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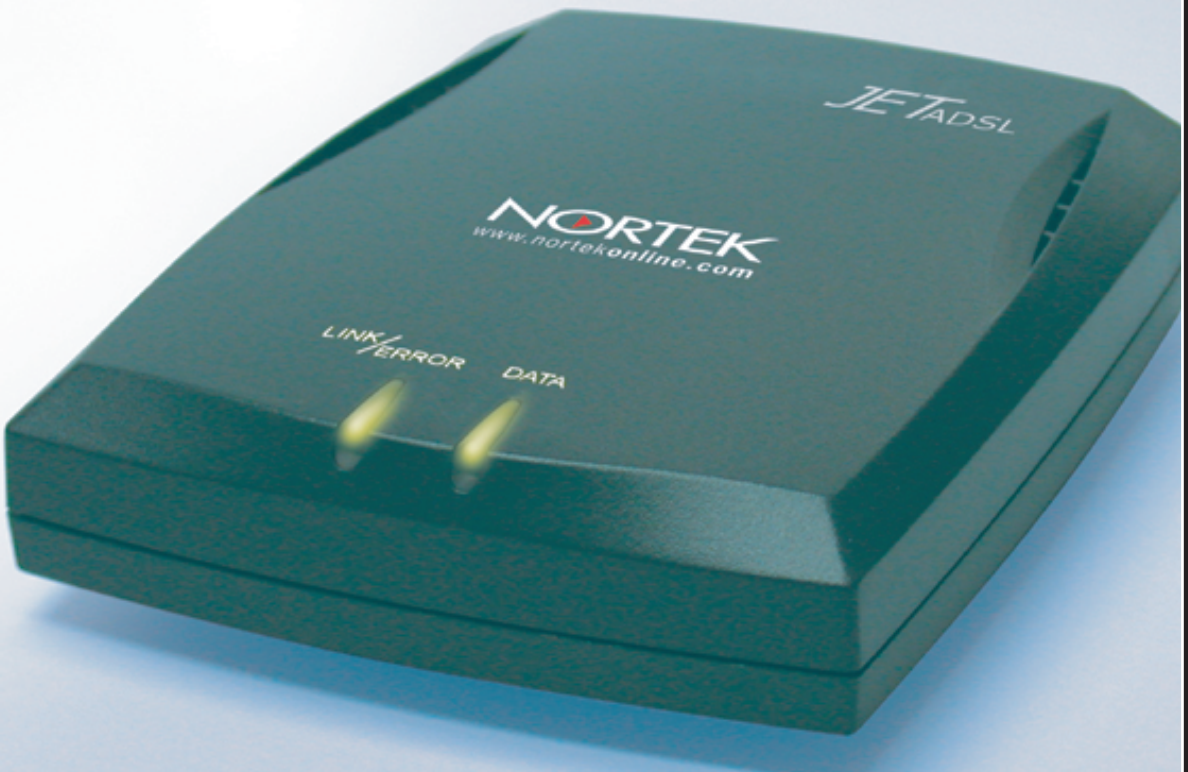
JET ADSL

Manuale Utente
User's Guide



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Capitolo 1: Introduzione

Nozioni sull' ADSL

Asymmetric Digital Subscriber Line (ADSL) è una tecnologia in grado di trasferire dati ad alta velocità tramite la comune linea telefonica voce su rame. ADLS è infatti in grado di far coesistere la tradizionale voce su linea telefonica e il trasferimento dati. ADSl è la migliore scelta per l'uso domestico e di piccolo uffici in quanto non necessità di costosi impianti addizionali.

Esistono numerosi standard di modulazione ADSL. Il modem da lei acquistato è in grado di supportare i seguenti standard: ANSI T1.413 Issue 2, ITU G.992.1 (G.DMT), ITU G.992.2 (G.lite), and CAP (T1 TR-59) and ITU G.992 Annexes A,B and C doce applicabile.

Protocolli e selezione driver.

Il modem ADSL Nortek Jet è facilmente installabile su qualsiasi PC tramite una tradizionale porta USB (Universal Serial Bus) ed è in qualsiasi momento aggiornabile con nuovi firmware rilasciati per standard futuri

Il modem Jet include la funzionalità ATM (Asynchronous Transfer Mode). ATM è un protocollo in grado di suddividere I pacchetti internet in piccole dimensioni prefissate per una trasmissione ancora più rapida sulla rete ad alta velocità. ATM è in grado di supportare diverse tipologie di traffico (es: data, voce, video) in modo sicuro ed efficiente.

Sono disponibili differenti protocolli per l'suo di ATM. Questi protocolli sono normalmente richiesti dal providers di servizi internet.

Le possibilità sono:

1. Point to Point Protocol (PPP) Over ATM (RFC 2364)
2. Bridged/Routed Ethernet/IP over ATM (RFC 1483)
3. RFC 1577.
4. Point to Point Protocol Over Ethernet (PPPoE) – RFC 2516

Il modem ADSL Nortek jet è in grado di funzionare in tre diverse modalità: WAN, LAN, e ATM.

