The real king of the Internet.(Cisco Systems CEO John Chambers)(includes related articles on competitors)

by Andrew Kupfer

John Chambers, CEO of Cisco Systems, hopes to make his company into a dominant telecommunications player, but faces serious competition. Cisco already dominates the market for the high-end routers and hubs used on the Internet backbone. Chambers is readying Cisco to compete in the $250 billion telecom-equipment market, currently ruled by much larger firms. He must not only take on bigger rivals but win business from the major telephone companies, an area in which Cisco has relatively little experience. Chambers remains confident, launching slick advertising campaigns, navigating market shifts smoothly and hiring entrepreneurial staff. Cisco is working hard to convince customers that one-stop shopping saves money. Analysts say that Cisco cannot sustain the 'hypergrowth' that resulted from its having limited competition in the router market, noting that rivals such as Lucent Technologies have 100 years more experience and that phone companies are accustomed to running networks far more reliable than the Internet.

CEO John Chambers wants to make Cisco a telecom dynasty, but Lucent and Nortel are in his way. Does this guy have what it takes?

A summer afternoon shimmering with heat, Cisco chief executive John Chambers prepares for a quarterly ritual. He straps on a red apron, slings a canvas bag over his shoulder, and strides inside corporate headquarters to distribute ice cream to his staff. "Hi, my name is John Chambers," he says. "Corporate overhead here at Cisco." The introduction seems disingenuous, but it soon becomes clear that a lot of people were hired since he last made the rounds. "I've got vanilla sandwiches, chocolate sandwiches, vanilla ice cream, and juice bars. What would you like?"

While at first blush the glucose level on Cisco's sprawling San Jose campus seems a little too high to be believed, after some time there it's clear that Chambers' good humor is genuine. And why not? He has spun nothing but sweetness for investors, turning Cisco's stock into the closest thing to a sure bet in the technology business. Since he became CEO in January 1995, Cisco's share price has increased by nearly 800%, giving the company a market value of over $100 billion only 8 1/2 years after going public--making Cisco the fastest to do so in history. (The previous record holder, Microsoft, took nearly 11 years.)

The company is hot these days because it owns the sweet spot of a fast-growing industry in the midst of enormous change. Cisco dominates the business for data networking equipment--the routers, hubs, and electronic devices that make up the plumbing of the Internet and corporate computer networks. Data networking gear is about a $20 billion business today, but with Internet traffic doubling every four months, demand for newer and faster systems is intense.

With revenues of $8.5 billion for the fiscal year ended in July, Cisco's share of this market is more than 40%. While that doesn't give it the hegemony enjoyed in their realms by Intel and Microsoft--the two companies with which Cisco is most often compared--Cisco has pulled away from the rest of its industry. Its nearest rival, 3Com, is only two-thirds Cisco's size; five years ago 3Com was larger. In the past eight years, Cisco's revenues are up more than 100-fold.

Now Chambers, 49, is readying Cisco to compete in a much bigger league--the $250-billion-a-year market for telecom equipment. As data traffic explodes, phone companies are building new networks, phasing out the century-old system designed to carry only telephone calls and replacing it with one adept at carrying information of all sorts--voice, video, and computer files--in the ones and zeros of computer language. Selling revamped versions of its equipment into this bigger market means that Chambers must take on bigger rivals than the ones he has already trumped. Now he'll battle the likes of Nortel, which is twice as large as Cisco; Lucent, over three times as big; and even Siemens, with seven times Cisco's sales (see chart). Chambers must also win new customers--the big phone companies--with which Cisco has had only limited dealings. He scored his breakthrough in June when Sprint announced that Cisco would be the primary supplier for its new data and telephone network. Till then, Sprint's major supplier had been Nortel.

So what does Chambers think of Cisco's chances in this new hybrid universe of voice, video, and the Internet? "I want Cisco to be a dynasty," he says. "I think it can be a company that changes the world." He's serious.

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Chambers' confidence seems particularly astounding when you consider that Cisco is probably the most faceless dynasty-in-training ever. Plumbing is boring. Popular as Cisco is with investors, it is invisible to just about everyone else. Cisco sells nothing that the people who use the Internet ever see, nor any services that ordinary folk pay for. "The joke around here," says one Cisco staffer, "is that we're the most important company no one's ever heard of."

