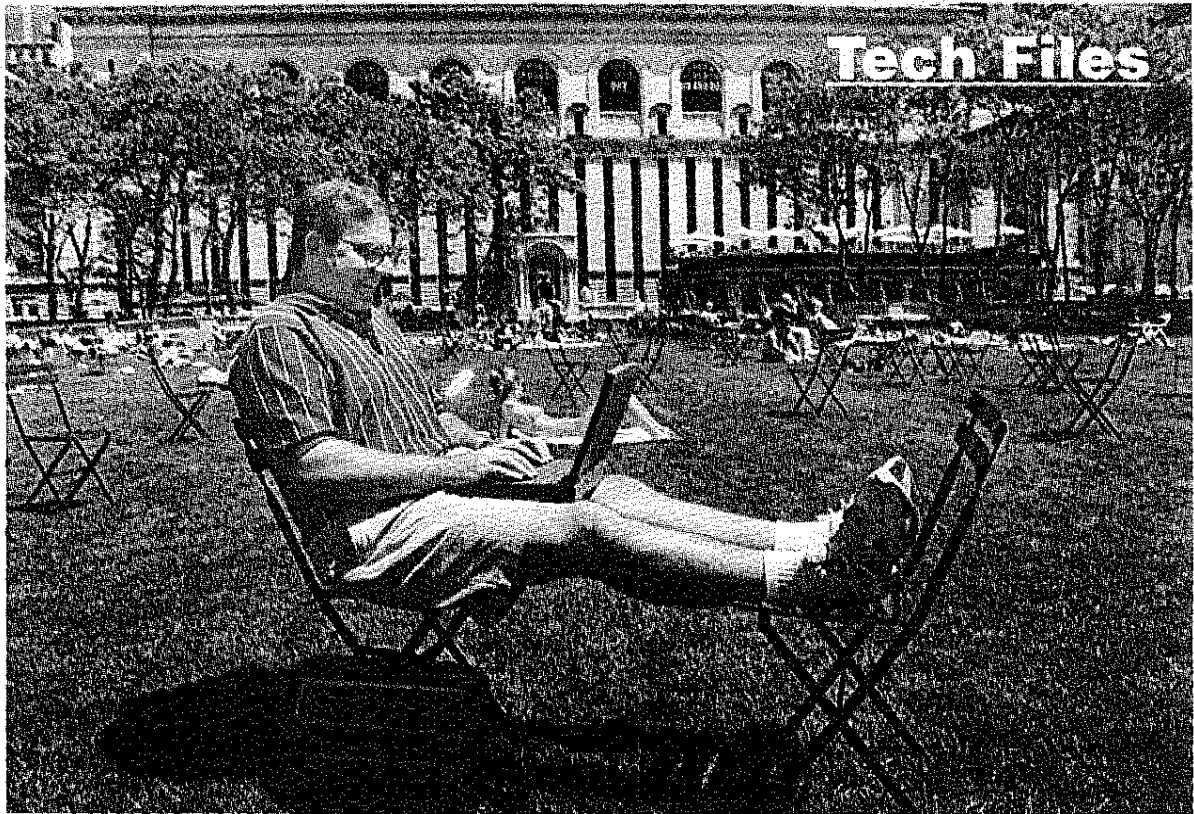


Tech trends

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PHOTOGRAPH BY RICK KOPSTEIN

What brings Chadbourne & Parke litigator Lawrence Savell to Bryant Park on Saturday mornings? Hint: It's thin, sleek and mobile (center). Savell's NEC laptop lets him work wherever he wants.

A Laptop for Every ^{Page}₃ Lawyer? Not So Fast

Laptop PCs Invade the Desktop

BY ALAN COHEN

SOME FIRMS have so embraced technology that their offices have begun to resemble sets from science fiction movies. Four years ago, a visitor to Chadbourne & Parke might have been tempted to use that same analogy to describe the firm's New York headquarters, with just one difference: This science fiction would have been made in the 1950s. Chadbourne, after all, was not a proving ground for the latest high-tech wonders. Word processing was still carried out on aging Wang terminals; personal computers had yet to be rolled out.

But with one bold, radical and expensive decision, Chadbourne & Parke went, almost overnight, from technology laggard to innovator. Ripping out those Wang terminals in 1993, the firm did not replace its antiquated system with desktop computers, as most of its competitors had done. Instead, Chadbourne became an oddity in

But Some Lawyers Balk at Taking Them Home

ample, may be supplied with a lighter, less capable laptop or palmtop unit powerful enough to check E-mail remotely.

