

FORTUNE Cisco's display of strength

Cisco fell hard, went through a wrenching period of reinvention, and is now stronger than it has ever been, reports Fortune's Rik Kirkland.

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(Fortune Magazine) -- Sipping Diet Coke in a suite at New York's Mandarin Oriental hotel after a day that began with a joint interview with Microsoft CEO Steve Ballmer conducted by PBS's Charlie Rose, followed by a quick march through a luncheon speech, some one-on-ones with the trade press, and a dozen customer meetings, John Chambers doesn't look or act the way you or I would - exhausted.

As the shadows lengthen over the Hudson River, Cisco's ever ebullient 58-year-old CEO is just getting warmed up. "This is the most excited I've been in ten years," he'd said earlier during his taping with Charlie and Steve. Now in his soft, 90-mph drawl he's explaining why: "I believe a new wave of innovation is coming that will make the first wave of the Internet seem small."

My, that does sound exciting. Example? "This will shock you," he says, leaning forward. "The other day I started the morning with my top staff in India. Then I went to Japan and a meeting with Fujitsu, then on to Cleveland, then London and a meeting with BT. The whole trip took only 3 1/2 hours, and I was far more effective in the calls."

The reason: Chambers was traveling, of course, over Cisco's latest gee-whiz product: telepresence, a high-def, life-sized, Internet-based communications system that is to traditional video-conferencing what the latest big-screen surround-sound plasma extravaganza would be to Grandma's black-and-white set with rabbit ears. "When I asked the team to design this," he recalls, "I said, 'Make it like Star Trek. You know, Beam me up, Scotty.'"

Giving companies the ability to beam the CFO into meetings or link virtual teams of engineers across the globe already looks like a winner. Telepresence, notes Marthin De Beer, senior vice president in charge of Cisco's emerging technologies group, is "our fastest-ramping internally developed new business in history."

But it's just one part of Chambers' strategy to ensure that as video, voice, and data converge on the Internet and at the same time go mobile, Cisco is selling one-click solutions that tie it all together. "Unified communications" is the buzzword for the fast-growing corporate piece of this puzzle - a piece that Microsoft also wants. But Cisco's ambitions don't stop there. In "the next big market transition," which Chambers believes

is fast unfolding, the Internet will become the delivery medium of all communications - and eventually everything from security systems and entertainment to health care and education. Essentially, Cisco wants to be the world's biggest tech company, period - hardware, software, services, everything. "My biggest challenge is not growth but how well we prioritize," he says.

Let's pause to acknowledge that not everyone buys this vision. "When I heard a few weeks ago that John Chambers was excited again, I got excited too," says Fred Hickey, author of a respected tech stock newsletter. "I said to myself, 'The end must be near!'" Hickey isn't singling out Chambers. Like other tech bears, he simply doubts that talking up potent concepts - "video as the killer app" or the rise of "the network as platform" - will boost Cisco's stock, not to mention higher fliers like [Google \(Charts, Fortune 500\)](#) and [Apple \(Charts, Fortune 500\)](#), once the recession that he believes is coming pushes consumer and corporate spending off a cliff. Hickey also hasn't forgotten Chambers' role as the pied piper of the last tech bubble, in particular his insistence, as the carnage mounted, that Cisco could continue to grow at a 30% to 50% annual clip. It couldn't.

Chambers doesn't deny that a downturn in the economy would be "a hurdle." But one reason his exuberance remains irrepressible is that "this is a movie we've seen before." He's not referring to the horror show at the turn of the millennium but to a less frenzied era - the early to mid-1990s. Back then Cisco famously pioneered using the Internet for automation - it closed its financial books in record time, did remote manufacturing, and so forth. That success helped persuade customers to buy tons of routers and switches in hopes that they too could strike gold. Chambers wants Cisco to serve as its own best sales tool once again, this time by becoming among the first to master a new generation of collaborative technologies - telepresence, unified communications, and corporate versions of social networks like Facebook and MySpace - and then use them to deliver an even bigger productivity payoff. Only now, he says, [Cisco \(Charts, Fortune 500\)](#) will be able to do "in one year what took us four years in the first movie."

Cisco dazzled Wall Street a few months back when it reported its numbers. Sales jumped 23%, to nearly \$35 billion, while profits climbed 31%, to \$7.3 billion. Setting aside the growth generated by acquisitions, including its \$6.9 billion purchase of cable set-top box maker Scientific Atlanta, its biggest deal ever, revenues still rose 17% - not bad for an outfit that by now should be subject to the law of large numbers. Chambers reinforced the hope that Cisco can keep defying that law by raising his guidance for future sales increases from the 10% to 15% range to 12% to 17%.