Nota: tutte e tre le modalità sono in grado di lavorare con il protocollo ATM ma la modalità ATM supporta anche il servizio ATM disponibile con i nuovi sistemi operativi. La scelta più appropriata è dipendente dal sistema operativo e dal protocollo utilizzato dall'ISP (Internet Service Providers)

1. LAN driver (RFC 1483 / RFC 1577) – questa modalità fa si che il modem appaia come una periferica LAN o Ethernet. La connessione è stabilita automaticamente. Questa modalità supporta: RFC 1483 and RFC 1577 con cnnessione PVC. La connessione PPPoE è gestita solo tramite software di terze parti. E' utilizzabile tramite sistemi operativi Windows 98, Windows 98 SE, Windows Me, Windows 2000 e Windows XP.
2. WAN driver (RFC2364 / RFC2516) – questa modalità gestisce il modem tramite una

connessione di tipo dial-up network. La modalità supporta: RFC 2364 and RFC 2516 con connessione PVC. E' utilizzabile tramite sistemi operativi Windows 98, Windows 98 SE, Windows Me, Windows 2000 and Windows XP.

3. ATM driver (RFC2364) –questa modalità è utilizzabile unitamente ai servizi ATM di Windows. La modalità ATM usa Dial-Up Networking per creare una connessione PVC O SVC e stabilire una connessione PPP (RFC 2364). La modalità è utilizzabile tramite sistemi operativi: Windows 98 SE, Windows Me, Windows 2000 and Windows XP.

Tabella riassuntiva delle modalità operative

Modalità operativa	Protocollo	Windows OS
LAN	RFC 1483 RFC 1577	Windows 98 Windows 98 SE Windows Me Windows 2000 Windows XP
WAN	RFC 2364 RFC 2516	Windows 98 Windows 98 SE Windows Me Windows 2000 Windows XP
ATM	RFC 2364	Windows 98 SE Windows Me Windows 2000 Windows XP

Specifiche

Il modem ADSL Jet Nortek è conforme alle seguenti specifiche:

- Conferme alle specifiche Universal Serial Bus (USB) Revisione 1.1
- Autoalimentato da porta USB (non è richiesta alimentazione esterna)
- Supporto er tre differenti device: Microsoft NDIS 4.0 WAN Miniport, NDIS 4.0 LAN Miniport or NDIS 5.0 ATM Miniport
- Compatibile con T1.413, G.DMT, e G.lite
- Software aggiornabile
- ATM driver supporta fino a 16 connessioni virtuali ATM
- Include pannello di controllo Microsoft per una precisa e rapida configurazione
- Provvisto di connettore telefonico RJ-11
- Downstream dati oltre 8 Mbps e upstream dati rates oltre 1024 Kbps

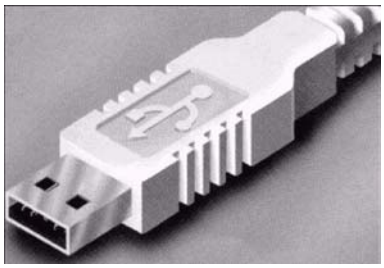
Capitolo 2: installazione del modem e del software

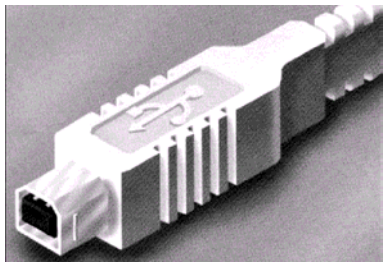
Prima di procedere all'installazione del modem assicurarsi che il sistema operativo in uso supporti il protocollo che si desidera installare in base alla tabella sopra riportata.

Contattare il proprio ISP per conoscere il protocollo da utilizzare

Installazione del modem

1. Inserire il cavo rettangolare del cavo USB nella porta approritata del proprio PC
2. Inserire la parte trapezioidale del cavo USB nella porta appropriata del modem.





Installazione del software

Attenzione, per configurare il modem con sistema operativo windows 98 e 98 SE assicurarsi di avere a portata di mano il CD Rom di installazione del sistema operativo.

Chiudere tutte le applicazioni attive sul proprio PC.

1. il sistema riconoscerà automaticamente una nuova periferica sul vostro PC.

   Cliccare su cancel.

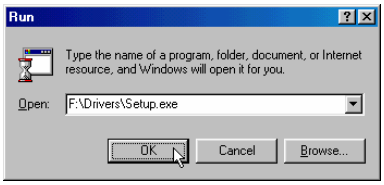
(Windows 98/98SE)

(Windows Me)

(Windows 2000)

(Windows XP)

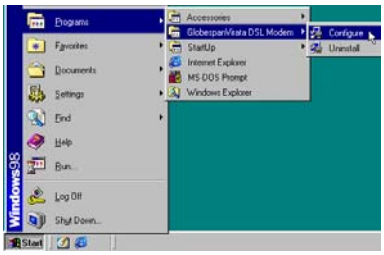
2. inserire il dico CD Rom in dotazione e cliccare su Setup.exe per iniziare la procedura di installazione. Una schermata avvertirà dell'inizio della procedura guidata.



