



4 CONNECTING TO THE INTERNET

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CHANCES ARE, you already have Internet access and are using the Web or sending email. If you downloaded your installation files or installed eSignal from the web, you can be sure that you're set up and ready to go.

If you don't already have Internet access, this chapter will help you get connected.

Setting Up Your Internet Connection

This section provides some basic information about setting up Internet access for your computer, as well as hints for choosing an Internet service provider (ISPs—the companies that sell you Internet access). If your computer is configured like most computers, you should be able to get things set up using the information provided here. If you need more help, good books are available. Many ISPs will also help you by providing software that automates the setup process for their service.

Here's what you'll need to get started:

- 1 **Modem.** You'll need a modem to connect your computer to the online world. The modem should be 28.8 Kbps or faster. The faster your connection, the better. eSignal highly recommends that you use a high-speed Internet connection, such as DSL, cable modem, an ISDN line or T1 line.

- 1 **Networking software.** Your computer probably already has what it needs in the way of networking software. Windows 2000, Windows NT 4.0 with SP3 or higher, and (especially) Windows 98 include all the networking software needed, plus wizards that help you set things up. You'll use dial-up networking, a Windows feature for connecting to a network via a modem. Getting on the Internet should be relatively easy.
- 1 **Browser software.** eSignal includes a built-in Browser window so that you can view eSignal and other web sites without leaving the application. You'll need Microsoft Internet Explorer version 5.5 or later. If you don't already have Internet Explorer 5.5, you can download it from Microsoft.
- 1 **Internet connection.** This is where an ISP comes in. If you're connecting using a modem, you'll need to contact an ISP to set up your Internet connection.

What to Look for When Choosing an ISP

ISPs are not all alike. Here are some factors to consider and evaluate as you select an ISP.

- 1 **Bandwidth.** Your modem isn't the only thing that determines the speed and effectiveness of your Internet connection. The ISP's equipment and technology play an important role too. eSignal places a considerable demand on your Internet connection, so you'll need an ISP with the technology and capacity to support our service. Experience shows that ISPs such as those sponsored by a telephone company are well suited to handle your needs.
- 1 **Modem support.** Make sure your ISP supports your access device. Nearly all ISPs support standard dial-up modems; however, some may not support some of the high-speed alternatives, such as ISDN or cable modem.
- 1 **Accessibility.** Be sure that your ISP provides toll-free access for your modem type and speed. You'll also want assurance that the ISP has enough resources to support dial-up traffic from the number you'll be using. There's nothing worse than a busy signal when you need to get online!

What to Look for When Choosing an ISP

- 1 **Reliability.** Occasionally, a server goes down or other elements of the web go on the fritz. It seems to happen more with some ISPs than others. Ask for statistics on up-time and compare their reliability to other ISPs.
- 1 **Price.** Price is always a consideration, but not necessarily the most important. Most ISPs price their services competitively. They usually provide different plans based on the type of connection and Internet usage. Be sure to select a plan that meets your needs.
- 1 **Setup support.** Most ISPs provide software and support that make getting started a breeze. Look for a provider that can take all the work out of getting online. Because you'll be using Microsoft Internet Explorer, you'll be looking for installation software and support geared for that browser.

eSignal subscribers have reported positive experiences with the following ISPs:

- 1 EarthLink
- 1 MCI WorldCom
- 1 AT&T Worldnet
- 1 MindSpring
- 1 Local telephone companies (e.g., Pacific Bell and Bell Atlantic)

If you would like further information on how to choose a reliable Internet Service Provider, please go to www.thelist.com.

Creating an Internet Connection

Windows 2000, Windows NT, and Windows 98 each have slightly different methods for setting up an Internet connection. The good news is that the setup process for each environment is relatively easy if you follow directions closely. Browser software such as Internet Explorer and Netscape Communicator provide easy-to-use

wizards to help you connect, or you can use Windows Help to step you through the process.

