There's Something About Cisco Cisco has an expensive stock and agile competitors. But this company has beaten every challenge it's faced. Here's an inside look at CEO John Chambers and the corporate machine he's created.

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(FORTUNE Magazine) – Suppose you were stranded on a deserted island and could own just one single stock. What would it be? Think about it for a minute. Would it be a stock that's been battered this spring and is down 20% from its high? A stock that trades at more than 100 times earnings? A stock that's already climbed around 100,000% since going public ten years ago, that's already enjoyed one of the greatest rides in stock market history? The stock of a company that now faces unprecedented challenges in tough new markets dominated by the likes of Lucent and Nortel, plus a posse of red-hot upstarts?

Yup, that would be the stock. No matter how you cut it, you've got to own Cisco.

Millions of investors around the world--Cisco now has 3,530,662 shareholders (including me, with my few hundred shares)--might well agree with you. Except for those who bought the stock in the past few weeks, we're probably talking about the happiest group of people on earth. How happy? Well, on March 27, Cisco

overtook Microsoft as the most valuable business on earth, with a market cap of $531 billion. Yes, GE now holds the crown, but who are you going to bet on in this race? GE, growing 15% annually, or Cisco, growing more than twice as fast?

Five years ago you might have looked at Cisco and said, "Well, sure, this is a great company, but really, how big can it get? All it does is connect computers. Microsoft, on the other hand, sells the operating system for every PC in the world. That is huge." How times have changed! As the Internet Revolution sweeps through civilization, networking--connecting computers--may well be the most critical, fastest-growing facet of the world's economy. Even Microsofties have to admit that the network has become the computer. And even though Sun coined that phrase, no company stands to benefit more than Cisco.

Sure, Cisco has the greatest wind of our lifetime at its back (it's the Internet, stupid). But as its crusty billionaire-next-door chairman, John Morgridge, says over a bagel at a Palo Alto coffee shop, "Lots of companies had that wind at their back." The point is that Cisco, with CEO John Chambers at the helm, must now be considered one of America's truly outstanding companies, in the same league as Intel, Wal-Mart, and, yes, GE. Almost overnight--well, over Chambers' five-year tenure--Cisco has become the quintessential Internet Age corporate machine. Sure, it has its foibles. Its cult-like culture--in one training video a woman looked at the camera and said, "Working at Cisco is like being strapped to a rocket. It never stops"--might not make it a place you want to work. And in-the-know shareholders have a series of questions about Cisco, which we address throughout this story (starting with the box at right). But competitors who have battled that Cisco culture have lost. Investors who have bet against that stock have lost. You simply must admit that Cisco has taken it to a whole new level. How the company did that--and whether it can keep doing that--is the story of a moon-shot tech company that grew up, and of a CEO whose best practices helped get it there.

Ask a knowledgeable observer of the business scene, Who is the world's greatest CEO? and you're likely to get names like Jack Welch, Lou Gerstner, and Nobuyuki Idei at Sony. Why not John Chambers? Cisco has grown up so fast that some might not be ready to put this wired West Virginian in that league. But chew on this. When Chambers became CEO in 1995, Cisco had a market cap of $9 billion. Today it's 54 times that. In other words, Chambers has presided over the creation of more than $480 billion in stockholder value. Four hundred eighty billion! That has to be the greatest first five years any CEO has ever had. Yeah, maybe we're putting Chambers in the hall of fame before his time, but isn't he just as good a bet as Ken Griffey Jr.?

I'm walking after dinner one gentle spring evening with Chambers and his parents, along the banks of the Kanawha River in Charleston, W. Va., where Chambers grew up. Even though it's the state capital, Charleston is still a town, really (pop. 57,287), one that seems frozen in a postindustrial netherworld. Giant chemical works owned by the likes of Du Pont once dominated the city--they've been closed for years now. The forces of the New South--or the new economy, for that matter--have for the most part passed Charleston by. Here, old men in hats still stand on downtown street corners and smoke. West Virginia has the oldest population of any state. Young people leave to seek their fortunes elsewhere--including the Mountain State's most successful businessman ever, John Thomas Chambers, 50, whose holdings of Cisco stock are worth more than $1 billion. As we walk in the near darkness, Chambers waxes sentimental. "I would say I'm old school. My parents and my extended family were my world growing up." His mother, June, looks up. "But John's world today is far away."

That's not to say that Chambers was destined for the coal pits. One grandfather was a bank president, the other ran a construction company. Both his parents, now retired, were doctors. His father, Jack, was a prominent ob/gyn who delivered some 6,000 babies, including all four of Senator Jay Rockefeller's kids. Later, Dad did well as a real estate developer. Chambers' mother was a psychologist. Chambers says that his

business acumen comes from Jack and his people skills from June, but in truth, Dad's pretty good with people and Mom's no slouch upstairs.

The next morning, as Chambers speeds over the country roads (take me home!) near his parents' house in the hills above town, he tells a story about his dad, with whom he has a particularly close bond. "I was a boy fishing in the river in some rapids and I slipped. I started going under, and my dad saw me and started running after me. 'Don't drop the pole,' he yelled. I hung on, and he pulled me out. Only later did I understand that he wanted me to concentrate on holding the pole so I wouldn't panic. I trusted him and I survived." Chambers is big on trust. He will ask an executive for his word that he will stay at Cisco for a given period. He has had all sorts of unwritten agreements with partners. "I'll take a handshake over a contract any day." This isn't syrup from a Waltons' episode. This is what Chambers is really like.