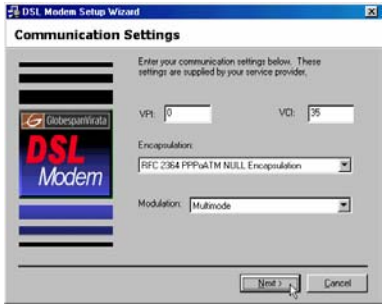
3. Cliccare su next dopo essersi assicurati di aver terminato tutti i programmi attivi.

Capitolo 3: personalizzazione dei parametri di comunicazione.

1. Dal proprio PC cliccare su **Start** – **Programmi** – **GlobespanVirata DSL Modem** – **Configure**. Una notifica avvertirà che la procedura sta iniziando.

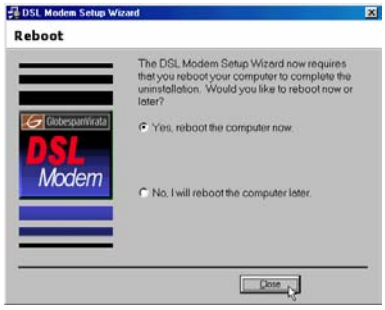


2. Da questo programma effettuare le necessarie configurazioni di VPI, VCI, Encapsulation type e Modulation type per terminare cliccare su next.



3. Un messaggio chiederà conferma per il riavvio del PC.

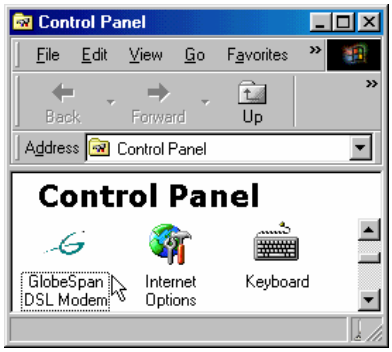
   Selezionare "Yes, reboot the computer now" e cliccare su Close.



Capitolo 4: Pannello di controllo GlobespanVirata

Il pannello di controllo GlobespanVirata USB ADSL è il metodo più rapido per configuare e verificare la funzionalità del proprio modem. All'apertura del pannello attendere almeno 2 secondi per verificarne la funzionalità.

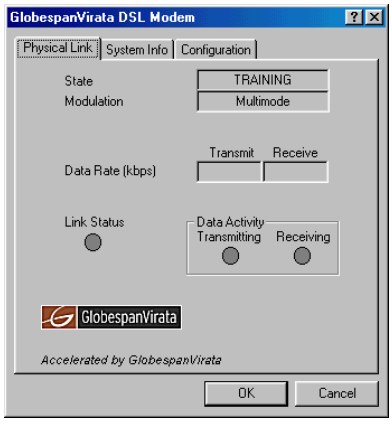
1. Esistono 2 metodi per accedere al pannello di controllo:
   - Dal pannello di controllo di Windows (**Start** – **Impostazioni** – **pannello di controllo**), fare doppio cick sull'icona **GlobespanVirata DSL Modem**.



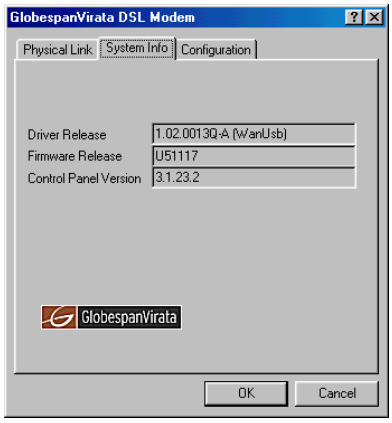
   - Dal desktop del PC fare doppio click sull'icona **GlobespanVirata Control Panel** a fianco dell'orologio in basso a sinistra

Nota: per accedere al pannello di controllo il modem deve essere collegato al PC.

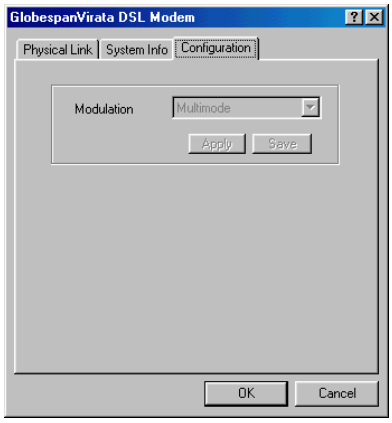
2. La cartella "Physical Link" del pannello di controllo "GlobespanVirata DSL Modem" fornisce informazioni sullo stato corrente del modem. Se una luce verde è accesa in Link status indica che è stata effettuata una connessione. Se la luce lampeggia indica che si sta inizializzando una nuova connessione. Data Activity fornisce invece visivamente i trasferimenti dati della connessione tramite il lampeggiamento degli indicatori gialli.



