Juniper Networks 2000 Annual Report

Juniper
NETWORKS®

JUNIPER NETWORKS
IP INFRASTRUCTURE SOLUTIONS

Small Metro Core

M5

M10

Backbone

M20

Peering

JUNOS

M40

Hosting

Optical Layer

IP Core

Access Layer

Dedicated High-Speed Access

M160

FINANCIAL HIGHLIGHTS

Statements of Operations Data

(In thousands, except per-share amounts)

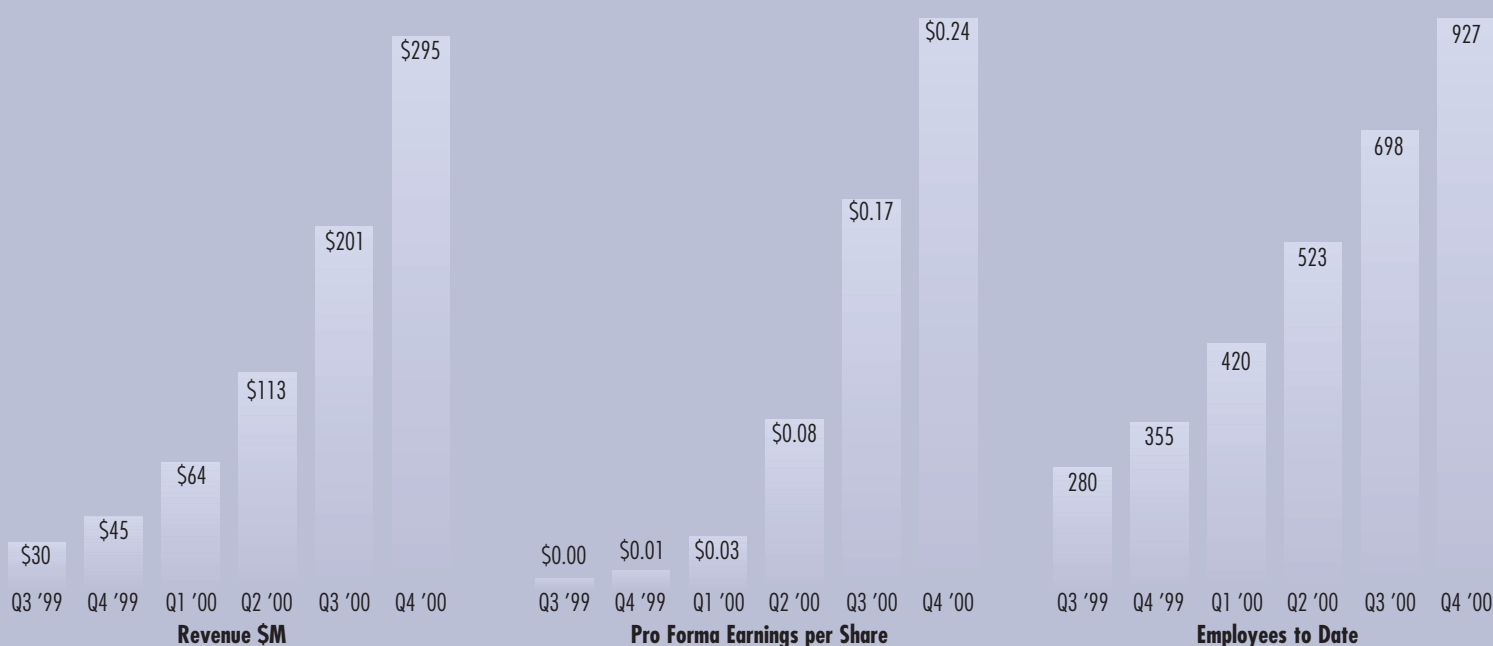|	Years ended December 31,			
	2000	1999	1998	1997
Net revenues	$ 673,501	$ 102,606	$ 3,807	
Pro forma net income (loss) (i)	$ 184,036	$ (4,748)	$ (29,736)	
Pro forma diluted net income (loss) per share (i)	$ 0.53	$ (0.03)	$ (0.40)	
Net income (loss)	$ 147,916	$ (9,034)	$ (30,971)	$ (10,363)
Diluted net income (loss) per share	$ 0.43	$ (0.05)	$ (0.40)	$ (0.20)
Shares used in computing diluted net income (loss) per share	347,858	189,322	77,742	51,546

