America's Top Technology Companies

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COMPILING THIS LIST OF THE MOST dynamic technology companies is a lot like naming the world's hottest 100 mountaineers. You can be sure that by next year (or maybe next month) many "of your picks will have tumbled off the roster into the cold wastes of oblivion.

The second annual **Forbes ASAP** "Dynamic 100" includes 52 repeaters. So what happened to the others, and where did the new guys come from? The two-word answer: dot.com.

The revolution, it seems, will be Webcast: Dynamic companies are supposed to cope with change. That's one of the-six factors we used .to make our selections. The painful truth is that dynamism itself is subject to change: Shifts in a company's operations, its competition, or its markets can quickly transform today's 'dynamic company into next year's shoulda-been.

With two-year development cycles and nine-month product life spans; everyone's got to move very quickly," says venture capitalist Kevin Compton of Kleiner Perkins Caufield & Byers. "It you're not building your technology, you're at risk."

And even if you do, you might still be in trouble: "Asian demand just dried up, and no one saw it co coming," says Wasatch Advisors analyst Ajay Krishnan. Result: Semitool (#8 semiconductor company last year) fell off the list after the capital equipment sector slowed down and its growth rate slumped. Manugistics, the second-ranked software firm last year, dropped from the list as well. Amid the weak demand from Asia, the company's pumped-up sales force couldn't cope with competitors like i2 Technologies (#5 in software this year) and SAP.

Yet some stayed on the list this year by coping wall with changes that threatened their status. Compaq (#5 in hardware, down from #2 in 1998) weathered bulging inventories and Wall Street's wrath early in 1998. By year's end it had trimmed inventories even as the company experimented with a new Way of selling, copied from Dell's direct sales model. Amazon.com (#3 among Internet firms, tip from #7 last year) met threats from Borders and Barnes & Noble by flawlessly executing a broader offensive aimed at transforming the company into an Internet shopping mall,

Some new companies joined the list by taking advantage of opportunities that weren't as, obvious a year or two ago as they are now. Ebay (#4 among Internet firms) came out of nowhere to invent and capture the market for consumer-to-consumer Internet auctions. As the legend goes, founder Pierre Omidyar's fiancée bemoaned line difficulty of finding people to trade Pez dispensers with her, and he found, at last count, a $973 billion solution (Ebay's market cap as of February).

A year's worth of Changes cab knock a respected company like 3Com Off our list or catapult a no-name like Melita International (#38 in software) into the top t00. Still, our aim is to find firms that have a crack at staying on the list for a while -- and even coming back ,after being bumped off the list for a year or two.

We didn't expect to find this year's dynamic companies just by looking at SEC filings--numbers are only part of the story. A firm's financials alone don't tell much about its prospects lot dominating its market. Instead, **Forbes ASAP** interviewed scores of analysts, money managers, and venture capitalists, asking them to rate more than 300 companies on the six factors we believe define dynamism in a technology firm today.

First, obviously, we asked about overall responsiveness to change. Here, we wanted companies such as EMC (#3 among peripherals and manufacturing companies), which is leading the push into storage area networks-- the newest paradigm shift in the data storage industry. Similarly, Network Associates (#33 among software makers) recognized that companies want one-stop shopping for Internet security; thus, it bought companies to fill lust about every niche.

Market opportunity, especially on the Internet, lost some of its pie-in-the sky flavor as online commerce (and the market capitalizations that accompanied it) proved more enduring that anybody thought, Forrester Research estimates that worldwide Internet sales approached $80 billion in 1998. The dot com revolution had implications in every technology category, from hardware to telecom, as smart companies such as Dell raced to use the Net as a marketing tool. Meanwhile, within the cyberworld, firms such as Exodus Communications (#13 among Internet firms) addressed a potentially huge market, the high end Web hosting business--which is expected to grow 100% annually through 2002--and acted quickly to lock up leading shares.

Marketing expertise was essential on the Internet and elsewhere, as firms invented new ways of getting customers to buy. Apples 10-minutes-and-you're-on-the-Internet claim made the iMac the best selling computer of the year, helping bring the firm back from the brink to #4 among hardware entries. Gateway (#3) proved that; if nothing else, its managers; aren't afraid to try something new: They opened inventory-less stores where retail customers could meet with salespeople to design their own computer systems. It's a long shot--but most high tech successes are. Gateway also started leasing PCs to its customers in '98.

Human capital is, of course, essential to success in high tech. Technology companies often send their most important assets home every night (except when they sleep in their cubicles). Can 65 a hot company retain the loyalty of the world's most creative designers and programmers? I.D. Edwards (#40 in software) can: The ERP company has a reputation for keeping its people "forever"

One way to get people to come in the first place is to lure them with lucre. According to cofounder Dr. Henry Samueli, Broadcom (#1 in semiconductors) has made some 350 of its 450 employees paper millionaires.

Alliances and partnerships are often the quickest way to hold a commanding market share of a, new or shifting market. Internet Security Systems (ISS) (#29 among software firms) makes security software that competes with products from Cisco Systems (#I among networking companies); but while Cisco builds its own networking equipment, ISS holds its own through its agreements with Cisco's manufacturing rivals. Citrix Systems' (#1 in software) partnership with Microsoft protects its leadership status in the market for server-based computing software. And consider Yahoo (#1 among Internet firms): "Yahoo has shown us that you don't need to own anything to succeed in e-business," says Kevin Landis, manager of the Technology Leaders Fund. "You partner instead"

Finally, good intentions and better prospects aren't enough to make the list. Ultimately we want to see the same thing everybody else does: killer growth. Companies like @Home Network (#10 among Internet firms; last year's revenues of $48 million are expected to jump to. $2.2 billion by 2002), Citrix (100% revenue growth in

'98), and Global TeleSystems (#6 in telecommunications; 319% '98 revenue growth) set the standard here.

A side note: More Ran half the firms on this year's list and four out of the seven category winners are from places other than Silicon Valley. Blame it, along with much else, on the Internet's ability to spread power and wealth around,

While you ponder the companies that are on this list, spare a thought for the firms that aren't. Some that otherwise would have made the cut were bought by Or merged with other dynamic companies before our January 31 cutoff: Yahoo bought GeoCities; @Home bought Excite; Vodafone merged with AirTouch; Lucent bought Ascend. Others got beat by the three Cs: circumstances; competition, and -- once again-- change.

The year ahead may be easier, But don't count on it. You can , bet none of the companies on the list are. They know that markets will change and even disappear, new competitors will emerge, alliances will shift, and technologies will blow up.

That said, we're convinced the companies on fills year's "Dynamic 100" list are capable of resisting and even exploiting most of the twists and turns that will come their way in 1999.

HARDWARE

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Legend for Chart:


A - ASAP Rank
B - Company/Location
C - 1998 Revenues
D - 1998 Stock Performance
E - Responsiveness to Change
F - Market Opportunity
G - Marketing Expertise
H - Human Capital
I - Alliances & Partnerships
J - Prospects for Growth
K - Ratings TOTAL
L - 1998 Rank
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A	B	C	D	E	F	G
H	I	J	K	L		

1	Dell Computer					
	Round Rock, TX	$12.3B	249%	5	5	5
5	4.5	4.5	29	1		

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Dell generated 59% revenue growth in '98, building its global
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PC market share from 6% to 8%. Dell did it by expanding into high-end servers (server revenues are expected to grow 140% in '99), adding storage products, and, passing along lower component prices. Next stop: the high-end consumer and home office market. And oh yeah. Dell's daily sales through the Web equal some $10 million--more than almost any other firm on earth.

