

ADSL Modem User's Guide

Version 1.0

Model Name : TZ6100i

June 4, 2001



Homepage : <http://www.etriz.com>

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Getting Started

Thank you for purchasing a DSL modem with your PC. Just a few steps to follow and surfing the internet will never be the same again. Which one of these describes you?

I bought a PC that came with a DSL modem.

If your PC is running Windows 98, Windows 98 SE, Windows 2000, or Windows Millennium and you have a Standard/ Bundled installation CD, please skip to the section on the Configuration Wizard.

If your PC is running Windows NT 4.0, and you have a Standard installation CD, please skip to the Windows NT Driver setup. DSL Drivers installation for Windows NT 4.0 Section. If you have a "Bundled" installation CD, please contact the vendor and ask for a "Standard" version since the bundled version is currently not supported for Win NT.

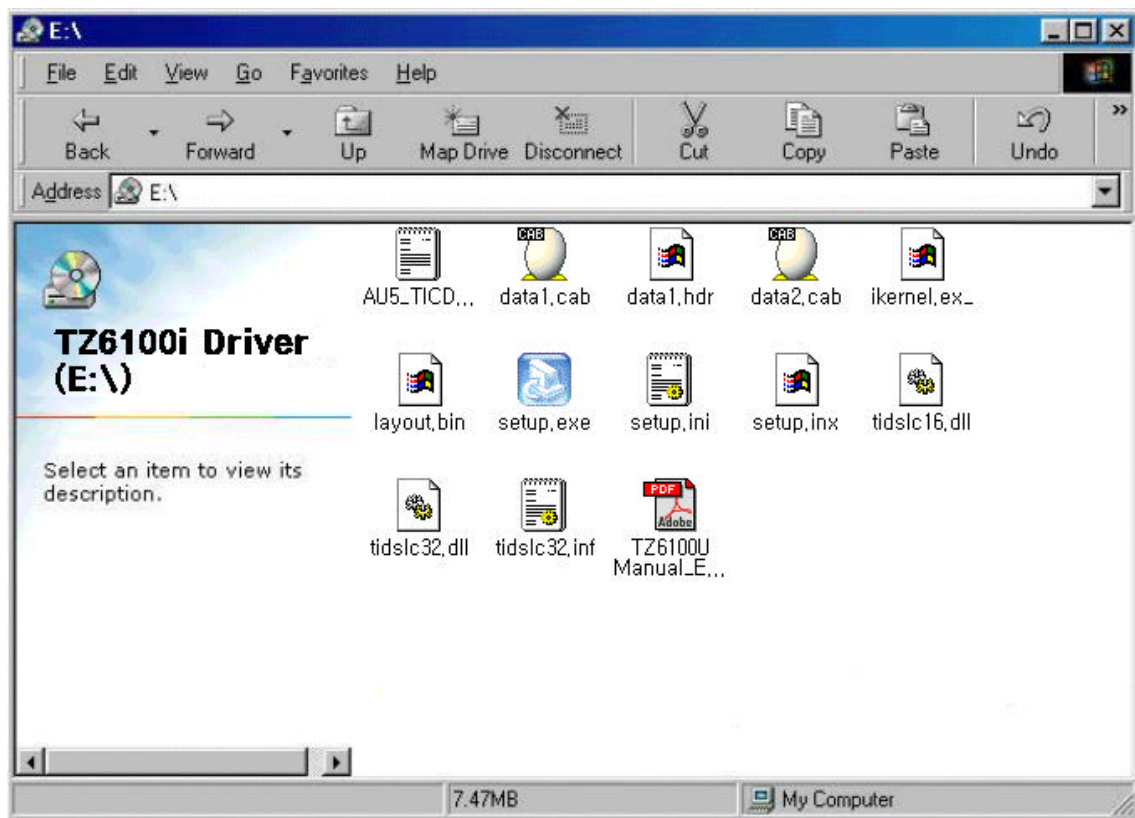
I bought a DSL modem after I purchased my PC.

In this case the first step is to install your modem, then setup drivers for it. Just follow the directions below starting with the Hardware Installation Section.

Bundled and Standard Installation CDs

There are two types of installation CDs for your DSL modem: **Bundled** and **Standard**. In the **Bundled** CD, both the device drivers and the ADSL configuration tools get installed together in one step. In the **Standard** CD, this is a 2 step process. The basic difference is in the file folder organization. Either check the label on the CD to confirm the kind of disc you possess or call your supplier. You can also browse through the CD drive to find this out.

The Bundled CD would have a directory structure like the following:



(Notice the executable "setup" file)

Hardware Installation

Installing the DSL Modem

1. Shut down your PC and unplug it from the power source.
2. Remove the cover of the system chassis.
3. Insert the adapter into any available PCI bus slot.



4. Press the adapter firmly into the slot to ensure that it is properly seated. Do not jam the adapter in the slot. If you have to struggle to get it in there, please make sure nothing is getting in its way.
5. Put back the chassis cover and apply power to the machine.
6. Turn on your PC.

If the adapter fails any power-on self tests, contact DSL modem supplier customer service.

Adapter LEDs

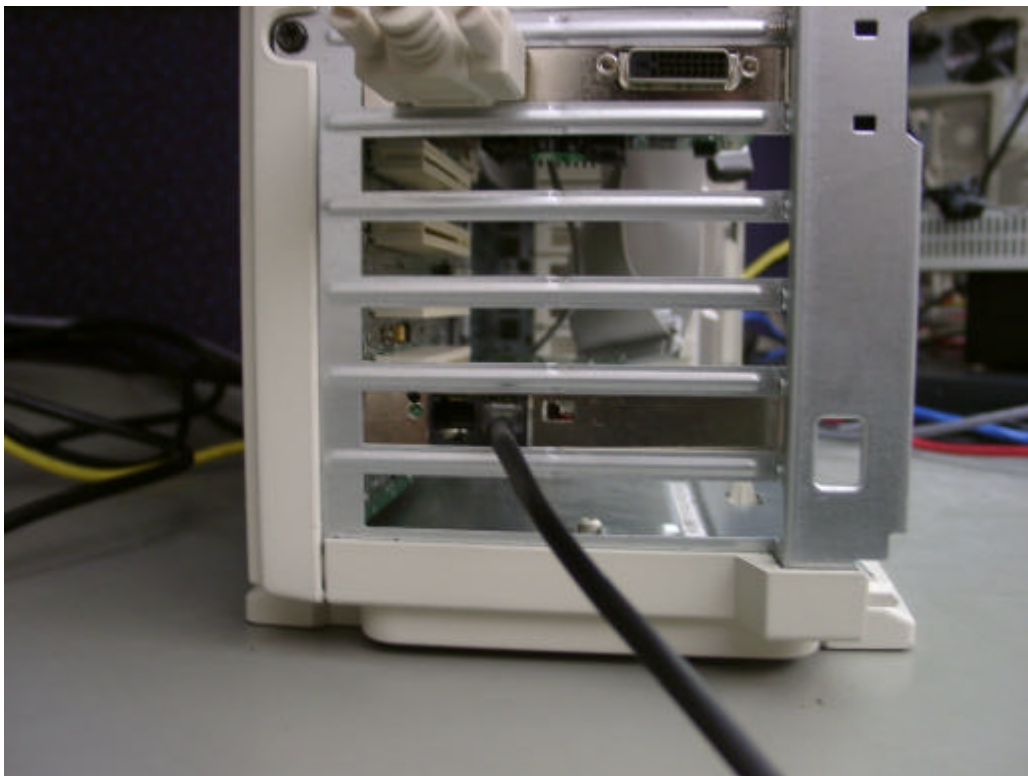
Each adapter is equipped with an LED that indicates proper cable connection. This LED is illuminated when the modem is connected to the power supply and the DSL service provider. The LED is located on the metal plate at the back of the card.



Connecting Your Modem

You must follow two steps to connect your DSL modem to the DSL line.

1. Connect the phone line with the DSL service to the RJ-11 Jack that is further away from the LED. (refer figure above)
2. The other RJ-11 jack can be used to connect a phone set through an external in-line filter. For more details on this, please ask your DSL service provider.



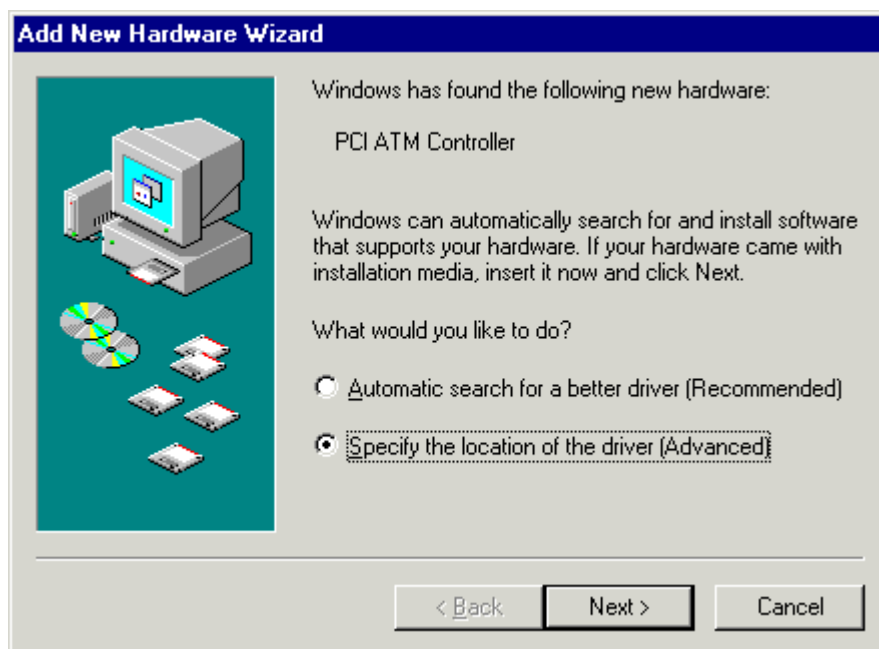
Driver Installation

Driver Installation for Windows 98/ 98SE/ Win ME/ Win95

The method of installation of the drivers for any of these operating systems is identical since they all auto detect the DSL Modem (or any PCI card) as soon as you connect it to your system and boot the operating system. An exception to this is Windows NT, which is not based on the standard "Plug n Play" architecture. The installation for Win NT is explained separately. So, in this section the term "Windows" refers to any of the following: Win 95, Win 98, Win 98 Second Edition (SE), Win 2000 Professional Edition (2k PE), Win Millennium Edition (ME)

When the system is powered on for the first time after the adapter is installed, Windows will bring up the **Add New Hardware Wizard**. This dialog box look slightly different on the different versions of Windows, so click on the link that corresponds to your OS to see what it should look like: Win95, Win98, Win98 SE, Win 2k PE, Win ME.

An example **Add New Hardware Wizard** dialog box (from Win ME) is shown below



Click on **"Next"** button on the dialog. You should get a screen which looks identical to the one shown below. Make sure that the CD-ROM is checked since this is where you want Windows to look for the driver. The screen looks like follows:



Click on **"Next"** and soon enough, Windows should be able to find the correct driver. That screen should look almost similar to the one below:



Next, you will have to reboot your system (except if you are running Win2k). Once you have rebooted, proceed to the [Install Configuration Tools](#) section to configure your DSL service and Internet access.

If driver was not found, you will see the following screen, click on button labeled Other Locations.



You will now need to search for the drivers. Try to search for the driver again, making sure that the CD-ROM is checked as shown in the figure above. In the Standard version installation CD, the path for the drivers is <cd drive>:\drivers\ <operating system>\<lan or wan>\

lan = Local Area Network: typically when you are in your office connecting your modem to an office network via ethernet.

wan = Wide Area Network: typically where your network spans a whole city/country, typically when you dial in to get connected.

For the Bundled version, it should be in the main directory: <cdrom drive>:\

If you still cannot find these drivers, contact your vendor for support.

DSL Drivers installation for Windows NT 4.0

First install the TI modem configuration tools. On Windows NT 4.0 systems, the Windows driver installation has to be done explicitly since Win NT does not auto detect the PCI AP5 that we connected and then powered on to boot Win NT. We need to tell NT that there is a new piece of hardware that it has to recongonize so that you can talk to that device using appropriate device drivers.

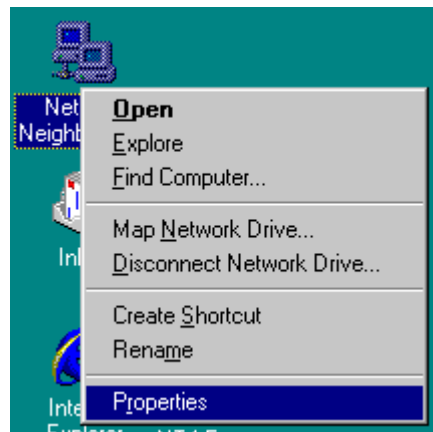
STEP 1

Click with the right button on the "Network Neighborhood" icon.



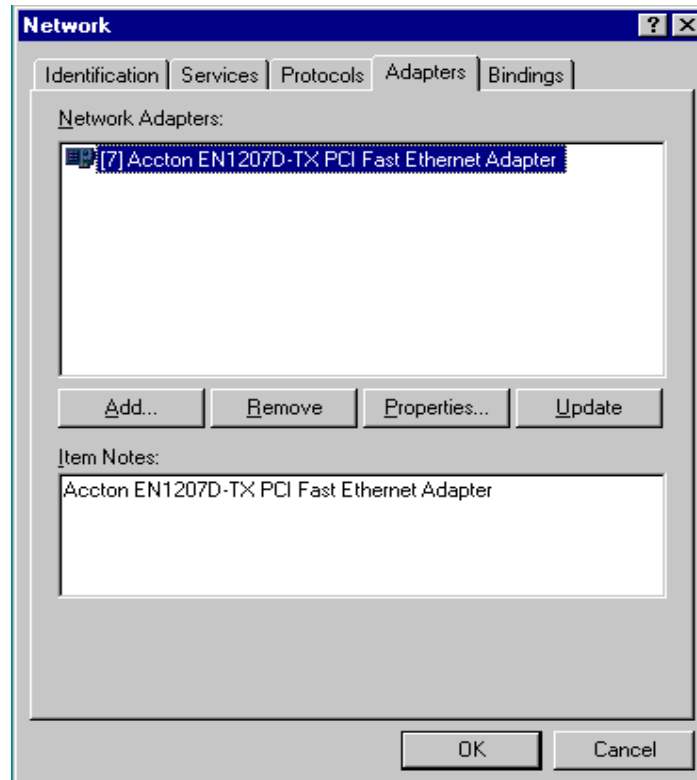
STEP 2

Select the "Properties" option.



STEP 3

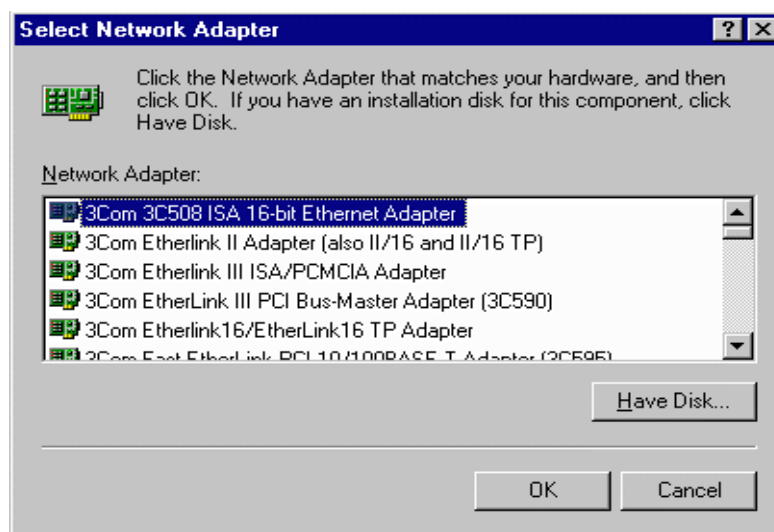
Select the "Adapters" tab.



Click the "Add" button.

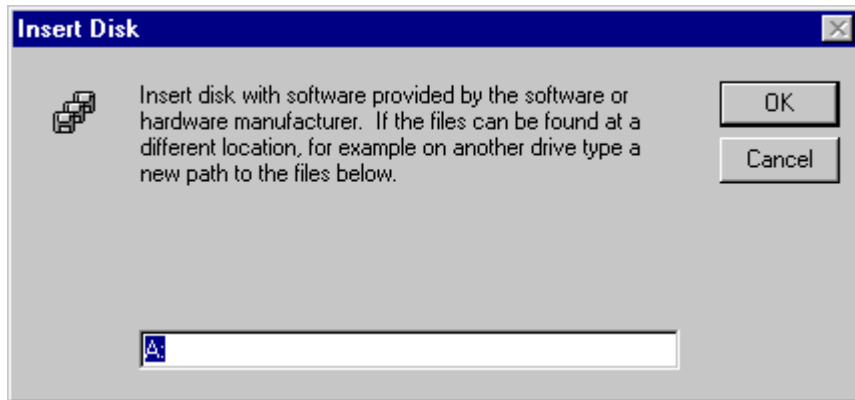
STEP 4

Click the "Have Disk" button.