While laptops in lieu of desktops offer a number of important advantages, such as the ability to use the same computer at all times, in all locations, there are significant disadvantages, as well: Laptops cost more than desktop PCs, are generally less advanced, are much more susceptible to theft and loss, grow obsolete more quickly and have proven more difficult to set up, maintain and upgrade. Moreover, screens can be harder to read and the units still are not as light as users wish: Full-featured

laptops weigh six to seven pounds, not an insignificant amount for a lawyer who already carries a briefcase and perhaps luggage.

As the units continue to improve, many of these drawbacks are abating. Faster processors are narrowing the performance gap between laptop and desktop computers; more open, modular designs are making portable PCs easier to configure and support. Larger, clearer screens are starting to rival desktop monitors. Manufacturers have released new lightweight machines.

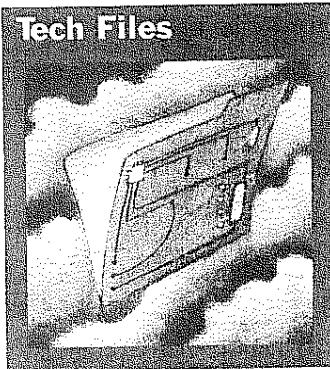
Progress alone will not solve all laptop-

related issues, however. Sometimes, it is the way the machine is used, and not the machine itself that has to be refined. As with any new technology, there are tradeoffs involved, pros and cons. Getting the equation right, however, has proven to be no easy matter.

Less for More

If it were not for their portability, there would be little reason to buy laptop computers. They cost more and generally do less than desktop computers. The newest and fastest microprocessors will appear in desktop machines long before they make their way to laptops.

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the legal community: A firm where lawyers used laptops as their primary PC.

"We wanted a mobile, laptop configuration in order to encourage use at client sites, courts and home," said Walter Max, Chadbourne's director of information services.

The results have been mixed. In the process of embracing laptops, the firm may have been too optimistic, making several strategic decisions that, Mr. Max candidly admitted, have "not [[been]] all that popular." First, lawyers would not have any choice as to what type of machine they would receive: Everyone was supplied with a laptop, the logic being that it would be more efficient to maintain just one type of computer. Yet while portable PCs make sense for litigators on the road, the advantages for trusts and estates lawyers who rarely need to leave the office is less obvious. Unless they want to work from home.

For Chadbourne, however, this was to be a key advantage of using laptops in lieu of desktops. "We wanted [attorneys] to use PCs at home, but we didn't want to support home PCs," explained Mr. Max. Remote access would be possible only via the laptops.

But many lawyers already had home PCs and did not want to carry home another computer every night just to be able to work after dinner.

"The laptop as desktop has not been a complete success," conceded Mr. Max in a recent interview. "Although the machines are portable, [they are] a heavy item to lug with everything else. A lot of people are not using them."

Chadbourne is now reevaluating its laptop policy. The firm has no plans to switch entirely to desktops ("the litigators would kill us if we took these machines away from them," noted Mr. Max), and indeed, the options under consideration have a mobile computing component. Attorneys preferring a standard desktop unit, for ex-

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A Laptop on Every Desk

First-generation chips, explained Sheryl Katz, an attorney and senior consultant with New York-based LANSystems, are too big and too power-hungry for a mobile configuration. "Over time, [chip manufacturers] develop a smaller and cooler generation with lower power requirements." These chips can be used in laptops.

That is why laptop computers are always playing catch-up with desktops in terms of processor power. While a user can go out today and purchase a 266-MHz Pentium II desktop, someone looking for a laptop is limited to a 166-MHz chip.

Moreover, Ms. Katz noted, hard disks are smaller on laptops, typically with a maximum of about 2.1GB, compared to the 5GB disks found on many desktops.

This can pose problems for firms that rely on laptops as primary computers. Chadbourne's Mr. Max said that lawyers running out of disk space is "the biggest problem" the firm has with laptops. The firm's newest machines, he noted, feature larger disks, "but I'm sure that in a year or so, we'll get people running out of space."