(i)   Pro forma net income (loss) excludes the amortization of goodwill and other intangibles, deferred compensation, in process R&D, and charitable contribution charges in all periods. Pro forma amounts are unaudited.
All results reflect the three-for-one split of our common stock effective January 18, 2000 and the two-for-one split of our common stock effective June 16, 2000.

Balance Sheet Data

(In thousands)

	As of December 31,			
	2000	1999	1998	1997
Cash, cash equivalents and short-term investments	$ 1,144,743	$ 345,958	$ 20,098	$ 46,227
Working capital	$ 1,132,139	$ 322,170	$ 14,432	$ 44,691
Total assets	$ 2,103,129	$ 513,378	$ 36,671	$ 50,210
Total stockholders' equity	$ 730,002	$ 457,715	$ 17,065	$ 46,048

Revenue $M

Q3 '99	Q4 '99	Q1 '00	Q2 '00	Q3 '00	Q4 '00
$30	$45	$64	$113	$201	$295

Pro Forma Earnings per Share

Q3 '99	Q4 '99	Q1 '00	Q2 '00	Q3 '00	Q4 '00
$0.00	$0.01	$0.03	$0.08	$0.17	$0.24

Employees to Date

Q3 '99	Q4 '99	Q1 '00	Q2 '00	Q3 '00	Q4 '00
280	355	420	523	698	927

Juniper Networks enjoyed a record setting 2000. We achieved and surpassed our goals—both as a company and as a community of people. Following is a progress report on our commitment to five principle growth objectives.

Extend our strategic market leadership position in the largest network backbones in the world.

We extended our core leadership position in the largest backbones in the world by furthering the technology lead of the M40 and M20, and introducing the M160, more interfaces, and new software and features unopposed by competition. The largest backbone operators in the world are using Juniper Networks routers to deploy their new network infrastructure.

Diversify products and services globally.

Juniper Networks has diversified its product line. We ended 1999 having just introduced our second product, the M20. We ended 2000 with a product portfolio of five, ranging from the M5 to the M160. Other milestones include deployment of over 75 interface types, delivering services from thousands of bits per second to billions of bits per second, and delivery of our 7th release of JUNOS software. Our feature set now extends from the core of the network to include the service rich requirements of the high-speed access marketplace.

We continued to see worldwide demand from both new and existing customers, with international revenue representing 35% of total revenue for the full year of 2000. Our diverse market coverage enables us to do business in over 30 countries around the world with support from 48 resellers throughout Europe, Asia and Latin America. In addition, we penetrated a significant number of new accounts in North America through our direct sales force and channel partners.

Increase the number of markets we serve, leveraging both our technology leadership and our distribution and support presence worldwide.

Juniper Networks increased the number of its markets from one to three. In addition to our heritage focus on the core backbone market, Juniper Networks added significant products to a second market, the edge, with our access portfolio of the M5 and M10 routers and several new releases of JUNOS software. Also, we are establishing our presence in a third market, the emerging Mobile IP market, and look to our joint venture with Ericsson as a powerful vehicle in the realization of this objective.

Deliver on our commitment to financial fundamentals.

Juniper Networks increased revenue six fold from 1999 and solidified important areas of gross margin, earnings and cash flow. Our commitment to financial fundamentals will serve the company well as economic conditions vary over time.

Expand our workforce dramatically while protecting the quality of our team.

Finally, Juniper Networks tripled the size of its global organization through the course of 2000, adding extremely talented people to all aspects of the business. The accomplishment of these objectives shows our relentless focus and execution in 2000. However, they all combined to accomplish a larger and significant purpose, which is to position Juniper for 2001 and beyond.