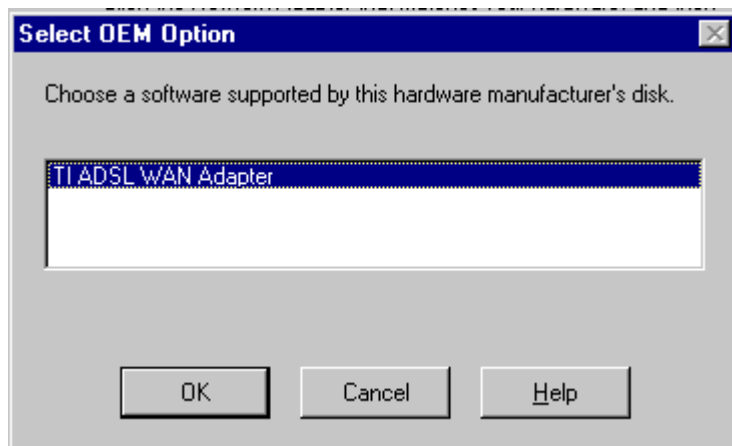
STEP 5

Enter the path for the software drivers: g:\drivers\winnt\wan (example with g: as CDROM drive, winnt is the operating system and a wide area network connection. It could also be a local area network)



STEP 6

Select the highlighted option by clicking OK.



STEP 7

For LAN Installations skip to Step 12

For WAN Installations Continue below

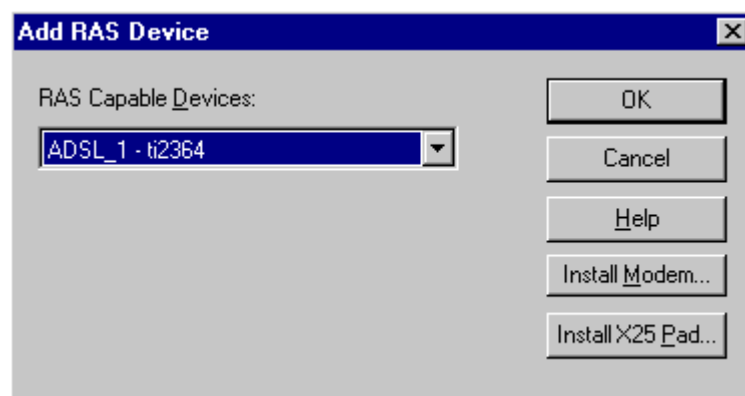
STEP 8

Windows NT will prompt you to add a RAS device.



Click "OK".

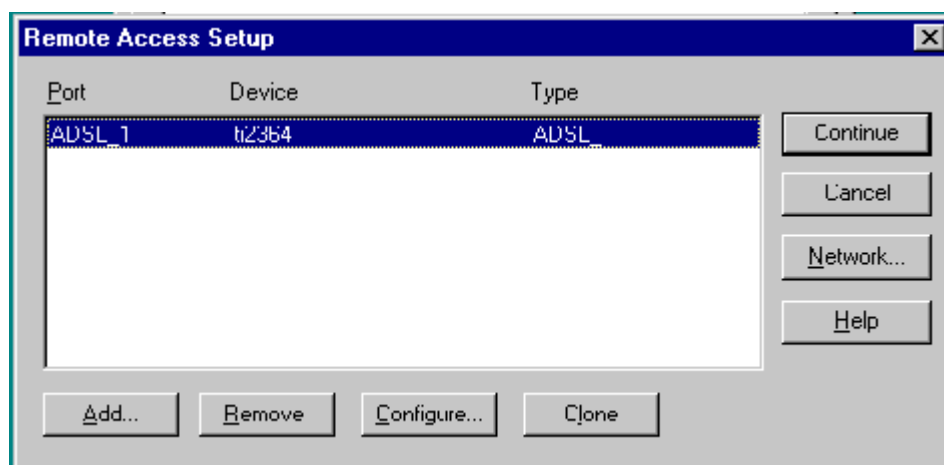
STEP 9



Click "OK".

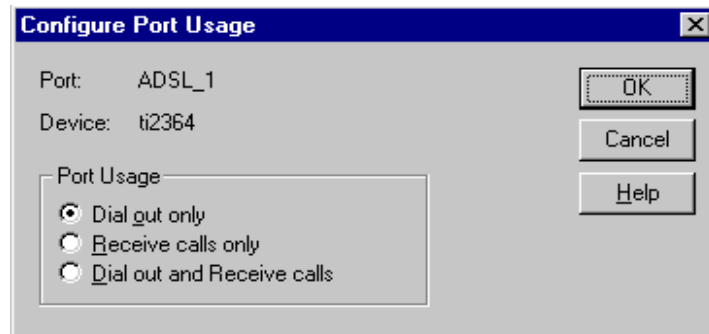
STEP 10

On the RAS Setup Window click on "Configure"



STEP 11

On the RAS Configuration Window, select the "Dial Out Only" option.

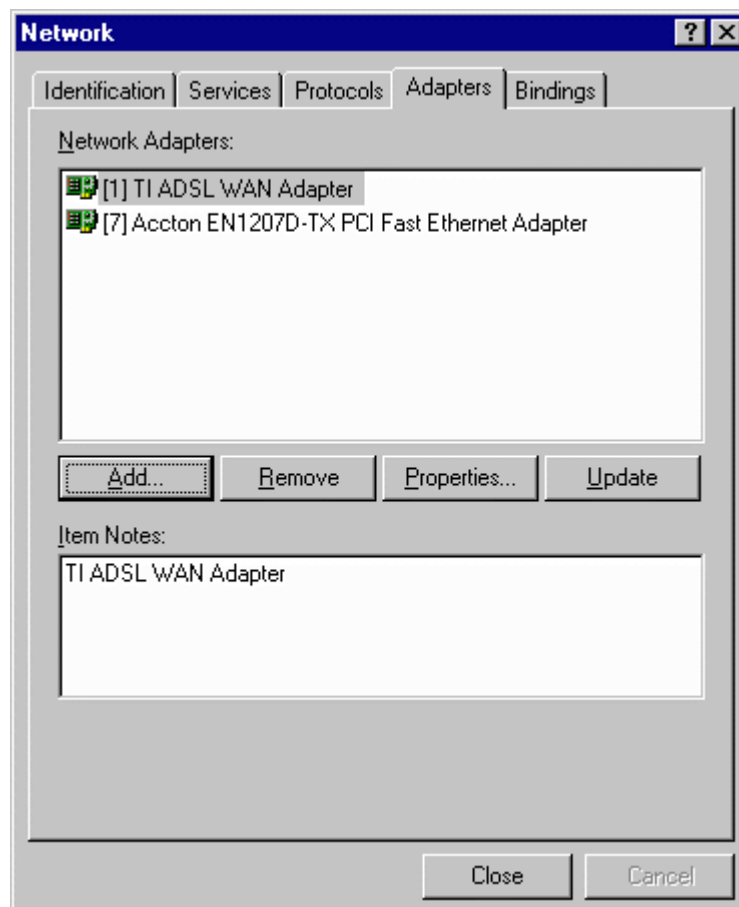


STEP 12

Highlight the "TI DSL LAN Adapter" if this is a LAN install

Highlight the "TI DSL WAN Adapter" if this is a WAN install

In either case, click the "Properties" button.



For later changes to modem configuration, see TI DSL modem
Configuration for NT4.

Configuring Services

For Windows NT 4.0


See Configuration Wizard for NT4 Section.

For Windows 98, Windows 98 SE, Windows Millennium, and Windows 2000

You will find a new icon on your desktop. It is the DSL Configuration Wizard icon. It will help you configure your DSL modem to properly match your ISP's requirements. Please see the Configuration Wizard section for help on configuring your modem.

Troubleshooting

What if the DSL monitor shows a modem error?

If the DSL monitor detects an error, the icon will be: 

If you move the mouse pointer over the icon it will show a description of the error, such as:



- If the error message is "Couldn't communicate with device":
 - If you have not yet configured the modem, proceed to the Configuration Wizard section to configure your DSL service and Internet access.
 - If you have already tried to configure the modem, try these options:
 - The card is not firmly seated in the PCI slot. You should power down the PC and remove the DSL modem card from the PCI slot. Then re-insert the card on the PCI slot and power the PC on.



- Try running Configuration Wizard again to see if it can set up modem.
- If previous install or configuration was interrupted, you may have to Uninstall and then reinstall the Software.
- Or the DSL card is broken. Please contact your customer service.

- If the error message is "Modem waiting for Tone", check these options:
 - Make sure that the telephone cord is plugged into the wall and into the correct jack on the DSL modem.
 - Check with DSL service provider to make sure that DSL is enabled on phone line.

What if I don't see the "Windows New Hardware Wizard" driver installation screen after I reboot?

If you do not see that screen, then Windows did not detect your DSL card. Possible reasons for this might be:

- You may have previously installed drivers for the DSL card. To check for this, right click on the "My Computer" icon on your desktop. Then select "properties". On system properties click on the "Device Manager" tab. Then click on the "Network adapter". Check to see if the TI DSL Modem appears in the list of network adapters. If it does not appear, see the next item in the troubleshooting list. If the card appears proceed to Install Configuration Tools for DSL Modem.
- The card is not firmly seated in the PCI slot. You should power down the PC and remove the DSL modem card from the PCI slot. Then re-insert the card on the PCI slot and power the PC on.
- Or the DSL card is broken. Please contact your customer service.

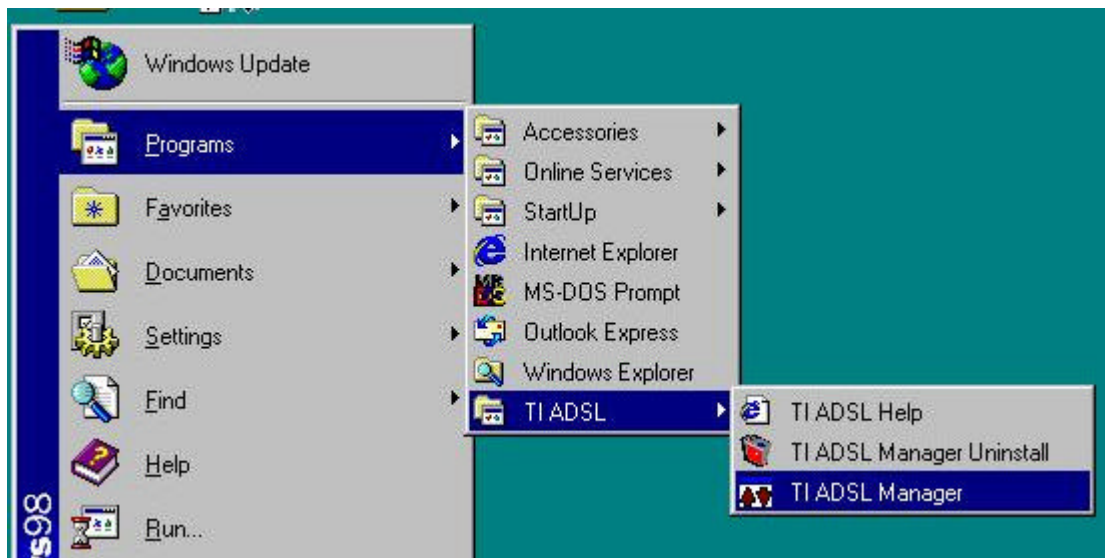
What if I bought my modem separately, and I do not have a disk or CD with the DSL modem configuration tools?

Please contact your modem supplier's customer support for information on how to obtain the configuration software for your DSL modem.

What if I bought my modem with my PC, but I can not find the DSL Modem Configuration Tools?

- First double check that the tools are not present.
 - Click on start button
 - Click on Programs
 - If you see a folder titled "TI ADSL" (similar to image below), the tools are already installed on the PC, you can proceed to DSL configuration.

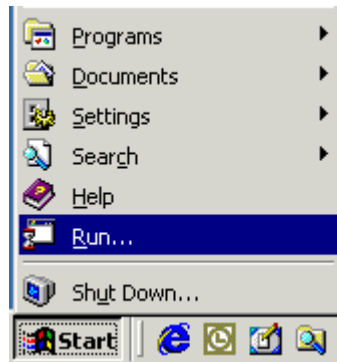
-
- If "TI ADSL" folder is not present, open Windows Explorer and look for the folder TI ADSL under Program Files in your local hard drive (C:).
- If you still cannot find the folder, you need to re-install the tools from the TI CD or contact your supplier customer support.



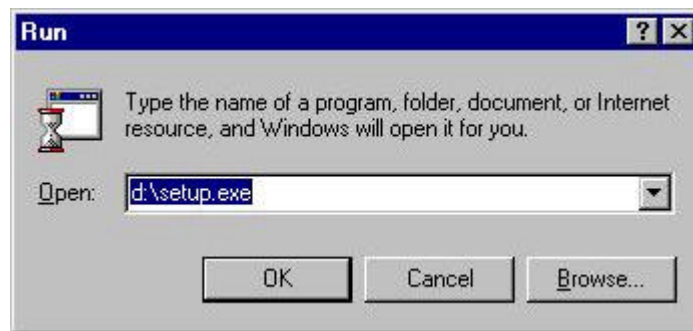
Installing the Configuration Tools for DSL Modem

If the modem came with the computer, you should **not need** to install the configuration tools, since these get installed along with your drivers. So proceed to the Configuration Wizard section to configure your DSL service and Internet access. If you need to reinstall tools for a modem that came with your computer, proceed to TI ADSL Tools Installer, and then proceed to the Configuration Wizard section to configure your DSL service and Internet access.

Click on "Start" Button (this will usually be on the lower left of the screen) and you will see the following Menu pop up.



Click on Run and the following Window will appear:



Insert the installation CD. Then in the edit box to the right of "Open:", type "[d:\setup.exe](#)",. if you are using the Bundled CD, otherwise enter "[d:\tool.ti\tiap5tm.exe](#)". If the CD is not drive "D", replace the leading "d" with the drive letter for the CD. Click OK and proceed to the Configuration Wizard section to configure your DSL service and Internet access.

TI ADSL Tools Installer.

If "TI ADSL" folder is not present, you may need to reinstall the TI ADSL Manager program. The folder should be in the Program Files folder of your local hard-drive.

To check if the folder is present or not:

- Click on "My Computer" icon in the desktop
- Click on "C" or whichever letter represents your local hard-drive
- Click on "Program Files" and look for the TI ADSL folder
- If you do find it, then you don't need to install the configuration tool again,

all you need to do is to launch the tool and configure it.

- If you do not find it, then you need to install the configuration tool from the CD-ROM.

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DSL Configuration Wizard

[Why do I need the DSL Configuration Wizard?](#)

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Why do I need the DSL Configuration Wizard?

The Configuration Wizard will help with your DSL service and ISP settings. Whether you are setting up your modem for the first time, or reconfiguring it to update the settings, the DSL Configuration Wizard is here to help you with your DSL connection to the internet.

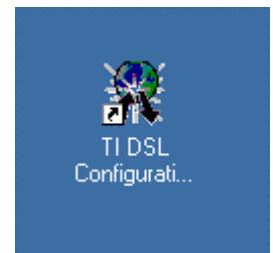
You have selected an internet service provider (ISP) to provide your access to the Internet. Every ISP requires a different setup for your DSL modem. The Configuration Wizard is here to help you get setup quickly and easily.

Getting Started

If your PC came with an DSL modem, you should see a configuration ICON on your desktop.

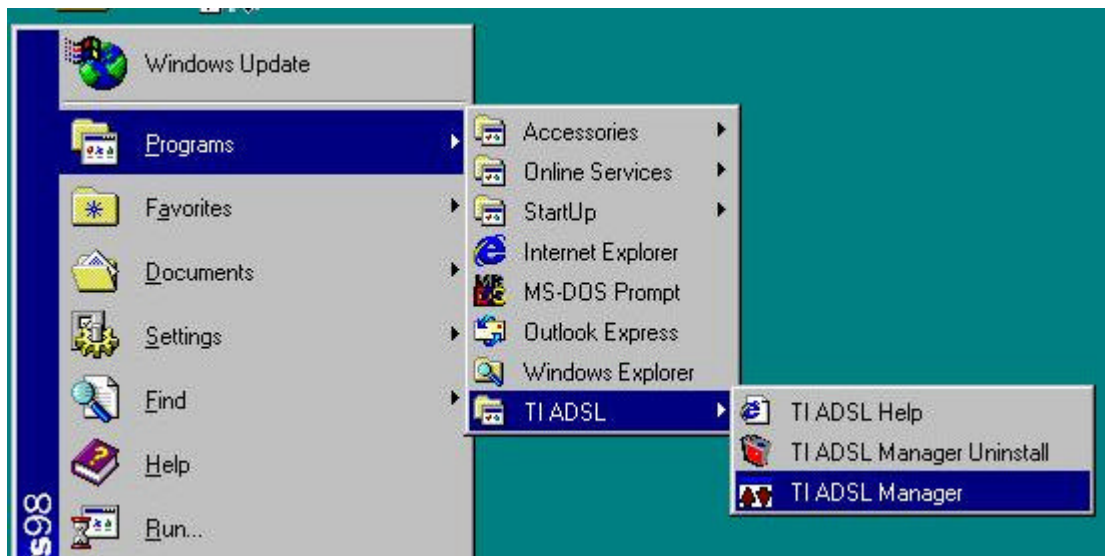
NOTE: The ICON itself looks like the one in the upper left hand sidecorner ("DSL Configuration Wizard") of the desktop screen example shown on the right.

To start configuring your DSL modem, simply double click the ICON and then do configuration.