NOTE: Many ISPs provide software that automates the Internet setup process. If you select one of these ISPs that sets up a connection for Microsoft's Internet Explorer, you'll be in business before you know it.

What You'll Need from Your ISP

When you sign up for service with an ISP, make sure it provides you with the following information you'll need to set up your Internet connection:

- 1 The telephone number your modem will dial to connect to the Internet.
- 1 A user name and password for logging onto the Internet.
- 1 (Technical stuff) The type of connection you'll make to the ISP's server: PPP (Point to Point) or SLIP (Serial Line Internet Protocol).

PPP and SLIP are protocols that establish how your computer will communicate with the Internet. PPP is preferable because it works effectively with high-speed modems such as cable modems and provides greater security.

- 1 (Technical stuff) The logon procedure, if any. Some ISPs require a script; if so, the ISP will need to provide it.
- 1 (Technical stuff) The IP address and domain name server (DNS) address. These are unique identifiers for the ISP's servers that you'll be connected to.

Your ISP may provide this information dynamically whenever you connect. If not, you'll need to specify these two addresses when you set up your connection.

If you're also setting up email, you'll need this information as well:

- 1 Your email address
- 1 The address for incoming and outgoing email, and (more technical stuff) the server type for incoming email

- 1 Your email account name and password

Connecting Using Internet Explorer

Let's walk through how you would build an Internet connection using the Internet Explorer 5.5 connection wizard. Other browsers contain similar programs to help you get up and running.

Internet Explorer includes a connection wizard that helps you set up an Internet connection. Like the eSignal installer wizard, the connection wizard presents you with a sequence of screens displaying information and offering choices. Each screen contains instructions about what to do. After you complete a screen, you move to the next screen by clicking the Next button. If you want to return to an earlier screen to correct a mistake or to check on something you entered, you can click the Back button.

When you install Internet Explorer, you'll encounter the connection wizard as you go through the installation. If Internet Explorer is already installed, you can access the connection wizard from the Tools menu.

To build an Internet connection from Internet Explorer

- 1 Start Internet Explorer on your computer.
- 2 Click Internet Options from the Tools menu to display the Internet Options dialog box.

The Internet Options dialog box appears.

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- 3 Click the Connect button to start the Internet connection wizard.

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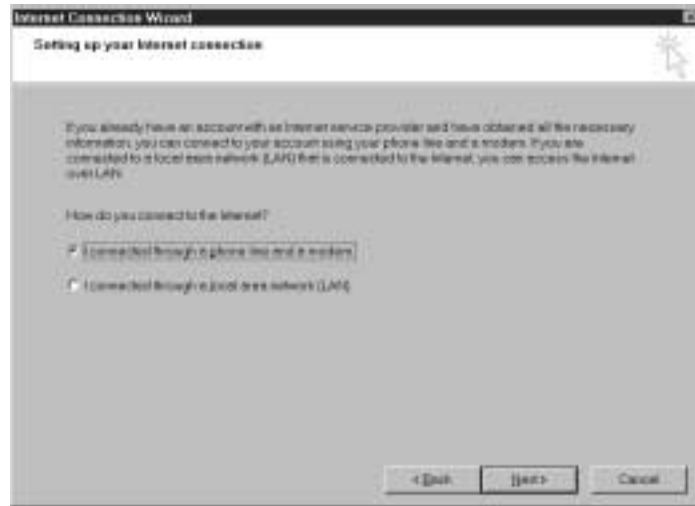
- 4 Click the I want to set up my Internet connection manually... checkbox, and then click Next.

The connection wizard asks you how you want to connect to the Internet.

