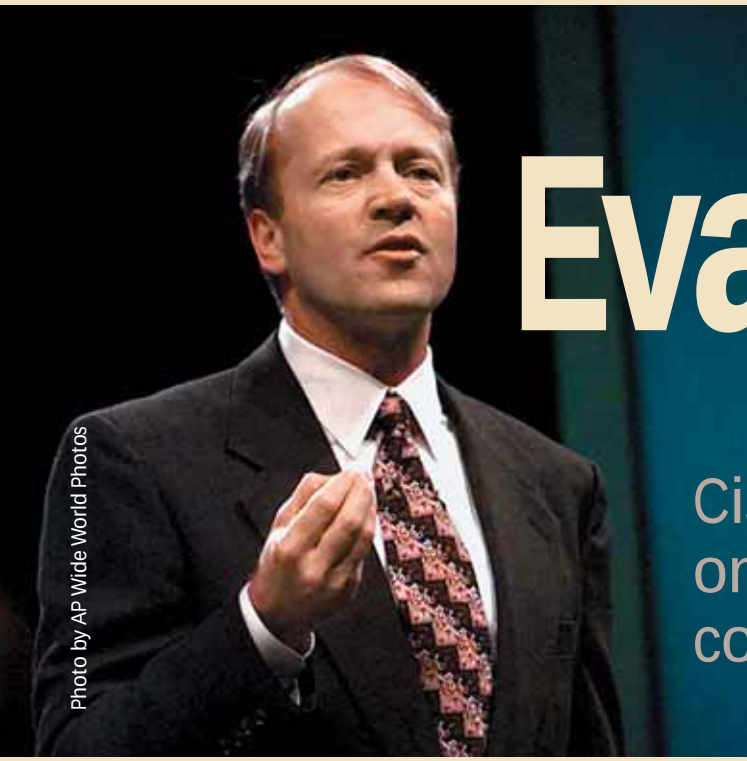
AMERICA'S NETWORK

IP Evangelist

BY AL SENIA



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Cisco's Chambers bets big on the future of network convergence

Even though he's been at the helm of Cisco Systems for more than a decade, Chairman and CEO John Chambers still moves fast.

When he presents his keynote speech at Supercomm this month, Chambers is likely to adopt his characteristic speaking style of hopping off the stage and quickly pacing through his audience, engaging them with eye contact and expressive hand movements, rapidly firing bursts of statistics and optimistic banter about the unfolding future of telecom, IT and the role Cisco plays in uniting the two under a broader communications umbrella.

With analysts and media, Chambers plows through financial numbers, changing markets, disparate geographies and developing trends so rapidly, it's nearly impossible to get it all down in understandable note form.

With his own company, Chambers is no less frenetic. Five years ago, amid much industry skepticism, Chambers moved Cisco in a new direction. He started talking up converged networking and believed Cisco's biggest opportunity was to sell Internet gear to cable and telephone companies – service providers – as they prepared to build next-generation networks. He stressed the growing importance of providing integrated network systems – an architecture rather than individual products – to carrier and enterprise customers. Critics said it would be difficult for Cisco to make such a transition rapidly and warned the company's fast-growth track would inevitably lead to gross profit margins well below the 60%-plus Cisco traditionally delivered and Wall Street analysts expected.

Now, the numbers are proving that his movements were deft, not daft.

For its third quarter ending in April, Cisco saw net income rise 16% to $1.41 billion on sales of $6.2 billion, up from income of $1.21 billion on $5.6 billion in sales a year earlier. Chambers delivered strong gross margins, too: 66.8%, compared to 68.8%, a slight drop due in part to growing sales of lower-priced products such as home networking gear. In a conference call, executives predicted gross margins would hit 67% in the fiscal fourth quarter. Sales are expected to increase between 9% and 11% from a year earlier and reach $24.6 billion to $24.8 billion for the entire fiscal year. That's up more than 12%.

More importantly, it was telecom sales that carried the day for Cisco last quarter. Telecom orders rose 25% from a year ago. The strongest

sales growth was reported in the service-provider segment, up 40% year-over-year. "Our service-provider market segment had an outstanding performance," Chambers notes, adding that telecom has been Cisco's leading business segment in four of its last eight quarters. Telecom sales have helped Cisco shake off weak orders from U.S. enterprises (up just 5%) and from the federal government (down 15%).

Another hot area in the latest quarter was advanced technologies, which consists of IP telephony, wireless, security, storage, optical, and Linksys home networking products. That segment grew 29% year-over-year. Meanwhile, routing was up 13% and switching just 2%.