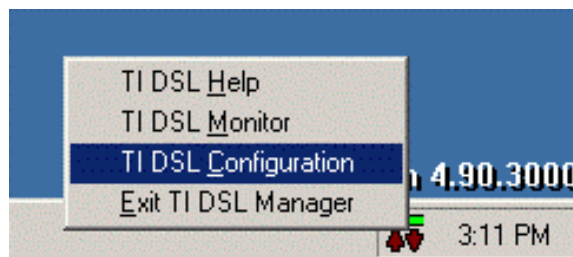


If the icon is not present and Configuration Tools have not been installed. Please go to Install Tools section.

If the tools have been installed, you may start the DSL Configuration Wizard by clicking on the "Start" button. Then click on "Programs", and then "TI DSL", and then "TI DSL Manager".

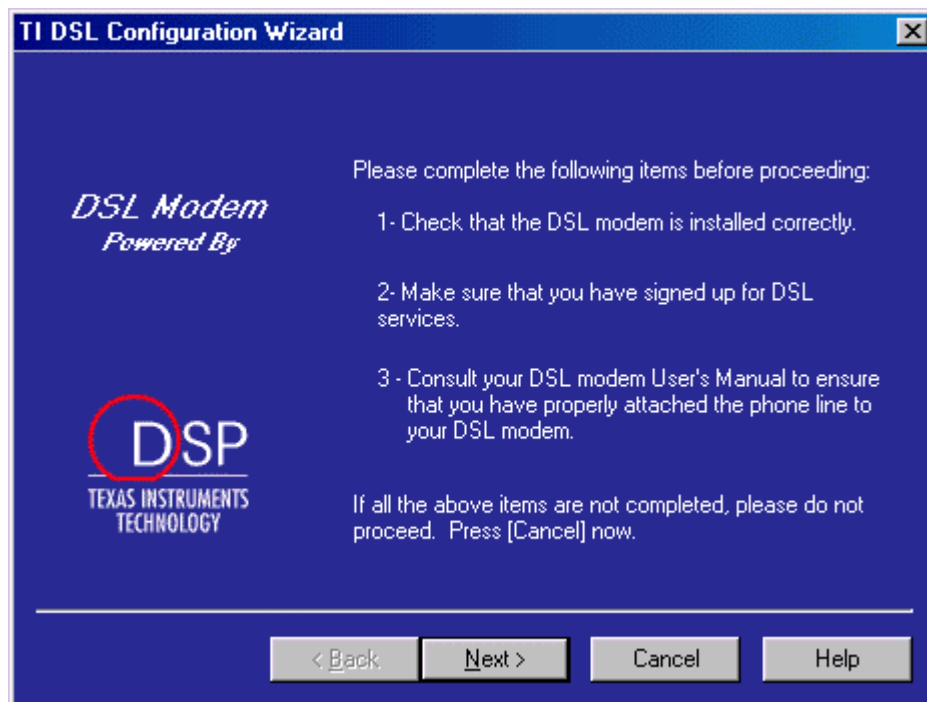


When the DSL Manager starts, you may start the Configuration Wizard by right clicking on the DSL Manager icon and then click on "TI DSL Configuration".



The first screen that you will see is a warning window. It is there to make sure that you have already setup an account with an internet service provider. When you setup your account, they should have provided you with some connection information that will be required during the configuration process.

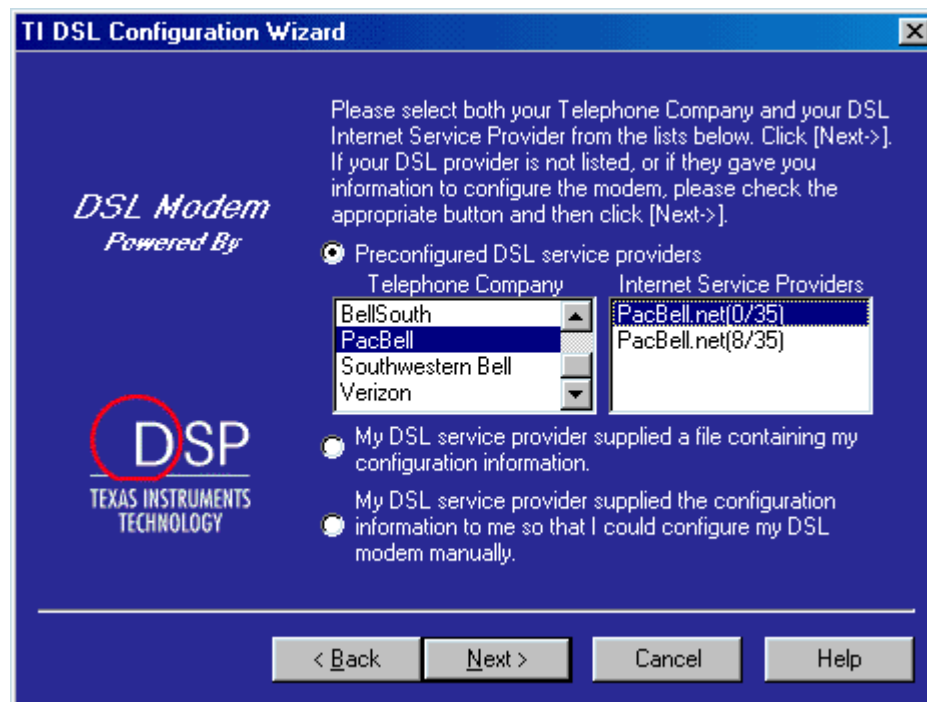
Warning: Before you proceed, please make sure that you have performed all three items mentioned in the wizard below.



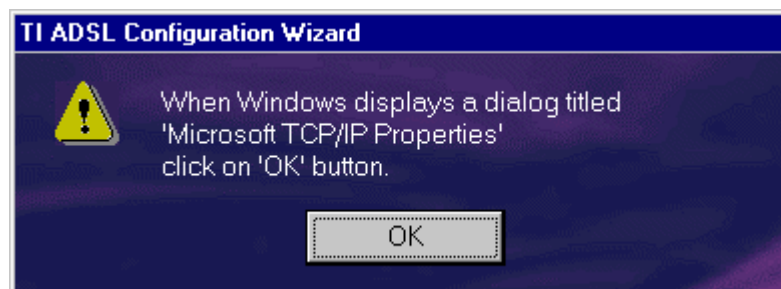
DSL Modem Configuration using a Pre Configured DSL Service Provider Service

In the example screen below, there are two lists. The list on the left is for your DSL service provider, and the the list on the right is for your internet service provider (ISP). Follow these steps:

- In case you are using a Pre configured DSL service provider. Select the first entry labeled **"Pre configured DSL service providers"**
 - Select your DSL provider by clicking on the name of your provider in list on the left hand side.
 - Select your ISP by clicking on the name of your ISP in the list on the right hand side.
 - Then click on the **"Next"** button. This will make the Configuration Wizard select the pre configure file and configure the DSL modem.
 - The DSL Configuration Wizard will then show you a window with a summary of your configuration. Press "Finish" to complete the settings.



- If the following dialog is displayed. Follow directions for 1483 install.

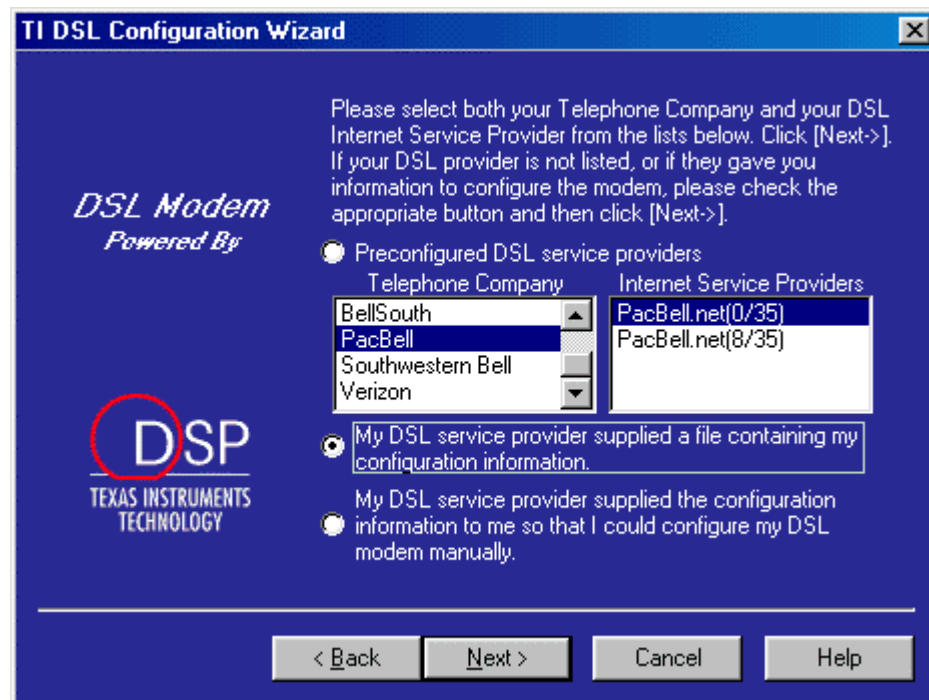


- Otherwise you will see the following dialog. Follow directions for 2364 install.

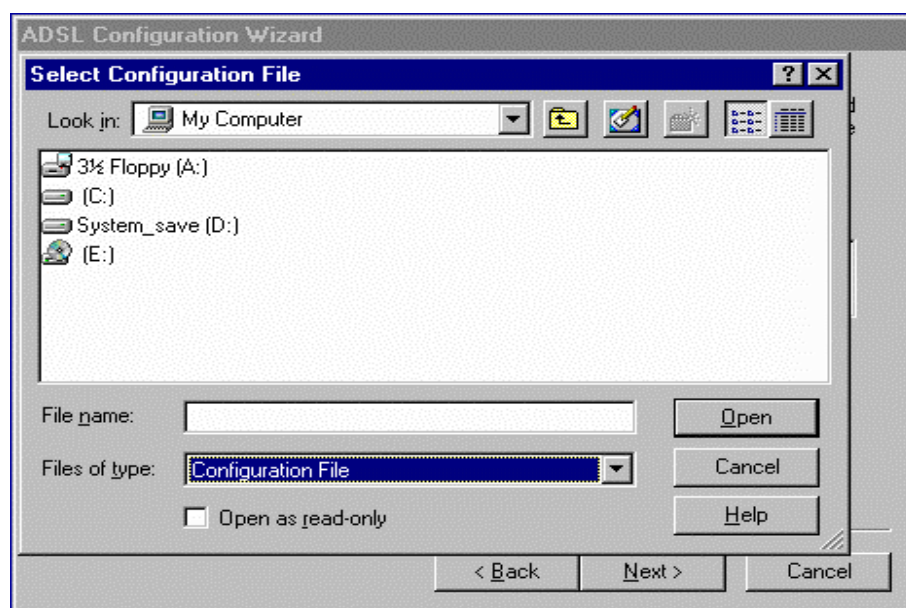


Configuration using a file provided by your service provider

- If you are using a file provided by an DSL service provider, click on the second option labeled: **"My DSL service provider supplied me with a file containing my configuration information"**.



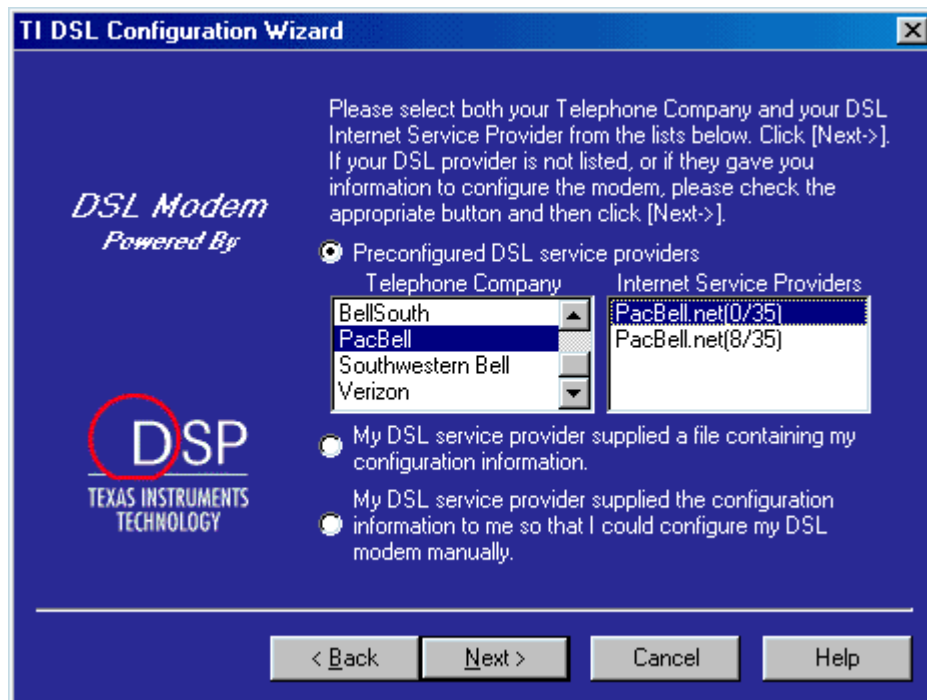
- Enter the directory path or disk driver where the configuration file supplied by your provider is located. Note it should be an .ATM extension file.



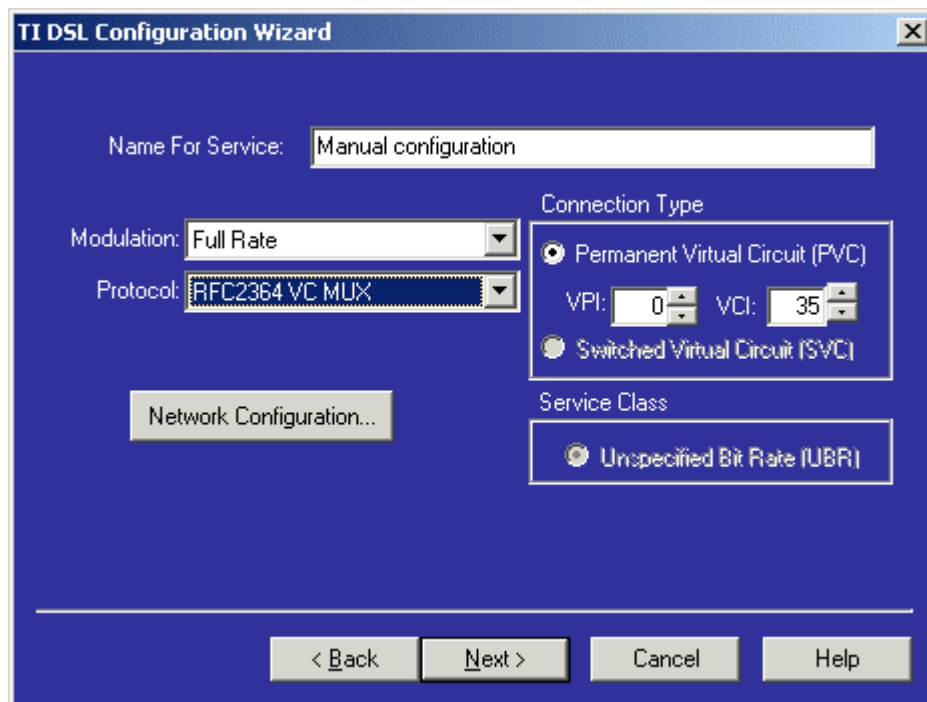
- The DSL Configuration Wizard will then show you a window with a summary of your configuration. Press "Finish" and go to final steps.

Manual Configuration of your DSL service

- If your DSL provider ISP is not listed on the two lists on the screen and you do not have a configuration file, you must enter the configuration information manually. Click on the third option.



- You must receive the DSL service and Internet Access information from your service provider.
- Follow DSL Configuration Wizard prompts to configure the DSL modem service.



The image shows a Windows-style dialog box titled "TI DSL Configuration Wizard". It has a blue background and a white border. The fields are as follows:

- Name For Service:** A text box containing "Manual configuration".
- Modulation:** A dropdown menu showing "Full Rate".
- Protocol:** A dropdown menu showing "RFC2364 VC MUX".
- Connection Type:** A group box containing two radio buttons:
 - ☒ Permanent Virtual Circuit (PVC)
 - ☐ Switched Virtual Circuit (SVC)
- VPI:** A spin box showing "0".
- VCI:** A spin box showing "35".
- Service Class:** A group box containing one radio button:
 - ☒ Unspecified Bit Rate (UBR)
- Network Configuration...** A button with a text label.
- Navigation buttons:** At the bottom, there are four buttons: "< Back", "Next >", "Cancel", and "Help".

Detailed description of the fields:

Follow these steps to configure your DSL service and Internet access. If you are configuring the service manually you should have obtained the information from your ISP and DSL service provider to insure that your service will be properly configured.

Name For Service:

Enter the names of your DSL & Internet service provider.

Modulation

The Modulation box refers to the type of DSL connection provided by your DSL service provider. The two options are:

- Full - Full rate DSL (G.992.1)
- G.lite - G.lite DSL (G.992.2)

You must consult with your DSL service provider to select the correct type of service.

Protocol

This item refers to the type of Internet connection that your ISP has selected for you. There are the following options:

- RFC-1483 LLC/SNAP - Ethernet over ATM

- RFC-2364 LLC/SNAP - PPP over ATM
- RFC-2364 VC Mux - PPP over ATM

You must select the option according to your DSL service provider and ISP requirements for your service.

