery
4. Click Save Changes.



## CONFIGURING NAT

NAT (Network Address Translation) is a technology used by your MobiiBroadband 3G to convert between IP addresses used over the Internet, and IP addresses used on your home network.

Your MobiiBroadband 3G supports port-restricted cone NAT and symmetric NAT.

### To configure NAT:

1. Choose Settings > Security > NAT Settings
2. Select Cone to enable port-restricted cone NAT, or Symmetric to enable symmetric NAT
3. Click Apply.

### NAT Settings

Symmetric NAT is often deployed in gateways where higher security requirements exist. Cone NAT provides lower security, but it allows some applications to perform correctly and is more compatible with consumer applications, including applications on gaming devices.

Cone  Symmetric

---

Apply

## System Management

### VIEWING DEVICE INFORMATION

Device information tells you about your MobiiBroadband 3G. You'll be able to see its software and hardware version information, and unique identifiers including MAC address and serial number.

#### To view device information:

1. Go to Settings > System > Device Information
2. View your device information.

Device Information	
Software version:	21.322.08.00.1020
Hardware version:	CH1E586E
Device name:	E586E
IMEI:	000264210002642
Serial number:	A1000641A2200064
My number:	Unknown
MAC Address:	00:B3:AC:00:03:B3

## VIEWING DIAGNOSTIC INFORMATION

This information can help you to work out any configuration issues with your MobiiBroadband 3G.

**To see diagnostic information:**

1. Click Settings > System > Diagnosis
2. View the diagnostic information.

Diagnosis	
IP address:	192.168.1.1
Subnet mask:	255.255.255.0
Bandwidth:	21.6 Mbps DL /5.76 Mbps UL
Service status:	Unknown

## BACKING UP AND RESTORING SETTINGS

You can back up the current settings of your MobiiBroadband 3G as a configuration file. You can then reload your current settings at any time by importing them from the configuration file you saved.

**To back up your current settings:**

1. Go to Settings > System > Configuration
2. Click Back up
3. Save the backup file somewhere safe.

**To restore your settings from a bak file:**

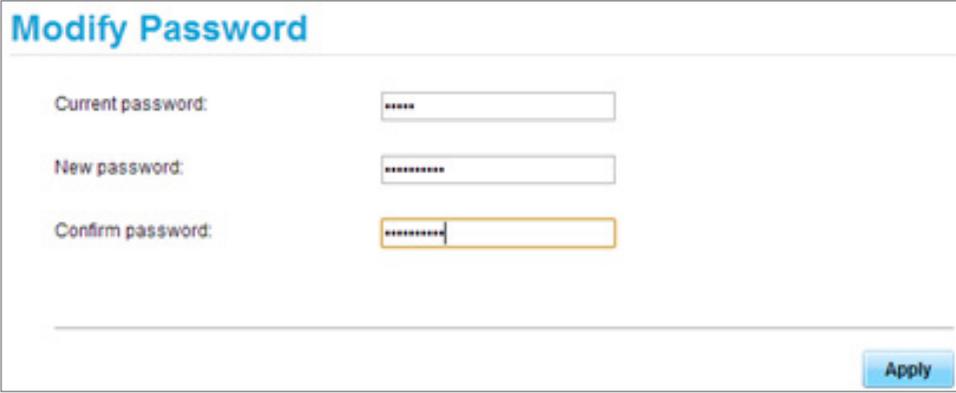
1. Go to Settings > System > Configuration
2. Click Choose file and locate a backup file
3. Click Restore.

## CHANGING YOUR MOBIIBROADBAND 3G PASSWORD

The default password for your MobiiBroadband 3G is “admin”. To prevent unauthorised access to the management pages, we recommend you change this password.

### To change your password:

1. Click Settings > System > Modify Password
2. At Current password, enter your current password
3. At New password, enter a new password
4. At Confirm password, enter your new password again
5. Click Apply.



The screenshot shows a web form titled "Modify Password". It contains three input fields for passwords, each with a label to its left. The first field is labeled "Current password:" and contains four asterisks. The second field is labeled "New password:" and contains eight asterisks. The third field is labeled "Confirm password:" and contains eight asterisks. Below the fields is a horizontal line, and at the bottom right is a blue button labeled "Apply".

## RESTORING DEFAULT SETTINGS

Restoring the default settings of your MobiiBroadband 3G will delete any settings you've configured, including your password, security settings and network profiles. All settings will be restored to their default values.

