Chapter 1

What You Got Yourself Into (And What You Need to Enjoy the Trip)

In This Chapter

- Discovering what this *online* thing is all about
- Scoping out the stuff you need to make AOL work
- Turning up the speed meter with DSL and cable

Perhaps you just bought a new computer and happened across a stray icon labeled America Online. Or maybe your parent, child, grandchild, or significant other decided that you should join the online revolution and endowed you with all the goodies this revolution requires. Or perhaps you don't quite know what to make of all this talk about the information superhighway and worry that you're getting left behind at a rest stop.

For a good understanding of what the term *online* means and where America Online fits into the equation, start here. This chapter explains the introductory stuff and prepares you for that first trip into the online world. It also includes a quick introduction to the realm of high-speed connections, such as DSL and cable. In a lot of areas, getting a high-speed Internet hookup is almost as easy as adding a phone line — and costs about the same, too.

For now, kick back and get ready to understand what your parent, child, or significant other has been talking about all this time. (Feels good to finally know, doesn't it?)

What Online Really Means

What is this "Internet" and "online service" stuff, anyway? Does it have something to do with the information superhighway? Do you even care? Why or why not? Please write a detailed answer on the inside cover of a matchbook and then set the whole thing on fire, watching with pleasure as it burns to a crisp. Don't you feel better now?

If you do, you're not alone. Many people feel apprehensive about this mysterious electronic world you're entering. But take heart — online services and the Internet used to be much more mysterious than they are today. Don't worry if the concept seems more than a little bizarre to you right now. That reaction proves mainly that you're not a nerd. Congratulations on passing the test!

Back to the question at hand: What is an online service? Conceptually, it's much like cable TV. With cable TV, you buy a subscription from your local cable company and hook your television into its network with a funny-looking box that freaks out sometimes. From there, a special wire connects the box to a wall socket.

If the technology does what it should, you turn on the TV and choose from among a wide variety of programming, depending on your interests. When it doesn't work, the problem may be in your TV, in the brain-dead little box, or somewhere between your wall socket and the cable company itself. At the end of the month, you get a bill that you grudgingly pay, all the while wondering whether cable TV is really worth all the time and money you spend on it.

With a few clever substitutions, the cable company example describes America Online (and other Internet Service Providers, or ISPs). You hook up your computer to an odd little device called a modem (which, like its cable-TV counterpart, sometimes freaks out) and plug in a plain phone cord from the modem to the phone jack on the wall. If you use a special high-speed connection (with an appropriately high-tech name such as DSL, satellite, or cable modem), you get an even more esoteric device with its own cool cables. (Flip to the end of this chapter for more about high-speed access.) Somewhere along the line, you purchase an AOL membership and pony up the monthly fee.

The top part of Figure 1-1 shows how the process works with a dialup connection, at least when the technology behaves. Your computer runs the special America Online software, and then either dials a local phone number or zooms out through your high-speed Internet connection. From there, your computer contacts the America Online computers in Virginia. (Incidentally, don't worry about long-distance calls to Virginia — you pay for the local part of the call, and the America Online communications system does the rest.)

After connecting (or, in computer parlance, *going online* — more about that shortly), you choose from among a wide variety of services, depending on your interests. When things don't work, the problem may be with your computer, the America Online software, the modem (stupid modems), your high-speed connection, or something between the wall jack and America Online itself. At the end of the month, you get a bill that you gleefully pay, flush with the happy memory of everything you did online.

By the way, the term *online* means connected. If you're online with America Online, a link is set up through the phone between your computer and the America Online computers. When you get right down to it, the computers are having this swell digital conversation behind the scenes while you're busy reading the news, sending electronic mail, or doing whatever else you do on America Online.

If you use DSL, a cable modem, or some other high-speed connection, connecting to AOL takes even less work, as the lower part of Figure 1-1 shows. Because your computer already has a permanent high-speed Internet connection, the America Online software just hops onto the Net through that connection and rides the communication lines straight to the main computers in Virginia. Quick as a computer price drop, your software connects with America Online and you're ready to go.

Now for the great part: That's *all* you need to know about the technology behind America Online. Really — I wouldn't kid you about something like this. All the cool things you can do, all the fun tricks, and all the stuff that makes America Online a really wild and woolly place require a great deal of technology, but *it doesn't matter to you.* You don't have to know any of this stuff to use America Online!