Connection Type

There are two types of connections:

Permanent Virtual Circuit (PVC) - This is a permanent connection that requires two parameters to be established. The VPI and VCI fields.

- **VPI** - The Virtual Path Indicator can be set from 0 to 255. It is determined by your DSL service provider or your ISP. You must consult your service provider to obtain the correct value for your DSL service.
- **VCI** - The Virtual Channel Indicator can be set from 32 to 1023. It is determined by your DSL service provider or your ISP. You must consult your service provider to obtain the correct value for your DSL service.

Switched Virtual Circuit (SVC)

This type of connection is not currently being supported by the DSL service providers; therefore, it is disabled in your DSL modem software.

Service Class

Currently only UBR is supported.

UBR - Unspecified Bit Rate service. This is the most common type of service and does not offer any special features for Voice or video applications.

Network Configuration

The "Network Configuration" is a very important part of your Internet Access configuration. Your ISP and DSL service provider select the type of connection that you will have. Your connection is defined by a series of network parameters that allow your ISP to connect your modem to the Internet.

Your DSL connection is always on, meaning that you do not have to dial to the ISP as you would have with a regular modem (voice band modem). However, to access your ISP, you must configure your 56K modem in one of the following to modes:

1. PPP over ATM : This connection requires you to login the network by entering a user name and password every time you want to access the Internet. This Internet connection is also referred as RFC-2364.

2. Ethernet over ATM : This type of connection requires you to enter your user name and password only on the first time you connect your modem. After the first time, your modem is directly connected to the Internet when you power on your PC. This type of connection is also referred as RFC-1483. 1483 Configuration Directions

Network Configuration for PPP over ATM - RFC-2364

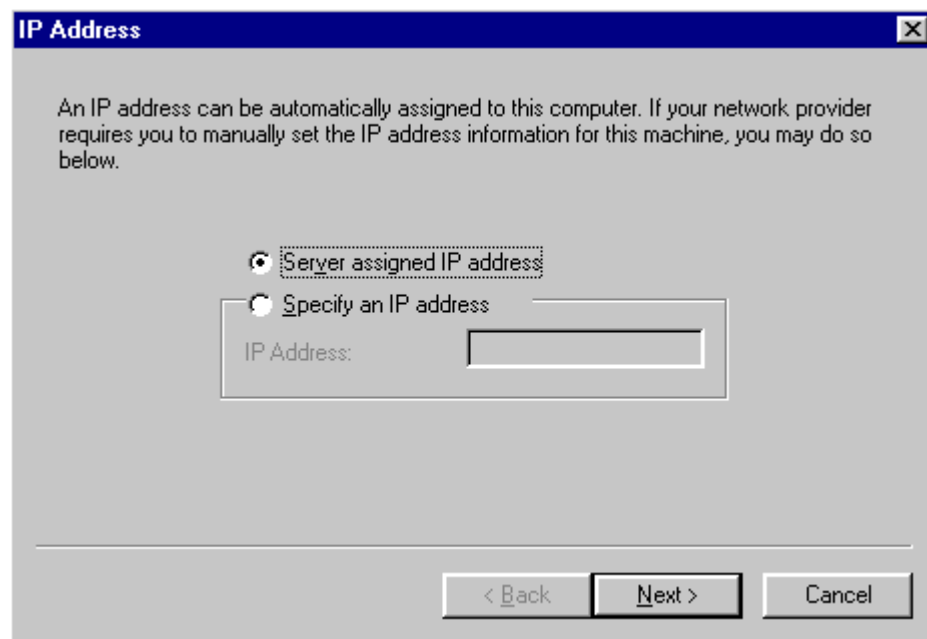
Follow the information in this section if your service provider has told you that you are using RFC-2364 (PPP over ATM) and has given you the Network Configuration information. You should be able to fill in the information using the Network configuration wizard. After selecting the information on each screen, click on the "Next" button to go to the next item.

IP Address Configuration Screen for PPP over ATM - RFC-2364

The IP Address of your computer can be configured by one of two ways:

1. Server Assigned IP Address: The server at your ISP will assign an address every time you login the network.

2. Specified IP Address: Enter the IP Address given by your ISP by selecting the option " Specify an IP address".



IP Address

An IP address can be automatically assigned to this computer. If your network provider requires you to manually set the IP address information for this machine, you may do so below.

☒ **S**erver assigned IP address

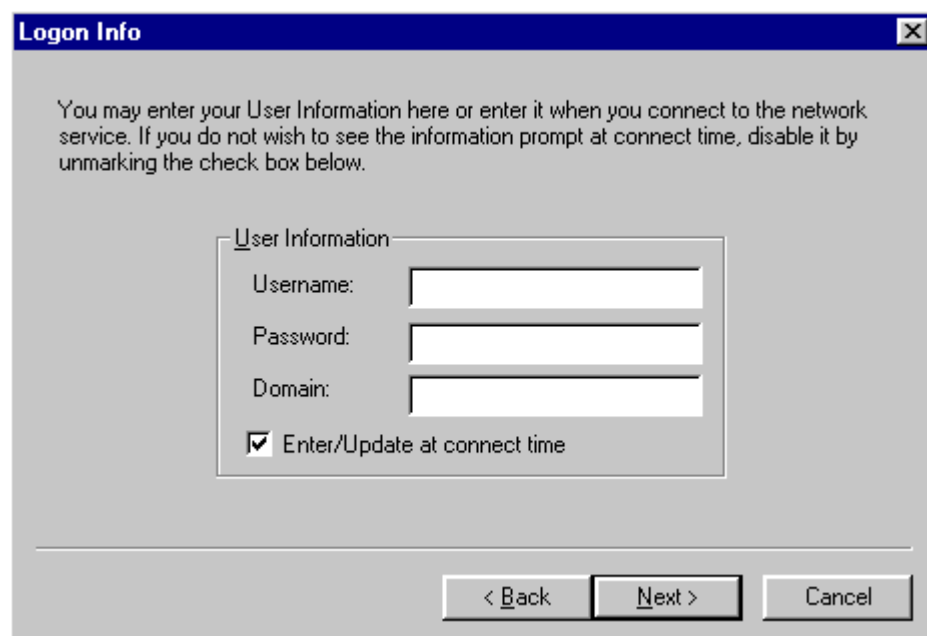
☐ **S**pecify an IP address

IP Address:

< Back Next > Cancel

Network Logon for PPP over ATM - RFC-2364

This screen allows you to enter the Username and password that you will use for your Internet access. Then, any subsequent time you want to connect to the internet you only have to press connect and your stored login information will be sent automatically to the the ISP.



Logon Info

You may enter your User Information here or enter it when you connect to the network service. If you do not wish to see the information prompt at connect time, disable it by unmarking the check box below.

User Information

Username:

Password:

Domain:

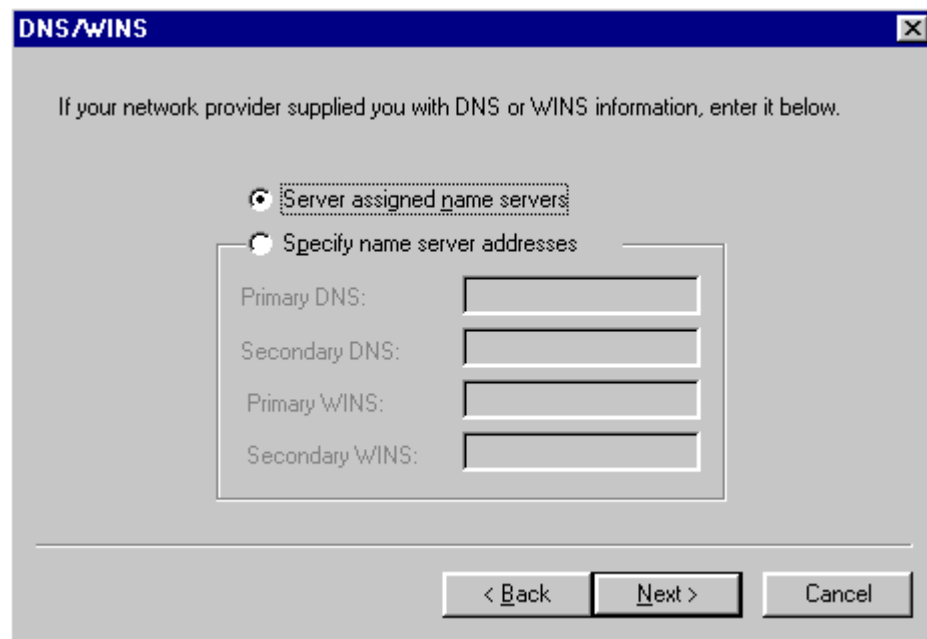
☒ Enter/Update at connect time

< Back Next > Cancel

DNS Configuration for PPP over ATM - RFC-2364

This screen allows you to configure the Domain Name Server (DNS) by one of two ways:

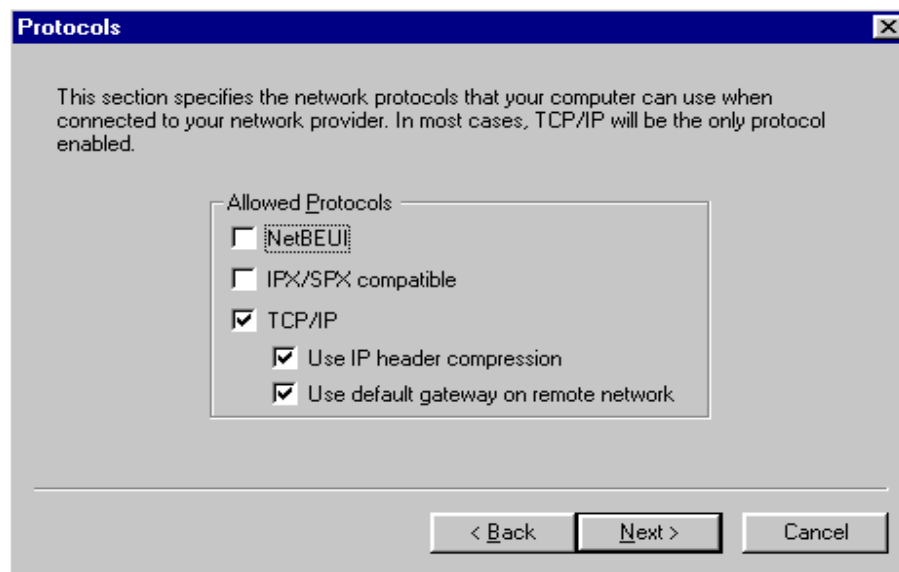
1. Let the server assign the DNS addresses.
2. Enter the address of the DNS machines given by your ISP.



The screenshot shows a window titled "DNS/WINS" with a close button in the top right corner. The main text reads: "If your network provider supplied you with DNS or WINS information, enter it below." There are two radio buttons: "Server assigned name servers" (which is selected) and "Specify name server addresses". Below the second radio button is a group box containing four text input fields labeled "Primary DNS:", "Secondary DNS:", "Primary WINS:", and "Secondary WINS:". At the bottom of the window are three buttons: "< Back", "Next >", and "Cancel".

Protocols Configuration for PPP over ATM - RFC-2364

Select the network protocols to be used by your modem by clicking on the check boxes. The following screen reflects the default settings of your modem.



Options Configuration for PPP over ATM - RFC-2364

This screen allows you to configure additional settings for the PPP connection as determined by your ISP. Select the appropriate boxes according to your ISP provided instructions.



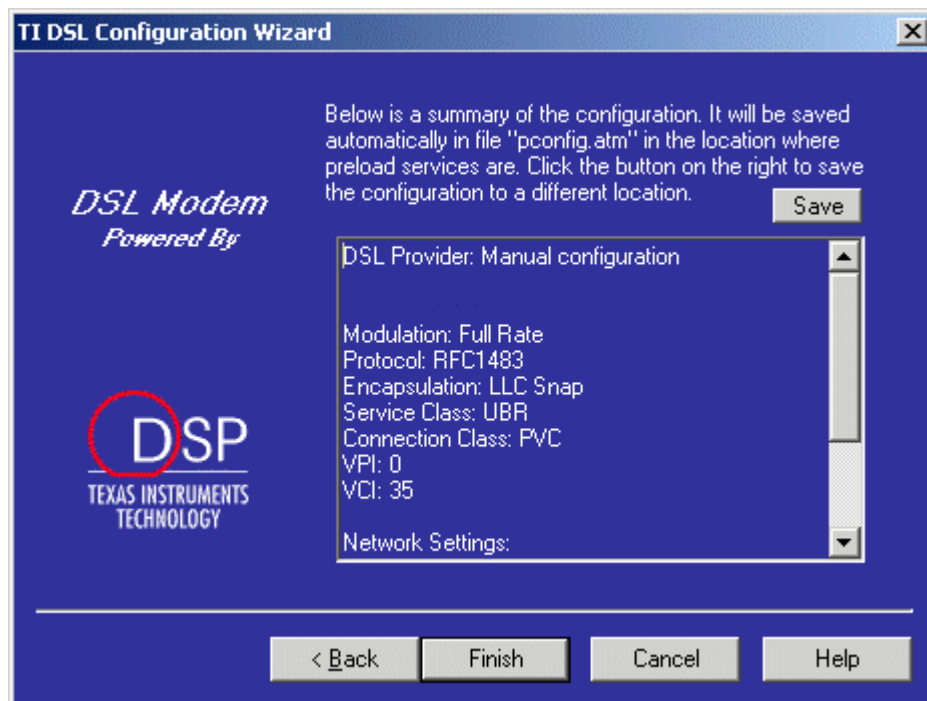
After selecting the options indicated by your ISP. Press the "Finish" button to complete the DSL service configuration.

Final Configuration Step for PPP over ATM - RFC-2364

DSL configuration Wizard will display a summary of the DSL service provider settings. Please review the settings to ensure they match the information to the configuration given to you by your service provider. If you find any differences, click on the "Back" button to fix any settings. If there are no remaining issues, click on the "Finish" button to complete the configuration. Windows will prompt you to reboot the machine. You must reboot the machine for the configuration to take effect.

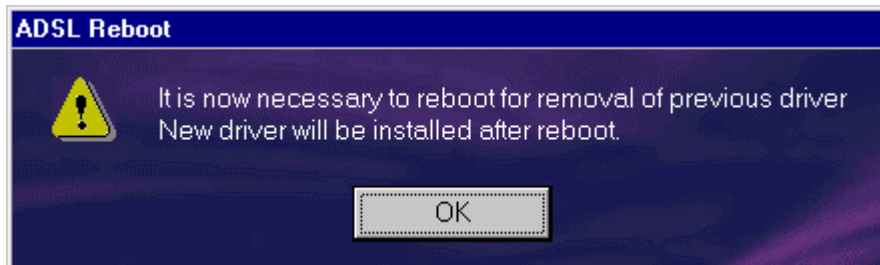
Manual Configuration Summary Window

The following screen is a sample configuration for an DSL service. Your service may have different settings depending on your specific type of DSL service.



Uninstall Prompt

If a different service had been previously setup up, You will then see the following dialog. Click on OK and wait for reboot. After the machine reboots, the 2364 driver installation will begin.



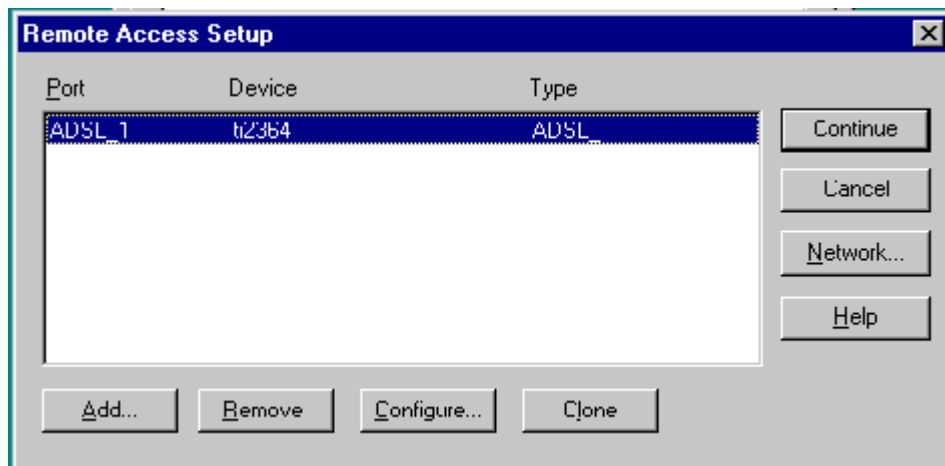
Setup Instructions Window

You will then see the following instructions.



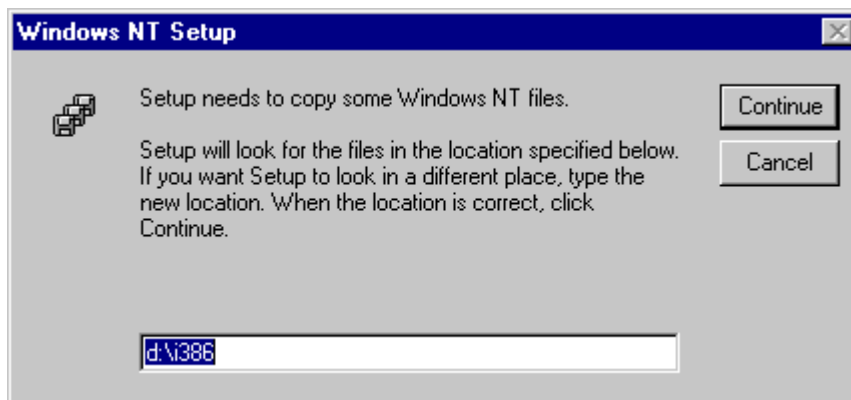
RAS Device List Window

If RAS devices have already been installed, you will see the following dialog. Click on the Add... button.



