



UTStarcom UT-300R2U

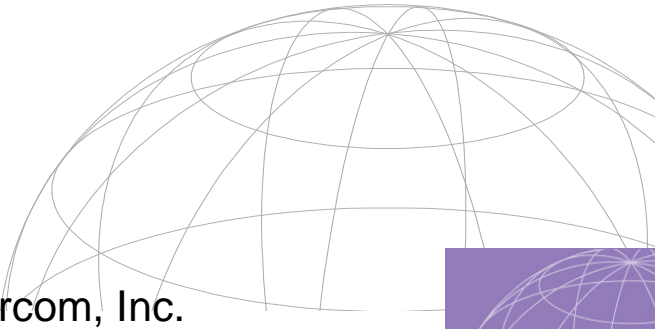
ADSL Modem

USER GUIDE

Release: 1.0

Doc. Code:

UTStarcom, Inc.



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Introduction

This device is a well-designed high-speed ADSL modem/router.

Features

- One 10/100 Ethernet port
- One USB 1.1 Full Speed port
- Friendly GUI for web configuration
- Configurable as a DHCP Server on your Network
- Compatible with virtually all standard Internet applications
- Industry standard and interoperable DSL interface
- Address Filtering, DMZ Hosting, and Much More
- Simple web based status page displays a snapshot of your system configuration, and links to the configuration pages.
- Downloadable flash software upgrades



- Support for up to 8 Permanent Virtual Circuits (PVC)
- Support for up to 8 PPPOE sessions

Supporting Protocol

- ITU G.992.1 (G.dmt) Annex A
- ITU G.992.2 (G.lite)
- ANSI T1.413 Issue 2
- ITU G.992.3 ADSL2 (G.dmt)
- ITU G.992.4 ADSL2 (G.lite)
- ITU G.992.5 ADSL2+

Encapsulation Supports:

- RFC 1483 bridge
- RFC 1483 Router
- Classical IP over ATM (RFC 1577)
- PPP over ATM (RFC 2364)
- PPP over Ethernet (RFC 2516)

System Requirement

Recommended system requirements are:

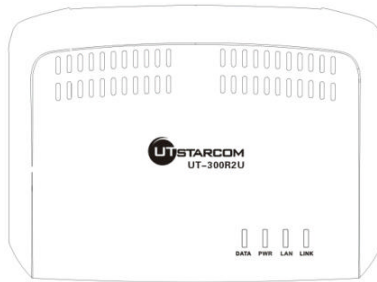
- Pentium 233MHz or above
- Memory: 64MB or above
- 10M Base-T Ethernet or above
- WIN9X WIN2000 WINXP WINME WINNT
- Ethernet Network Interface Card

Please collect the following information from your ADSL service provider. This information will be very helpful for your ADSL configuration. To keep a record for reference, you can fill in the column as below:

VPI	
VCI	
Encapsulation: VCMUX or LLC	
Protocol	
Standard	
Username	
Password	
Password protocol	

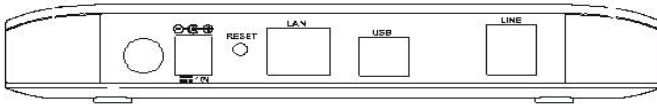


LED Indicator



Indicator	Status	Description
PWR	OFF	Power not supplied
	ON	Power supply is on
LAN	ON	Have linked to HUB
	Blink	Be transmitting data to HUB
LINK	ON	Have connected to CO physical layer
	Slow Blink	Be trying to connect to physical link
	Quick Blink	Be handing with CO physical link
DATA	Blink	Be receiving and sending data

