

# BoB™

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## LITE





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# Chapter 1 : Introduction

This modem, developed by iiNet Labs, means you can connect your computers in the home or office to the internet, it also has the ability for you to connect your home phone to this modem and sign up for iiNet's netphone service, which allows you to make cheap phone calls through your broadband connection.

Your modem has software onboard (just like a PC has software); simply connect your computer/s in the home or office, either via wires or through a wireless connection, to this modem and surf the internet, retrieve emails and communicate with other computers on the world wide web (WWW).

This user manual will guide you through the process of connecting your modem to the internet and will also help utilise advanced features, such as:

- **Remote management** – this enables any computer to manage your modems settings remotely, and means that if you wanted to make changes to your modem from a remote location, such as a friend's house, you can log in into your modem at home by entering a unique web address and security password.
- **Access control & Parental control** – manage which computers in your home or office can access the internet and at what times of the day, for example you may only what the kids computer to be able to access the internet or surf social media websites at certain times of the day
- **Set up wireless security** – it may be necessary to set up a security system so that only your computers in the home can connect to this modem and in turn use your internet connection, and prevent your neighbour's computer from using your internet connection over a wireless connection!



# Chapter 2 : Product Overview

## About BoB Lite™ 4 port integrated wireless modem

BoB Lite™ - 4 port integrated wireless modem



### Compatibility with both PC's and Mac® Computers

The modem supports a variety of networking environments including Mac OS® 8.x, 9.x & v10.x, Linux®, Windows® 98SE, ME, NT, 2000, XP and Vista and Windows 7. You will need an Internet browser and a network adapter that supports TCP/IP (the standard language of the Internet).

### Internet Access

This device supports Internet access through an ADSL connection. Since many ADSL providers use PPPoE or PPPoA to establish communications with end users, the modem includes built-in clients for these protocols, eliminating the need to install these services on your computer.

### Front-Panel LED Display

Light LED's on the front of the modem indicate which functions are in operation. You'll know at-a-glance whether your modem is connected to the Internet. This feature eliminates the need for advanced software and status-monitoring procedures.

### Web-Based Advanced User Interface

You can set up the modem advanced functions easily through your web browser, without having to install additional software onto the computer. There are no disks to install or keep track of and, best of all, you can make changes and perform setup functions from any computer on the network quickly and easily.

### Built-in Dynamic Host Configuration Protocol (DHCP)

Built-In Dynamic Host Configuration Protocol (DHCP) on-board makes for the easiest possible connection of a network. The DHCP server will assign IP addresses to each computer automatically so there is no need for a complicated networking setup.

### DMZ Host Support

DMZ Host Support allows a networked computer to be fully exposed to the Internet. This function is used when NAT and firewall security prevent an Internet application from functioning correctly.

### NAT IP Address Sharing

Your modem employs Network Address Translation (NAT) to share the single IP address assigned to you by your Internet Service Provider while saving the cost of adding additional IP addresses to your Internet service account.

# Chapter 2 : Product Overview

## About BoB Lite™ 4 port integrated wireless modem

### SPI Firewall

Your modem is equipped with a firewall that will protect your network from a wide array of common hacker attacks including:

IP Spoofing, Land Attack, Ping of Death (PoD), Denial of Service (DoS), IP with zero length, Smurf Attack, TCP Null Scan, SYN flood, UDP flooding, Tear Drop Attack, ICMP defect, RIP defect, and fragment flooding.

### Universal Plug-and-Play (UPnP) Compatibility

UPnP (Universal Plug-and-Play) is a technology that offers seamless operation of voice messaging, video messaging, games, and other applications that are UPnP-compliant.

### USB/3g/Charge Ports

Your modem is equipped with two USB ports. One on the side of the modem for storage or for charging USB devices such as mobile phones or for plugging in a 3G device; the second USB slot is situated in the back of the modem for 3G USB modems. The Storage port currently supports FAT16/32 & NTFS USB Mass Storage Devices. With a mass storage device connected you can easily share your files to anyone on the network.

The 'Charge' port will supply a maximum 5V 500mA. Connecting a USB device which requires more than 500mA may result in damage to your equipment.

### QoS

QoS (Quality of Service) limits the traffic being sent from the modem (upstream) when using VoIP at the same time. If QoS is disabled, the quality of the VoIP call can suffer due to excessive traffic from another source, such as a PC. When QoS is enabled, it limits the upstream traffic and sets it aside for VoIP, increasing the call quality.