Looking forward

Any new company must reach a certain critical mass—a level of resources, products, customers and financial sustainability—that allows for the transition from a new to an established franchise. More than any individual measure, we accomplished in 2000 the opportunity to control our own destiny.

This does not signify the removal of risk, or an accomplishment on which we can rest. In fact, it stimulates exactly the opposite reaction in the people of Juniper Networks—an excitement over what we have now made possible by our efforts, and a glimpse of the kind of company we can now create given our track record.

Juniper Networks envisioned the IP Infrastructure market as both new and fundamentally different since creating the company in 1996. We can now see new steps required to lead this new market to its potential, for the Internet is now becoming a new multi-service public network carrying voice, video and data traffic on a common fabric—both enhancing and simultaneously economizing the network opportunity to connect people and places around the globe.

Juniper Networks has two key priorities for 2001—to drive our innovation engine at full speed, furthering our product and technology lead in multiple markets; and continue delivering our commitment to financial fundamentals.

Our investment in product development—a Juniper Networks hallmark since the founding of the company in 1996—will continue as we build on the competitive advantage we have worked so hard to establish in our market. This investment is necessary to reach the opportunities our success has created, and will be measured both by the continued addition of high quality talent, and the investment in the supporting infrastructure that will bring new products to market quickly.

Our proven fiscal commitment to financial metrics also will be unwavering, for we measure our success through the delivery of growth and profits. It is this parallel achievement of investment, profitability and growth that will drive our focus on relentless execution in 2001.

I would like to thank our employees, our customers, our suppliers and other business partners, and our investors for their continued confidence and commitment to Juniper Networks.

Scott Kriens
Chairman, President and CEO

Scott Kriens – *Chairman, President and Chief Executive Officer*

" *Juniper Networks has two key priorities for 2001—to drive our innovation engine at full speed, furthering our product and technology lead in multiple markets; and continue delivering our commitment to financial fundamentals.* "

Our Business

Juniper Networks powers the new Internet Protocol (IP) infrastructure by furnishing service providers with high performance core IP network routing solutions for growing the Internet backbone.

Market Opportunity

The market opportunity for Juniper Networks is significant. High-end core router systems—Juniper Networks' focus—are essential for large service providers who build long-haul connections for the Internet. The worldwide core IP router market was estimated at $2.6 billion during 2000, according to Infonetics Research. Juniper Networks 2000 financial results eclipsed the market growth rate: net revenue was $674 million, up 556% from 1999. Juniper Networks is now shipping solutions for the related metropolitan Internet edge routing market, which was estimated at $1.2 billion in 2000, according to Infonetics. Juniper Networks is also establishing a presence in the emerging mobile IP market through a joint venture with Ericsson.

Pervasive use of the Internet is driving growth in these infrastructure markets. Hundreds of millions of people worldwide now use the Internet. But the real story about Internet growth is not just the fact of an ever-increasing number of users. The Internet is now the integrated network of choice for data, voice and video traffic. People and businesses rely on the Internet more than ever. They expect superior reliability and performance. Juniper Networks sole focus is providing solutions to these challenges—a seasoned track record that includes widely deployed IP routing systems in the world's largest network backbones.

Technology Edge

Leading software, hardware and silicon technology expertise underpins Juniper Networks solutions, which offer service providers the only universal interface bridging traffic between optical Internet backbones and legacy electronic routers. The company's research and development focus is scalable, high-end internet routing. Our unique engineering philosophy is to provide customers with the flexibility of JUNOS software solutions implemented in high performance hardware.

To accomplish our Internet leadership position, all Juniper Networks solutions employ purpose-built application-specific integrated circuits (ASICs). Juniper Networks ASICs provide industry leading performance with intelligent services. ASICs also include quality of service capabilities, which are crucial for differentiated service applications such as voice-over-IP(VoIP) and secure virtual private networks (VPNs). Juniper Networks provides industry-leading support for more than 75 connectivity interfaces. Physical dimensions for Juniper Networks platforms are small yet include high port density—a crucial aid to service providers and carriers who face scarce space for equipment racks. The Internet software system for all Juniper Networks systems is called JUNOS software, which provides full manageability and interoperability with other Internet routers and applications. These applications include multicast services such as video conferencing, corporate broadcasts and collaborative computing.