Now, of course, Chambers applies these old-school values to billion-dollar deals, Wall Street conferences, and audiences with heads of state. It is a world in which he excels. Ask Jack Welch, who recently had Chambers address a quarterly management meeting at GE: "He was very impressive. John has always impressed me. He's the leader of a very deep team that is really winning." The ultimate salesman, Chambers has an open face and looks you in the eye when he speaks. His accent isn't the pinched Appalachian you might expect but more a gentle Piedmont. Giving a speech--really a stump for the Internet and Cisco--he sounds like a cross between an evangelical Mr. Rogers and Charlie Rose. "People accuse me of being a Baptist preacher," he says with a grin. "Actually, I grew up Methodist."

He also grew up dyslexic, as Cisco employees discovered seven years ago at a Take Our Daughters to Work event. A little girl trying to speak to the assembled group choked up, tearfully stammering that she had a learning disability. Chambers jumped up to comfort her, telling her--and hundreds of his employees--that he, too, had a learning disability. When he was growing up, kids made fun of him. So he overcame the problem by working doggedly--which has become a hallmark. "He is the hardest-working man in the world," says Terry Eger, an early Cisco exec who helped bring Chambers to the company. "He's a shareholder's best friend."

After high school Chambers left for Duke but transferred back to West Virginia University to be near his sweetheart. He got both a business degree and a law degree there and picked up an MBA at Indiana University. (Given his pedigree--childhood in the land of Jerry West, Hot Rod Hundley, and now Jason Williams, and stints at Duke and IU--it's hardly surprising that Chambers is a major college hoops fan.)

Chambers worked at two companies before heading to Cisco, and both experiences influenced him profoundly. First stop was in sales at IBM. "I had no intention of being a salesman," he says. "Why would I waste my education on that? I wanted to run my own business." But the IBM recruiter was persuasive. Understand technology, he told Chambers, and you understand a company's inner workings. Help solve an executive's computer problems, and watch his business grow. Besides, you'll make more money at IBM than anywhere else. So in January 1976, Chambers put on a dark suit, a white shirt, and a muted tie and reported to work at Big Blue.

What did Chambers learn at IBM? That bureaucracy and conformity are counterproductive. And that a vast vertical business (selling all technology products to all people) won't work. There were positives as well. The great pride in the sales organization. The camaraderie. The relentless competitive focus. And, yes, the uniform. Even today, you almost never see John Chambers without a suit and tie. "Sometimes I think John wants to create a modern-day IBM with all the positives and none of the negatives," says Don Listwin, Cisco's No. 2 exec.

But Chambers chafed at IBM, and in 1983 he split for Wang to head up Asian sales. For a couple of years he turned in world-beater numbers. Then came Wang's slide--actually, its landslide. "We never saw what hit us," he says. Brought back from Asia to the U.S. by Dr. An Wang, Chambers spent his holiday weekends planning layoffs. By the time he was through, he had axed 5,000 people. He left in December of 1990. The lessons learned at Wang? Layoffs are miserable, and closed systems like Wang's software architecture are doomed.

Eger and then-CEO John Morgridge brought Chambers to Cisco in early 1991. The new exec didn't blow anyone away at first. In tech companies the main career paths are engineering and sales, and Chambers came from the latter group. His business degree from West Virginia didn't cut it with Stanford supergeeks at the core of Cisco, then a small company whose high-end talent was at times so dysfunctional that a company shrink was hired.

Chambers does have the failings of a master salesman. He is, literally, fast talking. He can seem a goody two-shoes--which makes him hard to get close to, some say. He utters bromides like "We want to create the greatest company in history" and "We want to change the world" with neither irony nor modesty.

But underestimate Chambers at your peril. First, he does know the technology--he just doesn't let it become the focus. "I have no love of technology for technology's sake," he says. "Only solutions for customers." That's the focus--customers. "John Chambers is the most customer-focused human being you will ever meet," says venture capitalist John Doerr. "He is relentless." According to Denis O'Leary, the head of Chase.com, which is a major Cisco account, "John Chambers is on a very short list of CEOs who always leave me energized and filled with new ideas."

Furthermore, Chambers does have a tough side. He recently met with SEC Chairman Arthur Levitt to discuss rule changes the commission was considering that would limit the "pooling method" of accounting for acquisitions. In pooling, an acquirer need not amortize nonphysical assets--in tech land, that's often most of the assets--of a company it has purchased. Since less amortization means higher profits, pooling has been the method of choice at Cisco, which has bought 55 companies over the past decade. According to Chambers, the CEO made it plain that if Levitt went ahead with his plans, he would have to contend with the substantial lobbying weight of Cisco and every other tech company. "The whole thing about Chambers being cuddly is carefully cultivated," says one Silicon Valley exec. "He is a ferocious animal. Hire one person away from him, no problem. Two, okay. Three, and it's war."

Flying back west in his Falcon 2000 from our Charleston visit, Chambers and I had a long conversation about his management style. He agreed that he can be tough: "When it comes to customers, we will do whatever it takes to win them. 'No' to us just means we have to come back. That's in our genes." So whom does he admire? Which CEOs helped him learn to compete like this? "Jack Welch and Lew Platt," he said. "We're like GE in that we want to be No. 1 or No. 2 in all our businesses. We learned to partner from HP. Lew's word was his bond. I used to tease Lew that I wanted to be like him when I grew up, though I think HP could have been more aggressive." Well, given his success, how does he feel about having so many stockholders now relying on him? "As soon as I heard them saying that Cisco is safe enough for grandmothers to own, I said, 'Oh, no, don't do that to me.' But really it's exciting. It's constructive pressure."