2   Sun Microsystems
Palo Alto, CA $9.8B   115%   4.5   4.5   4.5
5   3.5   3.5   25.5   3

The Justice Department isn't the only thorn in Microsoft's side. Sun has made Java the top language for programming on the Net. Now the firm's new Jini technology claims to make it a snap to connect printers, lap-tops, and PalmPilots to a network. Sun's two latest challenges to Gates' empire: its plan to offer the Solaris operating system with Oracle's database software and its deal with Intel for the new Merced chip. Says one analyst: "Microsoft wouldn't be so vicious if Sun wasn't so good."

3   Gateway
North Sioux City, SD $7.5B   56%   3.5   4.5   4.5
4   3.5   3.5   23.5   4

New management and new initiatives have some analysts excited about prospects for the king of consumer computing. Gateway's new "country stores" carry no inventory; instead, salespeople help buyers, assemble and order custom setups from the factory. "If it works, it will be wildly successful," says one analyst. On the other hand, offers a skeptic: "It may blow up."

4   Apple Computer
Cupertino, CA $5.9B   212%   5   3   4
4   3.5   4   23.5   -

Most people think the iMac is the force behind Apple's phoenix

story. Apple sold 800,000 iMacs last year in a
four-and-a-half-month period, convincing software developers
to write more than 1,300 new titles for it. But the real
story here is management. "Steve Jobs runs as tight a ship as
anyone in the PC industry, including Dell," says one analyst.
Want proof? Apple ended its first-quarter '99 with an amazing
two days of inventory, compared to Dell's seven.

5   Compaq
Houston, TX $31.2B   49%   3   5   4
3.5   4.5   3   23   2

Compaq's inventory problems and missed earnings in March '98
enraged Wall Street. But many analysts chilled out by year's end.
The reason: The company is lifting Dell's model for selling PCs
to the fast-growing small and midsize business markets.
Meanwhile, says an analyst, Compaq's sub-$1,000 PC has "rocked
the retail, world." On the high end, the acquisition of Digital
gives Compaq a 32% share of the market for Intel-based network
servers.

SOFTWARE

1   Citrix Systems
Fort Lauderdale, FL $248.6M   92%   5   5   5
5   4.5   4.5   29   -

Being a world leader in thin-client/server-based computing
wasn't enough. Citrix knew its technology had to be so good
that Microsoft couldn't steal its oh-so-tempting market. The
company succeeded, forcing Gates to license Citrix's software
for his new Windows Terminal Server; Citrix software lets,
armies of networked "thin client" (translation: cheap)
computers run Windows-based applications on it. The firms
deal with Microsoft brings huge royalties and a leading
position in a market likely to grow to nearly $50 billion by
2002.

2   Veritas Software

Mountain View, CA $210.8M   76%   5   5   4.5
5   4.5   4.5   28.5   21

Some 90% of Unix users own Veritas software, which protects
data from systems failure and file corruption. The firm's
$1.5 billion acquisition of Seagate Software's network and
storage management group almost doubles its revenues and
strengthens its position in the Windows NT marker. (Already,
Microsoft bundles Veritas software with NT 2000 servers.)
Analysts expect 50% annual sales growth through 2003.

3   Pervasive Software
Austin, TX $36.7M   166%   4.5   4   5
5   5   5   28.5   -

"If you do business with them, you make more money," says one
analyst. "That's a pretty good selling point." Pervasive
sells low-maintenance embedded databases that small-businesses
use for accounting and other record peeping, as well as Web
application tools. Monsters like Oracle and Microsoft compete
for the high end of this $500 million market ($2 billion to
$3 billion by 2002. Pervasive dominates the bottom. Sales
should grow 50% or better annually through 2002.

4   Synopsys
Mountain View, CA $717.9M   52%   4.5   4.5   5
5   5   4.5   28.5   -

Run largely by engineers with Ph.D.s--the same highly qualified
brainiacs the firm sells to--Synopsys pioneered software that
automates the logic in integrated circuit design. Smart
acquisitions and partnerships with major IC suppliers such as
LSI Logic and NEC have helped Synopsys capture an 80% share of
the $400 million logic synthesis market. Look for long-term
20% to 30% annual earnings growth.

5   i2 Technologies

| Irving, TX | $362M | 15% | 5 | 5 | 4.5 |
| 5 | 4.5 | 4 | 28 | 1 | |

"Everyone worried when SAP said it was going after i2's market," says an analyst. "But i2 continues to eat off SAP's plate." Its main competitor, Manugistics, stumbled last year, leaving i2 the undisputed leader of the $2 billion supply chain management market. It's on track to grow 50% annually through 2002. "i2 keeps redefining supply chain solutions," says one analyst. "And they have the best technology."

6 New Era of Networks

| Englewood, CO | $65.9M | 682% | 5 | 5 | 4.5 |
| 4.5 | 4.5 | 4.5 | 28 | – | |

New Era of Networks (NEON) has been lighting up the $270 million enterprise application integration market, which is growing 45% annually. Run by founder, Chairman and CEO Rick Adam, a former, partner and CIO of Goldman Sachs, NEON sells "middleware"--software that links old and new systems -- solving a problem companies spend $40 billion a year to fix. NEON sells to financial services firms and is moving into the health care, transportation, and manufacturing industries. "Their technology, is amazing," says an admirer. "They have the potential to be the 800-pound gorilla in this market."

7 Visual Networks

| Rockville, MD | $50M | 114% | 5 | 4.5 | 5 |
| 4.5 | 4 | 5 | 28 | – | |

Pioneers in managing wide-area networks (WANs), Visual Networks delivers software that helps companies improve network reliability and efficiency. Fifteen percent of new lines today are equipped with Visual's frame-relay management technology, and the company has relationships with MCI, Worldcom, Sprint, and AT&T. Revenues are-predicted to rise 40% in '99.

8   Advent Software

San Francisco, CA $70.9M   65%   4.5   5   5
5   3.5   5   28   -

In 1982, Stephanie DiMarco devised a portfolio accounting
program to make her money management job simpler. The program
worked, but her life got more complicated: She's now CEO of
Advent, the leader in the $10 billion investment management
software market. Analysts applaud the firm's customer list
(5,000-plus investment management firms), steady growth (35%
a year since 1993), and a warm-and-fuzzy culture (pets in the
office and a piano in the lunchroom).

9   Hyperion Solutions

Sunnyvale, CA $377M   56%   5   5   5
4   4.5   4   27.5   20

Offspring of last year's merger between Hyperion Software and
Arbor Software (#20 on last year's software list), Hyperion
Solutions makes OLAP (online analytical processing) servers
and tools -- business intelligence software that helps
companies analyze massive amounts of data and make smarter
business decisions. Analysts say the $8 billion OLAP market
will grow 60% to 70% annually, with Hyperion leading the
pack. "Almost every CFO I know uses Hyperion's software, and
they all love it," says one analyst.

10   Inktomi

San Mateo, CA $20.4M   259%   4.5   5   4.5
4   4.5   5   27.5   -

The name means "trickster spider" in Lakota Indian legend, but
think of Inktomi as Yahoo's brain. The firm provides network
caching to ISPs like AOL and searching services to portals such
as HotBot. Last July Yahoo dumped AltaVista to sign on with
Inktomi. Revenues rose 343% from $2.4 million in Q4 of 1997 to
$10.7 million in Q4 of 1998. Next stop: a service to deliver

comparison shopping to consumers. "They're becoming the software layer underlying the whole Internet," claims one Wall Street fan.