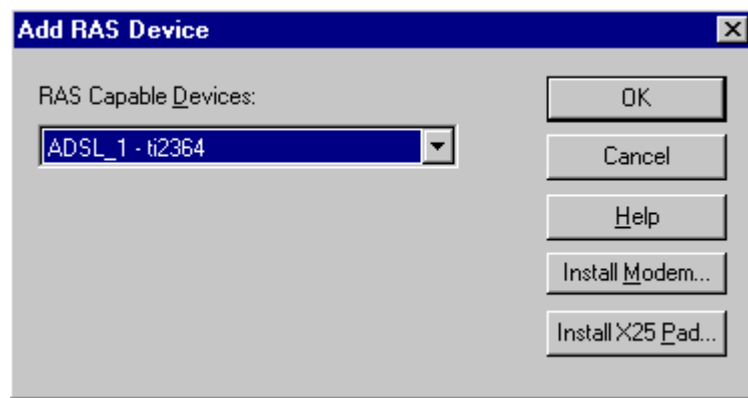
Prompt for Path Window

If RAS devices have not already been installed, you will see the following dialog. Make sure the path is correct for the install location. Typically you will just have to change the first letter to the drive for the CD and insert the Windows NT install CD. Then click on the Continue button.



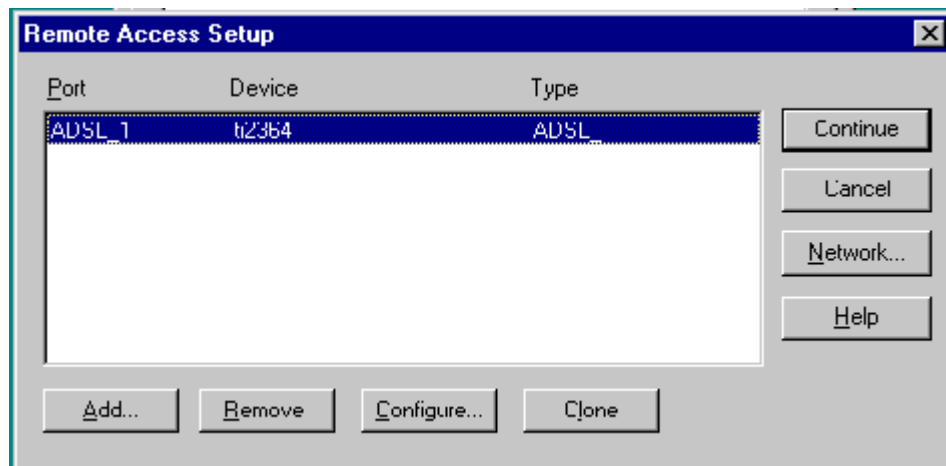
RAS Add Device Window

You should now see the following dialog. Under RAS Capable Devices make sure the DSL device is selected and click OK.



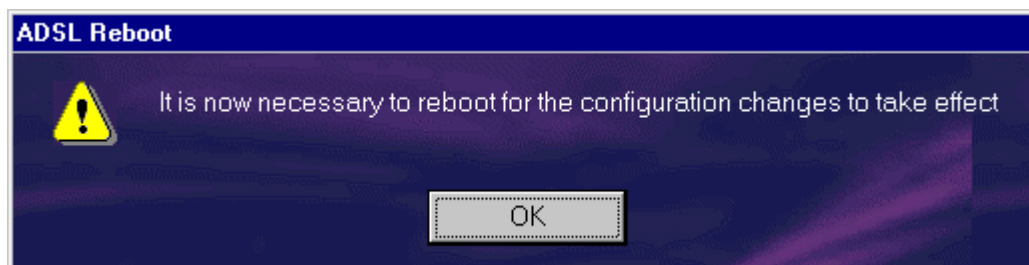
RAS Device List Window

Click on the Continue button.



Reboot To Complete Install Window

Click on the OK button and wait for reboot. After the computer reboots, the DSL modem configuration will be complete.



After the machine reboots you can view the DSL modem status by using the DSL Manager tool.

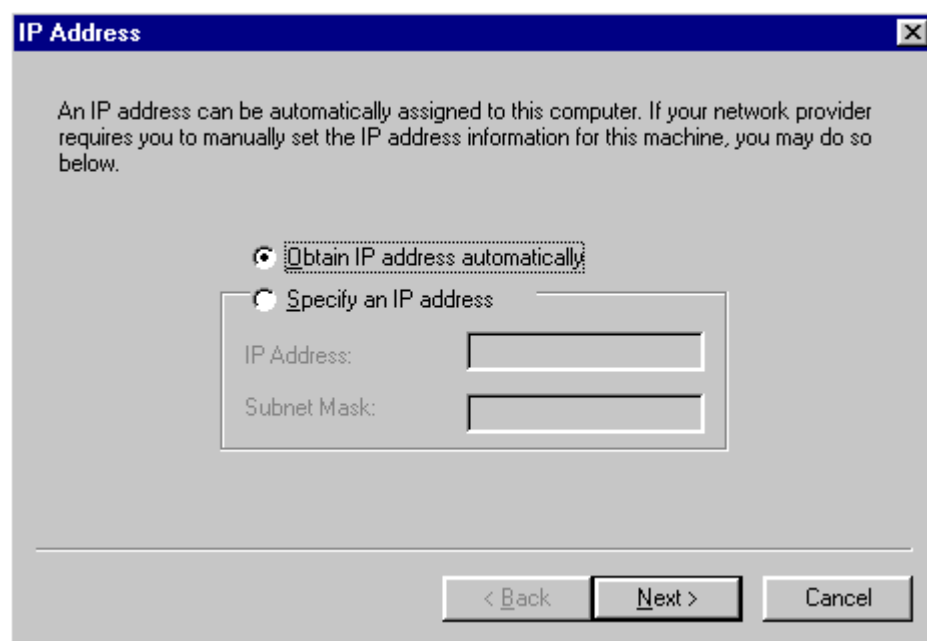
Network Configuration for Ethernet over ATM - RFC-1483

Follow the information in this section if your service provider has told you that you are using RFC-1483 (Ethernet over ATM). After obtaining the Network Configuration information from your Internet Service Provider (ISP). You should be able to fill in the information using the DSL configuration wizard. After selecting the information on each screen, click on the "Next" button to go to the next item.

IP Address Configuration for Ethernet over ATM - RFC-1483

The IP Address of your computer can be configured by one of two ways:

- 1. Server assigned IP Address:** The server at your ISP will assign an address every time you login the network.
- 2. Specific IP Address:** Enter the IP Address given by your ISP by selecting the option "Specify an IP address".

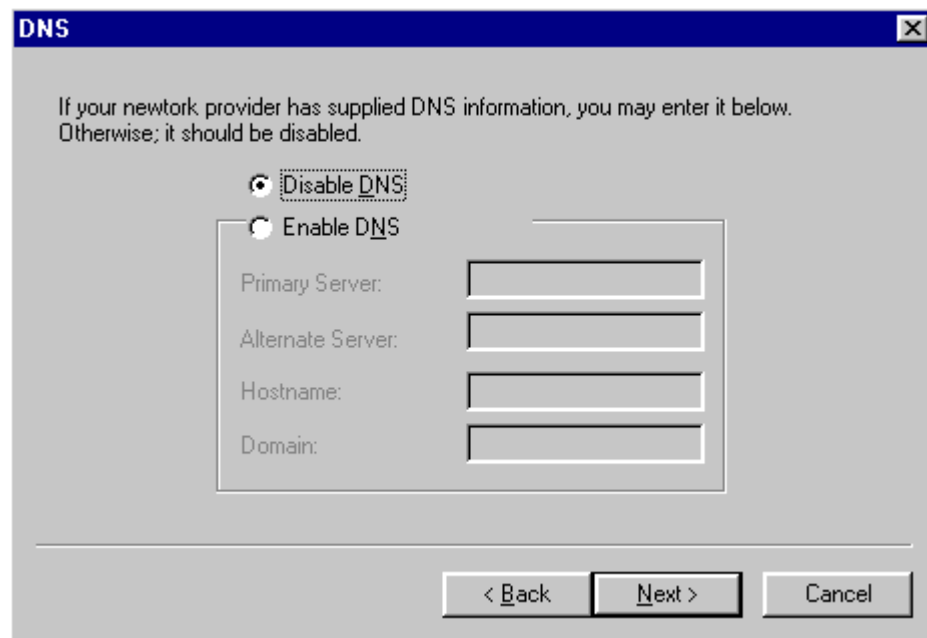


The screenshot shows a window titled "IP Address" with a close button in the top right corner. The main text reads: "An IP address can be automatically assigned to this computer. If your network provider requires you to manually set the IP address information for this machine, you may do so below." Below this text are two radio button options. The first option, "Obtain IP address automatically", is selected. The second option, "Specify an IP address", is unselected and is enclosed in a dashed rectangular box. Under the "Specify an IP address" option, there are two text input fields: "IP Address:" and "Subnet Mask:". At the bottom of the window, there are three buttons: "< Back", "Next >", and "Cancel".

DNS Configuration for Ethernet over ATM - RFC-1483

This screens allows you to configure the Domain Name Server (DNS) by one of two ways:

1. Let the server assign the DNS addresses.
2. Enter the address of the DNS machines given by your ISP.

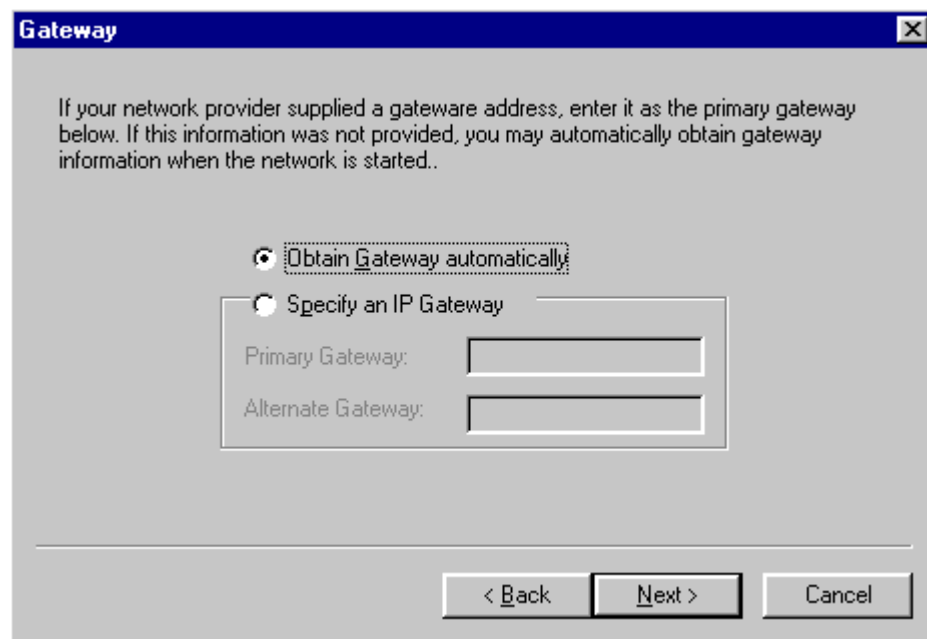


The screenshot shows a window titled "DNS" with a close button in the top right corner. The text inside the window reads: "If your network provider has supplied DNS information, you may enter it below. Otherwise, it should be disabled." Below this text are two radio buttons: "Disable DNS" (which is selected) and "Enable DNS". To the right of the "Enable DNS" radio button is a rectangular box containing four input fields labeled "Primary Server:", "Alternate Server:", "Hostname:", and "Domain:". At the bottom of the window are three buttons: "< Back", "Next >", and "Cancel".

Gateway Configuration for Ethernet over ATM - RFC-1483

You can configure the Gateway for your ISP by one of two ways:

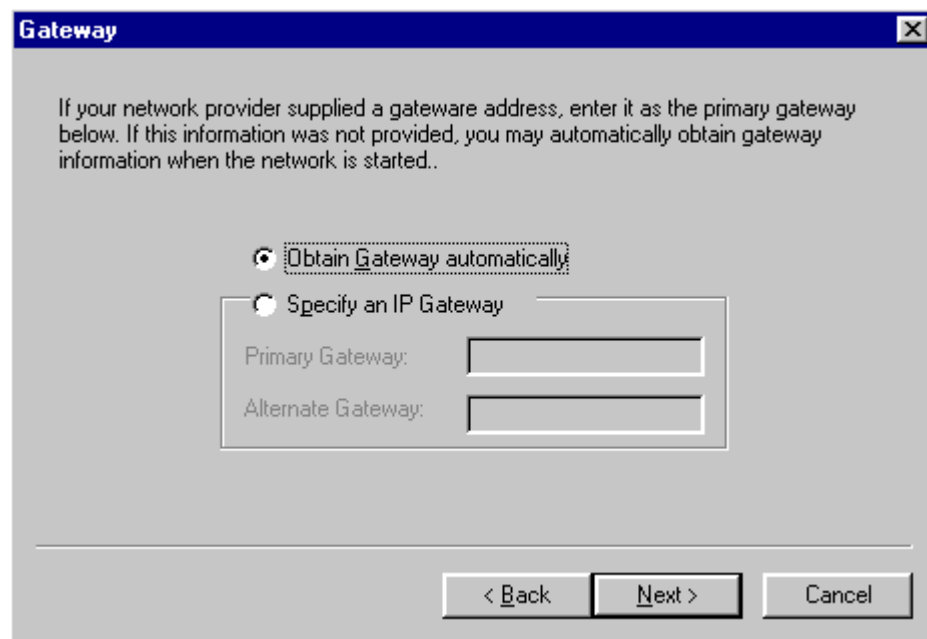
1. Let your ISP automatically select a Gateway to your DSL modem when you connect your modem to the ISP network.
2. Enter the addresses of the Primary and Alternative gateways provided by your ISP.



WINS Configuration for Ethernet over ATM - RFC-1483

You can configure the WINS (Windows Internet Name Server) setting by one of three ways:

1. Disable the WINS : select this option if your ISP does not use this function.
2. Enabling WINS resolutions and entering the addresses provided by your ISP for the primary, secondary and scope ID.
3. You can let the DHCP server handle WINS by entering the address of this server as specified by your ISP.



Final Configuration Step for Ethernet over ATM - RFC-1483

DSL configuration Wizard will display a summary of the DSL service provider settings. Please Review the settings to ensure they match the information to the configuration given by your service provider. If you find any differences, click on the "Back" button to fix any settings. If there are no remaining issues, click on the "Finish" button to complete the configuration.

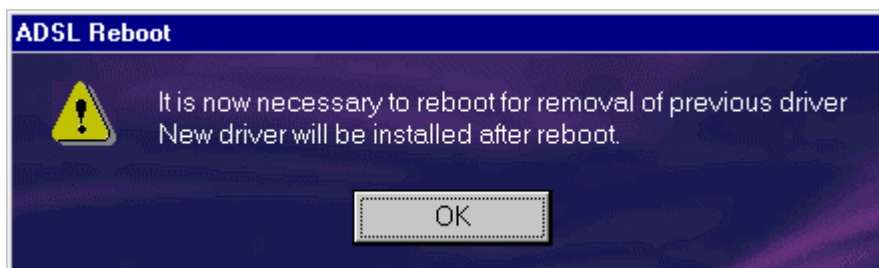
Manual Configuration Summary Window

The following screen is a sample configuration for an DSL service. Your service may have different settings depending on your specific type of DSL service.



Uninstall Prompt

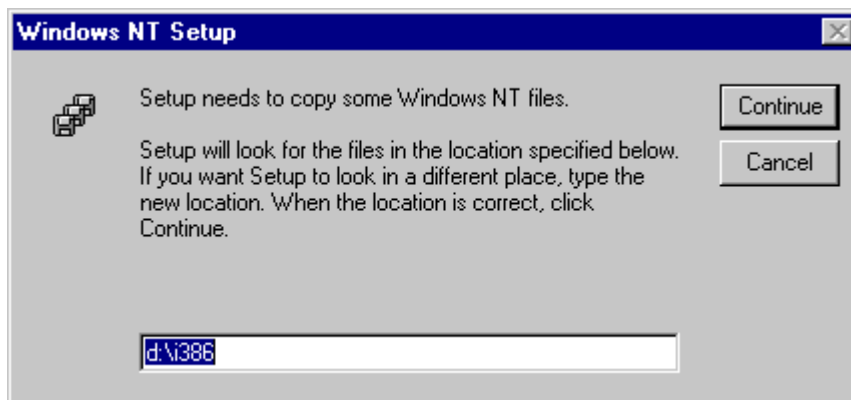
If a different service had been previously setup up, You will then see the following dialog. Click on OK and wait for reboot.



After the machine reboots, the RFC-1483 driver installation will begin.