Then I asked him about his $60 million "Are you ready?" TV ad campaign. "The ads are pretty high concept," I said. "Kind of trippy." Chambers looked at me quizzically. "What do you mean by 'trippy'?"

Okay, so Chambers is no Steve Jobs. But if you've owned his stock over the years, you couldn't care less.

The man--this man who is, yes, trippy in his own way--has created a company that is nothing less than a money-making machine.

Each morning some 13,000 souls hell-bent on world networking domination exit Highway 101 a few miles north of downtown San Jose onto the San Tomas Expressway. In a minute they're in Cisco City, the biggest Internet-economy, post-industrial park in the world, an orderly sprawl of more than 40 low-slung, beige, shiny-happy buildings. A public trolley runs down the center of the complex. Finding HQ can be tricky since it's only slightly more...um...grand than the others. Inside the buildings? You guessed it, the offices, the layout, the furniture--everything--is identical. It's a frugality thing. Everyone flies coach. No perks. The tone here was set by former CEO Morgridge, a commonsense Columbo type who, employees swear, buys his suits at Costco. Word has it that shortly after Chambers arrived, he turned in his first expense report to Morgridge. It came back with the short-term parking expenses circled. Stapled to the report was a coupon for long-term parking (PARK HERE FIVE TIMES AND GET ONE FREE) with Morgridge's name on it.

No, Cisco City is not for everyone. "It's a very demanding place," says a former Cisco-ite. "The peer pressure is intense. For Type A personalities only. To succeed you have to commit to it. It's not an eight-hour day." The company is now building what it says will be the largest day-care center in Northern California, where some 450 young Cisco tots will play away the hours. Anxious moms and dads will monitor the youngsters from their desktops via kiddie Webcams. The effect somehow suggests the movie The Truman Show, in which Jim Carrey lives in a perfect but contrived land.

It also brings to mind Jaws. Any competitor will tell you that this is the Great White Shark of the tech world, a competitive killing machine that never sleeps. The short history of networking is strewn with Cisco chum. In its early days, for instance, Cisco went head-to-head with companies such as Cabletron, SynOptics, and Wellfleet. SynOptics and Wellfleet merged to form Bay, creating a company nearly twice Cisco's size. Cabletron was just as big as Cisco. Cisco pulverized both companies.

More recently, Cisco beat Alcatel for a big--$1 billion--order from SBC. Cisco first targeted the Baby Bell in 1997. "We made hundreds of sales calls, over three years, to win this business," says Listwin, who led the charge. Listwin finally got the billion-dollar business after he flew down to Texas to woo SBC vice chairman Royce Caldwell over dinner. Put simply, no networker has ever had the laser focus on customers that Cisco has had from day one. (Of course, sometimes that focus may be too intense--a recent customer lawsuit accuses rogue Cisco salesmen of extortion and even death threats.)

Cisco was founded in 1984 by a group of computer scientists at Stanford, led by a married couple--Leonard Bosack and Sandy Lerner, the pioneers of the "router," which is still Cisco's core product. Back then the thousands of computers at Stanford could not talk to one another. So Bosack and Lerner designed some operating software, called IOS (Internet Operating System), for a Digital Equipment computer that could then route streams of data from one computer to another. Then they loaded that software into a box containing microprocessors specifically designed for routing--thus the machine on which an empire was built.

The beauty of Cisco's routers is that they are agnostic--which is exactly what the company's FORTUNE 1,000 customers wanted. They needed something that could connect any kind of computer: DEC, Apple, IBM, or Unix machines. That's what got Cisco into corporate networks early, and then it raced like hell to keep up with its customers' next demand: speed, more of it, all the time, forever and ever. Cisco has done so well delivering on this need that even now, 16 years later, it still has a 60% share of the router market, which is growing 40% annually.

Cisco pioneered routing, but that didn't give it any monopoly on networking innovation, and in 1993--three years after the company's IPO--a new, high-powered technology appeared. Switches, as the new machines were called, were less sophisticated, but they performed many of the functions of more expensive routers. So Cisco simply bought the companies that made the products its customers needed. Laying out what then seemed like an outrageous sum, it paid $293 million for Calpana and Crescendo, and voila--customers could get switches from Cisco.

Growth by acquisition has become the most famous piece of Cisco's strategic plan. Cisco has now bought 55 companies, for $20.4 billion, and by the time you read this, those figures will likely be dated--it plans to buy about 20 companies this year. Using its soaring stock as currency, the company bought its way into the market to sell the super-high-speed switches that customers like AT&T and MCI need to run their networks, allowing it to compete with heavyweights like Lucent, Nortel, Siemens, Alcatel, and Fujitsu. It bought its way into the optical networking market, the next high-speed frontier. Thanks to acquisitions, Cisco's offerings run up and down the entire product hierarchy, giving customers one-stop shopping for their networking needs. "End to end" is how Chambers puts it (although his staff jokes that it sounds like he's saying "Indian").

Yes, as many articles have noted before, this acquisition strategy proves that this company has no "not invented here" syndrome. And, yes, Cisco's ability to integrate acquired companies is legendary--though contrary to conventional wisdom, not all of those mergers work out.

But there are a couple of points about those acquisitions that are not so obvious. First, an acquisition is the single best way to secure top engineering talent. "Most people don't realize it, but that's the No. 1 reason for M&A in the technology industry," says Larry Bohn, CEO of net.Genesis. "It's the only way to hire 20 or 30 engineers." Second, for Cisco, spending billions of dollars to buy companies is more cost-effective than the R&D budget it would need to get into all those new markets. "The way Cisco's strategy is supposed to work," says one Valley executive, "is maybe you overpay for a company, but it's the pick of the litter and you haven't frittered away boatloads of money on R&D."