11   Microsoft

Redmond, WA		$14.5B	115%	4.5	5	4.5
4.5	5	3.5	27	5		

"They don't create products, they steal them!" rages one foe. So? With net profit margins at 31% and $19 billion in cash, there is no market Microsoft can't turn into rubble. Current and coming sorties include a new version of its database product SQL Server 7.0 (Oracle, duck!), Windows 2000, Office 2000, and, of course, Web-based businesses from portals to software upgrades.

12   Macromedia

San Francisco, CA		$113.1M	305%	5	5	4
4.5	4.51	4	27	–		

Macromedia has successfully hitched its wagon to the Web. The firm's software, such as Macromedia Flash and Shockwave, now helps bring static Web sites to life with interactive content and animation (online promos for blockbusters like A Bug's Life and You've Got Mail use the firm's software). Analysts expect earnings to increase-by more than 400% in 1999.

13   VeriSign

Mountain View, CA		$33M	132%	4	5	4.5
4	5	4.5	27	–		

"It makes a lot of sense to establish a standard for the technology that protects e-commerce," says one observer. "And it's becoming pretty clear that VeriSign is that standard." In fact, the top 25 e-commerce sites all use VeriSign's "digital IDs" to protect access to communications and transactions. Sales rose more than sixfold in 1997 and

190% in 1998; look for revenues to rise 80% in 1999.

14 Wind River Systems

Alameda, CA		$92.4M	18%	4.5	5	4.5
4	4.5	4	26.5	6		

Wall Street winced when Microsoft said it would invade Wind River's-stomping ground -- software for embedded microprocessors. But Gates & Co.'s success in the field so far has been limited to PC-like products (handheld PDAs and the like). Meanwhile, Wind River is moving into Microsoft's turf--application-level software for things like network switches --as well as into the automobile and digital signal processor markets. Analysis expect it to deliver 40% revenue growth in 1999. Concludes one observer: "1998 was the year everyone realized Microsoft won't destroy Wind River."

15 Aspect Development

Mountain View, CA		$86.2M	70%	4.5	4.5	4.5
4.5	4.5	4	26.5	10		

Aspect's software helps manufacturers find and compare information about components and suppliers. Result: lower component costs and more effective product development. The firm holds a 25% share of a market that should reach $1 billion by 2000. Aspect already has 140 customers; including IBM and Cisco, and it has identified nearly 2,000 more potential buyers. Look for earnings to grow 50% annually through 2003.

16 Documentum

Pleasanton, CA		$123.8M	27%	5	4.5	4.5
4.5	4	4	26.5	24		

Former Xerox subsidiary Documentum makes software for enterprise document management (the sharing and managing of huge quantities of company documents through networks and intranets). It's succeeded where others--such as PC Docs and FileNet -- have

stumbled, says-one observer, because "Documentum knows that having the best technology doesn't matter unless you can discover and sell useful applications." That approach gives it the edge in an $800 million market growing 40% to 50% a year.

17   Siebel Systems

San Mateo, CA $364.5M   62%   4.5   4   4.5
4.5   4.5   4   26   3

Its 1998 acquisition of Scopus, the fourth-largest player among front-office automation software makers, helped cement Siebel's leaders-hip of the $1 billion market. The big ERP players want a piece of that business now, but analysts say-Siebel has a two-year lead in products, technology, arid industry knowledge. Look for Web-based and thin-client features in the recently released Siebel 99 product to help drive revenue and earnings up 40% to 45% this year.

18   Genesys
Telecommunications
Labs,

San Francisco, CA $84.7M   -30%   4   4.5   4.5
4   4.5   4.5   26   7

Genesys got its start making software to route telephone calls at call centers--a $3 billion to $4 billion market. Now it's procuring software that can do the same for email and Internet inquiries, selling the software to customers such as Schwab, Sprint, and Ford Motor. New CEO Ori Sasson replaced cofounder Gregory Shenkman and wants to attack the even faster-growing enterprise software market, currently dominated by companies such as SAP and Oracle, Look for operating earnings to grow 50% annually through 2003.

19   Visio

Seattle, WA $166M   -5%   4.5   4.5   4.5
4   4.5   4   26   12

Drawing and diagramming software maker Visio wants to turn every desktop user into an artist of sorts, using drag-and-drop shapes to create charts, diagrams, plans, and designs for everyday purposes. The firm figure's 35 million people could use a drawing program -- Visio's, of course. "They've blown away all of their competitors," says an analyst, predicting sales to rise 30% in 1999.

20   MicroStrategy

| Vienna, VA | | | $106.4M | 49% | 4.5 | 4.5 | 4.5 |
| 4.5 | 3.5 | 4.5 | 26 | - | | | |

Information, please. In just two years, decision support software maker, MicroStrategy has quadrupled its share of the fast-growing market for advanced business intelligence tools, from 2% to 8%. The software helps companies access and analyze their own internal data -- everything from their sales figures to their transaction-costs with their suppliers. "They've been the catalyst in building a Whole new-class of businesses," says an analyst. Earnings should double this year and rise 50% annually through 2004.

21   Concord Communications

| Marlborough, MA | | | $39.5M | 174% | 4 | 4 | 4.5 |
| 6 | 4 | 4 | 25.5 | 30 | | | |

"Before Concord, the IT guys at a company merely reacted to network problems," marvels one analyst. "Not anymore." Thanks to the firm's predictive network reporting software, businesses can head off problems before they cause major headaches. That's why AOL, AT&T, the New York Stock Exchange, and some 1,000 other blue-chip customers trust Concord to help keep their systems up and running. Revenues more than doubled in, 1998, giving Concord a dominant 40% share of what could be a $700 million network reporting market in the next three to

four-years.

22   Sterling Software
Dallas, TX $719.9M   32%   3.5   5   4.5
4   4.5   4   25.5   -

If component development had been around in 1960, we wouldn't
have a Y2K problem today. During the past year, that technology
-- which develops software building blocks to make programming
more efficient -- has revitalized Sterling. Its acquisition of
a former. Texas Instruments software division boosted business.
Components now account for about 16% of the company's
application management revenues and will help fuel earnings
growth of 33% this year.

23   Engineering
Animation
Ames, IA $81.9M   76%   5   4   3
4   5   4   25   8

Engineering Animations (EAI) 3D visualization software is arcane
stuff, but its results are crystal clear: Firms like Ford, GM,
and Lockheed Martin use it to design their products quickly and
cheaply, and get to market fast (EAI customer John Deere cut its
time to market in half). License earnings more than doubled
in '98, and revenue growth is rising faster than 50% per year.

24   HNC Software
San Diego, CA $178.6M   -6%   4.5   4.5   4.5
4.5   3.5   3.5   25   9

HNC's predictive software helps service companies spot fraud,
automate loan services, and manage inventories. The firm's
complex neural network technology constitutes formidable
barriers to competitors, and HNC recently established beachheads
in telecommunications and e-commerce. Expect 40% annual
earnings growth through. 2003.

25   Legato Systems

Palo Alto, CA $142.2M   200%   4.5   5   3.5

4   4   4   25   18

Legato's NetWorker storage management software works across
platforms -- with Unix, Windows NT, and Novell's NetWare. That
explains why more than 24 OEMs (Original equipment manufacturers)
license and integrate NetWorker into their products. The firm's
recent purchase of FullTime Software could be big: When an
Internet cataloger's system shuts down, FullTimes program
immediately taps into a duplicate set of data, providing
uninterrupted service--and the customer is none the wiser.
Sales should grow 70% annually through 2002.

26   Transaction Sys.
Architects

Omaha, NE, $289.8M   32%   4   4.5   4.5

4   4   4   25   19

With 30% of the U.S. banking ATM transactions market and 10%
of the international ATM transaction market for electronic funds
transfer software, TSA "doesn't tend to partner because they
don't need to partner," says an analyst. Technology that is at
least two years ahead of the competition's helps TSA maintain
its market stranglehold. With only 101 of the world's top
500 banks signed up, there's plenty or room to grow. Revenues
should climb 20% to 25% this year.