3. la cartella "System Info" fornisce importanti informazioni sulla release del driver, del firmware e del pannello di controllo.



4. La cartella "Configuration" permette di vedere o modificare il tipo di modulazione in uso.



Capitolo 5: Assistenza gratuita via email e via web

Visitate il sito Nortek www.nortekonline.com. Entrare nell'area assistenza dove potrete reperire tutte le informazioni sul vostro prodotto come i driver più aggiornati, le guide e FAQ. In alternativa potete chiedere informazioni scrivendo all'indirizzo mail dott.nortek@nortekonline.com.

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Dichiarazione di Conformità

Nortek Spa attesta che i prodotti distribuiti a marchio NORTEK sono conformi alle Direttive Europee :
99/5/CE del 9 Marzo 1999 riguardante le apparecchiature radio e le apparecchiature terminali di comunicazione e il reciproco riconoscimento della loro conformità
89/336/CE del 3 Maggio 1989 relativa alla compatibilità elettromagnetica
73/23/CE del 19 Febbraio 1973 relativa alla sicurezza

Marchi registrati

Windows, Windows 98, Windows Me, Windows 2000, Windows XP and Microsoft sono prodotti registrati della Microsoft Corporation. Tutti gli altri marchi sono proprietà dei legittimi titolari.

Nortek si riserva di cambiare le specifiche del prodotto senza preavviso.

CE

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Chapter 1: Overview

About ADSL

Asymmetric Digital Subscriber Line (ADSL) technology provides high-speed data access across regular phone lines (copper wires) by making use of previously unused frequency bandwidth above the voice band. By placing the ADSL signal above the frequency of the voice signal, ADSL service is able to coexist on the same line with your telephone service. ADSL is asymmetric in the sense that it provides a higher data rate in the downstream (receive) direction than in the upstream (transmit) direction. Asymmetric operation is ideal for typical home and small office use where files and information are downloaded more frequently than uploaded.

There are several standard types of ADSL modulation techniques including Discrete Multitone (DMT) and Carrierless Amplitude and Phase (CAP). The ADSL Nortek jet Modemis capable of supporting the following DSL standards: ANSI T1.413 Issue 2, ITU G.992.1 (G.DMT), ITU G.992.2 (G.lite), and CAP (T1 TR-59) and ITU G.992 Annexes A,B and C as applicable.

Protocol and Device Driver Selection

The ADSL Nortek jet Modemcan be easily connected to a USB port on the PC via a standard USB cable. The ADSL Nortek jet Modemis fully software upgradeable so that new features and updates may be added by simply loading a new version of the device driver onto your PC.

ADSL modems employ ATM (Asynchronous Transfer Mode) framing. ATM is a protocol that divides packets into small fixed sized cells for rapid transmission over high-speed networks. The ATM protocol allows various types of traffic (e.g. data, voice, and video) to be securely and efficiently carried over the same network. ATM is being widely deployed by telecommunications carriers in their backbone networks. Two type of ATM connections are possible, PVC (Permanent Virtual Circuit) and SVC (Switched Virtual Circuit).

Several different protocols are used on top of ATM. The protocol required in your configuration depends on the equipment deployed by your DSL service provider. There are several possibilities:

1. Point to Point Protocol (PPP) Over ATM (RFC 2364) - PPP provides session setup, user authentication (login), and encapsulation for upper layer protocols such as IP (Internet Protocol). The use of PPP makes the modem appear as a dial modem to the operating system. Dial-Up Networking is used to establish a connection. PPP is supported by either the WAN (Wide Area Network) driver, or the ATM driver.
2. Bridged/Routed Ethernet/IP over ATM (RFC 1483) – This protocol makes the modem appear as a local area network (LAN) device to the operating system.
3. RFC 1577 – this is another local area network like protocol for IP address and ATM address mapping.
4. RFC 2516 - Point to Point Protocol Over Ethernet (PPPoE) - This protocol is a specification for connecting multiple computer users on an Ethernet to a remote site through common customer premises equipment. PPPoE can be used to have an office or building-full of users share a common DSL (Digital Subscriber Line) connection to

the internet. PPPoE combines the Point-to-Point Protocol commonly used in dialup connections, with the Ethernet protocol, which supports multiple users in a local area network. The PPP Protocol information is encapsulated within an Ethernet frame.

Three types of device drivers are provided for the GlobespanVirata ADSL USB modem, WAN, LAN, and ATM. Note that all three drivers support ATM protocol. In addition, the ATM driver works with ATM services that are available in recent Windows operating systems. The proper choice of driver depends on the combination of Windows operating system and protocol.