### Virtual Server

If you have a fixed IP address, you can set the modem to act as a virtual host for network address translation. Remote users access various services at your site using a constant IP address. Then, depending on the requested service (or port number), the modem can route the request to the appropriate server (at another internal IP address). This secures your network from direct attack by hackers, and provides more flexible management by allowing you to change internal IP addresses without affecting outside access to your network.

### Support for VPN Pass-Through

If you connect to your office network from home using a VPN connection, your modem will allow your VPN-equipped computer to pass through the modem and to your office network. This modem supports 1 VPN session at any one time.

# Chapter 2 : Product Overview

## About BoB Lite™ 4 port integrated wireless modem

This modem supports three of the most commonly used VPN protocols – PPTP, L2TP, and IPSec. The VPN protocols supported by the modem are briefly described below.

**Point-to-Point Tunneling Protocol –** Provides a secure tunnel for remote client access to a PPTP security gateway. PPTP includes provisions for call origination and flow control required by ISPs.

**L2TP** merges the best features of PPTP and L2F – Like PPTP, L2TP requires that the ISP's modems support the protocol.

**IP Security –** Provides IP network-layer encryption. IPSec can support large encryption networks (such as the Internet) by using digital certificates for device authentication.

### Wired & Wireless LAN

The modem provides access for up to 4 by 10/100 Mbps wired devices and up to an additional 32 wireless devices, making it easy to create a network in small offices or homes. 802 11b, 802 11g & 802 11n wireless standards are supported.

### Computer Filter Rule

For added security, you can set up a list of MAC addresses (unique client identifiers) that are allowed access to your network. Every computer has its own MAC address. Simply enter these MAC addresses into a list using the web-based user interface and you can control access to your network.

### WEP, WPA and WPA 2 Encryption protocols

The modem features WPA2, which is the second generation of the WPA-based 802 11i standard. It offers a higher level of wireless security by combining advanced network authentication and stronger Advanced Encryption Standard (AES) encryption methods. It also supports the legacy security standard called Wired Equivalent Privacy (WEP) in order to allow you to activate security with any legacy devices you may have on your network.

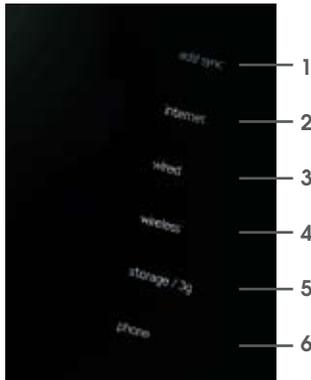
### VLAN

VLAN (Virtual Local Area Network) adds the ability to manage multiple networks with the one modem. The modem is designed to be placed on a desktop. All of the cables exit from the rear of the modem for better organisation and utility. The LED indicators are easily visible on the front of the modem to provide you with information about network activity and status.

# Chapter 3 : Knowing BoB Lite™

## Knowing your BoB Lite™ 4 port integrated wireless modem

### Front Panel



#### 1. ADSL SYNC LED

The ADSL LED will light up yellow indicating no ADSL sync. Once line sync is established the LED will light up blue.

Off - No ADSL connection

On - ADSL link is up and connected

#### 2. Internet LED

The Internet LED shows you when the router is connected to the Internet. If the LED is off or yellow the router is NOT connected to the Internet.

Off - Not connected to Internet

On - Connected to internet

#### 3. LAN Status LED

When a computer is properly connected to the LAN port on the rear of the router, the LED shown here will light. A solid light means a computer or a network-enabled device is connected. When information is being sent over the port, the LED blinks rapidly.

Off - Your computer is not connected

On - Your computer is connected

#### 4. Wireless Status LED

The Wireless status LED shows you when the router's wireless is enabled.

On - Wireless enabled

Off - Wireless is disabled

#### 5. Storage/3G

When a USB mass storage device is connected to this modem, this light will illuminate to inform you the attached storage device is ready for use. This modem also accepts a 3G wireless USB modem service.

On - Attached USB Mass Storage or 3G Device connected and ready for use

Off - No attached USB Mass Storage or 3G Device

#### 6. Phone Status LED

The phone light indicates that your Netphone account has successfully registered on the network.