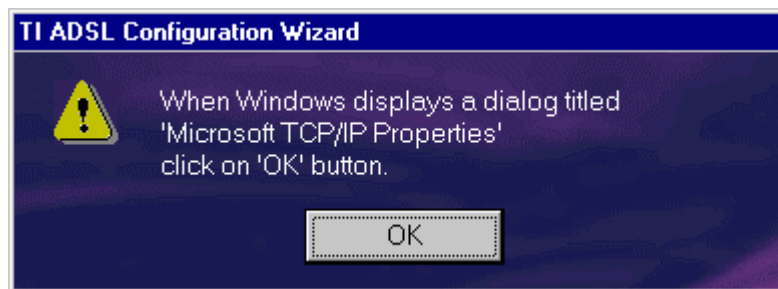
Prompt for Path Window

If you see the following dialog, make sure the path is correct for the install location. Typically you will just have to change the first letter to the drive for the CD and insert the Windows NT install CD. Then click on the Continue button.



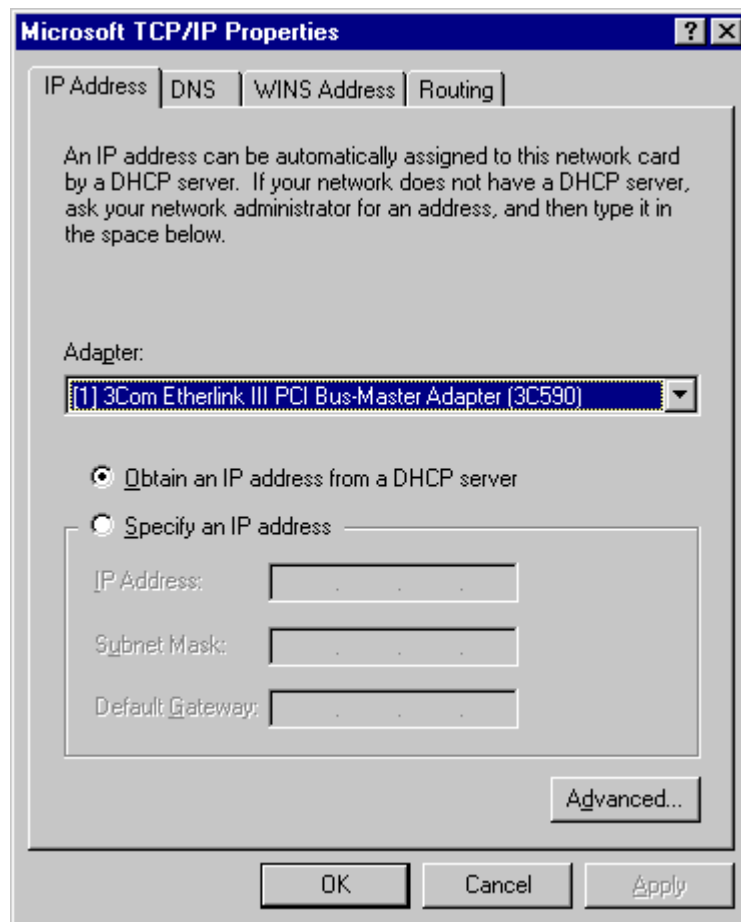
Setup Instructions Window

You will then see the following instructions.



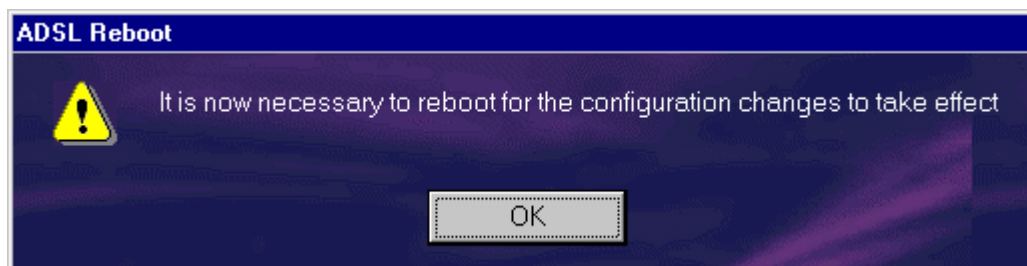
TCP/IP Properties Window

You will then see the following dialog. Click on OK.



Reboot Instructions Window

You will then see the following instructions. Click on OK and wait for reboot. After reboot the RFC-1483 driver installation will be complete.



After the machine reboots you can view the DSL modem status by using the DSL Manager tool.

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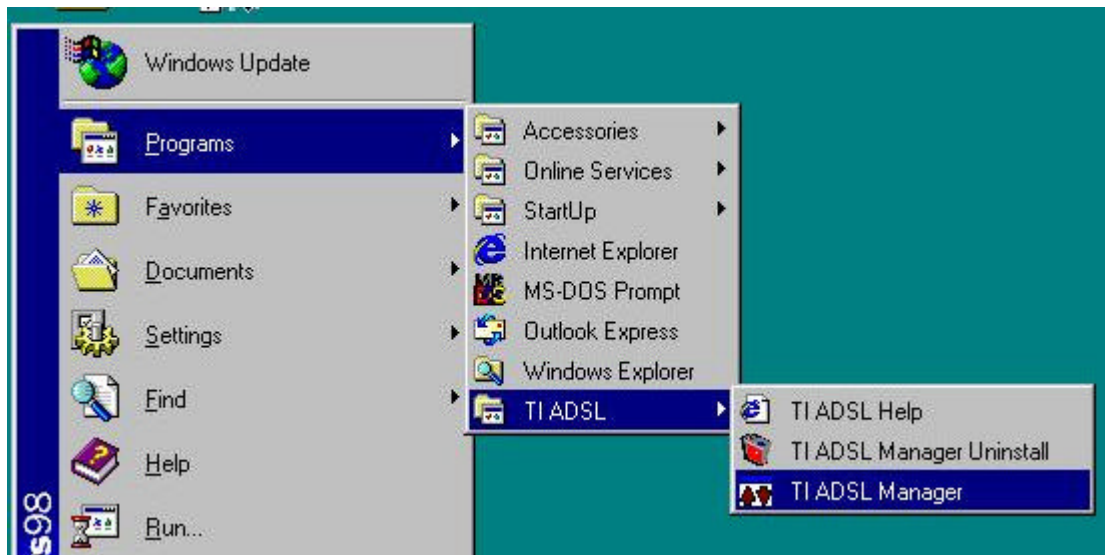
DSL Manager Tool

DSL Manager Tool

The DSL Manager tool provides information on the performance of the modem, your DSL service configuration, and status information on DSL line. This information can be use in troubleshooting your DSL service.








Accessing the DSL Manager Tool

You can access the DSL manager tool by clicking on the **Start Menu** by selecting the DSL Manager as shown in the picture below:



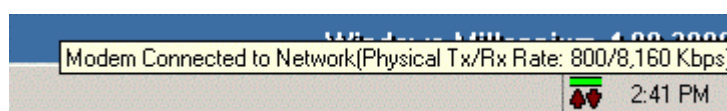
Also you may access the DSL Manager tool by double-clicking on the DSL Manager Icon in the Task bar at the lower right hand corner of the screen.

By placing the mouse arrow over this icon, you can obtain more specific status information on the modem. The pictures below indicate different network level status messages:

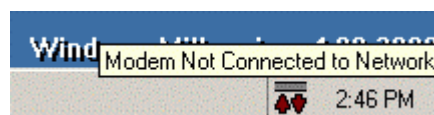
	Modem is functioning but not trained
	Modem is training
	Modem is trained, but data not currently being transferred
	Currently Transmitting and Receiving Data
	Currently Transmitting Data
	Currently Receiving Data
	Modem is not working properly. See troubleshooting section

The following message appears when the following conditions have occurred:

1. Your DSL modem has connected to the DSL service provider modem.
2. The DSL modem is connected to the ISP network.



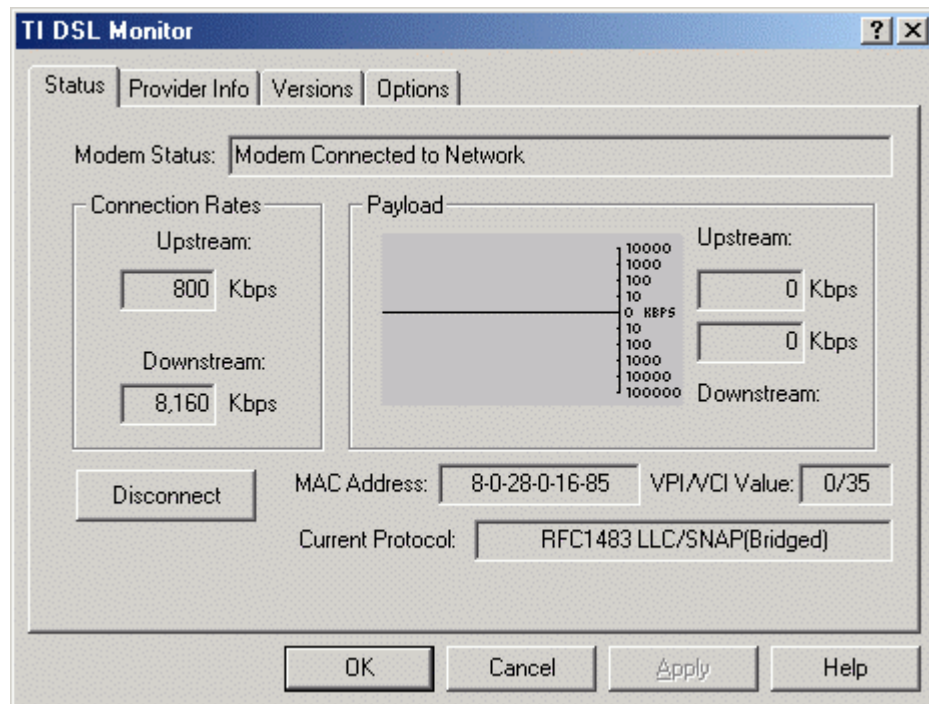
When your DSL modem is not connected to the ISP network, the following message appears:



Accessing More Information with the DSL Manager tool

Status Tab

The user reaches the "DSL Monitor" screen by either clicking twice on the symbol, or right-clicking once and choosing the monitor option. The picture below shows the "status" tab.



- **Modem Status**

- Modem Training - indicates the modem is not trained
- Modem Not Connected to Network - indicates the modem is not trained and Not connected to network
- Waiting for tone - This message means that your DSL modem has not synchronized to the DSL service provider modem and that there may be a problem with the modem configuration or the DSL line.
- Disconnected by User - User has selected to disconnect from ISP.
- Need to do TI DSL Configuration - Need to configure modem. Please run the Configuration Wizard.
- Couldn't Communicate with device - Device error. See troubleshooting section.

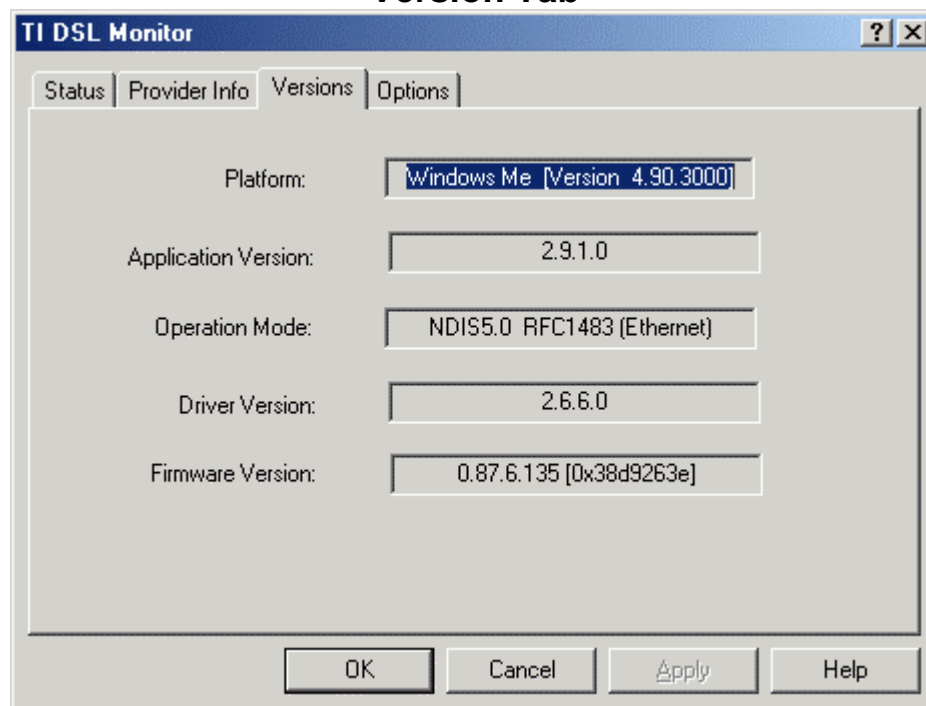
- **Connection Rates**

- Upstream direction is the maximum data rate that this DSL link can provide in the direction of the ISP network to the PC. This does not mean the payload data rate is up to this value. See Payload rates.
- Downstream direction is the maximum data rate that this DSL link can provide in the direction of the PC to the ISP network.

- **Payload Rates**

- The word payload refers to the actual data being carried over the DSL connection.
- The graph shows the amount of data in bytes being transmitted in the upstream and downstream direction.
- Upstream box indicates the number of bytes being transmitted in the direction of the PC to the network.
- Downstream box indicates the number of bytes being transmitted in the direction of the network to the PC.

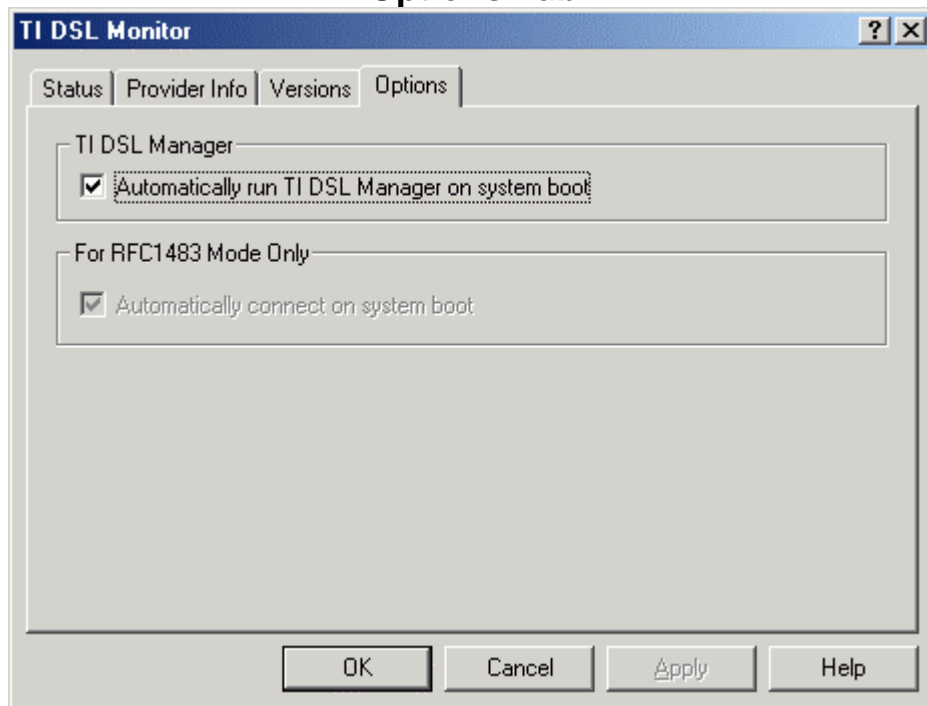
Version Tab



This tab provides the current operation mode and version numbers for the following:

- Platform : (Operating System Version)
- Application Version: (the montior tool version)
- Operation Mode: (Protocol used for connection)
- Driver Version
- Firmware Version

Options Tab



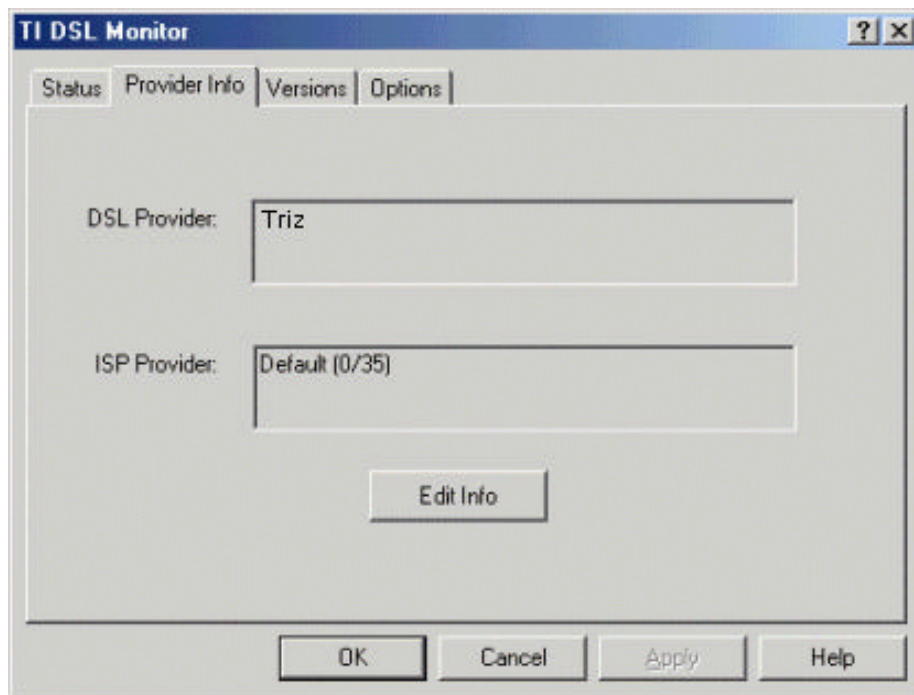
This tab provides general options such as

- TI DSL Manager

Automatically run TI DSL Manager on system boot. Checking this option enables the DSL monitor each time you boot the system, causing the icon to appear in the lower right corner. Default is ON.