"We still have R&D," asserts Mike Volpi, senior VP of business development and alliances. "About 70% of our products come internally." Volpi, who speaks Italian and Japanese and, at 33, is something of the Cisco wunderkind, says that the next acquisitions will focus on extending Cisco's traditional disciplines, such as enabling telephone calls over the Net, or on something called content-aware networking, in which smart products do things like measure the flow of traffic over a high-bandwidth line and lower the price of service if volume is low.

But making a science of acquisitions is just one of the best practices that makes Cisco a star. Want another? How about the fact that Cisco uses the Web more effectively than any other big company in the world. Period. Boy, is Cisco wired: Front end, back end, customers, suppliers, inside, outside, and in ways most companies haven't even imagined.

One meta-example can be found in the home of Listwin, Chambers' right-hand man, and his wife, Lorene Arey, who is Cisco's head of PR, in the hills west of Palo Alto. (Listwin and Arey are sort of Cisco's golden couple.) In their den after dinner, Listwin uncorks a bottle of wine from the couples' little vineyard out back. (The Arey/Listwin 1998 Chardonnay kind of grows on you.) Then he boots up his Dell Dimension and logs into the Cisco network. Right away the data that pop up onto his screen are nothing short of stunning. It's info that anyone running a business would kill to have. Listwin clicks through to the day's worldwide sales figures, which can be instantly sorted by region, product, or customer. (The ten biggest customers that day include Wal-Mart, General Dynamics, Ingram Micro, and other resellers.) Then there's net revenue, net

income, margins, orders, and expenses. "I look at these numbers first thing every morning," says Listwin. (This family may eat, sleep, and drink Cisco just a bit too much.) "The information now on our network is invaluable." The data at Listwin's fingertips are obviously extremely sensitive, so only Cisco's top half-dozen or so execs are privy to it. But the company disseminates all sorts of other cuts of the data to wider groups of employees.

Aha! Now you begin to understand why Cisco has such a legendary grasp of its numbers. How it can "guide" analysts down to the last penny as to what it will report for the quarter. "John and Larry Carter [Cisco's CFO] run such a tight ship, it's almost unbelievable," says Ray Bell, who used to work at Cisco and is now CEO of networking startup SmartPipes.

Carter, who at 56 is one of the few graybeards around Cisco, was the guy who pushed for instant online numbers. He even launched an effort to take the data one step further. He wanted to close Cisco's books in a day. One day!?! For most companies this takes weeks (which is why the SEC gives them 90 days after each quarter to report). After nearly a year of cajoling, Carter finally tested the process on Jan. 10. Not wanting to wait for the end of his second quarter to see if Y2K had mucked up his financials, Carter decided to do a mock close of Cisco's books that day. And it worked!

Cisco extends its Web savvy to customers and suppliers. Some 90% of sales--or a $14.4 billion run rate--are generated online. That helps explains why, even though Cisco warns every quarter that its gross margins are bound to fall, they have consistently held north of 60%. (That's right--60%!) On the back end, Cisco contracts out some 75% of its manufacturing to companies like Jabil and Solectron. Naturally the relationship with those partners is 100% online.

But don't make the mistake of attributing Cisco's success solely to its Web strategy. This is a company rife with best practices. There's that extreme customer focus, for example. Chambers spends 30 hours a week or more meeting with customers. "I was just shocked at John's attention to customers when I came here," says Sue Bostrom, senior VP of Internet Business Solutions, who previously worked at AT&T, DEC, McKinsey, and National Semiconductor. "John met Harry Kramer, the CEO of Baxter International, after a speech where John talked about the power of the Internet. Harry wanted to find out about using the Net to help his business. John quickly called our group up and told us to meet with their people, which we did. And we are now doing business with Baxter." So just how much does Chambers value this contact? Cisco employees get bonuses on the basis of customer satisfaction surveys. No love from that constituency, no meal ticket.

Speaking of compensation, the currency of choice for Cisco employees isn't the U.S. dollar. Oh, no. After all, the greenback doesn't appreciate 100% a year, as Cisco's shares have! Cisco hands out options to all of its employees. That initiative came directly from Chambers. "When I grew up," he says, "there were some who would have called this socialism or communism, but I've learned it is clearly the best way to incentivize employees."

That largesse could hurt Chambers, of course, especially if some other threatened accounting changes take place. But for now, Chambers' options strategy has helped him build what is arguably the deepest management team in the Valley. "You have to understand," says one Valley exec. "Managers are empowered there in a way they just aren't at Oracle or Sun or HP or Intel." Says Volpi: "One thing John does well is stretch people's responsibilities and change the boxes they are in. It makes our jobs new all the time." (Chambers may have his expertise in this area tested. Listwin is widely seen as Chambers' heir apparent. But he recently shocked me when he said he now has no desire to run Cisco. Why? He doesn't find all that high-profile statesmanship stuff appealing. We'll see what Chambers can do about that.)