27   BroadVision

Redwood City, CA $50.9M   392%   4.5   4.5   4

3.5   4   4.5   25   -

"BroadVision's technology was way ahead of its time," says an
analyst. Maybe that's why the stock languished for nearly two
years after its 1996 IPO. The firm's software helps American
Airlines, Baan, and others design interactive e-commerce

sites that profile customers and pitch them tailored products. Now such tactics are seen as the sine qua non of successful e-commerce. Analysts look for BroadVision's earnings to increase by 100% this year.

28   Mercury Interactive

Sunnyvale, CA	$121M	136%	4.5	4	4.5
4	4	4	25	-	

Mercury moves like quicksilver. Since pioneering testing tools software in the early '90s, the firm has pounced on opportunities to morph its technology and attack new markets, including testing Y2K compliance, ERP (enterprise resource planning) systems, e-business applications (E-Trade's a customer), Eurocurrency issues, and client/server applications. Those slick moves nave landed Mercury a leading 30% share of the "distributed environments" testing tools market, which International Data Corporation (IDC) thinks will grow on average 41% a year through 2002--more than double the rate for testing tools overall.

29   Internet Security Systems

Atlanta, GA	$35.9M	36%	4.5	4	4
4	4	4.5	25	-	

Devious hackers and disgruntled employees can demolish an unprotected network. ISS products, which scan for weak points and monitor intrusions, have captured a leading (30%-plus) share of the intrusion detection and vulnerability assessment market, which is growing 100% a year. One reason: Their products can actually fix many of the problems they identify. "Other network security companies just tell you what's wrong," reports one industry analyst. Alliances with UUNet and IBM should help fuel annual sales growth of 55% or more through 2002.

30   Sterling Commerce
Dallas, TX $490.3M   17%   3.5   4.5   4.5
4   4.5   4   25   -

More than 42,000 customers (including 99 of the top 100 U.S.
banks) use Sterling's electronic commerce software and services,
giving the firm a leading 40% share of a $2 billion market
that's growing 20% a year. "They own the upper tier of the
market," notes one analyst. "And they're a marketing machine:
When Sterling gets you as a customer, you're a customer for
life." Still, Y2K spending could siphon off sales in '99.

31   Micromuse
San Francisco, CA $28.3M   3%   4.5   4.5   4
3.5   4   4.5   25   -

Born in the United Kingdom, Micromuse lit out for the United
States in 1995 in search of capital (British VCs didn't
comprehend the firm's business; jolly silly of them). It's
since become the leading maker of service-level management
software -- programs that tell ISPs and telecoms if their
networks aren't operating properly. Micromuse's software
takes only days to implement vs. months for its competitors'
products. That's helped swell Micromuse's customer list,
which boasts AirTouch, AOL, MCI/Worldcom, Sprint, and
MindSpring.

32   Cadence Design
San Jose, CA $1.2B   21%   4.5   4.5   4.5
4   3.5   3.5   24.5   29

Chip design software maker Cadence revolutionized the
micro-processor business by providing design software and
services to various integrated circuit makers. That's helped
the firm dominate the $3.2 billion EDA (electronic design
automation) software market, which is, steadily growing at 15%
to 20% annually thanks to the ever-expanding demand for

smaller, faster chips. President and CEO Jack Harding's new campaign: to expand those services to nontraditional customers such as industrial firms, automakers, and the like. "Cadence is number one because they have the broadest vision of what an EDA company can be," says one analyst. Look for revenues to grow 25% annually over the next few years.

33 Network Associates

Santa Clara, CA	$1B	88%	5	4.5	4
4	3.5	3.5	24.5	31	

"CEO Bill Larson may be ex-Sun," says an analyst, "but he took the Cisco approach: Create a single source." Recognizing that CIOs want one-stop security shopping, Network Associates -- already the world leader in antivirus software--has acquired a raft of firms to handle various security-related needs. One example: Trusted Information Systems, which makes firewalls. Following these acquisitions, sales should grow 30% to 40% annually during the next three to five years. Assimilation challenges may dampen earnings, though.

34 Electronic Arts

San Mateo, CA	$908.9M	48%	3.5	4	4
4	5	4	24.5	-	

Electronic Arts' estimated fiscal '99 sales of $1.2 billion could make it the first videogame publisher to hit the $1 billion mark, "Everyone wants to work for them now because they make the coolest software and, they're the market feeder," notes one observer. A recurring revenue stream from annual game updates, and falling prices for computers and game platforms, will help drive 30% annual revenue growth through 2000.

35 Adobe Systems

San Jose, CA	$894.7M	13%	3	4.5	3.5
4.5	5	4	24.5	-	

Weak Asian and Mac-related sales made for a flat '98, and revenues should rise only 10% to 15% in '99. So why is Adobe on our list? Because of its potential--thanks to the company's cost cutting, its new products with a Windows bias, and its capitalization on the opportunities in Web-related graphics (Illustrator has 67% of the Web design market). Adobe also retains dominant market shares with Photoshop (93% of the image editing and digital media market) and PostScript (80% of the imaging and printing software market).

36   Peregrine Systems
San Diego, CA $61.9M   247%   4   4.5   4
4   3.5   4   24   -

After making its name selling help-desk software for computer networks, Peregrine now gets 70% of its revenues from software that lets companies manage business and operations costs. "They want to be the help desk to the entire company," says an analyst, who adds that Peregrine is "on its way to being the SAP of infrastructure management." Dataquest figures that will be a $10 billion market by 2002.

37   RealNetworks
Seattle, WA $64.8M   159%   4.5   4.5   3.5
4   4   3.5   24   -

RealNetworks CEO Rob Glaser wanted to create his own online network to broadcast left-of-center political content. He wound up pioneering streaming audio and video technology, which lets broadcasters like ABC, NBC, and Bloomberg send programming to some 50 million registered users. More than 250,000 people downloaded Glaser's free software to watch Clinton's grand jury testimony last August. The big question: Can Real's 85% market share and its partnerships with AOL, Intel, and others fend off Microsoft?

38   Melita International

Norcross, GA	$93.5M	132%	5	4	4.5
4	3	3.5	24	–	

Founder and CEO Aleksander Szlam may be hard to work with
-- Melita went through three-COOs last year -- but, armed with
superior software, he gets results. Last year Melita shot from
fourth to first in the $800 million outbound call center
management software market, which is growing 20% to 25%
annually. Growth should accelerate from 30% in '98 to around
45% in '99. Next move: Enterprise Explorer, which will let
clients have one call center for their telemarketers around
the globe.

**39   Great Plains
Software**

Fargo, ND	$85.7M	77%	4	4	4
4.5	4	3.5	24	–	

Accounting software? Wipe that smirk off your face. Revenues
rose 50% in '98 thanks to a well-groomed network of highly
motivated resellers that market the programs in more than 50
countries. Sales of Great Plains' software for small and
midsize businesses is growing 35% to 40% a year, twice as
fast as the products of its competitors. Meanwhile, Great Plains
is making inroads with high-find programs for large clients,
which should help it maintain 35% annual earnings growth over
the next several years.

40   J.D. Edwards

Denver, CO	$934M	-4%	3.5	4.5	4
4	3.5	4	23.5	22	

Worries last year about dimmer sales prospects tripped up shares
of ERP software makers, including J.D. Edwards'. But J.D.E. was
the fastest growing of the publicly traded ERP companies in '98,
with new license revenues rising by 55% vs. 28% for the industry.