On - VoIP registered successfully

Off - No VoIP activity

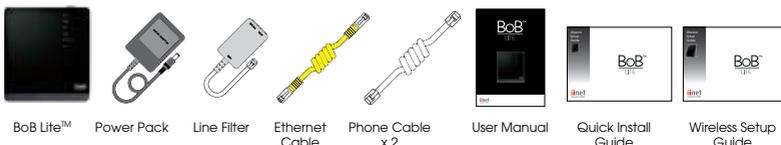
# Chapter 4 : Connection & Configuration

## Connect & Configure your BoB Lite™

The following provides an easy step-by-step hardware installation guide.

All the modem settings have been organised for you. Simply follow all the steps to successfully connect to the internet.

Before you begin, please check the following items have been included.



### Get BoB Lite™ Ready

- Connect the power adaptor to the power port on the back of BoB Lite™ and plug it into an electrical outlet.
- Connect one end of a white telephone cable to the grey 'ADSL' port on the back of BoB Lite™ and then connect the other end to the 'ADSL' port on the Line Filter.
- Connect the Line Filter to your telephone wall socket using the phone cable attached to the 'Line' side of the filter.
- Switch BoB Lite™ on and wait a few minutes.

If you have an active iiNet DSL connection BoB Lite™ will automatically start talking to iiNet's servers. BoB Lite™ will retrieve your login details and other settings during this time, so please leave BoB Lite™ connected and give him some time to set himself up. If you are waiting for your iiNet DSL service to be activated then BoB Lite™ will be unable to connect to the internet until your application for DSL is complete.

**Note:** If you have Naked DSL, you do not need to use the Line Filter. Simply connect your phone line directly into the 'ADSL' port on the back of BoB Lite™



# Chapter 4 : Connection & Configuration

## Connect & Configure your BoB Lite™

### Connecting to BoB Lite™

How would you like to connect your computer to BoB Lite™? You can connect multiple computers and laptops using the methods below.

#### Wireless

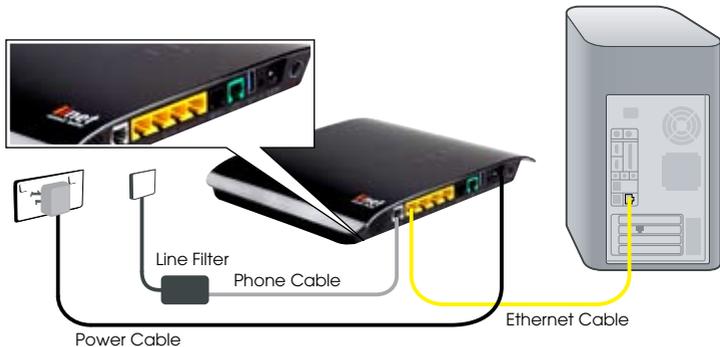
All BoB Lite™ units are enabled for wireless connection by default. Please refer to Wireless Setup Guide for instructions on setting up wireless and ensuring the wireless connection is secure.

#### Using the supplied ethernet cable

- Plug the yellow Ethernet cable into one of the yellow ports on the back of BoB Lite™.
- Plug the other end into your computer or laptop's Ethernet port.

Your computer will start talking to BoB Lite™ within a few moments.

#### How do you plan on making calls now that you have BoB Lite™?



#### Just VoIP (Naked DSL Customers)

If you only plan to use VoIP, you'll need to plug in your own handset into the 'phone' port.

#### Just Your Standard Phone Line (PSTN - Doesn't Work With Naked)

If you just want to use your regular phone line to make phone calls:

- Plug the additional phone cable that came with BoB Lite™ into the 'Phone' port on your line filter.
- Plug the other end into the black 'pstn failover' port on BoB Lite™.

# Chapter 4 : Connection & Configuration

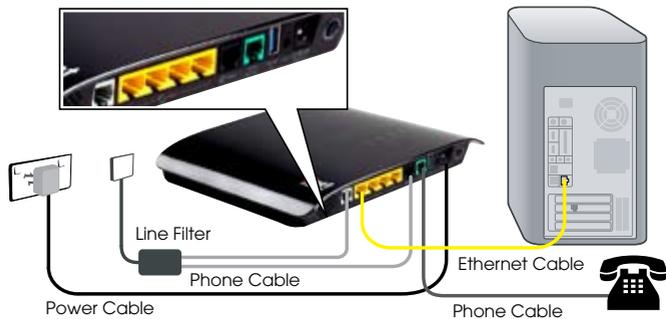
## Connect & Configure your BoB Lite™

### VoIP & Your Standard Phone Line

By default, calls will be made via VoIP if you have an active VoIP service with iiNet. If for any reason your broadband service is down calls will automatically be made using PSTN

If you have another phone which you would like to connect to BoB Lite™

- Plug that phone into the green 'phone 2' port on BoB Lite™ using the phone cable supplied with that phone.