Rear Pane Layout



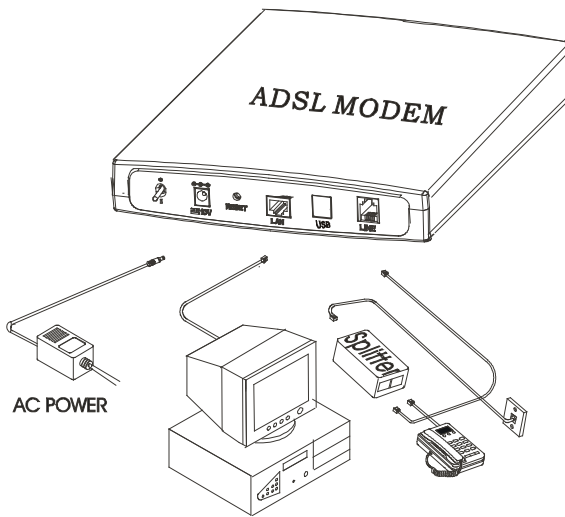
Interface	Function
SWITCH	POWER on/off
POWER socket	PLUG in for power
RESET	Modem Reset button. Press three times, hardware will reset, modem LED will be all on, then off, then auto-restart and recover the default configuration.
LAN	Plug in for RJ45, Can connect to HUB or computer
USB	USB port can connect to PC USB.
LINE	Connect to ADSL telephone line interface

2

Hardware Installation

Please connect your ADSL MODEM to computer as the following description:

- If connecting to the splitter, connect the “Line” splitter to wall jack using one telephone cable.
- Use the other telephone cable to connect MODEM port of the splitter and LINE port of the modem. The PHONE port of the splitter can be used to connect the telephone and the splitter by a telephone cable.
- Use Ethernet cable to connect LAN port of the modem and LAN port of your computer.



If do not need to connect to the splitter,

- Connect the modem to wall jack using one telephone cable.
- Use Ethernet cable to connect LAN port of the modem and LAN port of your computer.

3

Modem Parameters Setting

Configuring Computer Network Card IP Address

Configuring your network card's TCP/IP properties to obtain an IP address automatically from modem, or set the computer's IP with the same network mask of the modem.

(For example: modem's IP is **192.168.1.1/255.255.255.0**,

then you can set computer's IP to: **192.168.1.x/255.255.255.0**,

the range for x is from 3 to 255)

Web Setting Interface

Open IE or Netscape Web browser,

Input **http://192.168.1.1** (MODEM default IP address) in the address column, then click <Enter> button, access the following setting interface:

Input username and password, then click <Login> key to enter WEB setting interface.



Default setting:

IP Address: **192.168.1.1**

Subnet Mask: **255.255.255.0**

Username: **admin**

Password: **utstar or admin**

Main interface

When correct username and password have been typed, the following window will pop up:



MTNL

Device Info
Quick Setup
Advanced Setup
Diagnostics
Management

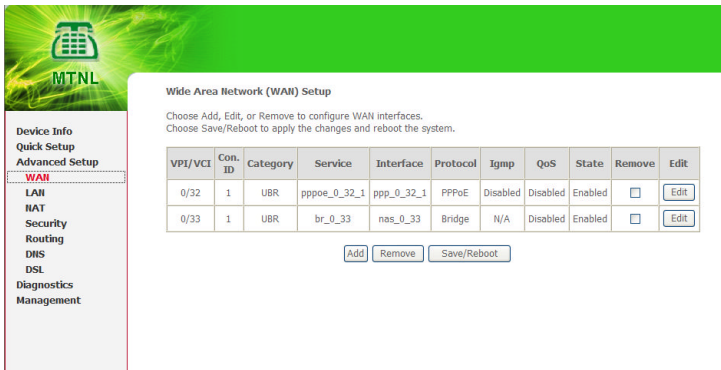
Device Info

Board ID:	96338L-2M-8M
Software Version:	3.00L.03.A2p8019a.d16i
Bootloader (CFE) Version:	1.0.37-5.16

This information reflects the current status of your DSL connection.

Line Rate - Upstream (Kbps):	
Line Rate - Downstream (Kbps):	
LAN IP Address:	192.168.1.1
Default Gateway:	
Primary DNS Server:	192.168.1.1
Secondary DNS Server:	192.168.1.1

Here provide the most common configuration for PPPoE and Bridge mode for reference. The CPE shall be configured as following (Advanced Setup – WAN) for MTNL network



Wide Area Network (WAN) Setup

Choose Add, Edit, or Remove to configure WAN interfaces.
Choose Save/Reboot to apply the changes and reboot the system.