The organization posting those fine numbers, however, is very different from the growth monster that briefly (two days in spring 2000) held the title of World's Most Valuable Company. Think of the company from its IPO in 1990 to 2000 as Cisco 1.0, and the company from 2001 to 2006 as Cisco 2.0.

Cisco 1.0 was a two-hit wonder: It sold routers and switches to FORTUNE 500 companies and made rapid-fire acquisitions to scoop up technology it needed. Cisco 2.0 built a more diversified customer base (cable companies, telcos, smaller businesses along

with the big boys) and a much broader range of products, many of which it developed internally - IP telephones, data storage, digital media, and, to use a favored Chambers-ism, "end-to-end-architected solutions" (which sounds like "Indian-architected solutions" when he says it). Version 1.0 was a "plumbing" company called Cisco Systems and invisible to the public beyond its high-wattage stock; in the 2.0 phase it dropped the "Systems" and became just Cisco, and started doing product placements in hit TV show's like Fox's 24. (Whenever the President yells at the Russians? Cisco telepresence.)

The roots of all this were planted in the dark winter of 2001. Once Chambers and his team faced what hit them, they moved with alacrity, laying off 8,500 employees and taking a \$2.2 billion write-off. They also asked tough questions about where they'd gone wrong. The conclusion was obvious but difficult to implement: Cisco had to innovate faster.

The first step was to reorganize the company into "probably the world's biggest functionally aligned organization," as Charlie Giancarlo, Cisco's chief development officer, puts it. Translation: Unlike [GE \(Charts, Fortune 500\)](#) or [3M \(Charts\)](#) or [Citigroup \(Charts, Fortune 500\)](#) or pretty much any huge corporation you can think of, Cisco has no divisional presidents or country chiefs with permanent separate armies, all backed by their own support staffs (sales, marketing, engineering, and so on). Instead, at Cisco those functions are all centralized. Whenever the company tackles new markets or geographical areas, the folks responsible for business units must assemble teams drawn from troops controlled by the functional heads.

Why reinvent the standard org chart? One reason is to save money. During the go-go years of 100% annual growth and ceaseless acquisitions (23 in 2000 alone!), Cisco garnered a nickname in Silicon Valley, "the Borg" - after the aliens in Star Trek who expand across the universe by absorbing new species into a hive mind. But by 2001 the hive mind had developed a bad migraine. Cisco's operating expenses soared above 50% of sales as groups charged with entering new markets, such as telecommunications, threw money and bodies at the problem. The new setup instantly cleared away things like overlapping sales and marketing groups. Better still, it continues to enable Cisco to run remarkably lean. Though the company has nearly doubled in size since 2002, operating expenses today are only 39% of sales.

Reorganizing around functions also forced Cisco's brutally competitive culture to learn a new way to grow. The old method, says VC and consultant Geoffrey Moore, who delved into Cisco in his recent book *Dealing With Darwin*, was to hand an executive fearsome financial targets and tell him to make like a Spartan - "You know, either come back with your shield, or on it." The new Cisco would keep the goals but demand collaboration. Compensation changed too: Instead of getting paid just for meeting targets, top people got rewarded based on how peers rated them on their teamwork. "It's no longer about doing the diving catch," Chambers says.

It wasn't an easy transition. Everyone hated the new way at first. Executives didn't like sharing resources; joint strategy-setting and decision-making was cumbersome. "Things

ground to a halt," says Giancarlo. "The first two years were very painful," admits Chambers. Some of the most successful people in the old regime left after their bonuses went poof thanks to the new compensation system. Others were asked to leave. Overall, Chambers estimates, about 10% of his top team "couldn't make the transition."

Today Cisco operates through six business "councils," each formed around potential \$10 billion markets (e.g., consumer, enterprise, emerging markets). Reporting to the councils are some 30 "boards" that zero in on newer markets with at least \$1 billion in possible sales (connected homes, mobility, sports and entertainment). Most of the leadership serve on three councils or boards, so it pays to be flexible.

Case in point: treasurer Dave Holland, who is also the unlikely co-head of Cisco's new sports and entertainment board. He started out negotiating the sale of some company-owned land to the Oakland A's; next thing you know, he and his team are planning the construction of what will be the A's "Cisco Field" and courting folks from the NFL, NBA, and NASCAR to consider what Cisco technology might do for them. Quick: Name any other big company that would give its treasurer oversight of a potential growth business.