- RFC-1483 Mode Only - *reserved for future use.*

Provider Info



The image shows a Windows-style dialog box titled "TI DSL Monitor". It has a tabbed interface with four tabs: "Status", "Provider Info" (which is selected), "Versions", and "Options". Inside the "Provider Info" tab, there are two text input fields. The first is labeled "DSL Provider:" and contains the text "Triz". The second is labeled "ISP Provider:" and contains the text "Default (0/35)". Below these fields is a button labeled "Edit Info". At the bottom of the dialog box, there are four buttons: "OK", "Cancel", "Apply", and "Help".

- **DSL Provider**

The name and phone number of the DSL service provider.

- **ISP Provider**

The name and phone number of the Internet Service Provider.

The button labeled "Edit Info" allows you to update the providers' names and phone numbers if they change.

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Uninstall Your Modem

[Removing Software](#)

[Removing Hardware](#)

How to Uninstall Your Modem

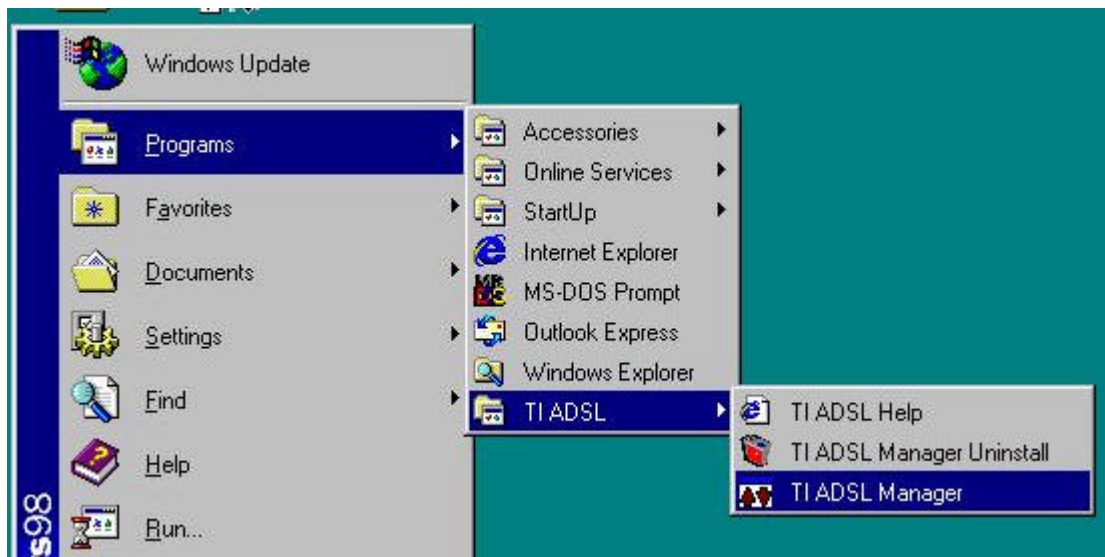
Removing the Software

The DSL Modem provides a utility to uninstall the software drivers and TI DSL software tools from the PC. This section describes the operation of the uninstall utility.

STEP 1

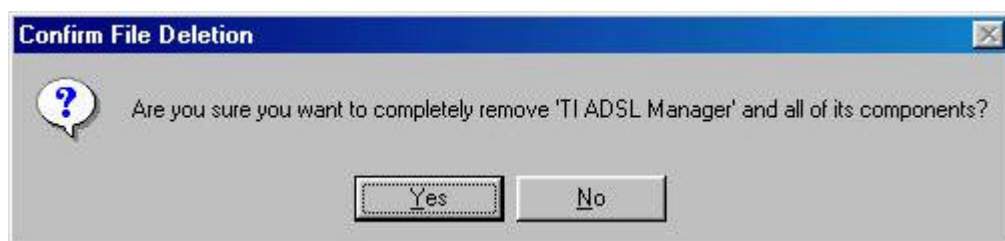
Select the Uninstall program.

To do this select **Start -> Programs -> TI ADSL -> TI ADSL Manager Uninstall**.



STEP 2

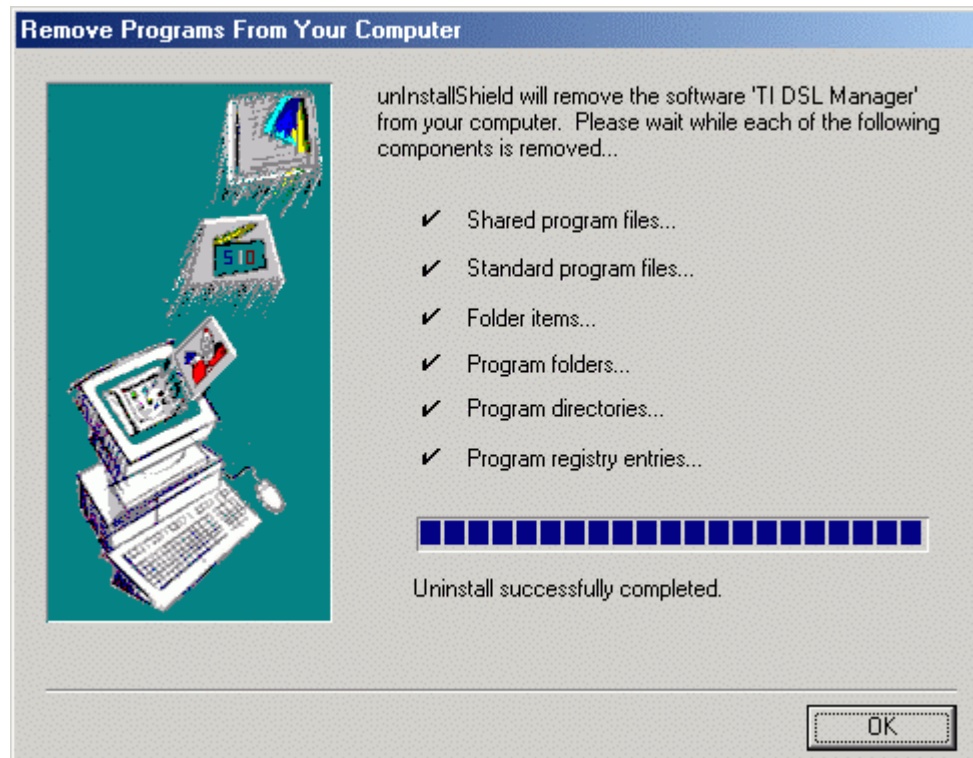
Before starting the actual uninstall process, the ADSL Modem manager asks the user to confirm the option of uninstalling the modem software.



STEP 3

Uninstall Completed

After the uninstall process is successfully completed, the following message will be displayed.



LAST STEP

At the end of the process click OK to continue to use the PC. If you want to remove the TI DSL modem, see the Removing Hardware.

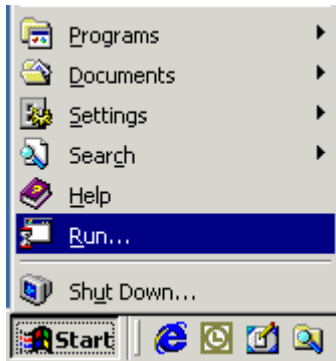
Reinstalling the Software

If you wish to reinstall the Software, you need to locate the install program. If you bought your modem separate from your computer, you will have a CD with the install program. Proceed to Installing from CD section.

If you bought the modem with the computer, you may not have a CD for the modem. In this case, the install program is stored on your computer. Proceed to Searching for Install Program section. And then go to restoring configuration section.

Installing from CD

Click on "Start" Button (this will usually be on the lower left of the screen) and you will see the following Menu pop up.



Click on Run and the following Window will appear:



- Insert the configuration CD.
- Then in the text box, type "d:\setup.exe" if bundled installation CD is being used or "d:\tool.ti\tiap5tm.exe" if you have a standard CD installation. If the CD is not drive "D", replace the leading "d" with the drive letter for the CD.
- Click OK.

Restoring Configuration

If you had previously configured the modem and want to restore that configuration, go to Configuration Wizard using **"DSL Modem Configuration using a Pre Configured DSL Service Provider Service"** section.

Otherwise use the Configuration Wizard section to set up a new configuration.

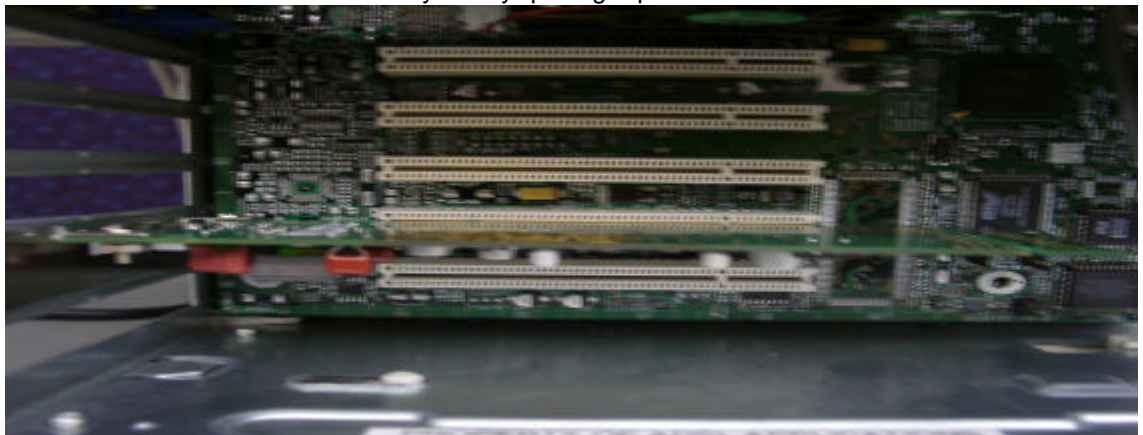
Removing the Hardware

Now that the software has been removed from the system, the last step is to physically remove the DSL modem from your computer. Please follow the instructions below to remove the modem:

1. Shut down your PC and unplug it from the power source.
2. Remove the cover of the system chassis.
3. Remove the adapter from the PCI bus slot.
4. Identify your DSL modem card. It is the card marked "ADSL" with a Green LED, and two RJ-11 jacks on the back of the card. Click here for picture.



5. Unscrew and remove the card by firmly pulling up on the card with both hands.



6. Replace the chassis cover, plug the system back in, and apply power to the machine.
7. Turn on the machine.

Note: To install a new DSL modem, refer to the installation section of the help file.

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DSL Glossary

DSL Glossary

100Base-T

A 100 Mbps LAN that maintains backward compatibility with 10Base-T networks running at 10 Mbps.

10Base-T

A 10 Mbps Ethernet LAN which runs over twisted pair wiring. This network interface was originally designed to run over ordinary twisted pair (phone wiring) but is predominantly used with Category 3 or 5 cabling.

Access Line

The physical telecommunications circuit connecting an end user location with the serving central office. Also called the local loop or "last mile."

Access Network

That portion of a public switched network that connects access nodes to individual subscribers. The Access Network today is predominantly passive twisted pair copper wiring.

Access Nodes

Points on the edge of the Access Network that concentrate individual access lines into a smaller number of feeder lines. Access Nodes may also perform various forms of protocol conversion. Typical Access Nodes are Digital Loop Carrier systems concentrating individual voice lines to T1 lines, cellular antenna sites, PBXs, and Optical Network Units (ONUs).

Access Rate

The transmission speed of the physical access circuit between the end user location and the central office. This is generally measured in bits per second; also called Access Speed.

Adapter Card

Circuit board or other hardware that provides the physical interface to a communications network; an electronics board installed in a computer which provides network communication capabilities to and from that computer; a card that connects the Data Termination Equipment to the network. Also known as a Network Interface Card.

DSL (Digital Subscriber Line)

An ANSI standard developed by the Alliance for Telecommunications Industry Solutions (ATIS) T1E1.4 committee and finalized in 1995 which defines a high-speed modem capable of transmitting data over twisted pair copper wires. The I TU recommendation G.992.1 for a physical layer implementation of an Asymmetric Digital Subscriber Loop

(ADSL) line using G.DMT line coding. The data rates from the network to the modem are up to 8 Mbps and from the modem to the network up to 800 Kbps. The data rate varies according to the distance from the customer house and the central office modem. The DSL service provider specifies the type of service being provided.

DSL Provider

The company that supplies your DSL service, typically your local telephone company.

Always On

Current dial-up services require the user to "make a call" to the ISP. The connection is only active during the duration of the call. Most xDSL implementations (including DSL, VDSL, and SDSL) enable the connection to be always on in a fashion similar to a LAN.

APON (ATM Passive Optical Network)

A passive optical network running ATM.

ATM (Asynchronous Transfer Mode)

An ultra high speed cell based data transmission protocol which may be run over DSL. This connection-oriented, packet switching technology utilizes virtual channels instead of dedicated circuits to carry data in fixed-length (1 cell = 53 bytes) over a broadband network.

ATM25

ATM Forum defined 25.6Mbit/s cell based user interface based on IBM token ring network.

Attenuation

The dissipation of the power of a transmitted signal as it travels over the copper wire line.

ATU-C and ATU-R (DSL Transmission Unit, Central or Remote)

The device at the end of an DSL line that stands between the line and the first item of equipment in the subscriber premises or telephone switch. It may be integrated within an access node.

Backbone

That part of a network which is used as the main path for carrying traffic between network endpoints.

Bandwidth

This is a reflection of the size or the capacity of a given transmission channel.

Baud

Transmission rate of a multilevel-coded system when symbols replace multiple bits. Baud rate is always less than bit rate in such systems.

BDSL

Same as VDSL.

Binder Group

Cable pairs are typically arranged under the cable sheath in binder groups. The binder is a spirally wound colored thread or plastic ribbon used to separate and identify cable pairs by means of color-coding. The enclosed pair group is called a binder group. The groups are composed of insulated twisted copper pairs that are also twisted within each binder. Typically they are wrapped in 25 pair bundles. For example, pairs 1-25 might be in one binder group and pairs 26-50 in another. In xDSL, one often hears discussions of signal interference between adjacent pairs within a binder group. The best of all worlds is to keep a data pair separated from another data pair by assigning it to an adjacent binder group. If the data pairs are too close to each other they create what telcos call "disturbers" (i.e., crosstalk). If a "disturber" exists in the binder group serving your SNI, NID, MPOE, etc., you may not "qualify" for DSL service.

B-ISDN (Broadband Integrated Services Digital Network)

A digital network with ATM switching operating at data rates in excess of 1.544 or 2.048 Mbps. ATM enables transport and switching of voice, data, image, and video over the same infrastructure.

Bit

A contraction of "binary digit." A bit is the smallest element of information in the digital system.

Bridge Tap

A sometimes-accidental connection of another local loop to the primary local loop. Generally it behaves as an open circuit at DC, but becomes a transmission line stub with adverse effects at high frequency. It is generally harmful to DSL connections and should be removed. Extra phone wiring within one's house is a combination of short bridge taps. A POTS splitter isolates the house wiring and provides a direct path for the DSL signal to pass unimpaired to the ATU-R modem.

CAP (Carrierless Amplitude/Phase)

A two-dimensional passband line code derived from quadrature-amplitude modulation.

Category 3 Cabling

A rating for twisted pair copper cabling that is tested to handle 16 MegaHertz of communications. Handles 10 Mbps of LAN traffic and is commonly used as telephone wiring.

Category 5 Cabling

A rating for twisted pair copper cabling that is tested to handle 100 MegaHertz of communications. CAT-5 cable is generally required for higher-speed data communications, such as Ethernet LANs.

CATV (Community Access Television)

Also known as Cable TV.

CBR

CBR - Constant Bit Rate is a type of ATM service used to transport data over the DSL line. This service is characterized by providing a constant delay over the network. This is very useful for voice and video transmission.

CPE (Customer Premises Equipment)

That portion of the DSL system residing within the customer's premises.

CO (Central Office)

A circuit switch that terminates all the local access lines in a particular geographic serving area; a physical building where the local switching equipment is found. xDSL lines running from a subscriber's home connect at their serving central office.

Compression

The act of sampling and reducing a signal for the purposes of saving storage or transmission capacity; MPEG1 and MPEG2 are two key encoding and compression algorithms that enable full-motion video over smaller bandwidth circuits, such as those offered by DSL, SDSL, and HDSL.

Concentrator

A device that serves as a point of consolidation of network links so that multiple circuits may share common limited network resources.

Core Network

Combination of switching offices and transmission plant connecting switching offices together. In the U.S. local exchange Core Networks are linked by several competing Interexchange networks; in the rest of the world (now) the Core Network extends to national boundaries.

Crosstalk

Interference on an analog line of an adjacent signal with the intended receive signal. Crosstalk makes it hard to hear just the intended signal, as there are multiple conversations on the line at once.

CSA (Carrier Serving Area)

Area served by a LEC, RBOC or telco, often using Digital Loop Carrier (DLC) technology.

Customer Premises Equipment

A wide range of customer premises-terminating equipment which is connected to the local telecommunications network. This includes telephones, modems, terminals, routers, set top boxes, etc.

