Quick Start

FOR

THE CISCO 676 ADSL ROUTER

Introduction

The Cisco 676 is an Asymmetric Digital Subscriber Line (ADSL) modem used for home connectivity to an ADSL service provider network over an ADSL/Asynchronous Transfer Mode (ATM) physical layer. The Cisco 676 router receives adaptive rates of up to 9.2 Mbps downstream and transmits .8 Mbps upstream. The Cisco 676 router operates using the Cisco Broadband Operating System (CBOS).

Reference Material

Before you install the Cisco 676, please have the following media available for reference:

- *Cisco 676 ADSL Router Installation and Configuration Manual* - Document Number 78-6036-01

- *Cisco Broadband Operating System User's Guide* - Document Number 78-5803-01

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System Requirements

The following provides a quick overview of the hardware and software requirements necessary to install and configure the Cisco 676 ADSL Router.

- A personal computer or a computer connected to a server-based network.

- A system-resident terminal emulation application.

- A DB9 serial port.

Note: If only a DB25 serial port is available on the computer, you must also use a DB9-to-DB25 adapter to connect the serial cable to the computer.

- An Ethernet port or adapter, or a connection to the immediate local area network (LAN).

Getting Help

If you have purchased your equipment through an outside or third-party vendor, please contact the vendor who supplied your equipment, or contact your Internet Service Provider for technical support information.

If you have purchased your equipment directly from Cisco, contact the Cisco Technical Assistance Center, 24 hours a day, 7 days a week, at 800 553-2447 and at tac@cisco.com.

Installing the Cisco 676 ADSL Router

The following sections will provide the information necessary to install the Cisco 676 ADSL Router. Please refer to Chapter 2 of the *Cisco 676 ADSL Router Installation and Configuration Manual* for detailed installation instructions and procedure illustrations.

Connecting the Cables

Figure 2-7 in the "*Cisco 676 ADSL Router Installation and Operation Manual*" shows where to connect all cables to the rear panel connectors of the Cisco 676 ADSL Router.

Step 1 Plug the power connector into the back of the unit.

Step 2 Connect the Ethernet cable to the Cisco 676 ENET connector.

Step 3 If the computer at the customer premise has only a single Ethernet-equipped computer, attach the Cisco 676 to the computer's Ethernet adapter with the crossover cable provided. Otherwise, connect the Cisco 676's Ethernet port to an Ethernet hub using a straight-through cable.

Step 4 Connect the provided telephone cable to the Cisco 676 WALL connector and then connect the other end of the cable to the telephone wall-mounted connector.

The POTS Splitter Configuration

A POTS splitter separates data signals from voice signals on your phone line. The POTS splitter works by running a separate data line from the voice line, so that the ADSL modem has a dedicated cable for data transmission.

Figure 2-4 in the *Cisco 676 ADSL Router Installation and Operation Manual* shows a POTS splitter configuration. If you are using an external POTS splitter, connect the provided telephone cable to the wall connector that is labelled as going to the external POTS splitter.

Note: Contact your service provider if you have questions regarding your configuration.

EZ-DSL (Splitterless) Configuration

In the EZ-DSL configuration, your phone equipment is not connected to a POTS splitter. Without a POTS Splitter and under certain circumstances, transient noise from the phone can interfere with the modem's operation, and the modem can cause noise on the phone line.

To protect this from happening, connect small microfilters to the phone lines. Figure 2-6 in the *Cisco 676 ADSL Router Installation and Operation Manual* shows a splitterless configuration. Make sure there is a microfilter connected to the line of each telephone that connects to your network.

Installing the EZ-DSL™ Microfilter

Use EZ-DSL microfilters to connect phones at the customer premise to the premise phone wiring. The microfilters are designed to prevent interference between the modem and the phone set, as well as to reduce the effect of POTS generated noise on the ADSL transceiver.

Step 1 Identify all home telephones plugged in and in service. An EZ-DSL microfilter should be installed at each home telephone.

Step 2 Unplug the telephone from the wall. Plug the telephone cord into the end of the EZ-DSL microfilter marked PHONE.

Step 3 Using the 3-inch telephone cord provided, plug one end of the cord into the microfilter marked WALL. Plug the other end of the cord into the telephone wall receptacle.

Step 4 After you complete the installation, verify that your telephone service works. If your telephone service does not work, disconnect the EZ-DSL microfilter and contact your local telephone company or Cisco Systems.

Note: The microfilters do not function if connected incorrectly. To ensure that the microfilters function, connect the wall side of the microfilter to the wall jack and the telephone side of the microfilter to the telephone.

Configuring the Cisco 676 ADSL Router

Having completed all the above procedures, you have now successfully installed your Cisco 676 ADSL Router and are ready to begin your configuration.

Your configuration requirements will vary depending upon who your service provider is. Contact your Internet Service provider for detailed information regarding how to configure your Cisco ADSL 676 Router for optimal performance.

Troubleshooting Tips

The following are troubleshooting tips. If the suggested course of action does not resolve your issue, contact your Internet Service Provider. For detailed information, refer to Chapter 4 of the *Cisco 676 ADSL Router Installation and Operation Manual*.

1 If the WAN LNK LED blinks continuously and never stays solid on, the 676 never connects to the service provider equipment. Your Cisco ADSL 676 Router configuration may not be compatible with the service provider's server configuration.
Solution: Remove power from the Cisco 676 ADSL Router by removing the power cord from the router's rear panel. Reconnect the power cord. If your router still does not connect to the service provider, call your service provider. Your service provider can assist you to correct your configuration.

2 If the WAN LNK LED turns off after the 676 has successfully been transferring data between your personal computer and your service provider, the 676 or the service provider's server may have a timeout set.
Solution: Call your service provider with as close to an exact length of time as possible you remain connected before the 676 disconnects from the Internet.

3 If the WAN LNK LED turns on solid for approximately four seconds and then turns off and remains off, this may indicate a user authentication failure. Either your Cisco ADSL 676 Router or your service provider's server may contain incorrect user authentication information.
Solution: Call your service provider with the amount of time it took before the WAN LNK LED turned off.

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