1. LAN driver (RFC 1483 / RFC 1577) – this driver makes the modem appear as a LAN or Ethernet device. Connection establishment is automatic. This driver supports both RFC 1483 and RFC 1577 with PVC connections. Additionally, PPPoE is supported by third party software. It can be used with Windows 98, Windows 98 SE, Windows Me, Windows 2000 and Windows XP.
2. WAN driver (RFC2364 / RFC2516) – this driver causes the modem to resemble a dial-up modem. Call establishment is performed through Dial-Up Networking. This driver supports both RFC 2364 and RFC 2516 with PVC connections. It can be used with Windows 98, Windows 98 SE, Windows Me, Windows 2000 and Windows XP.
3. ATM driver (RFC2364) – this driver works in conjunction with ATM services provided by Windows. The ATM driver uses Dial-Up Networking to create a PVC or SVC connection to establish a PPP (RFC 2364) connection. This driver can be used with Windows 98 SE, Windows Me, Windows 2000 and Windows XP.

The device driver choices are summarized in the table below:

Driver Type	Protocol	Windows OS
LAN	RFC 1483 RFC 1577	Windows 98 Windows 98 SE Windows Me Windows 2000 Windows XP
WAN	RFC 2364 RFC 2516	Windows 98 Windows 98 SE Windows Me Windows 2000 Windows XP
ATM	RFC 2364	Windows 98 SE Windows Me Windows 2000 Windows XP

Features

The ADSL Nortek jet Modemprovides the following features:

- Compliant with Universal Serial Bus Specification Revision 1.1
- USB bus-powered; an external power supply is not required
- Supports three device drivers: Microsoft NDIS 4.0 WAN Miniport, NDIS 4.0 LAN Miniport or NDIS 5.0 ATM Miniport
- Compatible with all T1.413, G.DMT, and G.lite compliant CO DSLAM equipment as well as the vast majority of deployed CAP RADSL CO equipment
- Software upgradeable
- ATM driver supports up to sixteen simultaneous ATM virtual connections
- Includes a Microsoft Windows control panel monitoring program for configuring the adapter and checking the status of the connection
- Provides an RJ-11 connector for connection to the telephone line
- Supports DSL downstream data rates up to 8 Mbps (125 times faster than standard 56K modems)
- Supports DSL upstream data rates up to 1024 Kbps

Chapter 2: ADSL Nortek jet ModemInstallation and Software Setup

WAN, LAN and ATM software drivers are supported. WAN and LAN applications support the Microsoft Windows 98 First Edition, Windows 98 Second Edition, Windows Me, Windows 2000 and Windows XP operating systems. ATM applications support the Microsoft Windows 98 Second Edition, Windows Me, Windows 2000 and Windows XP operating systems.

Be sure to follow the instructions provided for your PC's operating system.

The following information may be required for software installation. Contact your DSL service provider before proceeding with software installation.

- Type of Driver to be Installed – WAN, LAN and ATM software drivers are supported. The choice depends upon your DSL service provider.
- IP Address Settings – the Nortek software installation process allows the server to dynamically assign IP Address settings. If your application requires static setting of specific address information you will need to know:

  IP Address
  Subnet Mask (for Bridged Ethernet applications only)
  Default Gateway (for Bridged Ethernet applications only)

- Name Server Information – the Nortek software installation process allows the server to dynamically assign Name Server Address settings. If your application requires static setting of specific address information you will need to know:

  Primary DNS Address
  Secondary DNS Address
  Primary WINS Address
  Secondary WINS Address

- ATM Virtual Path ID (VPI)

  Note: Required if not using default values for driver type

- ATM Virtual Circuit ID (VCI)

  Note: Required if not using default values for driver type

- Encapsulation type

  Note: Required if not using default values for driver type

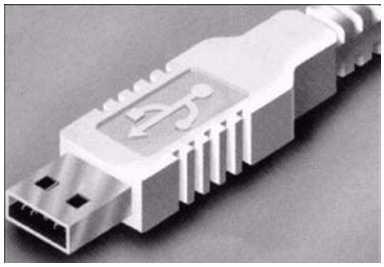
- Modulation type

  Note: Required if not using default values for driver type

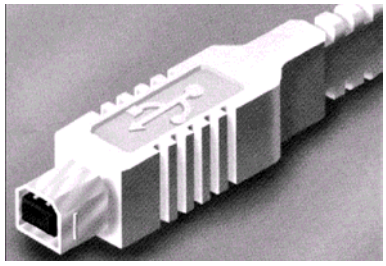
- User Name & Password (for PPP applications only)

Modem Installation

1. Insert the rectangular end of a USB cable into the USB port of your PC.



2. Insert the square end of the USB cable into the USB port of the Modem.



Software Setup

Note: For Windows 98/98SE applications, you may need the Windows 98/98SE CD ROM to complete the installation.

Before starting the software setup process, close all Windows programs previously running on your PC.