Congratulations!

You have successfully set up your BoB Lite™. You are now ready to use the internet and phone!

The following lights should now be lit in blue on the front of your modem/router.

-  adsl sync
-  internet
-  wired or
-  wireless (depending on your preferred connection type)
-  phone
-  USB/Storage portable hard drive to expand your storage capacity (depending if you have a storage device connected). USB hard drive is not included.



# Chapter 5 : Modem Features

2. The page displayed is your modems home page and from here you can get a snap shot of your modems setup, you can also select to login to the modem and access its more advanced features or set up your ADSL username and password and 'get online'!

## 2. What does the information on the home page mean?

You will notice that on your modems home page you have 8 headings, the following will give you an overview in to the information displayed.

### 1. the connection with my ISP is active?

You will either see 'yes' or 'no' in this box. If 'yes' is displayed this means you have an active ADSL line running over your telephone line in your home and that your modem is connected correctly to your telephone line and is talking to the main computer at your ISP. If 'no' is displayed either your ADSL line is not active or the modem is not connected to your phone line in your home.

### 2. should I be able to surf the internet?

If you have a 'yes' displayed in box 1 and you have the correct ADSL user name and password entered in the modems settings will 'yes' be displayed in this box. When you have 'yes' displayed in box 2 will you be able to actually surf the internet and check your emails.

### 3. my internet speed is approximately

Your connection to the internet is displayed in this box, the speed of your internet connection is determined by the plan you sign up for with your ISP, as well as the distance your house is from the telephone exchange in your local neighbourhood. In the example in image 2 you can see the numbers 2112/384kbps - this means your download speed is 2112kbps and your upload speed is 384kbps.

### 4. my modem is using firmware version

Software is loaded on your modem (just like a standard PC) and this shows you the latest version of software running on your modem. From time to time iiNet may make changes to the software and send you newer versions to make your modem operate better under various circumstances.

### 5. my modem has been connected for this long

The time indicated in this box shows you how long the modem has been connected to the internet; the time format is hh:mm:ss

### 6. the ADSL standard my modem is using is

There are various standards that your modem can connect to the internet. You may have signed up to iiNet for ADSL2 or if you are in an area that does not have access to the faster speeds you may have connected using ADSL1. The following gives a brief description of each of the standards:

# Chapter 5 : Modem Features

**Automatic** – the modem will determine the best speed to connect to the internet depending on your line quality and distance from the local telephone exchange.

**T1.413 issue 2** – The minimum requirement for satisfactory performance of ADSL, this standard is not used on the iiNet network

**G.992.1 (G.DMT)** –ADSL1 speed, usually the lowest speed offered by an ISP

**G.992.3 (ADSL2)** –This indicates your speed could be up to 12mbps

**G.992.5(ADSL2+)** This indicates that your speed could be up to 22mbps

**G.992.5\_M(ADSL2+M)** This indicates you have access to faster upload speeds and is only offered in selected areas or on selected plans

## **7. my SIP sever is connected to which Australian state?**

iiNet offer a service whereby you can make telephone calls over your internet connection, there is a lot of smart technology going on in the background and a SIP server is a special piece of equipment in our network. In the example is image 2 the modme is connected to a SIP server in NSW

## **8. my primary netphone account is set up correctly?**

If you have taken advantage of our telephone over the internet system (netphone) then you will see `yes` in this box if the service is set up and you are connected.

The useful links section takes you to three of the more common areas to check on your modems performance.

## **1. Diagnostics**

when you click on the Diagnostics tab you will be prompted for a password, unless you have changed the password for your modem, please type admin and click Log in. The page displayed allows you to test your modems connection to the internet, for example if you type in www.iinet.net.au and click execute your modem will test the connection to the internet.

## **2. Security log**

when you click on the Security log tab you will be prompted for a password, unless you have changed the password for your modem, please type admin and click Log in. The page displayed shows a history of your modems connectivity, often when talking to our customer service representative you may be asked to save this log to your computer and email the file to a customer service rep so we can check the settings and diagnose any issues you may be having.