Moreover, firms can expect to pay a hefty premium for laptops. A top-of-the-line Dell Latitude LM M166ST laptop, featuring a 166-MHz CPU, 24MB RAM and a 2.1GB hard disk, sells for \$3,599. For the same price, one could also buy a Dell Dimension XPS H266 desktop, running at 266MHz, with 64MB RAM and a 6.4GB hard disk.

Mr. Max estimated that Chadbourne spent approximately \$5,000 per unit when it outfitted the firm's 320 lawyers with new laptops a year ago, or a total of \$1.6 million (this was the second major purchase since the firm inaugurated laptop use four years ago). That included the \$4,200 cost of the laptop itself, a then-top-of-the-line NEC model with a 133-MHz Pentium CPU, 16MB RAM and an active-matrix color display (the highest quality video on laptops, active matrix is brighter and sharper than dual-scan technology, but adds approximately \$500 to the unit's cost). The remaining \$800 bought each lawyer a modem and a docking station to connect the unit to external keyboards and monitors, as well as to the firm's network.

Chadbourne is not the only firm paying top dollar for laptops. At Washington D.C.'s Wilmer, Cutler & Pickering, where 75 of the firm's 250 attorneys now use laptops in lieu of desktops, according to Ron Friedmann, Wilmer's director of computer applications, high-end Dells, costing \$4,000 to \$5,000, are the current purchase. Wilmer Cutler, however, is taking a more cautious approach than Chadbourne, deciding laptop acquisitions on a case-by-case basis and maintaining a lending pool of approximately 50 portable PCs.

"Not every lawyer travels a lot [or] works at home," said Mr. Friedmann. "It doesn't make sense if folks who don't want them get them just for the [sake] of consistency."

Unlike Chadbourne & Parke, Chicago-based Kirkland & Ellis gives its attorneys a choice between laptop and desktop computers, and lets them access E-mail remotely from home PCs. But the firm has wholeheartedly embraced laptops. Of the 530 lawyers at the firm, just four use desktop units, according to William Scarbrough, Kirkland's information and technology services director.

"They have to choose one or the other. They can't have both," Mr. Scarbrough said, attributing the popularity of laptops to what he called the firm's "very mobile culture," where far-off litigation is common and cases are staffed out of more than one office, requiring attorneys to travel frequently.

Kirkland, however, refuses to pay \$5,000 for a laptop configuration. "We spend \$1,500 to \$2,000," Mr. Scarbrough explained. "We get absolutely the most we can for that price."

The firm's strategy is to buy under the top-of-the-line. In other words, by pur-

chasing a large number of laptops just before the model is discontinued (which in the fast-moving world of portable PCs can be a matter of months after a product's introduction), Kirkland can purchase last year's high-end machine for a fraction of its original cost. This spring, when the firm bought its most recent round of machines, it purchased Hitachi C Series laptops with Pentium 133 chips, 16MB RAM, 13.1-inch active matrix screens and 1GB hard disks, essentially the same machines Chadbourne purchased a year earlier. By waiting, Kirkland paid \$1,900 per unit, less than half the \$4,200 Chadbourne spent.

Ms. Katz, of LANSystems, said this latter approach makes more sense. "Law firms usually buy top-of-the-line, \$6,000 laptops. Two years from now, they will show their age." Instead, she recommended firms do what most consulting companies do: "Treat [laptops] as disposable commodities, like Klennex." Buy \$2,000 laptops, and replace them every year. "Keep buying under the top of the line."

But firms are a long way from replacing laptops every year, no matter what the machines cost. Kirkland expects each laptop to last three to four years; Chadbourne is looking at a three-year life cycle. Mr. Max agreed that buying cheap and replacing often was "a reasonable approach," noting that "for half its life, the machine is totally adequate; for the other half, it gradually become intolerable." Yet he worried that the reliability of cheaper machines is "kind of suspect" and that machines are harder to replace and support once they have been discontinued.

Ms. Katz also questioned the wisdom of purchasing models with active-matrix screens if docking stations are used. Kirkland, for example, does not supply its attorneys with these devices, saving another \$800 per attorney. The screens, Mr. Scarbrough said, are bright enough to be used without external monitors. Chadbourne, on the other hand, supplies both the high-quality screens and the docking stations and monitors.

"It is a big investment," said Lawrence Savell, of counsel in Chadbourne's litigation department. But the idea is to use the machine outside the office, as well. "If it's a more pleasant thing to look at, you'll be willing to look at it for a longer amount of time." Mr. Savell, for one, has decided to take advantage of his laptop, spending Saturday mornings in Bryant Park, where he can work for an hour and a half until his battery dies. "I'd rather be there than in

the office," he explained. "I can maintain a semblance of a personal life."