VPI/VCI	Con. ID	Category	Service	Interface	Protocol	Igmp	QoS	State	Remove	Edit
0/32	1	UBR	pppoe_0_32_1	ppp_0_32_1	PPPoE	Disabled	Disabled	Enabled	<input type="checkbox"/>	<input type="button" value="Edit"/>
0/33	1	UBR	br_0_33	nas_0_33	Bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	<input type="button" value="Edit"/>

PPP over Ethernet (RFC2516) PPPoE Setting

PPPoE is also known as RFC 2516. It is a method of encapsulating PPP packets over Ethernet. PPP or Point-to-Point protocol is a method of establishing a network connection/session between network hosts. It usually provides a mechanism of authenticating users.

To configure the MODEM for PPPoE:

1. From the Home page, click on “**Advanced setup ->Wan** ”, see the following:

The screenshot shows the MTNL Modem Parameters Setting interface. On the left is a navigation menu with options: Device Info, Quick Setup, Advanced Setup (highlighted), WAN, LAN, NAT, Security, Routing, DHCP, DSL, Diagnostics, and Management. The main content area is titled "Wide Area Network (WAN) Setup". Below the title, there is a table with two rows of WAN interface configurations. Below the table are three buttons: "Add", "Remove", and "Save/Reboot".

Wide Area Network (WAN) Setup

Choose Add, Edit, or Remove to configure WAN interfaces.
Choose Save/Reboot to apply the changes and reboot the system.

VPI/VCI	Con. ID	Category	Service	Interface	Protocol	Igmp	QoS	State	Remove	Edit
0/32	1	UBR	pppoe_0_32_1	ppp_0_32_1	PPPoE	Disabled	Disabled	Enabled	<input type="checkbox"/>	Edit
0/33	1	UBR	br_0_33	nas_0_33	Bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit

[Add](#) [Remove](#) [Save/Reboot](#)

Click on Edit button having VPI/VCI = 32, Check the following options:

1. VPI = 0
2. VCI = 32
3. Service category "UBR without PCR"



The screenshot shows the 'ATM PVC Configuration' screen in a web-based modem configuration utility. The interface has a green header with the MTNL logo. On the left is a navigation menu with options: Device Info, Quick Setup, Advanced Setup, WAN, LAN, NAT, Security, Routing, DSL, Diagnostics, and Management. The main content area is titled 'ATM PVC Configuration' and includes a descriptive paragraph: 'This screen allows you to configure an ATM PVC Identifier (VPI and VCI) and select a service category. Otherwise choose an existing interface by selecting the checkbox to enable it.' Below this, there are three input fields: 'VPI: [0-255]' with the value '0', 'VCI: [0-65535]' with the value '32', and 'Service Category' with a dropdown menu set to 'UBR Without PCR'. At the bottom right, there are 'Back' and 'Next' buttons.

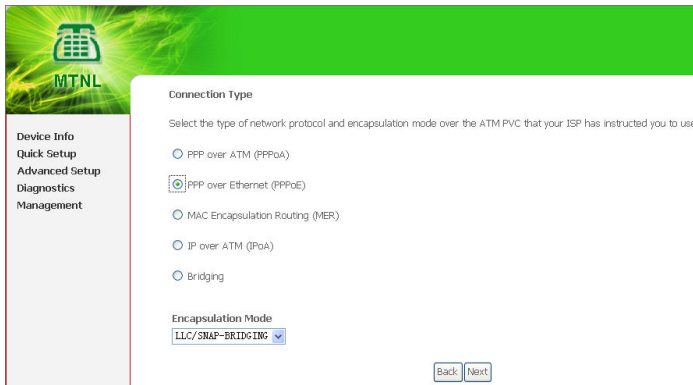
ATM PVC Configuration
This screen allows you to configure an ATM PVC Identifier (VPI and VCI) and select a service category. Otherwise choose an existing interface by selecting the checkbox to enable it.

VPI: [0-255]

VCI: [0-65535]

Service Category:

2. Click the “Next” button , select the type of network protocol and encapsulation mode over the ATM PVC that your ISP has instructed you to use, see the following:



3. Select PPP over Ethernet (PPPoE), Click the “Next” button.

PPP Username and Password

PPP usually requires that you have a user name and password to establish your connection. In the boxes below, enter the user name and password that your ISP has provided to you.