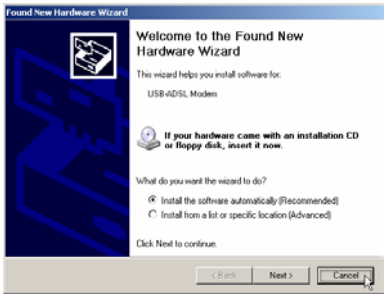
1. System will automatically find a New Hardware after hardware installation finished.

   Click on **Cancel**.

(Windows 98/98SE)

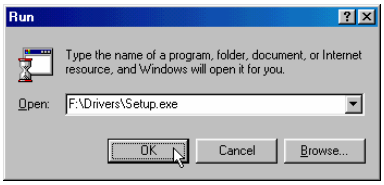
(Windows Me)

(Windows 2000)



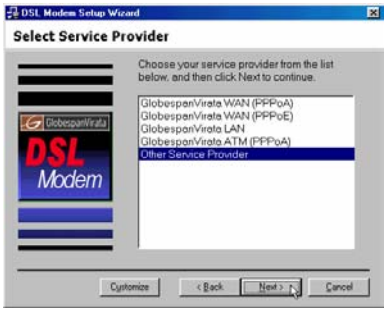
(Windows XP)

2. Insert the installation CD into the CD drive and double click **Setup.exe** to start the installation procedure. A notification message will appear indicating that the setup process has begun.



3. The "Welcome!" window provides an opportunity to quit the setup process to exit all Windows programs before continuing. If the Windows programs were previously closed, click on **Next**.

4. The "Select Service Provider" window allows you to specify your DSL service provider. A list of service providers is displayed. Default values for the Type of Driver, ATM Virtual Path ID (VPI), ATM Virtual Circuit ID (VCI), Encapsulation type and Modulation type are provided for each DSL service provider listed in the window.



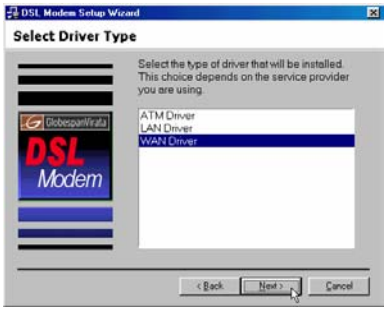
If your DSL service provider is listed and you would like to accept the default values, highlight the provider's name and click **Next**. Continue with Step 5 below.

If your DSL service provider is listed and you would like to change the default values, highlight the provider's name and click **Customize**. Continue with Step 4a below.

If your DSL service provider is not listed select *Other Service Provider* and click **Next.** Continue with Step 4a below.

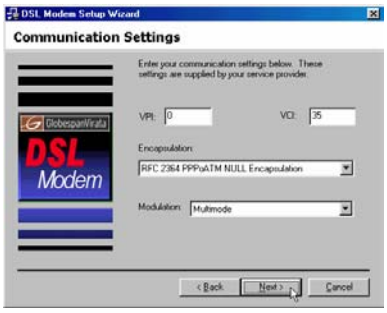
4a)

Select the type of driver to be installed from the "Select Driver Type" window and click **Next** to continue with Step 4b.



4b)
Enter the VPI, VCI, Encapsulation type and Modulation type from the "Communication Settings" window and click on **Next**.

Note: Encapsulation types vary depending upon the application.

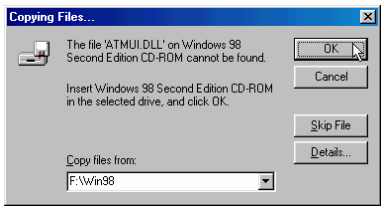


5. The "Ready to Install" window will be displayed. You may review the current settings and click on **Next** or **Back** to change the settings. Click on **Next** to accept the current settings; a message will be displayed indicating that files are being copied.

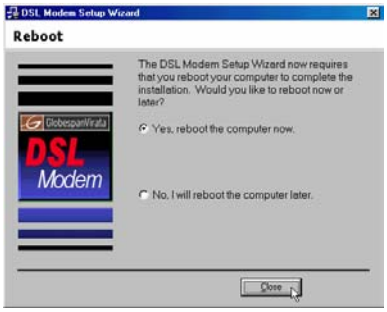
[For Windows 98/98SE applications]

6. Insert Windows System CD-ROM disc into CD-ROM drive and then click on **OK**.

7. To Specify the directory of Windows 98/98SE like as "F:\Win98" ("F" is CD-ROM Drive letter), then click **OK**.



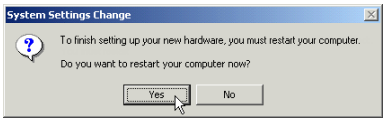
8. A message will be displayed confirming reboot of the system.
Select "Yes, reboot the computer now" and then click **Close**.



9. After system rebooting, windows will ask you to insert Windows system CD-ROM disc into CD-ROM drive again. Then click on **OK**.