Unlike desktop computers, laptop designs tend to be proprietary in nature, meaning that parts differ from machine to machine and can be harder to upgrade and replace.

"With desktops, you can go to Western Digital and buy 10 hard drives [that will] fit every desktop, no matter who built it," said Ms. Katz. With laptops, on the other hand, parts are specifically designed for a specific machine. Motherboards, hard disks, even memory slots vary from laptop to laptop. But that might change, she noted, now that Intel is beginning to push more open systems.

Moreover, getting applications to run smoothly on a laptop can involve a significant amount of work. Models vary so much, even within a vendor's own product line, that support becomes a much bigger issue with portable PCs.

"We spend two times the effort to configure a laptop than a regular desktop," said Mr. Max.

Chadbourne's solution is to try to supply all attorneys with the exact same model. Thus, the firm replaces its PCs all at once, and not in yearly stages, as Kirkland & Ellis does. But models are introduced and discontinued so frequently that even the laptops Chadbourne purchased last year are no longer available, and attorneys just joining the firm must be supplied with all-new models from NEC, raising still more configuration issues. Mr. Max said that one advantage to modifying the firm's current laptop policy and providing desktop units to attorneys who wanted them, would be to free up those users' laptops, which could then be given to incoming associates.

Security concerns

While the ability to use the same computer at all times is, without question, the biggest advantage to using the machines, it is also a major cause of concern. "The downside is that you do not want to lose your machine," explained Mr. Savell.

Smaller, lighter and much better travelled than desktop PCs, laptops are more susceptible not just to loss but to theft. That can mean not just the loss of important information stored on the machine, but also the unsavory prospect that confidential material could find its way into the wrong hands.

Both Chadbourne and Kirkland have

lost a few machines to theft and loss over the past few years, but neither Mr. Max nor Mr. Scarbrough would characterize the issue as problematic. Each firm has taken a number of steps to protect not only the machines themselves, but the information they contain.

In Kirkland's case, lawyers who do not take their laptops home at night are advised to lock them in their desk drawers. Security locks are provided for attorneys who feel they would like added security, Mr. Scarbrough added. The firm, he said, "makes quite an issue of it," explaining to users just how easily their machines can be stolen and implementing security measures such as password protections. Attorneys are also encouraged to manually back up files that are not stored on the network.

At Chadbourne, docking stations lock, so that laptops are not left sitting on any attorney's desk. A reminder screen appears when users log off the network, encouraging them to secure their machines.

Mr. Max said the firm also is exploring the use of special software that will encrypt the contents of each laptop's hard disk. This way, even if a machine is lost or stolen, confidential information will not be compromised.

It's the Weight, Stupid

Down the road, expect to see the gap between laptops and desktops narrow. Faster chips will make their way into portable machines, disks will hold more data, screens will grow larger and sharper.

"Attempts will be made to make them thinner . . . but people will still complain about lugging it around," said Ms. Katz.

Chadbourne & Parke spent approximately \$5,000 per unit when it outfitted the firm's 320 lawyers with new laptops a year ago, or a total of \$1.6 million.

At Chadbourne, both Mr. Savell and Mr. Max point to the weight of current laptops as their biggest drawback.

"A slower processor is not a big deal for word processing," explained Mr. Savell. "But you want to see a reduction in weight. You want it as if you didn't know the machine was there."

Manufacturers have begun to respond. Toshiba, for example, has recently introduced a 2.5 pound (including AC adapter) unit called the Libretto 50, which has been highly visible at trade shows and in the media.

But these smaller machines, said Mr. Savell, offer reduced features. While the Libretto offers an active-matrix screen, the display area is just 6.1 inches. The keyboard is less than full size and the micro-processor a 75-MHz Pentium chip.

Still, Mr. Max sees potential in these stripped down machines and, perhaps, a way to work out the kinks in the firm's laptop policy. Chadbourne, he said, may provide lighter, less capable machines to attorneys who do not need the full features of a standard laptop, but would like to perform some tasks (such as accessing E-mail) remotely.

"With lighter machines, we should have less resistance to using them," Mr. Max explained. "We're looking to move to a policy that gives attorneys a few more options."