Chambers says the results clearly indicate "our integrated technology strategy is working" and that Cisco is benefiting from sales momentum generated across product families,

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—Mike Volpi, executive vice president, Cisco

market segments and geographies. He also believes the results in the service-provider segment prove that carriers and cable companies have come to view Cisco as a key strategic and business partner.

SUSTAINABLE GROWTH

The question, of course, is whether Cisco's momentum in the telecom space is sustainable and whether the company can leverage its earlier success in enterprise networking in the next-gen networking space, what Cisco calls its flexible, IP Next Generation Network (NGN).

At the center of this strategic foray, according to Mike Volpi, Cisco's senior vice president and general manager of the Routing Technology Group, is an architecture focused around three primary areas of convergence already established in service provider networks: network, service and application convergence. With telcos and cable companies migrating from service-specific networks to a single IP/Multiprotocol Label-Switching (MPLS)-based network, Volpi figures Cisco is at the right place at the right time.

"We think we have the edge right now," Volpi explains. "The velocity of the transition is a challenge. If the (converged network) transition slows, other people will have the opportunity to catch up."

In fact, looking over your shoulder is a common worry at Cisco these days. Sprinting out ahead of the pack and staving off competitors is a strategy Cisco is deploying among a number of product lines. Chambers wants to stay number one in a wide variety of product areas: enterprise networking, communications equipment, Internet telephony, network security, wireless and home networking. Again, the skeptics say balancing that many leadership positions is next to impossible. Chambers coun-

ters that Cisco's balanced performance is what's responsible for the company's continued financial success as hot markets like telecom compensate for slower markets. Meanwhile, Cisco is battling for market share in a number of those leadership areas against revitalized and surprisingly aggressive rivals.

The most significant competitive battle is being fought in the increasingly important telecom space, as service providers embark on a spending spree for communications gear to build converged networks

FRISKY COMPETITORS

Cisco has more than doubled sales in its Linksys unit, for example. But competitors such as D-Link and NetGear have turned up the price competition, which hurts margins. It leads in network security, too, but Microsoft, Juniper and Checkpoint Software are all feisty rivals. Nortel, Lucent and Avaya are vigorously battling Cisco in the Internet telephony product space. If that isn't enough, Chambers is looking east: he sees lower-priced competitors from Asia getting ready to enter some of his markets. Cisco's ability to lower costs by combining services and products should help the company compete effectively with entrants from China and other Asian markets, Chambers believes.

However, it is in the increasingly important telecom space that the most significant competitive battle is being fought. As telcos and MSOs head off on a spending spree for routers and other communications gear to build their converged networks, Cisco finds itself going head-to-head with rivals such as Juniper, Alcatel, Avici, Redback and Nortel.

Many analysts say Juniper has been Cisco's most dogged foe in this space.

"Cisco has fared pretty well, but Cisco is vulnerable in each segment of the service provider router market," says Mark Bieberich, director of communications network infrastructure at The Yankee Group research firm. He estimates that Cisco owns about 62% of the core router market, with Juniper at about 27% and the smaller rivals grabbing the remainder.

Bieberich notes that Juniper and Alcatel are important players in the service-provider router market and "continue to pose a significant competitive threat" to Cisco, despite its market lead, because competitors have been able to move faster than Cisco in bringing new router products to market. He sees Juniper as more nimble in bringing out new product and Alcatel making a strong move in the emerging IP video area.

According to Gartner Group, Cisco's share of the total service provider router market has remained stable at about 57% during each of the last four quarters, while Juniper's share has climbed approximately 2% each quarter from 26.2% in the fourth quarter of 2003 to 34.1% in the fourth quarter of 2004. "The quarterly share shows Juniper gaining share quarter-over-quarter, while Cisco is stagnant," says Jennifer Liscom, a Gartner principal analyst.

Cisco's CRS-1 core router product introduced last year, represented a huge investment for the company, but positioned the company more effectively against rival manufacturers.

For its part, Cisco is again on the move in this space. For one thing, it's spending a lot more research dollars on service providers. Charles Giancarlo, Cisco's senior vice president and CTO, says the company is going to spend about $3.5 billion in research and development this year, with half of that allotted to the service-provider space. He says the goal is to have Cisco continue delivering new voice, data and video products that can help service providers build new revenue streams over converged networks. Cisco partners are also using that flexible NGN to deliver VoIP, data services, security and hosted telephony into enterprise accounts.

"We made a big bet about four or five years ago," Giancarlo recalls. "As opposed to investing in every potential new area in voice, we decided to focus on delivering voice over broadband, voice delivered to the end user through this (network) pipeline."