PPP Username:

PPP Password:

PPPoE Service Name:

Authentication Method:

Dial on demand (with idle timeout timer)

PPP IP extension

4. Type the username password given by the MTNL
5. Type service name as MTNL . It is optional you can leave it as blank also.
6. Authentication method “AUTO”
7. Click on next

Following window will come.

8. Enable IGMP Multicast, and enable WAN Service, see the following.



8. Click the “Next” button, configure the DSL Router IP Address and Subnet Mask for LAN interface, please use the default configurations, and see the following.

Device Setup

Configure the DSL Router IP Address and Subnet Mask for LAN interface.

IP Address:

Subnet Mask:

Disable DHCP Server

Enable DHCP Server

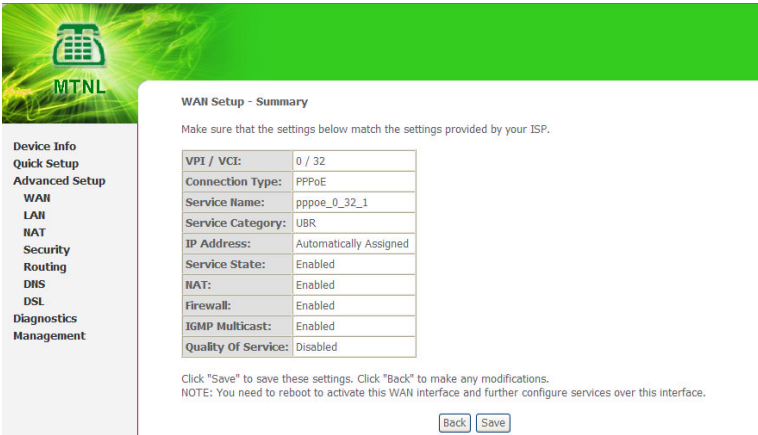
Start IP Address:

End IP Address:

Leased Time (hour):

Configure the second IP Address and Subnet Mask for LAN interface

9. Click the “Next” button; make sure that the settings below match the settings provided by your ISP. See the following:



The screenshot shows the MTNL Modem Parameters Setting interface. On the left is a navigation menu with options: Device Info, Quick Setup, Advanced Setup, WAN (highlighted), LAN, NAT, Security, Routing, DNS, DSL, Diagnostics, and Management. The main content area is titled "WAN Setup - Summary" and includes a warning: "Make sure that the settings below match the settings provided by your ISP." Below this is a table of configuration parameters:

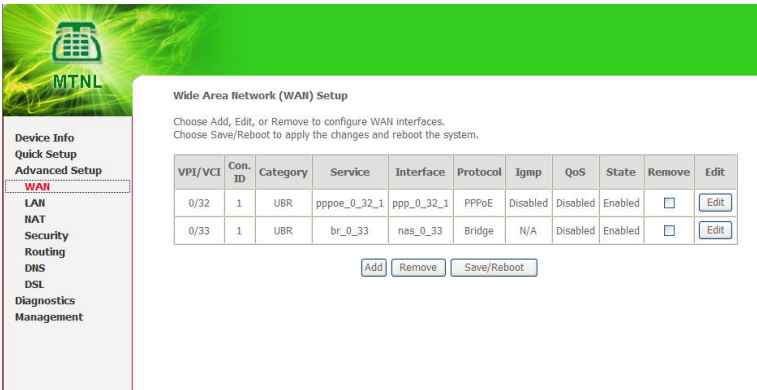
VPI / VCI:	0 / 32
Connection Type:	PPPoE
Service Name:	pppoe_0_32_1
Service Category:	UBR
IP Address:	Automatically Assigned
Service State:	Enabled
NAT:	Enabled
Firewall:	Enabled
IGMP Multicast:	Enabled
Quality Of Service:	Disabled

Below the table, there is a note: "Click 'Save' to save these settings. Click 'Back' to make any modifications." and a larger note: "NOTE: You need to reboot to activate this WAN interface and further configure services over this interface." At the bottom of the main content area are two buttons: "Back" and "Save".