All in all, Chambers has put together an impressive list of how-tos, from open systems to seamless acquisitions, blanket option packages, closeness to the customer, and superior Web management. None of this is lost on Wall Street, which has fallen hopelessly in love with Cisco. But managing Wall Street is also a textbook operation. "The company reports like clockwork," says George Kelly, a Morgan Stanley Dean Witter analyst who has had a buy on the company since it went public. Says Larry Carter: "We focus on communicating and being consistent. There is nothing Wall Street likes more than that." That attitude helps explain why of the 33 analysts covering Cisco, 12 have buys and 21 have strong buys. And it helps explain why TIAA-CREF owns $2.4 billion of Cisco stock, why Janus owns $6.4 billion, and why Fidelity--Cisco's largest shareholder--owns $8.8 billion. And it helps explain why Carter was able to point out to a group of institutional investors at a Merrill Lynch conference this year--right after the company's tenth anniversary as a public company--that Cisco had just logged its 40th quarter in a row of record revenues and profits, without ever missing expectations. Music to Wall Street's ears.

Now you can understand why GE, often recognized as the best-managed company in the land, is sending its managers to study this phenomenon called Cisco. Says Welch: "We've had teams from all different parts of GE go study Cisco, and our people are really impressed."

So, is John Chambers the best CEO in the world? Well, he's probably got at least 3,530,662 votes. The question is whether investors who come onboard today will feel the same way three years from now.

The Arizona Biltmore is one of those resorts that is forever buzzing with golf-happy executives ostensibly attending some sort of conference. On this early April evening, big wheels from a group called the Financial Services Roundtable, including Dick Kovacevich of Wells Fargo, Allen Wheat of CSFB, and Robert Herres of USAA, seem to be actually intrigued by the program's pre-dinner speaker. The execs have donned their blue blazers (and brought their spouses too!) and are rapidly filling the Casa Grande Ballroom. The speaker is John Chambers, and when he gets going the group hangs on his every word, because they believe Chambers can explain how to harness the power of the Internet.

It's powerful stuff. The Internet will become completely pervasive, says Chambers, working the room like a preacher. "Your franchises are under attack. Prices will fall. Margins will decline. You must get on the Net and find new ways to add value." You can almost see the mental note taking in the audience: "Monday: Ramp up Internet effort. Ask IT guys about Cisco." It's a wake-up call, but the crowd seems to love the messenger. Chambers gets a big hand. Afterwards, execs press forward to soak in some Net karma.

But is Chambers' vision of the future on target? Can the networking market really prove as vast as he promises? Is Cisco optimally positioned? Can this company fulfill its mission and, as Chambers says, "change the world"? Well, there are no sure things in this business, but you could make a great case that the answer to all those questions is yes.

After all, a bet on Cisco is a bet on the pure unadulterated growth of the Internet. You probably know the numbers, right? More than 75% of all Net traffic travels over Cisco products. Some 275 million folks are on the Net today, and by the year 2005 that number may reach one billion. So that's 3 1/2 times as much traffic, ergo 3 1/2 times as much product to sell over the next five years. And just how strong is Cisco's franchise? "I first realized how intensely loyal Cisco customers were," says Mark Dickey, a former Cisco sales exec who now works at SmartPipes, "when someone told me, 'We're going with you guys because no one ever got fired for buying Cisco.' " That's what they used to say in IBM's golden age.

Still, that reputation couldn't keep Big Blue's stock, pre-Gerstner, from sinking precipitously. The danger

with Cisco's stock actually comes a lot less from whether the company will execute--it will--and a lot more from its valuation. As a wise observer recently said about P/Es in this market, "The problem isn't with the E's. It's with the P's." Yes, Cisco is a great company, but can you really buy this--or any stock--at 150 times earnings? (That's not a P/E; that's an IQ!) One observer recently commented that if Cisco, which was recently trading around $68, had Microsoft's P/E, it would sell for $20. "True," responded a Cisco-ite, "but Microsoft is an old-economy company. We're not." (Hear that, Bill?) Want another scary view? Consider this: GE's market cap is 4.8 times sales. Microsoft's is 18.0 times sales. Cisco's 35.8 times sales.

So, can you justify owning Cisco, let alone buying it, with those kinds of ratios? That depends on your risk tolerance. Cisco's P/E is so high that if interest rates climb sharply, say, or techs fall radically out of favor, Wall Street will murder this stock. Another bugaboo is the law of small numbers, which says it's a much tougher trick to grow earnings at 30% when you have $12 billion in revenues than when you are a $1 billion company.

But now try to answer this question: Can you justify selling this stock now? I don't think so! Let's say you're a shareholder--what better place will you find to invest your (after-tax, of course!) proceeds? And if you were thinking that it might be too late to buy this highflier, remember the old buy-on-the-dip rule. Folks who recently bought this stock under $60 could wind up sitting pretty.

Here's one last question: How's business this quarter? (After all, earnings are due out on May 9.) Anecdotally, it looks to be smokin'. During a recent walkabout on a Cisco factory floor, a manager smiled when I asked about the workflow. "Backlog is as good as we've ever seen it," he says. We wander over to a packing station and pull a work order off a set of three Catalyst 6000 routers headed for the Netherlands. I want to scan the bill over at a workstation, to see when the order was placed. "You going to be long with that?" asks the guy who's taping up the boxes, disapprovingly. "No, just a minute," the manager tells him, and we walk around a corner with the bill. Five minutes later we come back, but the three routers--which go for about $36,000 each--are gone. "Whoa, what happened to these routers?" the manager asks. "We couldn't wait," says a loader. "Printed out another bill and shipped 'em out." Ka-ching! There goes another $108,000 of product flying out Cisco's door.

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Cisco Fractures Its Own Fairy Tale Once upon a time a star called Cisco soared with the rising stock market. But when the economy slowed, Cisco's managers didn't know what to do.