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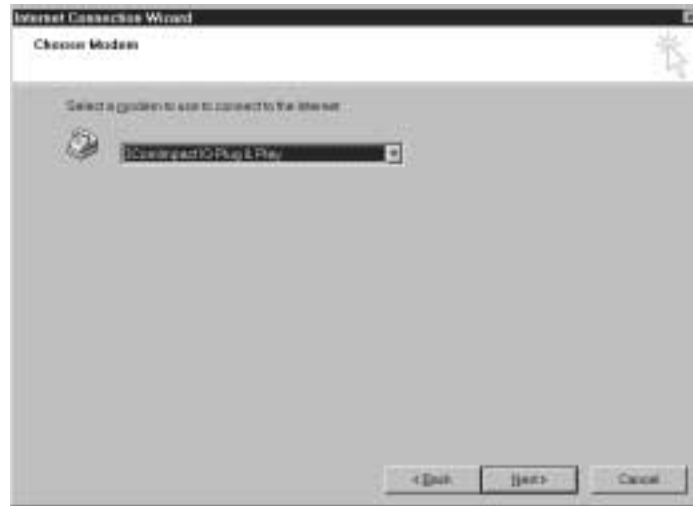
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- 5 The phone line and modem checkbox should already be checked. If it isn't, click it, and then click Next.

The connection wizard lists your modems and asks you to select the one you'll use for your Internet connection.

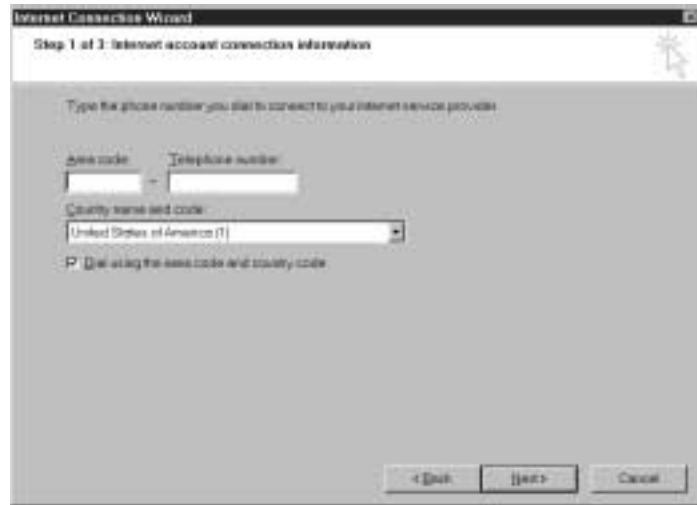


- 6 Click Next if the modem you want to use is highlighted. If not, click the down arrow and choose another modem, and then click Next.

The connection wizard asks for the telephone number that the system must dial to connect with your ISP.

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- 7 Enter the area code and phone number provided by your ISP, change the country name and code if necessary, and then click Next.

The connection wizard asks for the user name and password that you'll use to connect to the Internet. You'll need to set this up with your ISP in advance.



- 8 Enter your user name and password, and then click Advanced.

The connection wizard displays the Advanced Connection Properties dialog box with its default settings.

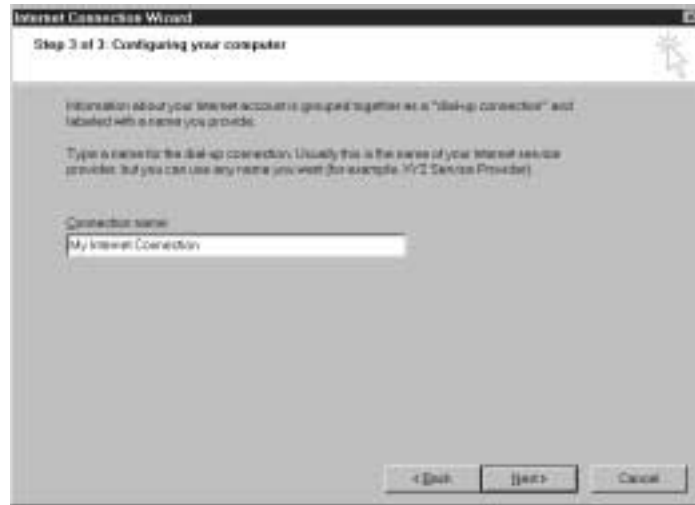
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- 9 Change the default settings based on connection specifications provided by your ISP. If it hasn't provided this information, you'll need to contact it before you can go on. When you're finished, click OK to return to the wizard, and then click Next.