10. Click on the “Save/Reboot” button, save your configurations, and then finish the Setting for PPPoE.

Ethernet over ATM (RFC1483 Bridge) Setting

From the Home page, click on “Advanced Setup ->Wan”, see the following.



Wide Area Network (WAN) Setup

Choose Add, Edit, or Remove to configure WAN interfaces.
Choose Save/Reboot to apply the changes and reboot the system.

VPI/VCI	Con. ID	Category	Service	Interface	Protocol	Igmp	QoS	State	Remove	Edit
0/32	1	UBR	pppoe_0_32_1	ppp_0_32_1	PPPoE	Disabled	Disabled	Enabled	<input type="checkbox"/>	Edit
0/33	1	UBR	br_0_33	nas_0_33	Bridge	N/A	Disabled	Enabled	<input type="checkbox"/>	Edit

[Add](#) [Remove](#) [Save/Reboot](#)

Click on Edit button having VPI/VCI = 0/33, Check the following options:

- VPI = 0, VCI = 33
- Service category “UBR without PCR”

Click on next button



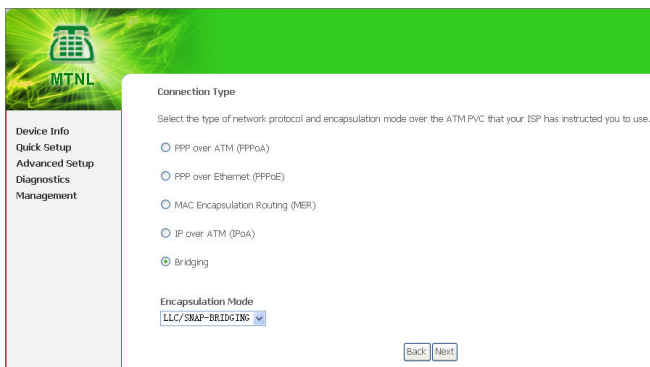
ATM PVC Configuration
This screen allows you to configure an ATM PVC identifier (VPI and VCI) and select a service category. Otherwise choose an existing interface by selecting the checkbox to enable it.

VPI: [0-255]

VCI: [0-65535]

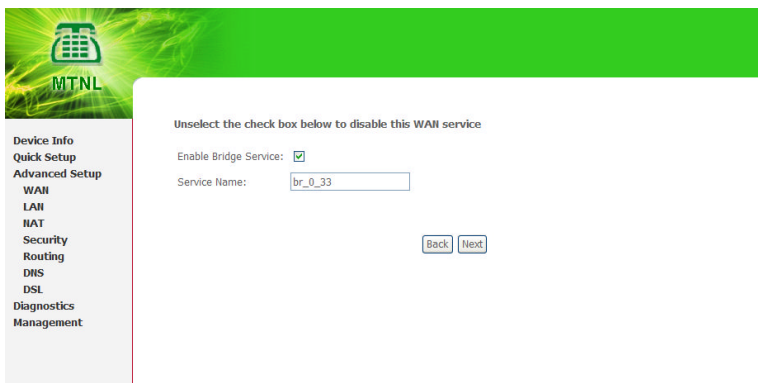
Service Category: ▾

1. Click the “Next” button, and you can set the encapsulation which get from your ADSL service provider, see the following:



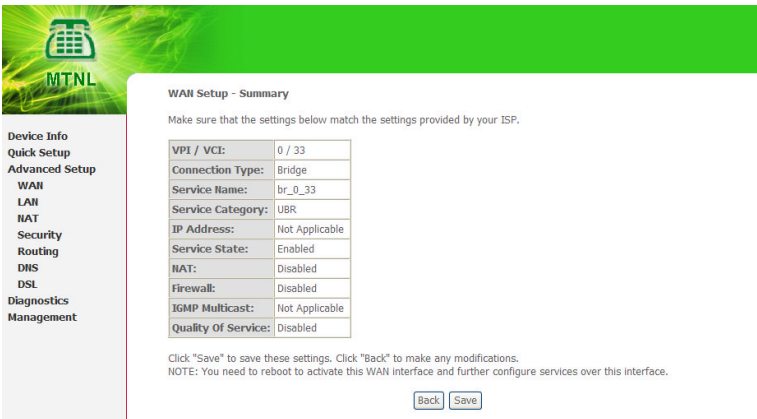
The screenshot shows the MTNL modem configuration interface. On the left is a navigation menu with options: Device Info, Quick Setup, Advanced Setup, Diagnostics, and Management. The main content area is titled "Connection Type" and contains the following text: "Select the type of network protocol and encapsulation mode over the ATM PVC that your ISP has instructed you to use." Below this text are five radio button options: "PPP over ATM (PPPoA)", "PPP over Ethernet (PPPoE)", "MAC Encapsulation Routing (MER)", "IP over ATM (PoA)", and "Bridging". The "Bridging" option is selected. Below the radio buttons is a dropdown menu for "Encapsulation Mode" with "LLC/SNAP-BRIDGING" selected. At the bottom right of the main content area are "Back" and "Next" buttons.