One reason: the firm's strong presence in the faster-growing market for small and midsize firms. Sales should climb 50% this year, and profits will likely rise 37%. "If you asked SAP who worries them most, they'd say J.D. Edwards," says one observer.

41   BMC Software

Houston, TX	$730.6M	36%	3.5	4	4
4	4.5	3.5	23.5	28	

Chairman, President, and CEO Max Watson has successfully moved beyond mainframes to networked computers, a business where sales are growing 40% to 50% annually. And with gross profit margins of 90% -- better than Microsoft's -- BMC has plenty of cash to grow with. Its recent offer to buy rival Boole & Babbage would make BMC the third-largest supplier of computer management software. That could mean a head-on collision with rivals Computer Associates and IBM's Tivoli.

PERIPHERALS AND MANUFACTURING

1   Sanmina

San Jose, CA	$722.6M	85%	5	5	4.5
4.5	5	4.5	28.5	–	

As one of the few manufacturers of high-end circuit board assemblies (backplanes), Sanmina can charge high prices for its technology. That helps keep operating margins at 14% to 16% -- more than double the margins for other contract manufacturers. This year's purchase of archrival Altron makes Sanmina the largest backplanes maker in the U.S. And no one anywhere makes them better: "I've never heard anyone complain about a Sanmina product," says one analyst.

2   Smart Modular

Fremont, CA	$714.7M	21%	5	5	4.5
5	4.5	4	28	1	

Smart Modular CEO Ajay Shah created the market for custom memory modules after Samsung, his former employer, turned his

idea down. Smart Modular is still shaping the industry, working with Intel and Rambus to develop new memory technology and attacking the embedded computer market. A projected jump in PG average memory from 36 megabytes in 1997 to 62 megabytes this year should help drive a 20% earnings growth for the company in '99.

3   EMC
Hopkinton, MA $4B   210%   5   5   5
4.5   4   4.5   28   3

"It seems like everyone is gunning for EMC," muses one analyst, citing firms like Dell, Sun, and Network Appliance. But EMC will be tough to bring down: The leading maker of disk storage systems for mainframes also has become a strong player in the NT market. Now EMC is leading the drive into the next big thing in storage management: storage area networks. Its storage software revenues almost tripled to $445 million last year, and total sales should climb by 31%, to $5.2 billion, in 1999.

4   Solectron
Milpitas, CA $5.3B   124%   4.5   5   4.5
4.5   5   4.5   28   -

"They're always the first to develop a new business model," says one fan of the world's second-largest contract electronics manufacturer (and two-time Baldrige winner). The company's new agreement to supply Mitsubishi Electric marks the U.S. industry's first major manufacturing agreement with a Japanese firm -- and Solectron's strategic alliance with distributor Ingram Micro will-expand Solectron's market beyond OEMs. Sales were up 43% in '98 and should rise by another 54% this year, to $8.2 billion. Profits should rise 33%.

5   Network Appliance
Santa Clara, CA $166.2M   153%   5   5   4.5
4.5   4   4.5   27.5   6

As demand for data storage explodes, so does demand for Network Appliance's products. The company's network storage servers, known for ease of installation (under an hour) and simplicity of use (just 40 system commands), relieve cost and bandwidth pressures for ISPs and corporations. Look for profits to rise 40% annually for the next three to five years.

6   Electronics for
Imaging
Foster City, CA $430.7M   141%   5   4   4.5
5   5   4   27.5   8

Despite a late '97-early '98 product delay and a light case of Asian flu, EFI has delivered on a new vision for itself. The maker of color desktop publishing hardware and software has almost doubled its partnerships with OEMs and greatly broadened its product line to include controllers for high-end copiers and printers. "They spend the most money to develop products, and it shows," says one analyst.

7   Symbol Technologies
Holtsville, NY $915.6M   154%   4   5   5
4   5   4   27   -

"Wall Street is noticing these guys," says one analyst. No wonder: The world leader in bar code scanners and portable data terminals, Symbol is now moving to exploit its technology's new, network-oriented applications. Witness ST's recent joint venture with 3Com to incorporate bar codes and wireless LAN communications into the PalmPilot and its alliances with SAP to create more applications for supply chain management. Such ventures should help boost ST's growth rate from 20% to 30% going forward.

8   Flextronics
International

San Jose, CA $1.1B   148%   4.5   5   4.5
3.5   4   5   26.5   -

Flextronics is now the fourth-largest U.S. electronic contract manufacturer. It has achieved this by giving OEMs what they want: low cost. Throughout its industrial parks in Europe, Asia, and Latin America, it uses low-cost labor to design, make, and deliver products for OEMs breaking into regional markets. Flextronics recently landed customers Compaq, Kodak, and Rockwell -- in one two-week period.

10   Xerox
Stamford, CT $18.9B   60%   4.5   4.5   4.5
4.5   4   4.5   26.5   -

Famous for inventing things that make other people money, these days Xerox is profiting from cutting-edge technology and, new digital copier, products. That market now accounts for almost half of the firm's revenues. And watch out, HP: Xerox wants in on the small-business and home office market. Earnings should climb 18% annually through 2003 -- not bad for a 93-year-old company.

10   Jabil Circuit
St. Petersburg, FL $1.3B   87%   4.5   5   4.5
4   3   4.5   25.5   5

Despite pullbacks by key customers in '96 (Quantum) and '98 (3Com), Jabil's global manufacturing and full-service capability have tripled sales of its circuit board systems since 1994. Now a deal to buy two Hewlett-Packard plants gets Jabil into "plant integration," which should help drive sales growth up by 60% in 1999.

11   Lexmark
International
Lexington, KY $3B   165%   4   4   4.5

4.5   4.5   4   25.5   -

Love those spin-offs! Once IBM's printer division, Lexmark has
doubled its earnings since 1996 in an industry that's growing
only 8% annually. The firm is one of only three printer
companies that have proprietary ink-jet and laser technologies
(others: Canon and Xerox). That means formidable pricing power
for Lexmark. Cows one analyst: "They're still small, but
they're making HP sweat."

12   SanDisk
Sunnyvale, GA $135.8M   -31%   4   5   4
4   4.5   4   25.5   -

Tiny product, massive opportunity--at least 70% of all digital
cameras store their images on SanDisk's matchbook-sized
CompactFlash cards. "They set the standard for this
technology," notes one analyst. Now SanDisk is making forays
into the cell phone, disk drive, and MP3 businesses. The big
question: Can SanDisk continue to outrun competitors such as
Toshiba and Sony?

13   SCI Systems
Huntsville, AL $6.8B   33%   4   5   4.5
4   4   3.5   25   -

The dominant force in the $90 billion electronic manufacturing
services business, SCI builds subassemblies for Compaq, HP,
Ericsson,-Dell, and others, as well as hundreds of finished
products for OEMs. Wall Street loves management's iron grip on
costs: "They're magic," raves one analyst. "They turn a 3% margin
into a 21% ROE." The firm landed more than $2 billion in new
business during one recent four-month, period, which should help
fuel 20% annual profit growth through 2002.

14   SBS Technologies
Albuquerque, NM $74.2M   -32%   5   4   4

4   4   3   24   11

A former M&A specialist, CEO Chris Amenson has gone on an
acquisition spree himself. During the past six years, SBS
acquired seven companies that make a variety of embedded computer
components, from bus adapters to I/O products. SBS' goal is to be
a one-stop shop for customers like NASA, General Electric, Walt
Disney, and Boeing. "My favorite little company," sums up one
analyst, who figures earnings will grow by 43% this year.