The connection wizard asks you to provide a name for the connection.



10 Enter a connection name, and then click Next.

The connection wizard asks you if you want to set up email.

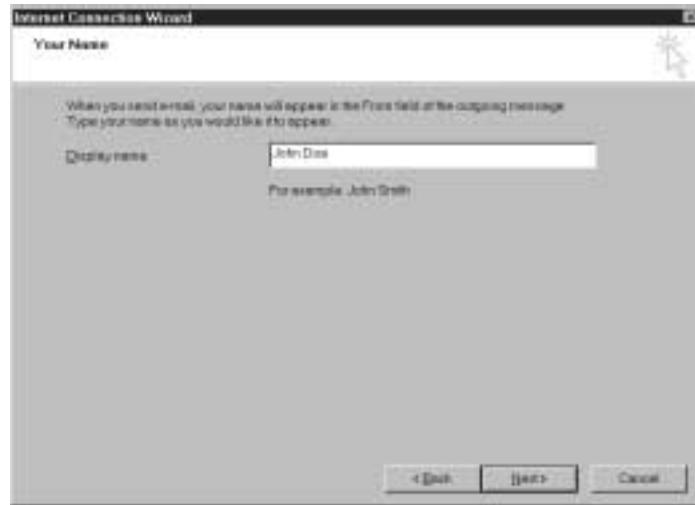
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11 Click Yes if you want to set up email or No if you don't.

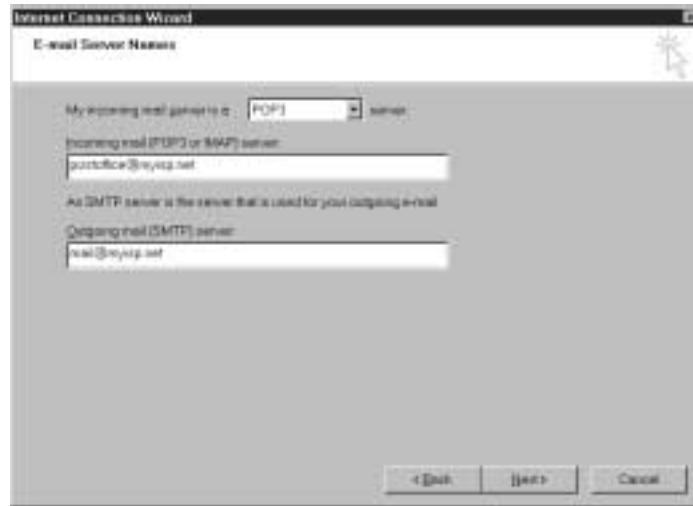
If you click Yes, the wizard asks you for your email address. If you click No, you're just about finished and can skip forward to step 15.



- 12 Enter the email address provided by your ISP, and then click Next.
The wizard asks for the email server information provided by your ISP.

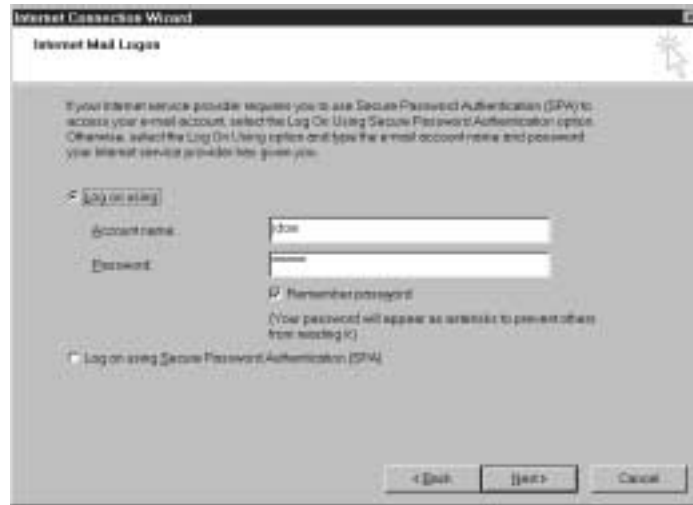
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- 13** Enter the server type for incoming mail and the addresses of your incoming and outgoing mail servers, and then click Next.