Chambers is working hard to put an end to the joke. In August the company launched its first national TV ad campaign, a slickly produced series of commercials that show kids, adults, and seniors around the world reciting Internet factoids, the last of which is that Cisco is the company that makes the Internet work. Chambers wants people to think of Cisco as a communications company, not a mere router company, and he is spending generously to do so; the budget for the commercials is $40 million in the U.S. and $20 million overseas during the next 12 months. Chambers is also waging a personal campaign to take his place in the pantheon of industry leaders like Andy Grove, Bill Gates, Scott McNealy, and Steve Jobs, making speeches at conferences, entertaining Washington pols, and even spending more time with journalists.

It's a role that comes naturally to Chambers. He started his career as a salesman, and it shows in his smiling, easy manner, in the conviction with which he spouts what is often little more than marketing fodder, and in the intensity with which his blue eyes stare at a speaker as he listens. Selling is his metier. Whether he's visiting customers, wooing politicians, preparing ads, talking to investors, or walking the halls distributing ice-cream sandwiches, Chambers is on a single mission--he's selling Cisco, always, to anyone who will listen.

That's not to say that Chambers is a one-dimensional CEO. He has a number of strengths, including an exacting attention to detail that has helped Cisco smoothly navigate shifts that have hurt other tech companies. An industry downturn 18 months ago, for example, nailed most other networking companies. Uncertain how quickly data traffic would build and which of several switching technologies would prevail, corporate customers held off buying new equipment. Archcompetitor 3Com, among others, took a big hit to earnings. Chambers, who makes customer focus a religion that goes beyond mere recitation of credos, and even involves customers directly in product design, anticipated the falloff in sales and put tight cost-control measures into place. Cisco's return on sales stayed over 35%, by far the highest in the industry.

That same focus has helped Chambers to build the company. Chambers arrived in 1991, and when he took over from John Morgridge as CEO in 1995 the company had $1.3 billion in annual revenues. The primary fuel for its stellar growth since then has been acquisitions--Chambers typically buys eight to 12 companies a year. Several of these purchases came about because customers told him that Cisco needed a particular expertise or technology that it didn't have in-house. Many of Cisco's top managers arrived in such takeovers, including chief technology officer Judy Estrin, co-founder of 3Com.

Chambers' willingness to adapt, to buy rather than insisting on inventing the technology he needs, is unusual for Silicon Valley. Estrin says, "At a lot of technology companies, it's a sign of weakness to have to look outside for technological help. John has instilled a culture in which it's not a sign of weakness but a sign of strength to say, 'I can't do everything myself. I will find a partner and trust myself to be able to manage the process.' "

The roots of this philosophy lie in Chambers' childhood in Charleston, W.Va., a small city of 57,000 built into the steep hillsides rising from the Kanawha and Elk river valleys. In an era before the phrase "learning disability" had been coined, Chambers, a dyslexic, couldn't learn to read. His mother took him to a reading coach, Lorena Anderson Walter. "Oh, I just loved Johnny!" says Walter. "He knew that he had a problem, and he had no doubt in his mind that he was going to do something about it. He made no excuses for not being able to read, and that's very rare." His hard work paid off: He graduated second in his high school class. He also learned to trust others to help him compensate for his shortcomings--as Estrin noticed 40 years later without knowing the details of Chambers' history.

The managers and engineers of the companies he buys are the people he relies on now. Chambers says he can judge the success of an acquisition by how many of them he keeps. By that standard, he has done unusually well.

Among the entrepreneurs Chambers has lured to Cisco is Andreas Bechtolsheim, a legendary Valley figure who co-founded Sun Microsystems in 1982. After growing bored with designing workstations, Bechtolsheim left Sun in 1995 to found his own data networking company, Granite Systems. He approached Chambers to license some of Cisco's software, and the two concluded that the project would work best if Cisco absorbed Granite instead, which it did the following year. Sun CEO McNealy has said that he was sure Bechtolsheim would leave. But Bechtolsheim has stayed, partly because he likes Chambers and partly because he immediately felt at home. "You couldn't genetically engineer a better leader,"

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he says. "Cisco makes every acquisition feel they're part of the company. It represents the best of Silicon Valley culture."

Chambers woos customers with the same passion he used on Bechtolsheim. To put competitors like 3Com and Ascend even further behind him, he is trying to convince customers that they can save money by buying all their data-routing equipment from Cisco rather than spreading their orders among a number of different suppliers.

The approach does have the virtue of simplicity, an advantage to customers because of the way data networks grow. Traffic is building at such a fast clip that as soon as a new router is in place, its capacity is likely to be overwhelmed. After three months, perhaps, the customer may need to replace the software controlling the router with a new version in order to squeeze more speed from the hardware. Since the software evolves constantly, the next iteration will be ready in another three months or so.