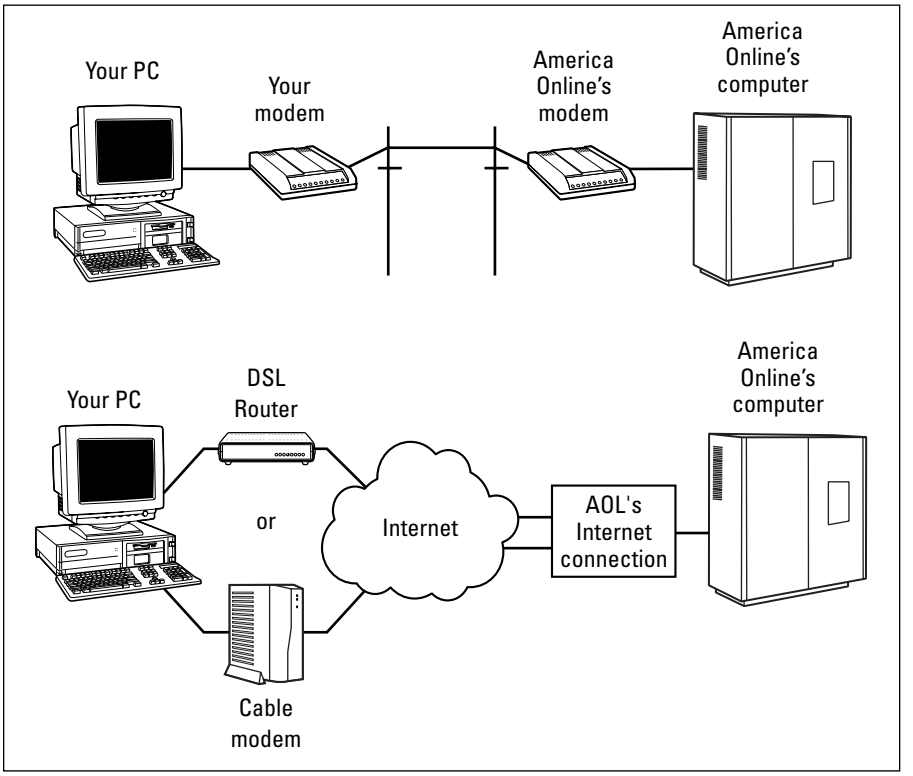

Figure 1-1: *Going online* means linking your computer to AOL's computers through a phone line or high-speed connection.

All It Takes Is a Bunch of Stuff

Now that you have a conceptual picture of how all this online business happens, you're ready to dig a little deeper and get into some specifics. You need four parts to make the online thing a reality: the America Online software, a computer, a modem, and a phone line. The following sections explore each element with just enough detail to give you a good understanding of what you need without turning you into a computer nerd (ewww — the very thought gives me the shivers).

For those of you lucky enough to use a high-speed connection to the world of America Online, that connection (whether through the cable TV system, a satellite, or a DSL line) replaces the modem and phone line. Better still, the high-speed connection also replaces the nasty disconnections and painfully slow downloading speed that a modem can inflict on you.

If this high-speed connection piques your interest, flip to the end of this chapter for more details about it.

You need the right software

America Online is a pretty special place, not only because of its content and services but also for the look and feel of its *interface* (the buttons, menus, and windows on-screen). The America Online programmers decided to do things the right way from the start. This decision meant a break with tradition because people would need special software to join America Online. Granted, the software was free (and still is today — but more about that in a moment), but the idea itself was risky for the time. Luckily, the risk paid off handsomely in better features, ease of use, and consistency.

The America Online software probably came preloaded on your computer, but that copy definitely isn't the new America Online version 9.0 program, so use it *only* if your computer doesn't meet the requirements for the newest AOL software.

To simplify the programmer's lives and offer you better service, America Online 9.0 doesn't work with Windows 95. Such is life in the high-tech lane. If your computer still loves Windows 95, stick with America Online 7.0. In the meantime, seriously consider picking up a new computer. Computers age like sickly mayflies, so any machine more than five years old really *needs* a break anyway.