15   Seagate Technology
Scotts Valley, CA $6.8B   57%   4   4   4
4   4   4   24   15

Freud would be proud of Seagate, which in 199S fired founder,
CEO, and father figure Al Shugart. New CEO Stephen Luczo
reorganized R&D and manufacturing and increased outsourcing
to speed products to market. It worked: Seagate now gets its
desktop drives to market within weeks of the
competition -- compared to a full year late this time last year.
Gross margins were up significantly in Q2 '99 to 23.8%.

SEMICONDUCTORS

1   Broadcom Irvine, CA $203.1M   125%   4.5   5   4.5
5   4   5   28   -

Broadcom's high-speed communications-on-a-chip technology is
revolutionizing the way we use the Internet and our TVs. With
customers ranging from General Instrument to Cisco Systems, the
market for cable set-top boxes and cable modems that run on
Broadcom's chips is expected, to double by 2001. Analysts predict
40% annual revenue growth for the company. Most consumers have
yet to plunk down the cash for distal set top boxes, but Wall
Street can't ignore the opportunity for growth. A $24 offering
last April, Broadcom shares were as high as $191 this year.

2   Rambus Mountain
View, CA $37.9M   110%   4   4.5   4.5

4.5   5   5   27.5   1

Rambus' DRAM design has won plaudits from industry gorilla Intel,
which plans lo use the technology in all of its motherboards. As
a result, Rambus could become the de facto DRAM standard as early
as this year. Almost all large DRAM manufacturers (accounting for
96% of the DRAM market) license the Rambus design. With no
production costs and sizable royalties w/unreadable operating
margins growing from 20% today to about 80% by 2001. Revenues
have grown 210% over the past two years.

3   Novellus Systems
San Jose, CA $518.7M   53%   4.5   4.5   4
4   4.5   5   26.5   7

Equipment maker Novellus continues to be Applied Materials'
biggest headache as it takes market share away from the industry
leader. Why? "Novellus has a one-year head start on Applied in
copper technology," says one analyst, and could move from
single-digit market share to 40% in the next few years if Applied
drags its feet. Many see copper replacing aluminum as the metal
of choice on integrated circuits (copper is 40% faster and 20% to
30% cheaper). Then, too, Chairman and CEO Richard Hill runs one
of the tightest ships in Silicon Valley. Outsourcing the
manufacturing of subassemblies keeps Novellus' fixed costs tiny
and operating margins bulging.

4   Applied Micro
Circuits San
Diego, CA $76.6M   175%   4   4   4.5
4.5   3.5   4.5   25   -

AMCC makes lightning-quick chips for the booming telecom and data
communications markets. Analysts credit the arrival of new
management, which occurred in 1996, for taking a great technology
and finally capitalizing on it. Major clients include Nortel
Networks (17% of sales), Cisco, Alcatel, 3Com, and Compaq.

Customers swear by the technology. "It's very unusual to hear the level of satisfaction I'm hearing about these gays," says one analyst. Last year, revenues grew more than 30% while the rest of the industry fell 11%. A recent alliance with IBM in silicon germanium should keep AMCC on the edge of advancing technology.

5   Intel
Santa Clara, CA $26.3B   69%   3.5   4   5
4.5   4   3.5   24.5   2

By its sheer weight Intel decides where the computer industry will go next. But the PC bully may be getting too big for its britches. "By definition, Intel opposes change," notes one analyst. The Federal Trade Commission is trying to rein in Intel with an "administrative complaint." With 80% of the microprocessor market, however, Intel is still inside. It also has invested in more than 50 emerging startups to help drive PC demand. Intel dominates the U.S. market and culls a staggering 56% of revenues from overseas. Analysts voice concern that the PC upgrade cycle is slowing down and that Intel has been slow to capitalize on the market for sub-$1,000 PCs.

6   Texas Instruments
Dallas, TX $8.5B   90%   4.5   4   4
4   4   4   24.5   4

Texas Instruments is officially out of the DRAM Humps. After TI sold its DRAM business to Micron Technology last year, the company concentrated on the more profitable digital signal processor (DSP) market. At the core of 85 million cell phones and other programmable devices such as VCRs and camcorders, the company's DSPs are ubiquitous in consumer electronics. Texas Instruments leads the DSP race with 45% of the market and continues to pick up speed. Its DSP revenues grew 17% last year compared to 5% industry growth.

7   Applied Materials

| Santa Clara, CA | $4B | 42% | 4 | 4.5 | 5 |
| 4 | 2.5 | 4 | 24 | 10 |

"Applied thinks it can do it all," says one analyst, "and they pretty much can." The world's leading maker of wafer-fabrication equipment. Applied has the size and breadth of product offerings to squash the competition. Consider that Us R&D spending in 1998 exceeded the total sales for any of its North American rivals. Sales to Asia account for 50% of its revenues, which hurt the company during last year's economic crisis. Analysts aren't too worried. Historically, Applied has used market slowdowns to strengthen its industry position.

NETWORKING AND TELECOM EQUIPMENT

1   Cisco Systems

| San Jose, CA | $8.5B | 150% | 5 | 5 | 4.5 |
| 5 | 4.5 | 3.5 | 27.5 | 1 |

Forget the Amazons and Yahoos. Cisco is the poster child of the Internet Age. It supplies most of the routers, switches, and hubs that make networks work and sold $5 billion worth of that gear -- more than half of its 1998 revenues -- from its Web site. Cisco likely will further dominate its market as the world shifts to packet-based communications networks. Meanwhile, CEO John Chambers keeps fixing Cisco's weaknesses, often buying smaller companies to fill gaps in its product line.

2   Uniphase

| San Jose, CA | $175.8B | 68% | 4.5 | 5 | 4.5 |
| 4.5 | 4 | 4 | 26.5 | - |

CEO Kevin Kalkhoven helped Uniphase see the light. The firm used to dabble in various industrial laser technologies before he focused it on telecom equipment, Embarking on a major acquisition binge, Kalkhoven relieved tech giants like United Technologies, IBM, and Philips of their photonics and optical networking divisions to stitch together a formidable line of lasers, modulators, and controllers that beef up high-bandwidth

fiber-optic systems. And its recent $4.7 billion merger with Canadian JDS Fitel should create an international fiber-optics titan.

3   Qualcomm
San Diego, CA $3.3B   5%   4.5   4.5   3.5
3.5   4.5   4   24.5   18

Qualcomm developed CDMA (code-division multiple access) digital technology from the ground up and drove it into the $65 billion cellular market, enlisting help from major partners like Nortel, 3Com, and Microsoft. Now one of the biggest cell phone makers, Qualcomm saw its revenues jump 60% in 1998, to $3.3 billion. But the firm's techie founders have struggled with their manufacturing operations, and Qualcomm lags behind competitors Lucent and Motorola in the network infrastructure market.

4   Tellabs
Lisle, IL $1.7B   30%   3.5   4.5   4
4.5   3.5   3   23   9

It takes an engineer to understand how Tellabs' products shuffle traffic and boost capacity on fiber-optic networks. We only need to know that great management parlayed that technology into a 65% market share among U.S. carriers. Analysts expect revenues to jump 30% in 1999, with earnings growing 28%. Not bad, but some analysts want to know what Tellabs has done lately. Its dynamism depends on how well it rides the current shift to packet-based networks--and Tellabs next-generation products aren't due until sometime in 2000.