This year Chambers began pushing his company into its next incarnation, which he calls Cisco 3.0. That's shorthand for a range of things Cisco is doing to spur even more teamwork and innovation. Take telepresence: 50 big companies, among them Verizon, Aflac, McKesson, BT, and SAP, have bought systems since the launch last winter. (List price: \$299,000 for three 65-inch plasma screens in a special conference room and \$71,000 for a single-screen setup.) "It was phenomenal," says Wal-Mart CIO Rollin Ford, who saw a demonstration recently. "I believe it's a technology we will embrace." P&G is installing more than 40 telepresence rooms worldwide over the next nine months. "We are rocking and rolling here," says CIO Filippo Passerini. "To have a breakthrough in the way we operate, we needed a big leap." But no one is more excited about the productivity potential than Cisco itself. Since December, Chambers has rolled out 120 telepresence centers across the company (paid for by ordering every department to cut its travel budget 20%).

Another tool is social networking, that new-time religion that Cisco has embraced with a convert's fervor. In September it launched a website that is a microcosm of everything evoked by the phrase "Web 2.0." There's a Ciscopedia, where people can build an evolving body of lore about anything fellow Ciscans might want to know. There are text blogs and video blogs, discussion groups, and "problems and solutions links." There's an internal version of MySpace, which provides not only title and contact info but also personal profiles, job histories, interests, and videos. Soon it will show whether a person is reachable by, say, office phone, cell, IM, or telepresence, and offer a one-click connection.

And there's more. "We're going to use social bookmarking to allow us to take the pulse of the organization," says Jim Grubb, who built the website (and whose day job is putting together John Chambers' demos). They'll do that by aggregating the tags employees

create into "tag clouds" when they click on sites. Tracking these will allow a Cisco honcho to get a snapshot of the current hot-button issues for marketing or finance. If an employee is tagged as the go-to person for virtualization, say, he could earn a bonus for this previously unacknowledged expertise. That's down the road. Asked for a here-and-now example, Cisco marketing head Sue Bostrom laughs (proudly) and recounts the six-month online campaign to develop and select a five-note "Cisco sound" for TV and Internet ads. "Ten thousand employees voted," she says, "and 1,200 partners also participated."

Ah, yes, partners. More than most businesses, Cisco relies on outsiders - "the ecosystem," as they call it - to purvey its goods and services. "Channel partners account for some 92% of our sales," says Paul Mountford, who managed those relationships for years before moving to head emerging markets in 2006. One tool for husbanding the ecosystem among smaller businesses is WebEx, the online-meeting hosting service Cisco bought for \$3 billion last May. Of the roughly 600 telepresence sessions now held each week within Cisco, roughly one-third involve big customers and partners. Those connections should proliferate as more systems get sold and as Cisco and others eventually lower prices and develop ways to take telepresence down to smaller screens (like the desktop), all connected using open Internet standards.

The best proof that all this team building can pay off comes from Marthin De Beer's emerging-technologies group. Charged three years ago with cooking up \$1 billion businesses from scratch, his team's first project was to develop the telepresence system. But that had been Chambers' baby. In search of second acts, De Beer a year ago set up an internal wiki called I-Zone that has so far generated 400 business ideas. "Better still," he says, "another 10,000 people have added to those ideas." His team measures which notions draw the most activity and cherry-picks a handful to unveil at Cisco's quarterly leadership-development program. Normally at such gatherings, promising up-and-comers from across a company hear lectures, bond, and ponder case studies. But De Beer decided to use these sessions to take the most promising I-Zone ideas and pound them into real-world business plans. Three of the nine notions so tested are now in active development.

This whole process has been an eye opener even for Chambers. He used to tell his staff, "I do strategy; you do execution." "He was amazed," says Ron Ricci, a former consultant who since 2000 has served as Cisco's internal culture keeper. "He said, 'We just did three billion-dollar market opportunities without my knowing about it.'"

The human embodiment of Cisco 3.0 may be Wim Elfrink, head of the company's new Globalization Center East in Bangalore, India, which officially opened at the end of October. Though he occupies a typical Cisco cubicle, the nerve center of his working life lies a few miles away, in a spacious second-floor office overlooking the pool at his California-style home. There he travels around the world on a 65-inch Cisco telepresence screen. "Without this, I don't know if I would have taken this job," he says.

That job, like most things Cisco, isn't easy to explain. Elfrink is one of 13 executives who make up the company's operating committee. (This is the group that sits right below

Chambers and into which all the councils report.) He also runs Cisco's service business, which last year generated more than \$5.5 billion in revenue. Since moving to India a year ago, he's taken on responsibility for expanding Cisco's business in the region, for turning the new Globalization Center into a worldwide "intelligent back office," and for ensuring that by 2010 the Indian operation employs 10,000 people and is a base for roughly 20% of the company's "top talent." Though Elfrink has recruited 20 senior executives within Cisco to come east and join his mission, only four people in Bangalore report to him directly. (Remember, most work for functional heads back in San Jose.)

So if your job is to manage 8,000 people scattered around the world, help lead a \$35 billion company based in California, supervise a now 3,200-person, \$1 billion investment in India, build new businesses across a dozen time zones -and the only way you can get it done is by networking like crazy with external partners and internal allies - well, you can see why the guy likes being able to telecommute.