If you already use America Online, check which version you have. To do that, start the America Online software, and choose Help➪About America Online

from the menu bar. The version number is near the top of the screen, as shown in Figure 1-2. You don't have to (and, in fact, shouldn't) sign on to America Online to find out the software version number.

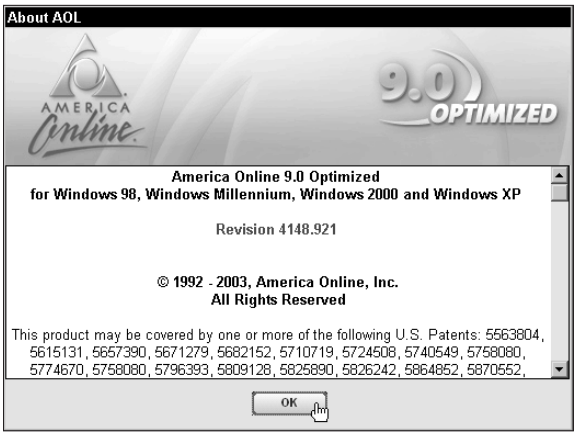

Figure 1-2: The latest America Online software for Windows shows off its version number.

Although knowing your program's version number seems like nerd trivia at its best, it actually makes a big difference. This book covers the newest America Online software, version 9.0. If you use an older version of the program, the book's instructions could confuse you quickly (and that's definitely not my goal). Every time new America Online software comes out, the programmers move buttons, shift menu items, and generally remodel the whole thing as they try to make the system easier to use. The programmers tell me that it's the price we pay for progress, but sometimes I think it has more to do with ongoing programmer job security than anything else.

A computer is a must

You can't get around this one: To use America Online, you must have a computer of some kind. Sorry, but that's the way these things go. Having settled that point, the next logical question is, "Okay, smart guy, what *kind* of computer?" "Well," I reply, "that's up to you."

Because the America Online special access software comes in both Macintosh and Windows versions, you get some leeway in choosing your computer. Choose the type of machine that makes you most comfortable. Don't worry if you use Windows at work but prefer a Macintosh for home (or vice versa). You can still share documents, spreadsheets, and many other files between your computers without any (well, without *many*) problems.

If you buy a new computer for your online adventures, make sure that it has

- **A fast processor:** For Windows, choose an AMD Athlon or Duron series or an Intel Celeron or Pentium 4. For the Macintosh crowd, a G4 processor provides plenty of performance power.
- **Plenty of random-access memory (RAM):** 256MB is a good minimum for either a Macintosh or Windows machine.
- **A high-quality color monitor:** A good minimum size is 17 inches, but 19 inches provides a world of difference. For a flat-panel LCD screen, go with either 15 or 17 inches, because a panel bigger than that usually involves mortgaging part of your house.
- **Plenty of hard drive space:** 30GB or more (why go small?).

If all this computer jargon sounds foreign to you, pick up a copy of *PCs For Dummies,* 9th Edition, by Dan Gookin, or *Macs For Dummies,* 8th Edition, by David Pogue (both published by Wiley Publishing, Inc.).

A modem enters the picture

The next piece of the puzzle is a *modem,* the device that converts your computer's electronic impulses into whistles, beeps, and various digital moose calls. The modem then yells these noises through the phone line to an equally disturbed modem attached to another computer.

The term *modem* is actually an acronym (and you thought you were safe, didn't you?). It stands for *mo*dulator/*dem*odulator, which is a computer nerd's way of saying that it both talks and listens.

Many computers include a built-in modem as part of the deal these days. If you aren't sure whether your PC includes one, glance at the back of the machine and look for a place to plug in a phone cord. (Check your documentation to make sure that the port *isn't* for a built-in Ethernet network adapter; network jacks and modem jacks look a lot alike!) Congrats — there's your modem!