5   Lucent Technologies
Murray Hill, NJ $30.1B   175%   3   4.5   3.5
4   4   3.5   22.5   20

This company came out of the Bell System? Lucent's entrepreneurial management amazes industry watchers, and its

growth has surpassed most people's expectations. In some areas, though, Lucent's stodgy heritage shows: Critics cite the company's lackluster record of commercializing the technologies created, by its Bell Labs division. Still, a stellar embedded customer base, end-to-end networking solutions, and boatloads of experience should help Lucent keep winning the big contracts. The acquisition of Ascend -- and its hot ATM and Internet Protocol switching technology--bolsters Lucent's strong position.

TELECOMMUNICATIONS

1   Qwest Communications

Denver, CO	$2.2B	68%	5	5	4
4.5	4.5	4.5	27.5	15	

Qwest leads the new carrier pack, with a high-bandwidth network that can handle everything from voice and data services to Web hosting and e-commerce applications. CEO Joe Nacchio, an AT&T veteran, is the kind of dealmaker who knows how to fill those pipes. Acquiring LCI in June 1998 made Qwest the country's fourth-largest long-distance carrier. And partnerships with Cisco, Netscape, Microsoft, and traditional telcos like Ameritech are the blueprint for a telecom company in the brave new datacentric world. Analysts estimate revenues will rise 25% annually to $5.7 billion by 2001.

2   RCN

Princeton, NJ	$183.5M	3%	5	4	4
5	4.5	4.5	27	-	

RCN is the only competitive local exchange carrier (CLEC) going after residential customers, rather than the business market, offering consumers a cutting-edge network that can handle local, long-distance, Internet, and cable TV services. CEO Dave McCourt's MFS Communications pedigree helped him land deals with MCI/WorldCom (joint network building) and with Level 3 Communications, which is building an Internet Protocol-based telephone network. Analysts figure revenues will rise to $650 million by 2000, up from $127 million in 1997 and some $200

million in 1998.

3   MCI/WorldCom

Jackson, MS	$10.7B	137%	4.5	5	4.5
4.5	4	4	26.5	1	

Like the 1950s sci-fi creature The Blob, WorldCom gains strength
as it consumes the things around it. The first company to buy a
major CLEC and a worldwide data backbone (UUNet's network), it
has just gobbled up MCI, a merger that has created a $30 billion
monster. And it's slated to keep growing: Analysts estimate 20%
earnings growth.

4   IDT

Hackensack, NJ	$335.4M	-24%	4.5	5	4
4	4.5	4.5	26.5	6	

IDT is the King of Change. The company that invented the
international callback business in the late '80s routinely finds
swans among telecom's ugly-duckling markets (like prepaid calling
cards). Internet telephony could be the biggest winner of all,
and IDT's Net2Phone system has a big lead in the consumer market.
Revenue growth is in the triple digits, but visionary founder
Howard Jonas hasn't lost sight of the bottom line: Analysts
estimate earnings will grow 50% in 1999.

5   Teligent

Vienna, VA	$0.8M	17%	5	4.5	3.5
5	4.5	4	26.5	-	

Teligent's fixed-wireless technology (substituting an antenna for
a local phone line) puts the company at the cutting edge of the
emerging telecom universe. The reputations of its all-star
management, such as CEO Alex Mandl, heir apparent at AT&T
before quitting to run Teligent, and COO Buddy Pickle, who has
extensive wire tine CLEC experience, have helped Teligent earn
its $2.5 billion market cap. The firm just launched local,

long-distance, and data services. Revenues should hit $525 million by 2001.

6   Global TeleSystems
McLean, VA $197.5M   104%   5   5   4
4   3.5   4.5   26   -

With the first (and for now, only) pan-European high-capacity nework, GTS is one of the hottest companies in the $200 billion European telecom market. Revenues soared some 300% in 1998. Customers are major carriers like Cable & Wireless. Big guns like AT&T and MCI/WorldCom are eyeing Europe, but their networks are a year and a half behind Global TeleSystems' version.

7   NextLink
Bellevue, WA $118.8M   33%   4   4.5   3.5
4.5   4.5   4   25   4

People and money make the difference at this CLEC. Telecom baron Craig McCaw founded NextLink and staffed the company with veterans of his successful cellular venture. McCaw also negotiated a deal with Level 3 Communications that gives NextLink access to a massive IP-based long-distance network. Meanwhile, revenues are growing around 100% a year, and the firm's $1.7 billion war chest is like a dynamism insurance policy: "In a bear market, they are the ones who will continue to grow," says one observer.

8   Intermedia
Communications
Tampa, FL $712.8M   -43%   4.5   4.5   4
3.5   4.5   3.5   24.5   16

Intermedia's farsighted managers targeted data services -- the juiciest segment of the telecom market -- long before most companies. Now it's a leader in high-margin services like frame

relay, and it is the country's biggest independent CLEC. Best of all, Intermedia has sweet deals with Ameritech, US West, and Bell Atlantic to provide long-haul data services to its big corporate customers. Revenues are expected to grow from almost $713 million in 1998 to $900 million this year. Intermedia's share price tumble in 1998 was temporary, related to the company's acquisitions and to the impact of its repositioning from wholesale to retail long distance.

9   Sprint

Westwood, KS	$17.1B	62%	3.5	5	4
4	3	4.5	24	12	

Maybe it's the rugged individualism of the American prairie dweller. Kansas-based Sprint is the number three long-distance carrier, holding steady against AT&T and MCI/WorldCom, with 1998 revenues of $17.1 billion. Its next-generation Ion (integrated-on-demand) network will handle high-speed data, voice, and video and help Sprint harness the rapid growth of data services revenues. And analysts love Sprint's PCS division: The digital wireless business is growing at least 20% a year.

10   Pacific Gateway
Exchange

Burlingame, CA	$444M	–11%	4	5	4
4	3	4	24	–	

Deregulation in Europe and Asia has made overseas markets the New World for American telecom companies, and Pacific Gateway is one of the first independents to make the crossing. The firm's network is unburdened by legacy phone technologies, so it has low operating costs. That allows Pacific Gateway to offer cheaper services and steal market share: This relative newcomer is already the number tour U.S.-based international carrier behind AT&T, MCI/WorldCom, and Sprint.

11   IXC Communications

Austin, TX $640.2M   7%   4   5   3.5
3.5   3.5   4   23.5   2

IXC was the first of the new breed of telecom companies to build
a new, high-capacity network to satisfy the world's growing
bandwidth appetite. Although outshined by flashier upstarts like
Qwest, IXC gets kudos for creating a business around that
network. An established wholesale operation and a burgeoning
retail effort pushed IXC's 1998 revenues an estimated 45% higher,
to $700 million, according to one analyst. With network
construction nearly completed, expect IXC's profits to ramp up
50% a year. This ain't dark fiber.

12   WinStar
New York, NY $195.8M   56%   4   5   3
3.5   4.5   3.5   23.5   10

WinStar is another big-bandwidth contender with a potential
knockout punch: The company has wireless network technology that
is much cheaper than fiber-optic cables. That means WinStar can
deliver high-speed data services to small businesses ignored by
the wire-bound telcos -- a $35 billion niche. Lucent recently
gave WinStar a huge pot of cash (up to $2 billion in loans),
discounted rates on networking equipment, and a high-profile
endorsement. With 1998 revenues around $250 million, one watcher
says, "There's no reason they can't grow like a weed."
INTERNET SERVICES AND CONTENT
1   Yahoo
Santa Clara, CA $203.3M   584%   5   5   4.5
4.5   4   5   28   1

Yahoo attracts 1 million more visitors to its site each month
than its closest rival among pure play portals, Lycos. For
example, last December its main U.S. site, yahoo.com, had 27.4
million unique visitors, compared with 26.4 million for
lycos.com. Next, Yahoo must "monetize" its users by expanding its
revenue base beyond advertising (an $8 billion market by 2002)

into e-commerce ($35 billion by that date). The firm's recent $4.6 billion purchase of GeoCities, the fifth-largest Internet destination, gives Yahoo a shot at toppling AOL from its spot as the most popular jumping-off point on the Web. Can Yahoo do it? For an early signal, keep an eye on the new Yahoo shopping site.