2. Click the "Next" button , select the check box below to enable this WAN service, see the following:



The screenshot shows the MTNL modem configuration interface. On the left is a navigation menu with options: Device Info, Quick Setup, Advanced Setup, WAN, LAN, NAT, Security, Routing, DNS, DSL, Diagnostics, and Management. The main content area is titled "WAN" and contains the following text: "Unselect the check box below to disable this WAN service". Below this text are two items: "Enable Bridge Service:" with a checked checkbox, and "Service Name:" with a text input field containing "br_0_33". At the bottom right of the main content area are "Back" and "Next" buttons.

- Click the “Next” button, make sure that the settings below match the settings provided by your ISP., see the following:



WAN Setup - Summary

Make sure that the settings below match the settings provided by your ISP.

VPI / VCI:	0 / 33
Connection Type:	Bridge
Service Name:	br_0_33
Service Category:	UBR
IP Address:	Not Applicable
Service State:	Enabled
HAT:	Disabled
Firewall:	Disabled
IGMP Multicast:	Not Applicable
Quality Of Service:	Disabled

Click "Save" to save these settings. Click "Back" to make any modifications.
NOTE: You need to reboot to activate this WAN interface and further configure services over this interface.

Click on the “Save/Reboot” button, save your configurations.



Note:

*If you select Dial-UP link, after configuring your ADSL MODEM, please install the third-party dial up program to access Internet (For example: **Ethernet 300/Ethernet 500/WinPoet**). If your system is WinXP, you can use its own Internet access program without any other additional dialer.*



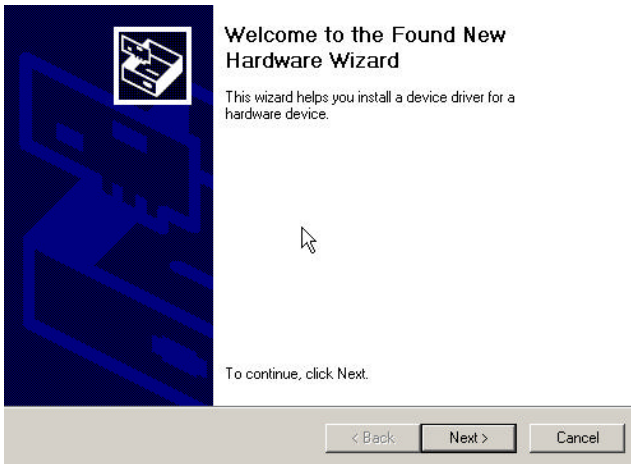
USB Software Setup



Note:

The software setup process for all supported operating systems is described in this section with operating system specific differences noted. The USB ADSL Modem should be connected to your PC prior to installing the software. No other Windows programs should be running on your PC during the software install process.