Having a single supplier makes the continual upgrades easier to manage. But it also puts the customer at risk in case Cisco tries to jack up its prices, knowing that the buyer would be reluctant to tear out its system and start from scratch. Chief technology officer Sholom Bryski of Bankers Trust recalls how Chambers parried his worries about being a hostage: "He told us, 'Suppose we announce with a splash that Cisco is Bankers Trust's end-to-end data network. Don't you think you have leverage over me? Think of our reputation. It could really hurt us if we disappoint you.' " Bryski pauses. "Did we buy it completely? Not really. But it is an answer. This guy is quick."

If Cisco is to become the company that changes the world, though, Chambers' consummate salesmanship must now prevail in a bruising competition with giant makers of telephone equipment, the Lucents, Nortels, and Alcatels that tower in size over his company. The outcome of this contest is far from certain. Chambers' goal is to become the leading supplier to the world's telephone companies, a $700-billion-a-year industry in the midst of a colossal retooling. Chambers has been tireless and ardent in his appeals. He says, "In the past year I've visited the heads of 90 of the world's 100 biggest phone companies."

The trouble is, the competition beat him there by about a century, and they are sure to make Cisco's next decade much tougher than its last one. As telecom consultant Mark Bruneau of Renaissance Worldwide says, "The hypergrowth that Cisco has experienced was a function of having fairly limited competition in a market undergoing explosive growth. Lucent and Nortel will defend their stronghold fiercely. Cisco is going to run into a wall of competition, into mother bears defending their brood."

The phone companies are also accustomed to running networks that are far more reliable than is the norm in the Internet world. As Bryski of Bankers Trust says, "When was the last time you picked up a phone and it didn't work, or you needed an instruction manual to use a phone? Cisco's world is one of complexity and tolerance for imperfection." Cisco strategy chief Ed Kozel acknowledges the point: "The complexity is not going to come out all that quickly. That may be heresy, but it's true, because of the underlying fact that we're still piling in new functions." In other words, Cisco's gear can't yet satisfactorily handle voice and video. Lucent and Nortel actually face the same challenge; the network management technology honed over 100 years of building voice systems is not wholly relevant to the networks of the future. But the perception of infallibility is in their favor. (See box for more on how Lucent and Nortel plan to thwart Cisco.)

For that reason Chambers and his chief deputy, Don Listwin, must break through a wall when they call on phone companies. True, Cisco does already sell them gear for their burgeoning Internet services, but that relationship won't necessarily help much here, because the big network overhauls are usually controlled by a different side of the house. With Sprint, for instance, Cisco had sold equipment to the Internet unit in Virginia but hadn't dealt with the telecom network managers in Kansas City. According to one insider, the two camps regard each other with great antipathy. To make the sale for Sprint's new network, Cisco had to win over Kansas City. After a long, steady appeal over 18 months, Chambers did just that, surprising even some of his own managers. Ed Kozel says, "I did not predict this would happen."

In the end, Chambers has one powerful hole card: The impetus toward the melding of networks comes from his world. In the network of the future, voice and images will all be converted into data, and ride on networks designed especially to carry digital bits--the very technology that underlies the networks Cisco has built and that Lucent and Nortel are rushing to master. However much muscle the incumbents can use against Cisco, the new market plays to Cisco's strength. That is why customers are betting that Cisco will win. That, and their faith in Chambers. "He's a powerful leader," says Bryski. "I've never seen him fail."

Cisco is the first successful company Chambers has worked for. His previous employers were IBM and Wang in their days of decline. He knows what happens to companies that get stuck in old ways of computing. He knows what will happen to Cisco if he fails, if he doesn't make the company a formidable competitor that can stay ahead of the Lucents and the up-and-coming companies that keep spinning out new technologies that threaten to revolutionize the business of networking.

As a marketing manager at IBM in the late 1970s and early 1980s, he saw the company miss the transition to smaller computers. "I learned an awful lot about what not to do," he says. "You could see management getting further and further from the customer, telling the customer that they knew what he needed better than the customer did."

Wang was even worse. When he joined in 1982, the company enjoyed a near-monopoly in the word-processing business. Then it was blind-sided by the rise of personal computers. Chambers was running half of the company's overseas businesses when Chairman An Wang asked him to take over U.S. operations. "I figured he meant me to start at the New Year," says Chambers. "But he said, 'No, I mean tomorrow.' I knew we were in trouble." One of his first tasks in his new post was to fire 4,000 people. "It damn near killed me," he says. He later quit in disgust and went to Cisco after a two-month job search. After becoming CEO, he vowed never to order mass layoffs. When Cisco had to cut costs two years ago, he did so without firing anyone.