By Stephanie N. Mehta Reporter Associates Julie Schlosser, Paola Hjelt

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(FORTUNE Magazine) – On Monday, April 16, Cisco Systems CEO John Chambers embarked on a journey to visit telecommunications companies that use his company's gear in their networks. Chambers had just told investors that Cisco would post an unprecedented 30% decline in sales from the previous quarter, but the trip was planned months ago, and he decided to stick to his schedule. By Thursday night he had met with executives from ten phone companies in six cities. "Our progress and positioning with the service providers is extremely good," Chambers, reached on an airplane somewhere in the Mountain Time Zone, reported in a spirited voice. "There was no concern about our strategy or direction."

Chambers also found time in his travels to meet with employees and talk about the 8,500 jobs Cisco is cutting--the first mass layoffs in the company's history. He acknowledged that the firings are personally difficult for him, yet he still managed to put a happy face on things. "We've communicated actively with our employees," he said. "I would say probably well in excess of 95% of the voicemail and e-mails--and I've had a ton of them come in--have been extremely positive, even by those people who have been affected."

If this cheeriness sounds out of keeping with the times, that may be because everything about Cisco seems that way right now. On the way up to a stock market value of half a trillion dollars, everything about Cisco seemed perfect. It had a perfect CEO. It could close its books in a day and make perfect financial forecasts. It was an acquisitions machine, ingesting companies and their technologies with great aplomb. It was the leader of the new economy, selling gear to new-world telecom companies that would use it to supplant old-world carriers and make their old-world suppliers irrelevant.

Over the past year, every one of those characterizations has proved to be false.

Yes, we all know the numbers by now: Besides the drop in revenues, the company is taking a massive $2.5 billion write-off for excess inventory. According to its executives, Cisco was blind-sided by the suddenness of the economic slowdown and by the way demand for its equipment just up and disappeared. "This is a macroeconomic and decline-in-capital-spending challenge for our industry," insists Chambers. Indeed, many competitors, including Nortel and Lucent, are struggling too.

But as dozens of conversations with customers, past and present Cisco executives, competitors, and suppliers reveal, Cisco has made its own mess. It made some bad technology bets. It exhibited a cavalier attitude toward potential customers. It signed long-term contracts with suppliers at just the wrong time. And a few of its products just weren't very good.

Those looking for someone to blame can start with a CEO who didn't seem able to turn off the spigot of his own optimism. That pink-slipped employees are pitching woo at their soon-to-be-ex-boss says a lot about Chambers, 51, and the fervent devotion he effortlessly inspires. Few executives deliver a rap more hypnotically. And in an economy dominated by a stock market that thrived on positive news, few companies offered more of it than Cisco or had greater mastery over the numbers that told the story. For 13 quarters in a row during the bullish '90s, when its sales grew 75% a year, Cisco beat analysts' per-share profit expectations by exactly one penny. In April of 2000, when FORTUNE put Chambers on its cover and asked, "Is he the best CEO in the world?" the company had just hit a remarkable milestone: It had achieved a market value of more than $550 billion, surpassing Microsoft and General Electric, for a time, as the company holding the title of World's Biggest Market Cap. (See "My 'Dear John' Letter.")

Basking in such a culture of confidence, Chambers and his managers seem to have had difficulty anticipating bad news and forecasting lower demand for their company's products. In the heady days of last summer, Cisco's rosy outlook prompted the company to build inventories as part of a strategy to speed up shipments to customers. As

recently as early December, Chambers was offering investors an upbeat view of Cisco's prospects, despite the demise of dozens of companies that were Cisco customers, particularly dot-coms and telecom upstarts. By then several securities and industry analysts had published reports warning of flat spending in 2001 by telecom companies of all sizes. Yet despite Cisco's heavy commitment to this market, Chambers didn't change his tune. Instead, he offered a variation on one of his common themes: "Cisco does better during the tough times."

But demand did indeed slow, and new technologies failed to take hold. Investors who bought into Chambers' pronouncements are likely to be singing the blues. Cisco shares have tumbled 65% since the beginning of December, and today its market value hovers around $115 billion.

Nowhere was Cisco's swagger more apparent than in the company's bold move into the telecommunications-equipment market, which was dominated by such powerhouses as Nortel, Lucent, Siemens, Alcatel, and Fujitsu. The runaway leader in equipment for corporate data networks, Cisco began looking for new markets to conquer in the mid-'90s. As large companies began using the phone system to carry data traffic between their facilities instead of building their own data networks, the divisions between corporate and public-phone networks began to blur. Telecom companies ogled the massive amounts of traffic that corporate data networks could handle and started wondering if similar systems could efficiently run public networks.

Meanwhile, deregulation of the U.S. telecommunications industry, enacted in 1996, coupled with a robust stock market and the boom of the Internet, prompted the creation of hundreds of new companies, all eager to build new networks and swipe business from established players like the Bell telephone companies, AT&T, and WorldCom. Telecom spending, which had been growing at single-digit rates for much of the '90s, exploded and began rising 14% to 17% annually.

Cisco strode cocksure into this conservative and somewhat stodgy world and declared a revolution: Internet Protocol--the digital language of the Web--would rule the world. Telephone calls would be chopped up into data packets and delivered free--via Cisco equipment, of course--and anyone who didn't understand this was pathetically old-economy or, worse, a dinosaur headed for extinction. Chambers quickly became the poster child for the Internet and promised to meld it with the public telecom network. With his patient speaking style and West Virginia drawl, he made Internet Protocol, or IP, seem somehow less intimidating. When he called rival telecom-gear makers "old world" companies, his tone was never mean-spirited. Rather, it was almost as if he felt sorry for them. (This, by the way, was even more infuriating to competitors.)