## **3. ADSL status**

when you click on the ADSL status tab you will be prompted for a password, unless you have changed the password for your modem, please type admin and click Log in. The page displayed shows the line status of your connection to the internet, if you are talking to a customer service person you may be asked to jump to this page and read the results so we can diagnose the issue you may be having.

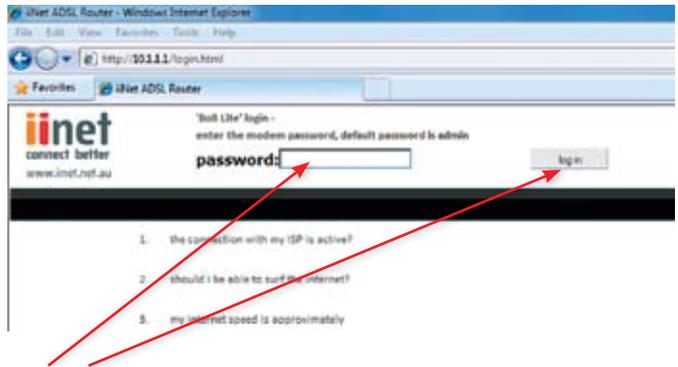
# Chapter 5 : Modem Features

### 3. How do I log into my modem to configure the various options?

Please read chapter 2 paragraph 1 to explain how to launch your modems home page.

To change any settings in your modem you need to first login to the password protected pages. To do this you enter the password in the box as shown in image 3 – unless you have already altered the modems default password please type admin and click log in.

Image 3



Enter Admin and click log in

# Chapter 5 : Modem Features

## 4. Wireless Modem Setup

The following information provides an easy, step-by-step guide to setting up your wireless network.

By now you've used the **Quick Installation Guide** to connect your modem to a computer and the Internet. The next step is to set up your modem to allow other devices to connect wirelessly.

Before starting Wireless Setup, please ensure:

- Your modem is switched on.
- The Ethernet cable is plugged in correctly into both your modem and computer.
  - You are able to browse to a website.

### STEP 1

1. Click on your preferred browser.
2. In your browser, type in **10.1.1.1** into the URL bar to browse to your modem.
3. Once loaded you'll see the modem login page. Enter your modem password into the password field (default password is "admin") and press enter.



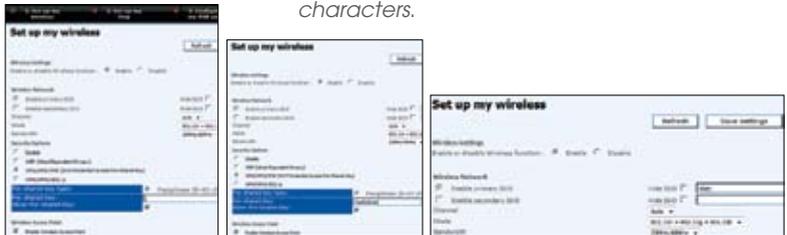
### STEP 2

1. Click on menu option 2 – **Set up my wireless**.
2. On the **Set up my wireless** page follow the steps below.
  - Enable the Wireless function by ticking the **enable** option. Already enabled by default.
  - Enable the primary SSID by ticking the **Enable primary SSID** option. Already enabled by default.
  - Make a note of the name of the SSID. This will identify your new wireless network to the devices you attempt to connect to your network.



# Chapter 5 : Modem Features

3. Under **Security Options** select the **WPA/WPA2-PSK** option.
4. Under **Security Options**, in the **Pre-shared key** input box, enter a password for your new wireless connection. **Remember** – the password must be a minimum of 8 characters. *It is recommended you use a combination of numbers, letters, upper and lower case characters.*
5. Wireless settings in your modem are now configured. Click the **Save Settings** button towards the top of the page to save these permanently.



## STEP 3

1. To confirm your wireless settings are saved, click menu option 7 - **Status/diagnostics**.
2. Under the heading wireless please ensure **Wireless:** and **Wireless Security:** are enabled.



3. Your modem is now ready for wireless connections. The next step is to configure any devices you wish to connect to the wireless network and the internet.
4. Please log out of your modem by clicking 'log out of my modem' near the top right side of your web browser.

# Chapter 5 : Modem Features

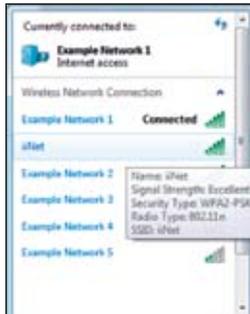
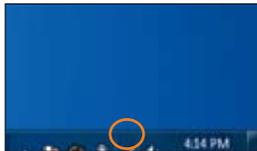
## 5. Wireless Computer Setup - Windows 7

### STEP 1

You should have now enabled the wireless (Wi-Fi) connection of your modem.