The wizard asks for logon information.



- 14** Enter the account name and password provided by your ISP. If you want, you can direct Internet Explorer to remember your password so that you won't have to retype it each time you log on. Click Next.

You're just about done.

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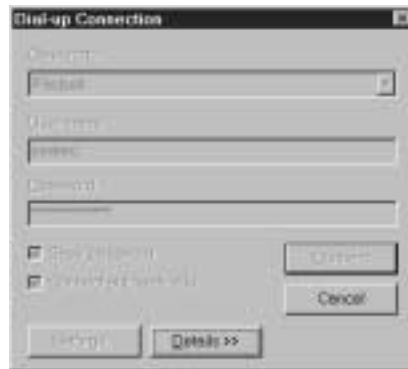


15 Click Finish to finish configuring your Internet connection and exit the wizard.

Connecting to the Internet

Unless you have a full-time Internet connection such as a DSL service, you'll need to connect to the Internet before starting eSignal. To make things easy, you'll want to create a shortcut on your desktop to your Internet connection. You can do this by double-clicking the My Computer icon on your desktop, and then double-clicking the Dial-up Networking folder. You should see an icon for the Internet connection you set up. Place the cursor on the icon, and then click and hold down the left mouse button while you drag the icon onto your desktop. When you release the mouse button, a shortcut to the connection icon will appear on your desktop. Now all you have to do is double-click the shortcut icon whenever you want to connect to the Internet.

When you double-click the connection icon, the Dial-up Connection dialog box displays on your screen.



If dial-up is set to connect automatically, your PC will dial your ISP and establish the Internet connection.

If the automatic connection feature is not set, you'll need to complete the connection by clicking the Connect button.



If in the future you want to connect automatically, simply click the Connect Automatically button.

Staying Connected

Typically, when you set up an Internet connection, it will time out and disconnect automatically if there is no traffic on the line for a specified period of time. (The default time out setting for Internet Explorer is 20 minutes.) This can be an aggravation because eSignal data is not visible to most browsers.

In most cases, you can disable the timeout feature in Windows so that you stay connected. If you do this, you must remember to disconnect manually when you are finished using eSignal.

To disable the disconnect feature in Windows 98

- 1 Click the Start button and choose the Control Panel from the Settings menu. The Control Panel opens on your desktop.
- 2 Double-click the Internet icon and click the Connection tab in the Internet Properties dialog box.

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- 3 Click your connection in the Dial-up Settings box, and then click the Settings button. The Settings dialog box appears.

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- 4 Click the Advanced button to display the Advanced Dial-Up dialog box.



- 5 Click the Disconnect if idle... checkbox to disable the automatic disconnect feature, and then click OK. If your connection continues to timeout, it usually means that your service provider has a disconnect feature. If this is the case, you'll need to contact your ISP for assistance.

How You Receive Data From the eSignal Network

eSignal pioneered point to multipoint financial data transmission in the early eighties. Over the past eighteen years, eSignal has blended technologies to create the largest, most flexible network data transmission dedicated to active market traders and investment professionals. This network delivers data over FM, Cable TV, Satellite, and most recently the Internet and associated TCP/IP related technologies. The acceptance and robustness of IP-based Internet delivery has enabled eSignal to become the flagship product and preferred market data platform.

eSignal has leveraged its expertise in running ticker plants to provide its full capacity datafeed to corporate clients. This datafeed is called Turbofeed and provides trades, quotes and pricing information allowing firms to build, database and redistribute their own market data solutions. TurboFeed is used by a number of different firms to build a variety of customer applications and services.