If your computer didn't come with a modem, or if it's time to replace the poor, old, wheezing thing, take the time to shop around for a good, solid model. You want two things from a new modem: a well-known manufacturer and some blazing speed. Here's what to look for when buying either a new or used modem:

- **Get a modem made by U.S. Robotics or Creative Labs.** Lots of companies make modems, but these manufacturers stand behind their products better than all the rest. Although the price of a cheap no-name modem may look interesting, resist the temptation. Nothing frustrates your online life more than a cheap modem. The modem connects you to the whole online world. Don't hobble your connection with questionable equipment from a fly-by-night manufacturer.
- **If you buy a new modem, make sure it's fast.** Modems that run at 56,000 bits per second (bps) are the de facto standard these days. Most manufacturers call them *56K modems* because *K* means roughly 1000 in the computer world. See the "A few words about connections and costs" sidebar in this chapter for a little more information about these extraordinarily fleet animals.
- **Watch those standards when you pick up a new modem.** If you buy a 56K modem, be sure that it supports the V.92 standard. *V.92* is the newest international screeching and whistling specification for 56K modems. When picking America Online access phone numbers, make sure you look for ones that support V.92. (They're clearly marked on the access phone number lists.)
- **Watch the standards even *closer* when buying a used modem.** If you shop around for a used 56K modem in the name of saving money, look for units that support the V.90 standard, the predecessor to V.92. Avoid older units using the *K56 Flex* protocol — a failed competitor to the real V.90 standard. Although they work, buying into a failed technology makes no sense.

If you have a high-speed access line, you don't use a traditional phone-line modem at all. Instead, the special connections through a cable-TV system, a satellite dish, or the phone company require some matching special equipment.

What about a phone line?

All this other stuff doesn't do you a whit of good if you don't have a phone line to connect it to. The phone is your link with beautiful, metropolitan Dulles, Virginia, the home of America Online. Luckily, you don't need a special phone line — just about any phone line works.

The key words in that last sentence are *just about* because not all phone lines are created equal. Many phone lines have been endowed by their subscribers with certain very alien services — such as call waiting — that interfere with a computer's basic rights to life, liberty, and the pursuit of a connection with America Online.

A few words about connections and costs

If you use a modem for your America Online connection, pay a little extra and get the fastest, highest-quality modem possible. The money you spend now pays you back tomorrow and many days thereafter with a solid, smooth-running Internet connection. On the software side of things, make sure your America Online connection dials the local access phone number that best matches your modem's capabilities, particularly if you bought a V.92 modem. Check keyword **Access** for the latest phone number list.

As you probably guessed, high-speed connections don't use a phone line like low-speed modems do. If they did, everyone could zip through America Online in a collectively quick blaze of glory.

To successfully use a modem, you need an *analog* phone line. If your home has a single phone line (or two plain, old-fashioned phone lines), you have an analog phone line. Because fax machines need the same kind of phone line, in times of emergency you can unplug the fax and use its phone line to reach America Online.

At work, the story is a little different. Many office telephone systems use *digital* phone lines. You shouldn't plug a normal modem directly into one of these lines. Please, for the sake of your modem, don't try. At best, the modem won't work this time. At worst, the modem won't work ever again because it's fried. If you're planning to use America Online from the office, contact your telephone folks and tell them that you have a modem and need something to connect it to. Remember to ask nicely, or else they may not give you the answer you're looking for.

Enjoying a High-Speed AOL Experience

As you start looking at high-speed connections, the term *bandwidth* pops up over and over. (After the nerds find a word they like, they use it a lot.) Bandwidth describes how much data moves through an online connection over a given period of time.

Modems, for instance, create a *low-bandwidth connection.* That's a very technological way of saying that modems move data slowly. Modems measure their connection speed in bits per second, or *bps.*

DSL and cable connections give you a *high-bandwidth connection* to the Internet. They measure speed in Kbps, or *thousand bits per second,* cleverly recycling the popular nerd convention of substituting *K* for *thousand* whenever possible. As you guessed, the more bits that move through your connection per second, the more information the computer shoves through your wire in a given period of time.

All that techno-speak translates to this: The faster your Internet connection, the more fun you have during those precious moments spent with America Online. Like so many other things in life, faster is better.

Digging into the details

High-bandwidth connections come in several shapes, sizes, costs, and acronyms. The specific connections available where you live depend quite heavily on exactly *where* you live in your city, state, and area of the country. Even though one of the high-speed services may be available in your city, you may discover that it isn't in your neighborhood yet. Cost and ease of installation also vary wildly around the country. (Just because companies sell the technology doesn't mean that they know how to put it in yet.)

Don't automatically assume that no high-bandwidth connections exist in your neck of the woods just because you live far away from a booming metropolitan area. Some of the coolest high-speed projects take place in smaller cities or more rural communities because those areas understand the economic importance of the online world better than their big-city brethren.