The following easy step-by-step instructions will help you connect your computer to your modem.

1. Click on the **Wireless Network** icon in the system tray of your computer.
2. A menu will appear with the wireless networks currently in range. Look for the name of your newly configured wireless network and click on it. In this case it's **iiNet**.
3. Ensure the **Connect Automatically** option is ticked and then click on the **Connect** button.



4. Next you'll be required to enter your newly created **Pre-shared key** (this is the password you entered into your modem while configuring its wireless settings), then press ok.
5. Once loaded, click on the **Wireless Network** icon in your computers system tray to confirm the connection to your modem's wireless network.
6. Connection to your modem's wireless network is now complete. Try using a browser to surf to a website.

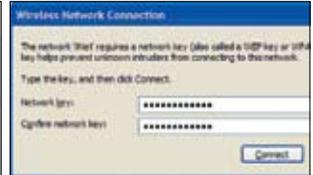


# Chapter 5 : Modem Features

## 6. Wireless Modem Setup

### STEP 1

1. Click on the **Start Menu**, open the **Connect To** menu item and select **Wireless Network Connection**.
2. Once the **Wireless Network Connection** window appears, select the wireless network you previously named (In this case it's **iiNet**). Next, click the **Connect** button.
3. Next you'll be required to enter your newly created **Pre-shared** key (this is the password you entered into your modem while configuring its wireless settings), then press **Connect**.



4. In a few moments, your computer will have connected to the wireless network. To confirm a connection has been made, look for the **Connected** status.
5. Connection to your modem's wireless network is now complete. Try using a browser to surf to a website.

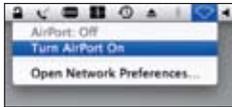


# Chapter 5 : Modem Features

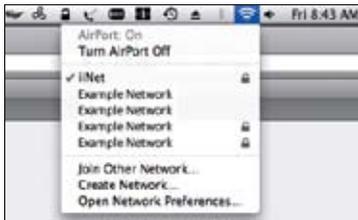
## 7. Wireless Computer Setup - Mac OSX

### STEP 1

1. On the top menu bar, click the **AirPort** icon and select the **Turn AirPort On** option.
2. After a moment, your computer will list the available wireless networks. Select your previously named **wireless network**. In this case it's **iiNet**
3. Next you'll be required to enter your newly created **Pre-shared key** (this is the password you entered into your modem while configuring its wireless settings), then press **OK**.



4. Click the **Airport** button and confirm you are connected to the newly created wireless network. Observe the **tick** next to the network name and the filled **wireless reception icon**.
5. Connection to your modem's wireless network is now complete. Try using a browser to surf to a website.



# Chapter 5 : Modem Features

## 8. Configuring your modems password

For added security you can alter the login password for your modem's settings.

Login to your modem as set out in the previous chapter 'How to browse to this modems home page'.

Browse to Advanced settings, section 5, and in the left menu bar click item 1.

Passwords can contain any combination of alphanumeric characters.



## 9. Firmware upgrade

Login to your modem as set out in the previous chapter 'How to browse to this modems home page'.

Browse to Handy Tools, section 6, and in the main screen continue, item A. If there is a later firmware you can download this from the link on the screen and save the file to your hard . Then click Browse to find the file on your computer. Select the firmware file and click 'Open.' Click 'upgrade firmware' to start the upgrade process.



# Chapter 5 : Modem Features

## 10. Set up a file server

A file server means you can attach a hard drive to the USB port of this modem and share the content on this hard drive between computers in your home or office that are also connected to this modem and on your network. Only computers within your home or office can retrieve these files sitting on the hard drive attached via USB to your modem.

Login to your modem as set out in the previous chapter 'How to browse to this modems

home page'.

Browse to configure my USB port, section 4. Click on item number 4 in the left menu bar – setup my file server.



11. This modem has been pre-configured with the most common settings for users of ADSL broadband; we have pre-configured the modem with firewall settings that will give you a degree of protection (we always recommend using PC based firewall software).

This guide has supplied you with the most common functions users need to configure - if you need help configuring the more advanced sections and you need to get in touch, you can call our 24 hour call centre on 13 22 58 or email us at support@iinet.net.au.





## **iiNet**

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)