Given that kind of history, it's perhaps unsurprising that Chambers seems completely undaunted by the challenge he's given himself. Most people vary their pace according to the occasion, but Chambers' gearbox is relatively simple: He is in overdrive all the time, on a sales call that never ends.

Consider a typical Wednesday in late July. As he does most days, Chambers spends nearly half his time with customers, pitching woo and asking for report cards. He has a breakfast with Sun's McNealy at which he forgets to eat breakfast, and a lunch meeting with the information technology department of Bankers Trust at which he eats no lunch. He receives a primer on contemporary Japanese politics from renowned McKinsey consultant Kenichi Ohmae, and jokes with fellow West Virginians who happen by in a delegation from WorldCom.

Then comes his stint as ice-cream man, during which he seems eager to dish out large helpings of approval. To a staffer who selects a vanilla sandwich, he exclaims: "Oh, my favorite! Vanilla ice cream!" A few moments later someone else picks a juice bar. "Oh, that's my favorite from this selection." Somehow the fib is charming, coming less from insincerity than from genuine kindness--after everything he witnessed at IBM and Wang, this guy seems to really care about his employees. He wanders into a room with a handful of people sitting intently before their computers; they impatiently tell him to get lost. "They're taking an electrical engineering certification exam that can be worth a 20% to 50% raise, and the failure rate is 50%," Chambers explains; he is neither flustered nor apologetic.

While it seems sappy, Chambers uses his rounds to poll his staff on problems. How is the Scottish factory project coming along? Should we have a day-care center on site? Is our softball team on track? The most serious gripe comes from engineers who are concerned by the infrequency of sharing with their colleagues in different lines of business--a big deal at Cisco, where the most commonly cited reason for flushing a manager out of the company is not being a team player. Chambers is pleased at the end. "Instead of doing this once a quarter," he tells his PR manager, "I think we should do this every month."

Late in the afternoon Chambers stops briefly in his office before his next meeting, an outdoor reception at the home of a member of TechNet, an industry lobbying group. Chambers is TechNet's Republican chairman, just one of his increasingly visible political roles. He hosts Republican Congressmen when they come to the Valley, and is buddy-buddy with Newt Gingrich and Al D'Amato. The hobnobbing is just part of his campaign to move Cisco into the industrial elite, especially in the eyes of official Washington, where telecom is a preoccupation. The influence wouldn't hurt as Chambers tries to make sales to big phone companies, which are all lobbying ferociously as Washington bureaucrats set the rules of engagement for the industry.

At times, the pace at which he works gets the better of him. A headache reminds him that he hasn't eaten all day. He pops two aspirin and washes them down with a Diet Coke. He grabs a Butterfinger bar for the drive to the reception. Before they leave, he notices that the reporter he's traveling with is empty-handed. "You want one?" he asks, and he tosses it over.

Chambers has come a long, long way from Wang and IBM. He's now a fully acclimatized Valley exec, enjoying the wealth and perks of an industry that's exploded. He and his wife of 25 years live in an elegant white stucco house in the rolling and verdant Los Altos Hills, high above Silicon Valley. An aficionado of fast cars, he alternates between a Jaguar convertible and a Lexus. He takes his father on annual fishing trips around North America; this year they went to the Alaska Peninsula, while in the past they've fished the Yucatan, Key West, and the Canadian Arctic. All this is fueled by his remarkable success on the job--Chambers' holdings in Cisco stock are worth about $100 million and he has another $55 million in options on

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the way.

That may be just the beginning. Wall Street is betting that Chambers will be able to guide Cisco to success in the new world of merged networks. Most analysts, including J.P. Morgan's William Rabin, are bullish. "Chambers has diversified the product line and motivated his managers to stay completely focused on customers," says Rabin. "Cisco is off to a very fast start, and if you give them a lead they're nearly impossible to catch."

While Chambers takes great pride in the stock's performance--on a recent July day he rushed to a stock-quote monitor to see whether Cisco had cracked the $100 billion mark in valuation--he is careful to temper his enthusiasm. "I do see the stock as a risk," he says. "Besides the general market performance, we can always stumble or be out-executed by our competition." He brags that 40% of Cisco's options are in the hands of nonmanagers, a percentage that's on the high end of the scale for Silicon Valley companies. Chambers tells his managers to convert a certain number of their options until they are financially comfortable. "When I was at Wang, exercising options was viewed as a lack of faith," he says. "I was a millionaire on paper at one point. By the time I left, the options were worthless."