### To restore default settings:

1. Go to Settings > System > Restore Defaults
2. Click Restore.

You can also manually restore the default settings of your MobiiBroadband 3G by pressing the Reset button on the unit.

### To restore default settings:

1. Lift the flap on your MobiiBroadband 3G unit labelled "RF"
2. With a paperclip, press and hold the RESET button for 10 seconds.

## REBOOTING YOUR MOBIIBROADBAND 3G

### To reboot your MobiiBroadband 3G:

1. Go to Settings > System > Reboot
2. Click Reboot.

## Frequently Asked Questions

### MY COMPUTER CAN'T CONNECT TO THE INTERNET. WHAT SHOULD I DO?

1. Make sure your MobiiBroadband 3G is powered on.
2. Check that your MobiiBroadband 3G has mobile reception, and that the signal is strong.
3. Check that the computer is connected to your MobiiBroadband 3G. See View the computers and other devices connected to your WLAN.
4. Make sure your network mode matches your service provider. For more information see the section in this manual on Mobile network settings.
5. When using your MobiiBroadband 3G for Internet access, you'll need to make sure your PPP (Point-to-Point Protocol) username and password are set correctly. See Profile management for more information.
6. Make sure that clients are set up correctly for your DHCP settings. See DHCP Settings for more information.
7. Check that your computer's network adapter is working correctly.

If those steps didn't fix the problem, contact your service provider.

### MY COMPUTER CAN'T CONNECT TO THE MOBIIBROADBAND WIRELESS LAN. WHAT SHOULD I DO?

1. Check whether there are sources of interference near your MobiiBroadband 3G, or objects that could block the path of your wireless signal. Try moving your MobiiBroadband 3G closer to the computer, or vice-versa.
2. Note down these settings for your MobiiBroadband 3G:
  - SSID (Service Set Identifier)
  - Encryption mode
  - Security key

All of these settings on your client computer must match the settings on your MobiiBroadband 3G. Check that your client computer is configured correctly.

3. If you've enabled MAC address filtering on your MobiiBroadband 3G, check that your computer's MAC address isn't being blocked by the filter. For details, see Setting up WLAN MAC filtering.

### **HELP - I'VE FORGOTTEN THE LOGIN ADDRESS FOR MY MOBIIBROADBAND 3G MANAGEMENT PAGE**

1. Restore the default settings of your MobiiBroadband 3G - see Restoring default settings for help.
2. Once your default settings have been restored, you can access the management page by directing your browser to <http://192.168.1.1>.

### **I'VE FORGOTTEN MY WIRELESS LAN KEY - HOW CAN I CONNECT?**

- Log in to your MobiiBroadband 3G management page to find your current WLAN key. See Configuring wireless security for more information.
- Alternately, you can restore the default settings of your MobiiBroadband 3G, and use the built-in WPA key located underneath the battery to access its wireless network.

## Acronyms and abbreviations

2G	Second generation
3G	Third generation
ALG	Application Level Gateway
AP	Access Point
DHCP	Dynamic Host Configuration Protocol
DMZ	Demilitarized Zone in networks
DNS	Domain Name Server
EDGE	Enhanced Data Rates for GSM Evolution
GPRS	General Packet Radio Service
GSM	Global System for Mobile Communications
HSDPA	High-Speed Downlink Packet Access
HSPA	High Speed Packet Access
HSUPA	High-Speed Uplink Packet Access
IP	Internet Protocol
MAC	Media Access Control
PIN	Personal Identification Number
PUK	PIN Unlock Key
SIP	Session Initiation Protocol

SIM	Subscriber Identity Module
SSID	Service Set Identifier
TCP	Transmission Control Protocol
UDP	User Datagram Protocol
UPnP	Universal Plug and Play
USSD	Unstructured Supplementary Service Data
WAN	Wide Area Network
WCDMA	Wideband Code Division Multiple Access
WLAN	Wireless Local Area Network
Wi-Fi	Wireless Fidelity
WPS	Wi-Fi Protected Setup



# MobiiHotspot 3G Manual

To contact our friendly support staff ring:

**iiNet Support**  
13 22 58  
[support@iinet.net.au](mailto:support@iinet.net.au)

**iiNet Business Support**  
13 24 49  
[bizsupport@iinet.net.au](mailto:bizsupport@iinet.net.au)

**Westnet Support**  
1300 786 068  
[support@westnet.com.au](mailto:support@westnet.com.au)

**TransACT Support**  
13 30 61  
[support@transact.com.au](mailto:support@transact.com.au)

**Internode Support**  
13 66 33  
[support@internode.on.net](mailto:support@internode.on.net)