Now, Cisco aims to deliver applications like unified messaging and video conferencing through service providers over that same network. "We feel that's where the carriers will go," says Giancarlo. "We were definitely criticized a few years ago for not playing in what were then perceived as the hot markets. Now I think our bet is starting to pay off."

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Cisco has been especially strong riding the VoIP wave. The Linksys division that Giancarlo heads shipped more than 1 million VoIP ports in six months to the consumer market.

Cisco is also shoring up its position with new core router products. About a year ago it introduced the CRS-1, a core router used as a backbone for carriers and a linchpin in Cisco's overall strategy of wooing service provider business. The product took four years and $500 million to develop and costs between $500,000 and $1 million. Many carriers worldwide tend to use Juniper routers at the core and Cisco routers at the edge of their networks; Cisco's goal with the CRS-1 was to gain ground at the core.

"This gives them a pretty good plan now. Before they really didn't compete adequately against Juniper," says Jeff Ogle, principal analyst, Current Analysis. "They are really betting a lot on this over the long haul."

Cisco is trying to strengthen ties with its service-provider base. "The service-provider business now represents more than 25% of Cisco's business, about $5 billion," says Jeff Spagnola, vice president of service-provider marketing. "It's the fastest-growing business within Cisco."

Those numbers reflect the fact that in the last 18 months, "There has been the realization that IP is where the network needs to go," says

Spagnola. "There has been a lot of investing in IP infrastructure. By definition, the market has moved to Cisco's home field."

ILECs are becoming more focused on taking costs out of their networks, transforming them to converged IP networks and utilizing new services to build incremental revenue. "We're being viewed as a viable partner in this transformation," Spagnola says.

Spagnola adds that Cisco partners with more than 100 service providers around the world and another 300 to 400 smaller CLECs, most of which are embracing IP telephony transformation. Cisco has played a major roll in a new IP network at Bell Canada. British Telecom recently selected Cisco as a preferred supplier to build its 21st Century Network. Sprint selected Cisco to be the strategic solution provider for its converged Cisco-based IP NGN. And Comcast recently picked Cisco to build its IP next-gen network to be used for voice, video and data services.

"They are a critical enabler that has made for an easier migration to IP," says Randy Ritter, vice president of product development and management for Sprint. Sprint is using a "100% Cisco-powered (wireline) network," according to Ritter. Sprint has been able to add features to the network such as simplified pricing, simplified customer billing and real-time performance-use studies.

Of course, it has not all been smooth sailing in the service-provider space for Cisco. BellSouth implemented a Cisco solution in 2003 in its core network, but it took more than 18 months for the proper installation to occur because of the number of improvements BellSouth requested. Peter Hill, network vice president, BellSouth, says those earlier problems have been resolved and the Cisco products deployed successfully. "It's not so unusual to have that kind of a learning curve in a carrier-class network," he says.

Cisco is trying to strengthen ties with its service-provider base, which now represents more than 25% of its business. Service providers are the company's fastest-growing segment.

Surrounded by determined competitors, Chambers and Cisco can't afford many mis-steps as they stake out the high ground in the rapidly expanding telecom business. Cable companies, carriers and start-ups are expected to spend some $70 billion this year worldwide on equipment, technology and infrastructure. Chambers has shifted Cisco into high gear to grab an increasing share of that business. Now all he has to do is keep moving fast enough to stay ahead of the competition.

Service-Provider Router Market

Worldwide Estimated 2004 Sales and Market Share

	Factory Revenue	Share	Units	Share
Cisco	$1.78 billion	56.9%	11,927	55.4%
Juniper	$971 million	31.0%	6,825	31.7%
Redback	$92 million	2.9%	732	3.4%
Nortel	$57 million	1.8%	352	1.6%
Fujitsu	$48 million	1.5%	336	1.6%
Other	$182 million	5.8%	1,344	6.2%
Total	**$3.13 billion**	**100.0%**	**21,516**	**100.0%**

Source: Gartner (May 2005)

Juniper Strengthens Its Stance

Juniper Networks is the thorn in Cisco's side that won't go away, at least in the core router space where the two companies joust head-on. The company has introduced new products, extended its partner program and adopted a Cisco tactic, growth by acquisition, to expand its enterprise reach. Juniper recently agreed to acquire Peribit Networks and Redline Networks for a total of $469 million, a move that adds networking and security technologies to Juniper's portfolio. Christine Heckart, Juniper's vice president of marketing, says the stategy is more focused than Cisco's. "We're not trying to be all things to all people," she explains, adding the approach helps Juniper gain access to existing Cisco accounts. "When we get in, it's usually because we can solve a problem better than anyone else."

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