2   America Online

Dulles, VA		$2.6B	586%	5	5	4.5
4.5	4.5	4	27.5	6		

Why spend $4.3 billion to acquire Netscape? Because its Netcenter is one of the Net's fastest-growing portals. By purchasing the browser company, AOL now has access to half of the Internet's 100 million users. AOL's next step: to implement Netscape's software to make e-commerce easier for those hordes. "A year ago, content on AOL was about information," says one analyst, who thinks AOL's earnings will rise 100% this year. "Now it will be about transactions, too." No kidding: AOL's shopping channel attracted 250% more shoppers last Christmas than it did during the '97 holiday season.

3   Amazon.com

Seattle, WA		$610M	966%	5	5	4
5	4	4.5	27.5	7		

Talk about forcing change. Having rocked the $82 billion bookselling business, Amazon took just four months last year to roll over the leading online music retailer, CDnow, to post music sales of $33.1 million during Q4 '98. Now Bezos and the gang are leveraging the brand to expand into gifts ranging from toys to tape players. Customer accounts have more than quadrupled from a year ago.

4   eBay

San Jose, CA		$47.4M	409%	5	5	4.5
4.5	4	4.5	27.5	-		

Get your Furbies here -- and just about anything else. Leading
online auction company eBay spent $5.5 million on marketing
during a recent quarter, fueling a four-month, 75% surge in
registered users, whose numbers jumped to 2.1 million. Impressed?
That's nothing. The firm is profitable! Chairman Pierre Omidyar
started eBay after his Pez-collecting fiancée couldn't
find trading partners. Now he's a billionaire, thanks to the
stock's 409% leap in 1998. But watch out: Yahoo and others want
into this game real bad.

5   NetGravity
San Mateo, CA $11.5M   72%   5   4   5
4.5   5   3.5   27   -

NetantiGravity is more like it. The firm went public just last
June, but it already dominates the in-house ad server market for
large Web publishers. Now NetGravity is rushing to meet the
surging demand for outsourced ad serving. An alliance with IBM's
Web hosting operation and its deals with MatchLogic and Aptex
Software give NetGravity access to huge data-bases of customer
information, honing its ability to target and personalize ads.
Sales could double to $22 million in '99. Look for the company
to break even in 2000.

6   Lycos
Waltham, MA $56,1M   169%   4.5   5   5
4   4   4   26.5   -

Second only to Yahoo among pure play portals in terms of traffic
volume (26.4 million last December), Lycos has leveraged its
pumped-up stock price (up 169% in '98) to acquire a network of
sites. Its new virtual department store sets the firm directly
into e-commerce. But its proposed deal with USA Networks got a
less-than-favorable reception from Wall Street.

7   MindSpring
Enterprises

Atlanta, GA $114.7M   445%   4   4.5   4
4.5   4   4.5   25.5   -

While most Internet companies are sacrificing profit for
growth, ISP MindSpring has both: The 5-year-old firm had 693,000
subscribers by the end of last year, growing by 149% in 1998,
when it became the first ISP to turn a profit. MindSpring, known
for relentless cost controls, grows through acquisitions and
great word of mouth. The latter draws more than half of the
company's new customers. "New Internet users start with AOL,
then they hear about MindSpring and switch for better service
and faster access," says an analyst.

8   Earthlink Network
Pasadena, CA $174.9   343%   4   4.5   4.5
4   4   4.5   25.5   -

There's more than hype behind EarthLink's huge stock run-up in
1998. Membership for this leading Internet service provider has
grown nearly thirtyfold -- from 28,000 subscribers in 1995 to
815,000 by the end of last year -- and analysts forecast 4
million subscribers by 2001. Revenues are up 5700% from $3
million in 1995 to almost $175 million in 1998. Word is that
Sprint will use its 30% stake in the ISP as a springboard to
buy the whole joint.

9   Cyberian Outpost
Kent, CT $22.7M   34%   4.5   5   4
4   4   4   25.5   -

Unlike most online computer dealers, Cyberian Outpost shuns the
corporate market and instead dotes on individuals and small
businesses both here and abroad (half of its sales are overseas).
The firm, has a cool name and a cool ticker symbol (COOL).
More to the point, Outpost pulled in more revenues in Q3 '99
($23.5M) than in its entire FY '98.

10   @Home Network

Redwood City, CA $48M   196%   4   5   3.5

4   4   4   24.5   3

Look out, AOL. @Home's $6.7 billion stock purchase of Excite
gives it 20 million registered users to go along with its
dominance in broadband cable Internet access (a market expected
to double in less than a year). Just like AOL, the new @Home will
combine connectivity and content--but with connections
significantly faster than Steve Case and company's dial-up phone
service. Revenues should grow from $48 million in '98 to (get
this) $2.2 billion in 2002.

11   OnSale Menlo

Park, CA $207.8   123%   4   4.5   4

4   4   4   24.5   4

OnSale invented the online auction -- pretty dynamic idea. And
when '98 brought margin-deflating competition from Wall Street
darling eBay and others, OnSale bit back hard. Its response:
higher-margin merchandise, such as time-share cruise packages;
increased ad sales; and a consumer-to-consumer auction site
(teamed with Yahoo) that's much like eBay's -- but free. All
these moves should help keep revenue per employee at or above
its current $1 million.

12   E-Trade Group

Palo Alto, CA $245.3M   103%   4.5   5   4

4   3.5   3.5   24.5   8

"New competitive strategy" usually means "still more price cuts"
in the online brokerage business. But the second-largest online
broker (behind Schwab) has held the line on prices at $15 a
trade. It spends the resulting profits to improve and market its
premium financial content, which includes live audio interviews
with such tech luminaries as Andy Grove and comprehensive trading
information. Merger maniac Softbank thinks E-Trade's business

model will work: The largest shareholder in Yahoo and GeoCities, Softbank has invested $400 million in E-Trade, whose sales rose 57% in 1998 and should climb 70% this year.

13   Exodus Communications
Santa Clara, CA $52.8M   133%   4   4   4
4   4   4   24   -

The leader in the fast-growing, high-end Web hosting market (it's been doubling each year), Exodus lets companies outsource the management and operation of their Web sites. Its clients include Lycos, Microsoft's Hotmail, and other Web-based companies, but Exodus is now also pursuing traditional firms that want to build sites for e-commerce. Revenues should rise 175% in '99; look for profits by 2001.

14   Doubleclick
New York, NY $80.2M   66%   4.5   4.5   4
3.5   3.5   4   24   -

Online advertising is growing even faster than online use. DoubleClick creates internet ads for customers, delivers them to Web sites, tracks the responses, then targets ads based on that information. It also licenses DART (dynamic advertising and reporting technology) software to companies like AT&T that want to do it themselves. Doubleclick's revenues jumped 162% in 1998.

15   Preview Travel
San Francisco, CA $14M   144%   4   4.5   3.5
3.5   4   4   23.5   -

Online travel agency Preview Travel is going places itself, with more than 6 million users. Many of them come to Preview for convenience, then stay for content. A joint venture with Fodor's lets Preview offer destination guides for S8 locations. Preview's business model combines low costs -- the company spends $10.23

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per transaction vs. $23 for the average travel agency--with
rising revenues from ads and travel-related items. Expect annual
revenues to grow 70% over the next three to five years.
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By Clint Willis