Cisco's success on the Street even helps Chambers out of scrapes. Recently he was driving to a breakfast meeting with Gingrich in his new Jaguar convertible. He never made it there. Distracted by his cell phone, he collided with the car ahead of him and ended up spending some time with the driver. "I bumped him pretty good," he says. "We were chatting, and he was a nice young man. When I told him who I was, he said, 'Oh! You're John Chambers of Cisco! I own your stock. And my dad is one of your customers!'"

When things are going well, even accidents have happy endings.

[SIDEBAR]

CISCO'S NEW COMPETITORS: WE'RE NOT AFRAID

The retooling of the world's phone networks should be a feast for the top two North American telecom equipment makers, but Cisco, an uninvited guest, is pounding on the door. What do Lucent and Nortel say to the interloper?

Lucent data networking chief Bill O'Shea argues that Cisco is expert only in the basics: "The network of the future is about more than moving data packets around," he says. "The real challenge is to build networks that are as reliable, robust, and scalable as current voice networks, and that's something Cisco has never done in its history."

Lucent's biggest edge is its century-long relationship with the phone companies and its experience in managing large networks. Lucent CEO Richard McGinn grants that Cisco Chief Executive John Chambers has marketing panache. "He's a very energetic competitor," says McGinn, "and probably the most customer-focused salesperson that I've ever met in my life." But McGinn says that working with a phone company is another matter altogether: "You can't have three people on an account and expect to do hundreds of millions of dollars with the customer," he says. "It will take Cisco time, effort, and a substantial investment in distribution to address the far-flung needs of enormous communications enterprises." So far, Lucent has won some and lost some. McGinn may have envied Chambers when Sprint chose Cisco to build parts of its data network. But in June, Lucent won the contract to be prime supplier for Bell Atlantic's new network.

A dramatic parry to Cisco's thrust came this summer, when Canada's Northern Telecom agreed to buy Bay Networks, a Cisco rival. Even before the $9.1 billion deal, which should close in September, Nortel was a decent-sized player in data, with $1 billion in annual revenues from corporate interoffice networks. But on its own, Nortel couldn't build new networks fast enough. Data networking chief Klaus Buechner says the market for such gear will grow from $10 billion in 1997 to $100 billion in 2001. "That," he says, "is why we bought Bay."

At least one operator of a new-world network expects Chambers to continue chipping away. Qwest Communications business market chief Lew Wilks, an old colleague of Chambers' at Wang, asks, "Will John sit idly by and watch the opportunity deteriorate? I doubt it."

-QUOT-

Cisco reached $100 billion in market value just 8 1/2 years after its IPO. That's a record, beating even Microsoft.

COLOR PHOTO: PHOTOGRAPH BY DAVID STRICK Chambers' relentless selling helped Cisco win the data networking battle. Now he must win over the telcos. [John Chambers]

FOUR COLOR PHOTOS: MARK RICHARDS (4) The Cisco elite, clockwise from upper left: Bechtolsheim stayed after Chambers bought his company; ex-CEO Morgridge is now a billionaire; chief tech officer Estrin also came over in an acquisition; Listwin is leading the company into battle with Lucent and Nortel. [Andreas Bechtolsheim; John

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Morgridge; Judy Estrin; Don Listwin]

COLOR CHART: FORTUNE CHART With Chambers, Cisco's Stock Has Soared... [Chart not available--line graph showing Cisco's performance against the S&P 500 from January 1995 to August 1998]

COLOR CHART: FORTUNE CHART But Now He's Moving into the Big Leagues Sales figures in billions (past four quarters) The data competitors Cisco has overwhelmed

$ 0.3 Xylan

$ 0.5 Fore Systems

$ 1.2 Newbridge

$ 1.2 Ascend

$ 1.4 Cabletron Systems

$ 2.4 Bay Networks

$ 5.4 3Com

$ 8.5 CISCO

The phone giants it is now taking on $16.0 Nortel

$22.5 Ericsson

$29.0 Lucent

$30.8 Alcatel

$63.7 Siemens

[Chart not available--comparison illustrated in bar graph]

B/W PHOTO Chambers, who grew up in West Virginia, played just about every sport he could. [John Chambers as a boy wearing baseball uniform]