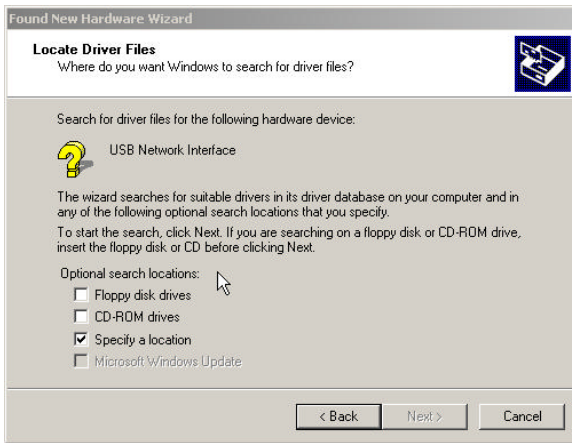
Before installing driver program, you must confirm ADSL MODEM has been connected to computer via USB slot; Once the PC powers up, a new device will be detected by Windows .the computer will give a message finding new hardware. Below picture will be shown



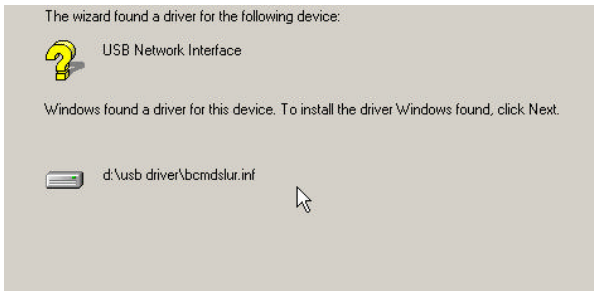
Just click **next**, new web will be shown below



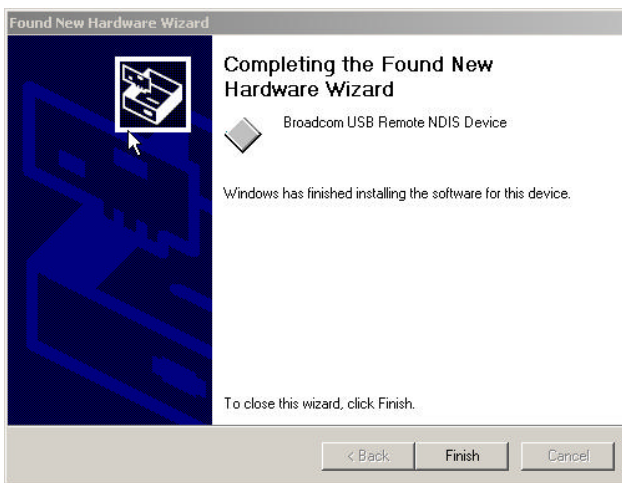
Select “Search for a suitable driver for my device (recommended)”, then press next button



If you ADSL Modem USB driver is in CD-ROM, please select CD –ROM driver, And If USB driver is other a location, please select Specify a location. Then press next. Windows will search and find the USB driver and automatically install the driver.



Wait for a few seconds, below picture will display and you can press the “Finish” button to complete the USB driver installation.



When you have completed USB driver, Your PC will add new adapter networks connect .It means you have success install ADSL modem USB driver .You can configure your modem like Ethernet, and connect internet. When you insert your driver CD in your PC CD-ROM,



Questions & Answers

1. Question: Why all LED indicators are off?

Answer:

- Check the connection between the power adaptor and the power socket.
- Check the power switch is on or not.

2. Question: Why ACT LED is not lighting?

Answer:

- Check the connection between the ADSL modem and your computer or Hub/Switch.
- Check your PC or Hub/Switch running status and make sure them are working normally.
- Check your network cable for connecting the Modem with other device:

For PC, you should use the crossover cable.

For Hub/Switch, you should use straight through cable.

3. Question: Why Link LED is not lighting?

Answer:

Check the connection between the ADSL LINE port and the wall jack.

4. Question: Why cannot visit Internet with Link LED is on?

Answer:

Make sure following information has been input correctly:

VPI/VC1

Username/password

5. Question: Why cannot open the Modem configuration web page?

Answer:

Follow below steps to check the communication between the computer and Modem:



Click **start** -> **run** (input ping demands) -> **Ping 192.168.1.1** (MODEM IP ADDRESS).

If cannot reach the modem, please check following configuration:

- The type of the network cable
- The connection between the modem and computer
- Your computer's TCP/IP setting

6. Question: How to load the default setting after incorrect configuration?

Answer:

Press Reset button and holds around 15s to load the default configuration.

The modem's default IP address: **192.168.1.1/255.255.255.0**

Username/password: **admin/utstar.**



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