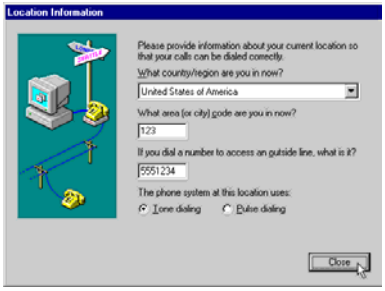
10. To Specify the directory of Windows 98/98SE like as "F:\Win98" ("F" is CD-ROM Drive letter), then click **OK**.

11. A message will be displayed confirming reboot of the system and then click **Yes**.



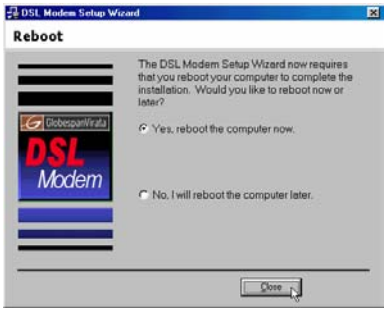
[For WAN&LAN applications]

12. After reboot system, the "Location information" window will appear, then enters your country/region and telephone number. Click **Close**.

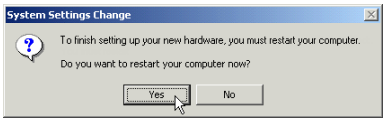


[For Windows Me applications]

6. A message will be displayed confirming reboot of the system, click **Yes**.



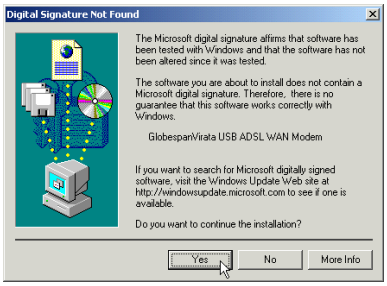
7. A message will be displayed confirming reboot of the system, click **Yes**.



[For Windows 2000 applications]

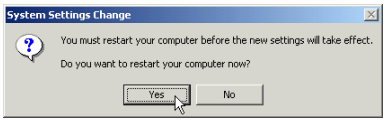
6. A message will be displayed confirming reboot of the system.
   Select "Yes, reboot the computer now" and then click **Close**.

7. After reboot system, the "Digital Signature Not Found" window may appear warning that the installation software is not a digitally signed version. A digital signature is not necessary; GlobespanVirata has tested the software with Windows 2000. Click on **Yes** to allow the installation to continue. (GlobespanVirata will be releasing a digitally signed version of the driver in the near future)



8. Windows system has installed the device, then click **Finish**.

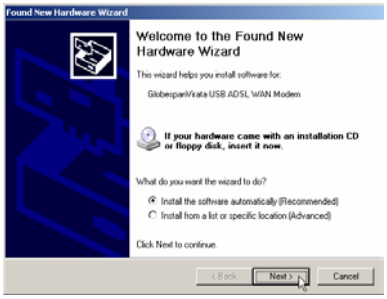
9. A message will be displayed confirming reboot of the system, click **Yes**.



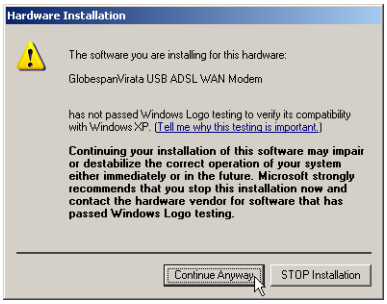
[For Windows XP applications]

6. A message will be displayed confirming reboot of the system.
   Select "Yes, reboot the computer now" and then click **Close**.

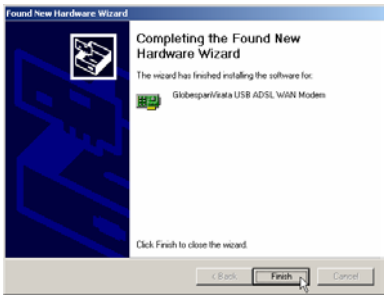
7. After reboot system, system will found a new hardware, select "Install the software automatically (Recommended)".
   Then click **Next**.



8. The hardware Installation window will appears, always click on **Continue Anyway.**



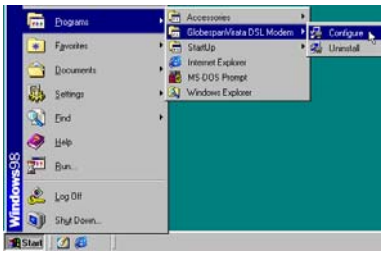
9. Windows system has installed the device, then click **Finish**.



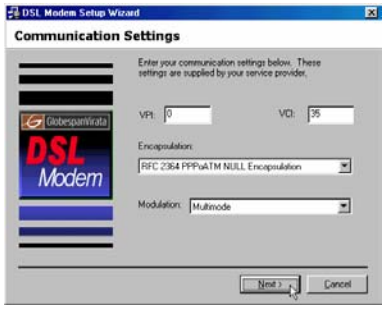
Chapter 3: Customizing Communication Settings

Once the ADSL Nortek jet Modemand software have been installed the communication settings may be easily updated by performing the following steps.

