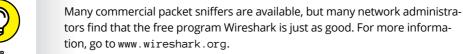# Acquiring Software Tools for Network Administrators

Network managers need certain tools to get their jobs done. Managers of big, complicated, expensive networks need big, complicated, expensive tools. Managers of small networks need small tools.

Some tools that a manager needs are hardware tools, such as screwdrivers, cable crimpers, and hammers. The tools I'm talking about, however, are software tools. I mention a couple of them earlier: Visio (to help you draw network diagrams) and a network-discovery tool to help you map your network. Here are a few others:

» **Built-in TCP/IP commands:** Many of the software tools that you need in order to manage a network come with the network itself. As the network manager, you should read through the manuals that come with your network software to see which management tools are available. For example, Windows includes a `net diag` command that you can use to make sure that all the computers on a network can communicate with each other. (You can run `net diag` from an MS-DOS prompt.) For TCP/IP networks, you can use the TCP/IP diagnostic commands that I summarize in Table 14-1.

» **System Information:** This program, which comes with Windows, is a useful utility for network managers.

» **Hotfix Checker:** This handy PowerShell tool from Microsoft scans your computers to see which patches need to be applied. You can download it for free from the Microsoft website. Just go to `www.microsoft.com` and search for **get-hotfix**.

» **Protocol analyzer:** A *protocol analyzer* (or *packet sniffer*) can monitor and log the individual packets that travel along your network. You can configure the protocol analyzer to filter specific types of packets, watch for specific types of problems, and provide statistical analysis of the captured packets.

Many commercial packet sniffers are available, but many network administrators find that the free program Wireshark is just as good. For more information, go to `www.wireshark.org`.

» **Network Monitor:** All current versions of Windows include a program called Network Monitor, which provides basic protocol analysis and can often help solve pesky network problems.