Cyclic Redundancy Check

A test used to confirm that data has been delivered without error. In a data packet, the CRC character is calculated by assigning binary values to blocks of data. If the block of data does not match its assigned CRC value upon delivery, the data is errored.

Dial Up

The process of initiating a switched connection through the network; when used as an adjective, this is a type of communication that is established by a switched-circuit connection.

Digital Loop Carrier

Equipment used to concentrate many local loop pairs onto a few high-speed digital pairs or one fiber optic pair for transport back to the CO.

DHCP

Dynamic Host Configuration Protocol – This protocol allows computers on a network to dynamically obtain an IP address and network configuration from a server or a router. The DSL PCI modem supports this option under the "Networking Configuration" utility.

DMT (Discrete Multitone)

A modulation scheme in which available bandwidth is divided into many sub-channels. Each sub-channel is then analyzed for its ability to carry digital data. Noisy sub-channels carry few or zero bits, while clear channels carry a maximum number of bits. Thus, DMT essentially assures the telephone companies and consumers that they are achieving the greatest throughput possible over any given copper line. In March 1993, ANSI selected DMT technology as the standard line code for DSL. ETSI then contributed an annex to T1.413 to reflect European requirements.

DNS

Domain Name Service is provided by a server. It matches the domain name of a machine to its IP address. Internet applications can find servers on the Internet by their name or IP address. If the ISP offers this service, it will specify the IP address of the DNS server. The DSL PCI modem allows the user to configure this on the "Network Properties" screens found on the "DSL Configure" tool.

Downstream

Downstream refers to data flowing from the source, such as a corporate host or ISP to the end user.

DS0 (Digital Signal 0)

64 kbps digital representation of voice.

DS1 (Digital Signal 1)

Twenty four voice channels packed into a 193 bit frame and transmitted at 1.544 Mbps. The unframed version, or payload, is 192 bits at a rate of 1.536 Mbps.

DS2 (Digital Signal 2)

Four T1 frames packed into a higher level frame transmitted at 6.312 Mbps.

DSL (Digital Subscriber Line)

Modems on either end of a single twisted pair wire that delivers ISDN Basic Rate Access.

DSLAM (Digital Subscriber Line Access Multiplexer)

Specifically, a device which takes a number of DSL subscriber lines and concentrates these to a single ATM line

DSP (Digital Signal Processor)

A processor which is optimized to efficiently compute mathematical algorithms on a sequence of numbers. In communications, basic functions such as Fast Fourier Transforms (FFTs) are common. DSPs are found in a wide variety of electronic products including computers and cellular telephones.

E1

European basic multiplex rate which packs thirty voice channels into a 256 bit frame and transmitted at 2.048 Mbps.

Ethernet Connection

A high speed direct connection to a network where an Ethernet NIC is installed so that the user can access any host connected to the network.

Ethernet over ATM

Ethernet over ATM - It is also known as RFC 1483. It is a transport protocol that creates a Ethernet link over ATM cells which are carried on the DSL line. Your DSL modem supports this protocol.

Feeder Network

That part of a public switched network which connects access nodes to the core network.

FEXT (Far End CrossTalk)

The interference occurring between two signals at the end of the lines remote from the telephone switch.

Fiber Optic Cable

A transmission medium composed of glass or plastic fibers; pulses of light are emitted from a laser-type source. Fiber optic cabling is the present cabling of choice for all interexchange networks, and increasingly for the local exchange loops as well; it is high security, high bandwidth, and takes little conduit space. Considered the physical medium of all future, land-based communications.

FTTC (Fiber To the Curb)

A network where an optical fiber runs from telephone switch to a curbside distribution point close to the subscriber where it is converted to a copper pair.

FTTCab (Fiber To The Cabinet)

Network architecture where an optical fiber connects the telephone switch to a street-side cabinet where the signal is converted to feed the subscriber over a twisted copper pair.

FTTH (Fiber To The Home)

Network where an optical fiber runs from telephone switch to the subscriber's premises or home.

G.992.1

ITU recommendation for a physical layer implementation of an Asymmetric Digital Subscriber Loop (ADSL) line using G.DMT line coding. The data rates from the network to the modem are up to 8 Mbps and from the modem to the network up to 800 Kbps. The data rate varies according to the distance from the customer house and the central office modem. The DSL service provider specifies the type of service being provided.

G.992.2

ITU recommendation for a physical layer implementation of an DSL service (a.k.a. G.lite). This service can have up to 1.536 Mbps from the network to the modem and 512 Kbps from the modem to the network. The data rate varies according to the distance from the customer house and the central office modem. The DSL service provider specifies the type of service being provided.

G.Lite

ITU recommendation for a physical layer implementation of an DSL service using. (a.k.a. G992.2). This service can have up to 1.536 Mbps from the network to the modem and 512 Kbps from the modem to the network. The data rate varies according to the distance from the customer house and the central office modem. The DSL service provider specifies the type of service being provided. Also see UADSL.

Gateway

The default Gateway is the designated router attached to the TCP/IP network. It is responsible for routing data to other networks. The DSL PCI modem allows the user to configure this on the "Network Properties" screens found on the "DSL Configure" tool.

Gigabits Per Second (Gbps)

A measure of bandwidth capacity or transmission speed. It stands for a billion bits per second.

Graphical User Interface (GUI)

A program interface that takes advantage of the computer's graphics capabilities to make the program easier to use.

HDSL (High data rate Digital Subscribe Line)

Modems on either end of one or more twisted pair wires that deliver T1 or E1 speeds. At present T1 requires two lines and E1 requires three. See SDSL for one line HDSL.

HFC (Hybrid Fiber Coax)

A system (usually CATV) where fiber is run to a distribution point close to the subscriber

and then the signal is converted to run to the subscriber's premises over coaxial cable.

High Pass Filter

A signal filter which would be installed in a customer premises DSL modem (ATU-R), which only allows higher frequency data to be delivered to the modem.

Internet

World's largest computer network. Started out as a research effort initiated by US government. Initially used to connect defense contractors and US Universities. Today its nature is more commercial and is becoming the preferred method of linking businesses' and individuals' computers to one another.

Internet Access

The physical telephone circuit connection between the subscriber and the nearest Internet access node.

Internet Access Node

The Internet access provider's facility for receiving communications from subscribers and prepping it for transmission into the Internet. An ISP access node typically consists of analog modem, ISDN, and soon xDSL access multiplexers to accept the public network subscriber connections; routers to packetize the communications into TCP/IP; and frame relay switches to serve as the fast-packet connection into the Internet.

Internet Protocol

A standard describing software that keeps track of the Internet network addresses for different nodes, routes outgoing messages, and recognizes incoming messages.

Interoperability

The ability of equipment from multiple vendors to communicate using standardized protocols.

IP Address

Internet Protocol address used to identify a computer on a network and across the Internet. The DSL PCI modem has an IP address assigned by the Internet Service Provider (ISP). The IP address the modem can be configured using the "Network configuration utility". It is dynamically assigned by the ISP or is a fixed address also assigned by the ISP. IP addresses are four bytes long and are separated by periods.

ISDL

Uses ISDN transmission technology to deliver data at 128kbps into an IDSL "modem bank" connected to a router.

ISDN (Integrated Services Digital Network)

A digital network with circuit and packet switching for voice and data communications at data rates up to 1.544 or 2.048 Mbps. Basic Rate Access (BRA) provides two B channels at 64 kbps each and a D channel at 16 kbps. Primary Rate Access (PRI) provides twenty three (U.S.) or thirty (Europe) B channels and a single D channel at 64 kbps.

ISP (Internet Service Provider)

An organization offering and providing Internet services to the public and having its own computer servers to provide the services offered.

Kbps (Kilobits per second or Thousands of bits per second)

A measure of digital transmission speed used in computer and telephone networks.

LAN (Local Area Network)**Last Mile**

Refers to the local loop and is the difference between a local telephone company office and the service user; a distance of about two to three miles.

LEC (Local Exchange Carrier)

One of the new U.S. telephone access and service providers that have grown up with the recent U.S. deregulation of telecommunications.

LLC/ SNAP Encapsulation

Link Layer Control is a data encapsulation method used in PPP over ATM and on Ethernet over ATM protocols to transport TCP/IP packets over ATM cells. . Each ISP specifies which type of encapsulation it supports on its DSL service.

Loaded Pair

A twisted pair phone line with inductors, or loading coils, inserted periodically to flatten the frequency response in the 4 KHz voiceband.

Loading Coil

A device used to extend the range of a local loop for voicegrade communications. They are inductors added in series with the phone line which compensate for the parallel capacitance of the line. They benefit the frequencies in the high end of the voice spectrum at the expense of the frequencies above 3.6 KHz. Thus, loading coils prevent DSL connections.

Local Loop

A generic term for the connection between the customer's premises (home, office, whatever) and the provider's serving central office. Historically, this has been a wireline connection; however, wireless options are increasingly available for local loop capacity. Also colloquially referred to as "the last mile" (even though the actual distance can vary).

Low Pass Filter

A signal filter installed in a customer premises DSL modem (ATUR), which would not modify the low frequencies present in its input signal (the POTS transmission is sent unmodified to a phone), but would prevent the high-frequency components (data) from reaching a customer's telephone.

Mbps (Megabits per second or Millions of bits per second)

A measure of digital transmission speed used in computers and telephone networks.

Modulation

Modulation - is the method used by your DSL modem to encode the data on the phone line. Your DSL modem currently supports G.992.1 - Full rate DSL.

Modem

Modem stands for MOdulator/DEModulator. A modem converts analog waveforms into digital data and vice versa. In xDSL, the device that is at each end of the xDSL circuit is being generically referred to as a modem.

MPEG (Motion Picture Experts Group)

The group that has defined the standards for compressed video transmission.

NAP (Network Access Provider)

Another name for the provider of networked telephone and associated services, usually in the U.S.

NIC (Network Interface Card)

An expansion board you insert into a computer so the computer can be connected to a network. Most NICs are designed for a particular type of network, protocol, and media, although some can serve multiple networks.

NID (Network Interface Device)

A device that terminates copper pair from the serving central office at the user's destination and which is typically located outside that location.

NEXT (Near End CrossTalk)

The interference between pairs of lines at the telephone switch end.

N-ISDN (Narrowband ISDN)

Same as ISDN.

NSP (Network Service Provider)

The term for an organization offering and providing value added network services on a telecommunications network.

NTE (Network Termination Equipment)

The equipment at the end of the line that properly terminates the signal.

OC3 (Optical Carrier 3)

An optical fiber line carrying 155mbps; a U.S. designation generally recognized throughout the telecommunications community worldwide.

ONU (Optical Network Unit)

A form of Access Node that converts optical signals transmitted via fiber to electrical signals that can be transmitted via coaxial cable or twisted pair copper wiring to individual subscribers.

PCI Bus Slot

This is a slot on the motherboard of your computer that is used to connect PCI adapter cards. A PCI bus slot is the shortest of the slots and should be white. The picture to the right shows 4 PCI slots on a motherboard.

PON (Passive Optical Network)

The usual acronym for a fiber based transmission network containing no active electronics.

POTS (Plain Old Telephone Service)

The only name recognized around the world for basic analog telephone service. POTS takes the lowest 4kHz of bandwidth on twisted pair wiring. Any service sharing a line with POTS must either use frequencies above POTS or convert POTS to digital and interleave with other data signals.

PPP

PPP stands for point-to-point protocol. This is a term for a type of network connection used between two points.

PPP over ATM

PPP over ATM - It is also known as RFC 2364. It is a transport protocol that creates a Point-to-Point link over ATM cells which are carried on the DSL line. Your DSL modem supports this protocol.

PTT

The generic European name usually used to refer to state owned telephone companies.

PVC

PVC - Permanent Virtual Circuit is an ATM connection that is established during the configuration of your DSL modem. It is a permanent connection in the sense that it is setup from the moment you first configure your modem to connect to the Internet.

RADSL (Rate Adaptive ADSL)

A version of DSL where the modems test the line at start up and adapt their operating speed to the fastest the line can handle. The modems can adjust the data rate within 32 kbps of the maximum throughput the line is capable of supporting in the current noise environment. The user can be assured of the highest data throughput possible.

RBOC (Regional Bell Operating Company)

one of the seven U.S. Telephone companies that resulted from the break up of AT&T.

RFC1483 - Ethernet over ATM

This transport method is used to carry Ethernet frames over an ATM network. This protocol is used by some ISPs on their DSL service deployment. The DSL PCI modem Windows drivers support it.

RFC2364 - PPP over ATM

This transport protocol method consists of PPP data packets carried over ATM cell. This network protocol is used by some ISPs on their DSL service deployment. The DSL PCI modem Windows drivers support it.

RJ-11

Six-conductor modular jack used with four-wire cabling. Most common phone jack in the world and is used commonly on phones, modems, and fax machines.

RJ-45

Eight-pin connector used to attach data transmission devices to standard telephone wiring. Commonly used in 10Base-T connections.

SDSL (Symmetric Digital Subscriber Line)

HDSL plus POTS over a single telephone line. This name has not been adopted by a standards group, but is being discussed by ETSI. It is important to distinguish, however, as SDSL operates over POTS and would be suitable for symmetric services to premises of individual customers.

Set Top Box

A transmission/reception device that acts as an interface typically to a television or other video output display device. In addition to DSL, SDSL, HDSL, and VDSL interfaces, set top units are increasingly modular, and other interfaces can include Ethernet, MMDS, coaxial cable, V.90 modem, and ISDN, among others.

Splitter

Filters which separate high frequency (DSL) and low frequency (POTS) signals at both the end user and the central office. Splitters may be required when installing DSL.

Splitterless DSL

An DSL system without a low pass filter, a device that helps prevent cross interference between the voice (POTS) and DSL signals. With Splitterless DSL, an end user can go to a store, purchase a modem and install the system alone, speeding access to the technology and saving service providers the cost and time associated with truck rolls for equipment installation.

STS-1 SONET

Basic transmission rate of 51.84 Mbps.

Subnet Mask

It is a 4byte number, and it defines how many bits in the IP address designate the network number. The bits set to 0 represent the size of the network. The ISP assigns a Subnet mask to the DSL PCI modem.

SVC

SVC - Switched Virtual Circuit is an ATM connection that is set up every time you use you modem with the PPP over ATM configuration. Currently most telephone companies are not deploying this type of service.

T1.413 issue 2

ANSI standard for a physical layer implementation of an Asymmetric Digital Subscriber Loop (ADSL) line using G.DMT line coding. The data rates from the network to the modem are up to 8 Mbps and from the modem to the network up to 800 Kbps. The data rate varies according to the distance from the customer house and the central office modem. The DSL service provider specifies the type of service being provided.

T1

The US equivalent of E1. This is a Bell system term for a digital carrier facility used for transmission of data through the telephone hierarchy at a transmission rate of 1.544 Mbps. Same as DS1.

Telco

The generic name for telephone companies throughout the world which encompasses RBOCs, LECs and PTTs.

TPON (Telephony over Passive Optical Network)

Telephony using a PON as all or part of the transmission system between telephone switch and subscriber.

UBR

UBR - Unspecified Bit Rate is a type of ATM service used to transport data over the DSL line. This is the most common type of service offered by Telephone companies. It does not not guaranty the delay of the data across the Internet.

UDSL (Unidirectional HDSL)

As proposed by one company in Europe. This has not been widely deployed.

Universal ADSL

UADSL is focused on providing a mass-market version of DSL, which is interoperable with full rate DSL, but with fewer complexities and less overall requirements at a tradeoff for speed. The solution is intended to reduce the need for a "splitter" box installed outside the home or new wiring in the home. UADSL enables plug-and-play and PC-integrated solutions. Commonly referred to as G.lite.

Upstream

Upstream refers to the data flowing from the end user back to the corporate host or ISP.

VADSL (Very high speed ADSL)

same as VDSL (or a subset of VDSL, if VDSL includes symmetric mode transmission)

VCI (Virtual Circuit Identifier)

This is a field contained in the ATM cell header. It identifies a virtual circuit over which the data in the ATM packet should be transmitted.

VPI (Virtual Path Identifier)

The VPI field in the ATM cell header associates each cell of a VPC (Virtual Path Connection) with a particular PVL (Virtual Channel Link) over a given physical link.

VC MUX Encapsulation

Virtual Circuit Multiplexing - This is an encapsulation method used in PPP over ATM (RFC 2364) or Ethernet over ATM (RFC1483) to transport the TCP/IP packets over ATM cells. Each ISP specifies which type of encapsulation it supports on its DSL service.

VDSL (Very high data rate Digital Subscriber Line)

Modem for twisted-pair access operating at data rates from 12.9 to 52.8 Mbps with corresponding maximum reach ranging from 4500 feet to 1000 feet of 24 gauge twisted pair.

WAN (Wide Area Network)

Private network facilities, usually offered by public telephone companies but increasingly available from alternative access providers (sometimes called Competitive Access Providers, or CAPs), that link business network nodes.

WINS

Windows Internet Name Server is a service provided under Microsoft's Windows NT server. When PC use WINS, they automatically contact the WINS server after boot up and pass it their NetBIOS name and IP address. The WINS server maintains this information for the client PCs. When a PC needs to contact another machine by using their NetBIOS name, it gets the IP address for the machine from the WINS server. This information is updated automatically. The DSL PCI modem allows the user to configure this on the "Network Properties" screens found on the "DSL Configure" tool.

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FCC compliance Statement

Caution : Any changes or modifications not expressly approved the party responsible for compliance could void the user's authority to operate the equipment

NOTE this equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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