1. From your PC desktop click **Start** – **Programs** – **GlobespanVirata DSL Modem** – **Configure**. A notification message will appear indicating that the setup process has begun.

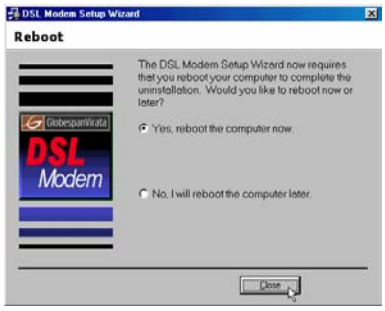


2. The "Communication Settings" window will be displayed. Make the necessary changes to the VPI, VCI, Encapsulation type and/or Modulation type and click **Next**.



3. A message will be displayed confirming reboot of the system.

   Select "Yes, reboot the computer now" and then click **Close**.

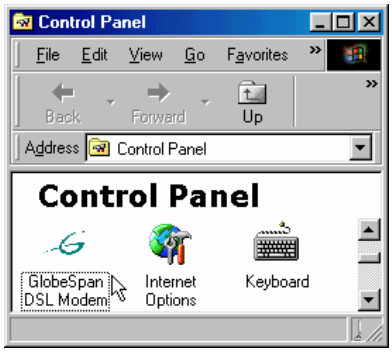


Chapter 4: GlobespanVirata Control Panel Application

The ADSL Nortek jet Modemcontrol panel program provides a quick and easy way to configure and check the performance of the modem and the ADSL connection. When open, the monitor window updates every 2 seconds.

1. There are two methods to access the GlobespanVirata control panel:

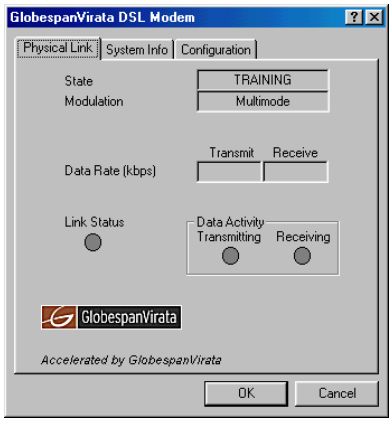
   - From the "Control Panel" window (**Start** – **Settings** – **Control Panel**), double click the **GlobespanVirata DSL Modem** icon, or



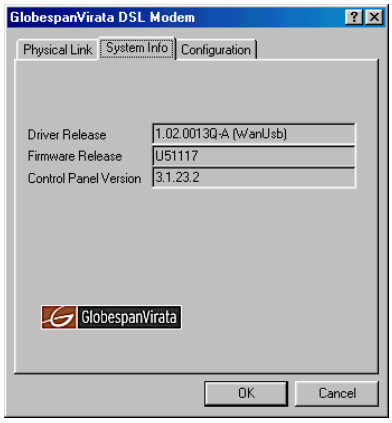
   - From the PC desktop, double click the **GlobespanVirata Control Panel** icon in the system tray.

Note: To access the GlobespanVirata Control Panel, the driver must be running. Also, make sure the USB cable is plugged into the modem.

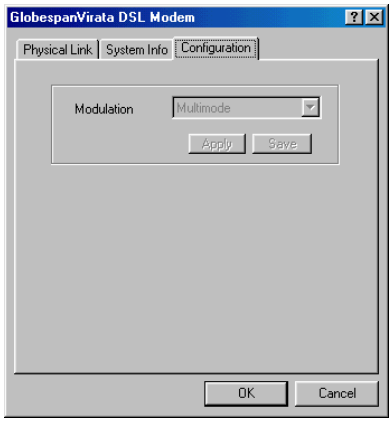
2. The "Physical Link" tab of the "GlobespanVirata DSL Modem" window (Control Panel) allows you to review the current state of the GlobespanVirata DSL Modem and connection. When the green indicator is on in the Link Status field, it indicates that a connection has been made. This indicator blinks while a connection is being established. The Transmitting and Receiving data activity are shown separately by individual flashing yellow indicators.



3. The "System Info" tab displays the release number of the GlobespanVirata DSL modem driver, the firmware release number, and the control panel version that you are currently using.



4. The "Configuration" tab offers driver appropriate Modulation type to view or modify.



Chapter 5: Free Support through Email & Web

Visit Nortek Web site at www.nortekonline.com. Click the Support section where you can access valuable information including: The latest software driver releases, installation guides, FAQ's, spare parts, troubleshooting, downloads and drivers. Alternatively, you can email you can email the difficulty you are experiencing to dott.nortek@nortekoline.com .

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99/5/EC of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity
89/336/EC of 3 May 1989 on electromagnetic compatibility.
73/23/EC of 19 February 1973 on safety

Nortek reserves the right to change the product specifications, without prior notice.

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