DSL and cable represent your two main high-bandwidth options. They cost about the same, but offer differing levels of speed and reliability. To use either one, your computer needs a network card that supports either *10baseT* or *100baseT Ethernet* connections. Lots of new machines include a network card as part of the standard configuration, but if yours doesn't, it's not a big deal. Every computer store (and many home electronics places, such as Best Buy and The Good Guys) carries the cards. For a small fee, they even install the card for you, too.

The whole *baseT* thing just means "twisted-pair network wire that looks like overgrown phone cord." But could the computer people just *say* that? Nooooo . . .

Cable: Great when it works, but don't tell your friends

The first time I heard about "Internet access via cable-TV systems" a few years ago, I thought that the person was joking. After thinking about it more (and doing some research on my own), the idea made a lot more sense. Moving television signals around a community is a lot like moving data

around a network — heck, even some of the wire is the same. Today, cable companies all over the country provide high-speed Internet access over the same cable lines that deliver *Brady Bunch* reruns to your living room. (There's some kind of irony there, but I can't quite nail it down.)

When the line works like it should, cable access really screams. It's quite an experience watching a 100MB file pour into your computer in a minute or two instead of an hour or more. The unfortunate downside of cable Internet access (which the cable companies rarely bother mentioning) is its *shared-resource* concept. Due to the cable system's design, the subscribers in a given area share their Internet access (just like you share the neighborhood roads, particularly during rush hour). When everyone uses the system at once (in the evening, after work), response time plummets because each person gets only his or her own increasingly small slice of the total bandwidth. On the other hand, if you work at home, then your access flies all day because you aren't sharing bandwidth with anyone (everybody else is at work, so the roads are clear).

DSL: Not the fastest, but darned consistent

DSL stands for *Digital Subscriber Line,* a cool technology that runs through your existing phone lines. (Considering their huge investment in copper wire, it's no wonder that phone companies looked far and wide for a high-speed solution that turns plain old phone lines into a competitive advantage.)

Your phone company can add a DSL connection to your existing phone line. Even though it goes out over the same wire, DSL uses a different kind of signal that doesn't interfere with the voice part of the phone system. (It works much like those whistles that we can't hear, but that drive dogs absolutely nuts.)

Blazing, consistent speed gives DSL a slight advantage in the market. Cable systems claim to run at 10 to 20 times the speed of a standard 56K modem, but they suffer greatly during high-traffic times (particularly on weekday afternoons and evenings). DSL delivers a slightly slower speed, but without the shared-resource problems that the cable folks calmly describe as a "feature" of their system.

Doesn't this stuff cost a lot of money?

Although high-speed connections cost more than plain modem connections, the difference isn't exorbitant. In fact, it's probably less expensive than you think.

Buying high-speed connection straight from America Online

America Online jumped on the high-speed bandwagon itself with both DSL and cable product offerings. Availability depends on where you live, so for the latest about America Online's homegrown high-speed solutions, go to keyword **DSL** or keyword **Cable** (they both take you to the same place). Type your home phone number and zip code into the dialog box. After just a moment, America Online lists its locally available high-speed plans.

Costwise, America Online's plans usually look about the same as the ones from your local phone and cable companies. You should get similar service and support as well, although I figure that the local phone company has a little more at stake when it comes to keeping me happy.

For instance, if you have an extra phone line for your computer (those computers tie up the phone like a caffeinated teenager), you pay about $25 per month. A cable modem connection, which runs 10 to 20 times faster than a regular dialup modem, costs around $30 per month. Add another $10 to $15 per month to rent the cable modem, and you get a total monthly cost of about $40 to $45 for cable modem service. (DSL lines cost about the same, and they still let you drop the spare phone line.) The *net* cost — because you don't need the extra phone line now — drops to $15 to $20.

But the calculation doesn't stop there. Because high-speed connections link you straight to the Internet without going through one of America Online's local access numbers, your monthly AOL service fee is reduced dramatically. Instead of paying $23.90 per month for America Online, the cost drops to $14.95 per month using the Bring Your Own Access plan, at keyword **BYOA**. Now the high-bandwidth connection costs only $6 to $11 extra. Hmm . . . sounds more enticing, doesn't it?