Cisco's assuredness bordered on the naive. In pursuing customers Cisco had its greatest luck with its spiritual compatriots--new service providers that didn't have old-world networks and attitudes. At first the fit seemed perfect. The new carriers and Cisco were united in their desire to outgun their old-economy counterparts. Like Cisco, these carriers were stock market favorites for a time. Investors figured each of these newcomers would be the next MCI, which thrived by taking long-distance customers from AT&T. Many of the upstarts had raised plenty of money to spend on Cisco's "next generation" telecom gear. Others were able to borrow the funds, and then some, through Cisco's structured finance program. Though the upstarts accounted for roughly 25% of U.S. telecom spending in 2000, by last summer Cisco got about half of its telecom revenues from them.

As it turned out, Cisco had made a big bet on the wrong segment of the telecom market. Many of the new telcos were poorly managed, had weak business plans, or failed to meet their earnings targets. Today these companies aren't simply slowing their capital spending. Many have gone under, and others will crash soon. Those that are hanging on face a cash crunch.

It's no surprise, then, that telecom accounts for a disproportionate share of Cisco's woes. Sales to telecom companies make up about 40% of Cisco's revenues, but telecom gear and parts accounted for 70% of the

inventory write-down. And telco revenues declined an estimated 40% in the most recent quarter, vs. 20% for sales to corporate customers.

Cisco wasn't alone in pursuing the newbies. Some of Lucent's gambles on new carriers, for example, have fared poorly. (See "Hear No Risk, See No Risk, Speak No Risk.") But unlike Lucent or Nortel, Cisco can't fall back on deep relationships with established phone companies. "Cisco totally underestimated the importance of the embedded carriers," sniffs one telecommunications executive. "Maybe we are dinosaurs, but dinosaurs lived for a hell of a long time." Chambers says alternate carriers contributed about $500 million a quarter to Cisco's revenue a year ago. "It has dropped to a small fraction of that," he says.

Yet Cisco apparently is still chasing upstarts. In March Cisco announced a handful of contracts with carriers that would be deploying its equipment. Only one, Swedish phone company Telia, is a brand-name phone company. Other customers include no-names like DataVoN, which had $11.4 million in sales last year. DataVoN confirmed that Cisco was providing financing for its purchases. Asked to comment on why Cisco is making deals with such small fry, Chambers replied, "You want to think of alternative service providers as disrupters to the market; they push the traditional players to move faster."

Just as damaging as its pursuit of the newbies is the way Cisco alienated many of the giant old-world phone companies that now seem likely to survive the current downturn. In the fall of 1998, at a gathering of some 100 service providers in Monterey, Calif., Chambers made his famous statement that "voice would be free," leaving telecom executives either indignant or bemused. Chambers wasn't just attacking their cash-cow voice-calling business; he was taking a shot at the 100-year-old phone network, legendary for its reliability.

As a consequence, many of the established phone companies eyed Cisco with suspicion. Like Chambers, most Cisco executives didn't disguise their frustration with the telcos' hidebound traditions and multiyear timeline for evaluating new suppliers. And the telcos didn't trust a builder of corporate Internet systems to touch their networks; this was the late '90s, when tales of intranet crashes abounded.

Cisco's sales tactics irked some phone companies too. Rather than making their pitch to engineers and procurement officers in charge of buying network gear, Cisco's salespeople often approached their counterparts at phone companies with a proposition: Buy Cisco gear and we can introduce you to our corporate customers--customers you desperately want to serve. This was appealing until phone companies started to realize that Cisco was promising every telco access to the same handful of potential customers.

Phone companies have also been reluctant to embrace Chambers' vision of delivering free voice calls over Internet Protocol networks. According to Synergy Research, last year phone companies spent some $35 billion on equipment for so-called circuit-switched voice networks--the stuff built by old-world manufacturers like Lucent. They spent less than a billion on voice-over-IP gear.

The slow uptake isn't just a case of phone companies' dragging their feet. They have invested billions of dollars in their circuit-switching gear, which creates a dedicated circuit between two parties for every phone call. Circuit switching isn't very efficient, but it provides excellent sound quality, which telco executives don't want to sacrifice. Telcos are also looking for suppliers that will help them make a gradual transition to new-world packet networks. Yet Cisco has always seemed to advocate ripping out old networks and replacing them with new ones. "The larger, established carriers tend to view Cisco skeptically," says Paul Sagawa, an analyst with Sanford C. Bernstein. "By no means do they view Cisco as a partner."

Cisco did score victories with the larger carriers--its routers are staples in AT&T's and WorldCom's data networks, for example. Some of its successes, though, have come at a price. Cisco pushed hard to supply

telephone companies with gear to support high-speed digital subscriber line, or DSL, service. But a few telecom companies grumbled to FORTUNE about the quality of Cisco's DSL equipment. At least one carrier said it had to replace some of Cisco's broadband equipment with newer Cisco gear because the original shipment wasn't up to snuff. A Cisco spokeswoman says, "If a customer has an issue with a product, Cisco will do everything possible to resolve the problem quickly."

Even worse for Cisco is the way it misread demand for the equipment, which contributed to the enormous inventory write-off. A little over a year ago, the Bell telephone companies--and some of their DSL competitors, like Covad and Rhythms--set aggressive targets for deploying high-speed Internet access to consumers and small businesses. Cable operators, too, were rolling out fast cable-modem services. Demand for Cisco's broadband equipment was very high.