"I'm learning to work in batches," he says. On a typical day in Bangalore, Elfrink starts at 6 A.M. with a couple of hours of home telepresence back in the United States, where the workday is ending. At his other office he spends the day with customers or visiting delegations from abroad before getting home for dinner and some family time with his wife and two boys. And then it's back onto telepresence to spend a few more hours with his fellow San Jose brass or perhaps partake in a virtual breakfast with a key partner. "And then I have a beer," he says with a laugh.

Beyond the size and rising wealth of the potential market in Asia and the rest of the developing world - "70% of the world's population and 70% of our future growth are within a four-hour flight from Bangalore," Elfrink points out - what's exciting for Cisco is the chance to innovate here on a scale that the West can't match.

With Saudi Arabia building six cities the size of Manhattan in the desert over the next decade and skyscrapers rising like mushrooms in places like Dubai, real estate developers out here have the opportunity to erect "connected" buildings that use the Internet to control security, lighting, and elevators, as well as offer digital entertainment and services that have yet to be invented. "The reason God was able to create the world in seven days," says Elfrink, "is because there was no installed base."

Whatever comes next, Cisco has a hard act to follow - itself. So far no company in history has ever achieved what it did in the 1990s: going from IPO to a \$500 billion market cap in one decade. Consider this: The one candidate with a shot is Google, which went public three years ago and then zoomed to a market cap around \$200 billion (right above where Cisco stands today). But for GOOG to match CSCO and break the \$500 billion mark - and this is not even adjusting for inflation - its share price still has to rise from today's roughly \$650 level to over \$1,600.

Anything can happen, but that's a steep hill for any company to climb - or re-climb. Looking ahead, it's easy to list threats, though most come with countermeasures. What about the rise of a hungry, low-cost new competitor, like China's Huawei? Its sales have

grown from \$2.5 billion to \$15 billion in five years, a pace more akin to the Cisco of the 1990s. But as Paul Mountford, senior VP for emerging markets, points out, "While they're the only competitor we see everywhere, we never really go head-to-head with them" because Cisco is selling high-value applications and not just boxes. Anyway, he notes, whatever Huawei is doing in emerging markets hasn't kept Cisco from growing 2 1/2 times faster there than in the U.S. - while maintaining the same plump margins.

What about open source? Google is reportedly using Linux-like routers and switches to stitch together its networks. If that trend spreads, it could reduce demand for Cisco's high-priced wares. Still, most big companies seem to prefer the security that comes with buying Cisco. "Remember, we service 170 million customers a week," says [Wal-Mart \(Charts, Fortune 500\)](#) CIO and big Cisco customer [Ford \(Charts, Fortune 500\)](#). "And I never want to be accused of not being able to take people's money."

Chambers even ticks off a couple more threats: The broadband build-out in the United States stagnates at its current world-lagging pace and the tech industry as a whole "fails to solve some of the security problems." Still, he'd prefer to dwell on the upside. If Cisco is right about the payoff from the new video and Web 2.0 technologies, he says - and if it succeeds in its own transformation - then "this will transform every government and company in the world." In which case, he goes on to note, "any of our peers who don't do it won't survive." (You gotta admit: Nobody mixes aw-shucks humility with barely contained cockiness quite like John Chambers.)

Will they pull it off? All we'll hazard is that if anybody has a shot, these guys do. What may be most impressive about Cisco is its capacity to display what F. Scott Fitzgerald defined as a first-rate intelligence: "The ability to hold two opposed ideas in the mind at the same time and still retain the ability to function."

You see that flexibility in Chambers, a control freak trying to spur a bottom-up reinvention. You see it in how his managers practice teamwork while retaining a measure-everything mentality. ("To this day the way you manage at Cisco is through targets called weekly commits," says consultant Moore. "So John can push all this collaboration stuff while knowing his people are still going to have those weekly commit meetings.") Most of all, you see it in how Cisco is absorbing different business models - companies with lower margins, mass customer bases, and distinct organizational structures, such as Linksys and Scientific Atlanta.

Don Proctor, head of the company's new collaboration software group, describes Cisco's evolution as a three-stage process. "We have been focusing for our whole history on product innovation," he says. "Over the past five years we've put a lot of focus on process innovation. Now we're entering a new phase focused on business model innovation. That's a necessary step for us because as we go forward we're going to be in businesses that are even further from our roots than the businesses we are in today."

Well said. To restate that in Star Trek terms: Captain's log, Stardate 11.2007. Bad news. The Borg lives! Worse news. It's teaching itself new tricks.

Reporter associate Doris Burke contributed to this article. ■

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