

THE WALL STREET JOURNAL.

Page B3

January 30, 2007

BUSINESS TECHNOLOGY

'Dumb Terminals' Can Be a Smart Move

Computing Devices Lack Extras but Offer Security, Cost Savings

By CHRISTOPHER LAWTON

Since the early 1980s, corporate computing power has shifted away from the big central computers that were hooked to "dumb terminals" on employees' desks and toward increasingly powerful desktop and laptop computers. Now, there are signs the tide is turning back.

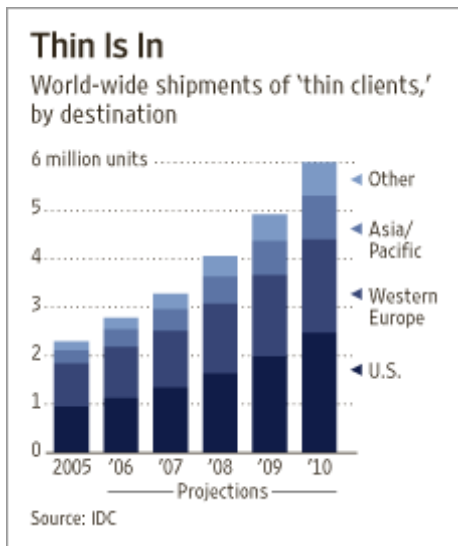
A new generation of simplified devices -- most often called "thin clients" or "simple terminals" -- is gaining popularity with an increasing number of companies and other computer users in the U.S., Europe and Asia. The stripped-down machines from Wyse Technology Inc., **Neoware** Inc., **Hewlett-Packard** Co. and others let users perform such tasks as word processing or accessing the Internet at their desks just as they did with their personal computers.

- **What's News:** So-called dumb terminals hooked to central computers, now often called thin clients, are making a comeback with companies attracted by cost savings and security benefits.
- **The Background:** Thin clients can't run most software or store data on their own, offering both pluses and minuses that can vary by company.
- **The Outlook:** World-wide shipments of such simple terminals are expected to rise 21.5% annually through 2010, according to research firm IDC.

These simple terminals generally lack features such as hard drives or DVD players, so they can't run most software or store data on their own. Instead, the software applications used on a thin terminal's screen are actually running on a server, often in a separate room.

One company that recently moved away from PCs to these new bare-bones terminals is Amerisure Mutual Insurance Co. Last year, the Farmington Hills, Mich., insurer shelled out around \$1.2 million for simple terminals to replace 750 aging desktop personal computers in eight offices.

Jack Wilson, Amerisure's enterprise architect who led the project, says the reasons behind the switch were simple. The company was able to connect all of the employees to the network through the terminals and manage them more easily from 10 servers in a central location, instead of a couple servers at each of the eight offices previously. While the company spent around the same total as it would cost to buy new PCs, Mr. Wilson says, the switch will save money in the long run because he won't have to replace -- or "refresh" -- the machines as often.



"I did a PC refresh every three years, but with these thin clients, I should be able to bypass two or maybe three refreshes," Mr. Wilson says. Because it costs around \$1 million each time Amerisure buys upgraded PCs for its staff, he adds, "That's a significant savings just there."

While these terminals remain a small fraction of the market, thin-client shipments world-wide in 2006 rose to 2.8 million units valued at \$873.4 million, up 20.8% from the previous year, according to projections from technology-research firm IDC. The category is expected to increase 21.5% annually through 2010.

Like Amerisure's Mr. Wilson, other companies and institutions cite lower costs in spurring their interest in

simple terminals. Because the terminals have no moving parts such as fans or hard drives that can break, the machines typically require less maintenance and last longer than PCs. Mark Margevicius, an analyst at research firm Gartner Inc., estimates companies can save 10% to 40% in computer-management costs when switching to terminals from desktops.

In addition, the basic terminals appear to offer improved security. Because the systems are designed to keep data on a server, sensitive information isn't lost if a terminal gets lost, stolen or damaged. And if security programs or other applications need to be updated, the new software is installed on only the central servers, rather than on all the individual PCs scattered throughout a network.

"People have recognized if you start to centralize this stuff and more tightly manage it, you can reduce your cost and reduce the security-related issues, because you have fewer things to monitor," says Bob O'Donnell, an IDC analyst.

Thin clients can also have what some computer buyers think are significant drawbacks. Because data and commands must travel between the terminal and a central server, thin clients can sometimes be slower to react than PCs.

Simplified terminals can translate to less freedom for individual users and less flexibility in how they use their computers. Without a hard drive in their desktop machines, users may place greater demands on computer technicians for support and access to additional software such as instant messaging, instead of downloading permitted applications themselves. Analysts say it takes time for employees to get used to not controlling their own PCs.

"It's a paradox. People want their cake and eat it, too. They want the security, they want the consistency...but they want the functionality of a PC," says Gartner's Mr. Margevicius.

At some companies, the math works in favor of simple terminals. Morrison Mahoney LLP deployed terminals last year to connect the New England law firm's 375 employees to the network and manage them from a central data center. By making the switch, Frank Norton,

director of information technology for the firm, projects that over the next six years, Morrison Mahoney will save around \$750,000 in hardware and labor costs.

Mr. Norton says going to thin clients from personal computers was a change for employees, but the firm has always had strict policies against downloading, which made it easier to adjust. "It's definitely a culture shock, saying how can my same PC go to this little box with no moving parts," *Mr.* Norton says.



Simple terminal setups, such as the H-P Compaq t5135, are showing signs of a comeback.

Meanwhile, Jeffery Shiflett, assistant director of information technology for the County of York, PA., deployed such terminals throughout the county starting in 2002. What started as a setup of 45 terminals in a small county-run nursing home four years ago has expanded to 925 terminals.

Mr. Shiflett says that using the terminals has helped the county stay current with regulations such as the federal Health Insurance Portability and Accountability Act enacted in 1996, which requires the medical industry to do a better job of securing private medical information. "The need to secure the desktop and provide that sort of compliance...was a key factor that moved us toward implementation of thin clients and a separation from the traditional PC," *Mr.* Shiflett says.

Simplified computing terminals are starting to go international. H-P, of Palo Alto, Calif., last week announced that a line of its slimmed-down PCs, which reside in the data center and enable users to connect through a thin client or other devices, was being made available in Europe, Canada and China for the first time. Meanwhile, other companies are updating their dumb-terminal technology. Neoware, of King of Prussia, Pa., in October introduced a thin-client notebook computer that uses a wireless network to connect to a central server. Today, Wyse released a set of software tools aimed at delivering a better experience on a thin client.

Amerisure's Mr. Wilson says he is testing a thin-client laptop computer. If deployed, he says, the notebooks wouldn't store data and would connect wirelessly to the network. *Mr. Wilson* wants to make sure the wireless connections for the notebooks would be adequate in some remote areas that *Amerisure* covers in the Southeast and Texas.

"Security is very important to us. You have to find a level of security that allows you to function as a business," he says.