Yet when Cisco's customers started to cut back early this year, Cisco was caught in a bind. The company had been worried that long lead times--customers sometimes had to wait months for a product--were hurting sales. So it entered into long-term contracts with suppliers and manufacturers to assure the availability of customized components for its products, including broadband gear. As much of that inventory was coming in, however, demand started to slow. In DSL, for example, giant SBC announced plans to cut back its deployment of high-speed lines, citing the need to shore up its Ameritech purchase. The competitive DSL providers are all but wiped out. And the lack of competition from telcos has provided the cable operators breathing room to deploy cable modems at a more leisurely pace. Chambers says, "When your run rate on certain products such as DSL or cable goes from 150% to flat to down, you end up with more capacity than you need."

Nevertheless, the size of Cisco's inventory stockpile is astounding, and the way the company has accounted for it has raised eyebrows as well. Cisco says that its policy is to write down anything it won't use within 12 months. Without the $2.5 billion write-down, the value of Cisco's inventory for the quarter ending April 28 would be about $4.1 billion--64% higher than for the quarter ended January 27. Some accounting experts have suggested that Cisco might try to use some of this written-down inventory in the future--CFO Larry Carter said some of this inventory will be placed in a "secured area"--if demand picks up again. Products sold using inventory with zero cost would show some very nice margins, leading to the suspicion that Cisco may be taking a big hit now (in a quarter that was going to be bad anyway) in order to look better in future ones.

Cisco claims that the excess inventory will be obsolete within 12 months because manufacturers keep improving their components--a scenario affirmed by some suppliers. If that's the case, though, the question becomes, Why hadn't Cisco written down some of its inventory in earlier quarters? By the end of the January quarter, inventory levels had reached $2.5 billion, up $1.2 billion from a year earlier. Yet the company didn't disclose any write-downs, which implies that Cisco expected to be able to use the gear. How did so much of it become impaired in a three-month period? The Securities and Exchange Commission has recently expressed concerns over the timing of such write-offs. A company might know it was holding impaired inventory, so the worry goes, and fail to share this information from investors. Cisco says that the size and timing of the write-off came as a result of "a precipitous drop in demand."

For now, Cisco is taking steps to raise its standing with important telcos. In late April, Senior Vice President William Nuti revamped Cisco's telecom business to dedicate more sales and technical support staff to a smaller number of customers. The aim is to help phone companies develop the kind of value-added services that their own corporate customers want. Nuti says, "We're going to get back to basics in terms of listening to our customers and responding to what their needs are."

That may be a touch of humility you hear--but it isn't necessarily shared by all of Chambers' managers. Asked if he felt any regrets about Cisco's "we do well during the tough times" mantra, strategy chief Volpi didn't hesitate:

"I think that's true," he said. "This is an opportunity for Cisco. All our competitors are hurting, and when they hurt they'll retrench. We can gain much more share now than in the past." Volpi might want to check the latest market-share numbers from Synergy, which show that Cisco's rank in the communications-equipment market in the fourth quarter slipped from second place to fourth.

Despite its woes, Cisco still has many fans. "The real story on Cisco will be told six months from now, when things normalize," says Rand Blazer, CEO of KPMG Consulting, which is 10% owned by Cisco. "You are still dealing with one of the strongest companies in the world." Despite the free fall of its shares in the past year, investors who bet on Cisco when it went public in 1990 would be better off than if they had invested in the S&P index. The company has gear in 85% of large U.S. corporations, and analysts point out that in the telecom market, Cisco is only an acquisition or two away from becoming a dominant player. It certainly has the means. Its market cap still dwarfs that of its rivals, it has $17 billion in cash and investments, and its balance sheet is debt free.

Yet Chambers has always been loath to acquire mature companies--the sort that could make Cisco an instant contender in a new market. He doesn't want to risk the culture clash, analysts say. Potential acquirees, meanwhile, may be reluctant to take Cisco's battered stock. And not all of Cisco's deals have gone so well. While it seems to be getting mileage from its $7 billion acquisition of optical networking gear-maker Cerent, which recently won a contract from BellSouth, some other attempts to buy into that market have been flubs. Cisco has scrubbed a product developed by acquiree Monterey Networks that aimed to route waves of light in fiber networks. Cisco says the product was ahead of its time; analysts say customers rejected it. The analysts expect Cisco to axe other lackluster products too. Its acquisition of Pirelli's optical-systems business has also been a disappointment. Once the leader in a technology that increases the capacity of fiber-optic networks, the Pirelli unit has fallen far behind rivals Nortel and Ciena. Cisco says Pirelli is developing new products.

Acquisitions, forecasting, technology, and, yes, senior management--all have failed Cisco in the past year. To some extent, the same fate has befallen the company's competitors. But Cisco's stumbles are fascinating because Chambers promoted the company as a new breed of behemoth--one that was faster, smarter, and just plain better than the competition. "I expect to be held to a higher bar than others," Chambers concedes.

But don't think that this CEO is depressed. He's already talking about a return to 30% to 50% growth, though he admits he doesn't know when. "As a business leader, you have to plan for the future...and share that with employees so they can plan for everything from manufacturing to facilities," he says. "And if you don't share that with your shareholders, you have a disclosure issue."

Chambers stops a minute to catch his breath. There are so many drivers of growth to talk about: e-learning, video on demand, overseas markets--he almost doesn't know where to begin. "There's not a single customer we called on that didn't think we have an excellent chance of breaking away from the pack," he says. It's the kind of optimism that got Cisco where it is in the first place.

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