eSignal's ticker plant is fed by direct data feeds from each of the U.S. based stock, option, and futures exchanges. eSignal is supported by two completely redundant Network Operation Centers (NOCs), one in Hayward, CA and the other in Salt Lake City, UT. eSignal NOCs and staff are dedicated to ensuring accuracy and integrity of the data, hardware, telecommunications links and Internet servers. The eSignal ticker plant is manned 24 hours a day, 7 days a week. While only one NOC is primary at any one time, the other facility can immediately function as a primary site in the event of a system failure, equipment problem or regional disaster. For the Internet-based services, the Hayward and Salt Lake City sites, as well as the co-located sites at AboveNet locations in San Jose, CA and Vienna, VA and InterNAP locations in Atlanta, GA and New York, NY, run in tandem. User connections are load balanced amongst all sites. In the event of a complete site failure, the remaining sites have the capacity to handle the additional load.

All sites, eSignal facilities and co-location sites, have complete power failure protection. Immediate protection is accomplished via Uninterruptible power systems.

As depicted in Figure 4-1, eSignal uses all of the top tier-one Internet Service Provider networks to support its financial backbone. This practice enables eSignal and its clients to benefit from the multi-million dollar networks that these companies

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maintain and upgrade. Clients are always guaranteed state-of-the-art network performance and reliability.

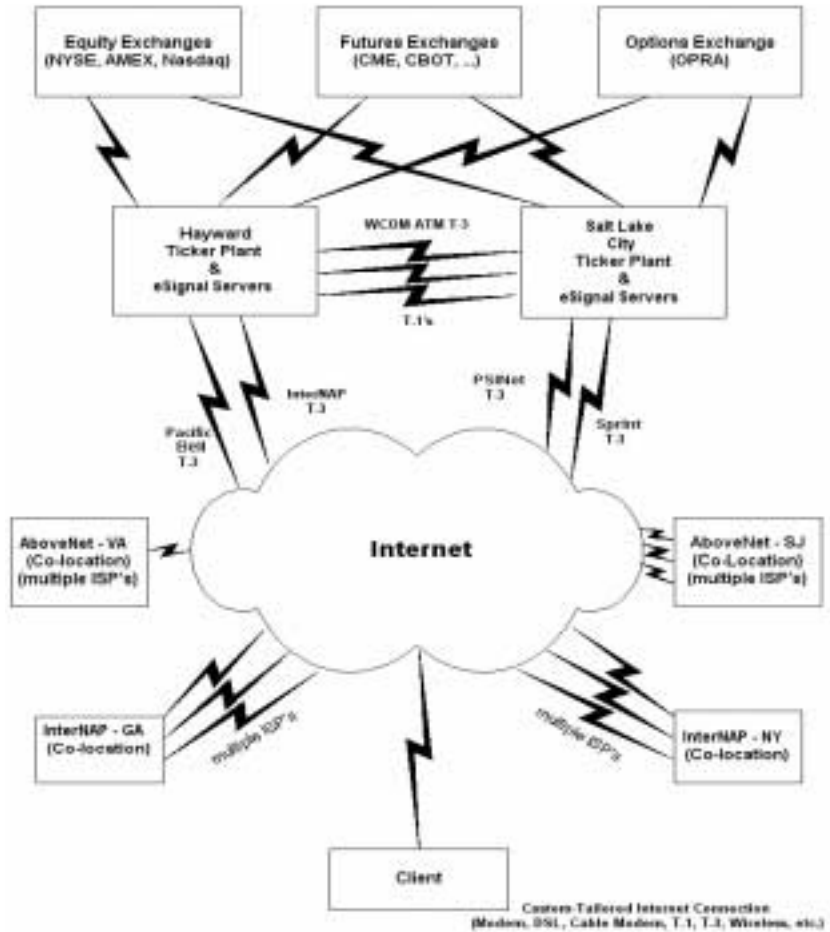


Figure 4-1. eSignal Network Data Delivery