Juniper Networks helps service providers create rock-solid applications and performance by integrating technologies such as multiprotocol label switching and virtual router redundancy. These protocols enable multiple differentiated services and more reliability during circuit congestion. As a result, Juniper Networks portfolio of IP routing solutions provide carrier-class fault tolerance—the highest level of system reliability equivalent to less than five minutes of unscheduled equipment downtime annually.


One area where Juniper Networks has really distinguished itself is its customer service. The ability for them to understand the need for quick turnaround to keep its customers happy is absolutely a requirement for us to keep deploying Juniper Networks in the way that we plan to do.

Chris DeMarche
Chief Technical Officer
Verio, Inc

Product Portfolio

During the past year, Juniper Networks expanded its product portfolio from two to five internet backbone router platforms—M5, M10, M20, M40 and M160. The scope of products reflects company expansion into new markets, such as data center hosting and dedicated high-speed access.
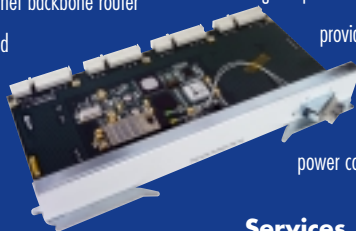
All platforms share common JUNOS software, services and ASIC technology, which give service providers full system interoperability and compatibility with value-added customer applications. The M160 platform offers an aggregate throughput exceeding 160 million packets per second. Sample applications for these platforms include:

Large Backbone Core Routing. The M160 internet backbone router platform is purpose built for large backbone cores operated by the biggest service providers and carriers. ASICs rapidly translate optical bandwidth into new, differentiated IP services and provides for efficient, scalable expansion.

Hosting. The M40 internet backbone router platform provides for network expansion of high-growth service providers. The platform delivers bandwidth required to cost-efficiently grow networks to speeds of 40 gigabits-per-second, plus applications such as virtual LANs for ensuring greater control over expanding network operations.

Peering. Peering points are where Internet backbone connections join and meet between different service providers. Delays at peering points can be a major weak point in the Internet. The Juniper Networks M20 is a space-efficient Internet backbone router platform that packs performance to meet any public or private peering application.

Small Metro. The M10 platform provides Internet backbone routing for service providers in small metropolitan areas. Like the M5, this platform also provides high performance with a small physical footprint. The M10 also enables new, differentiated services at edge sites such as IP packet filtering and sampling.
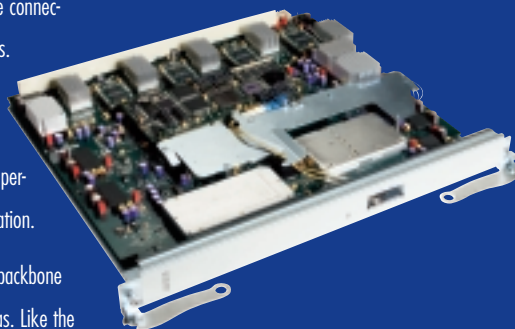
Dedicated High-Speed Access. The M5 Internet backbone router platform extends Juniper Networks core technology to the edge of provider networks connecting businesses to service providers intelligently and at high speeds. The platform provides top performance with compact design and power consumption.

Services Portfolio

A key attraction for Juniper Networks customers is a world-class services portfolio. Services speed implementation of Juniper Networks solutions and help customers maximize their investment. Juniper Networks provides a flexible, comprehensive portfolio of services offerings.

- Support services include core support via telephone through the Juniper Networks Technical Assistance Center, and online through the Customer Support Center. Customers get optional choices for on-site support and hardware replacement.

- Professional services are available in short- and long-term options for sophisticated project planning, designing, implementing, operating and managing core networks.

- Education services for product and technology training.

Manufacturing

Juniper Networks outsources all manufacturing. Outsourcing provides the benefits of better asset utilization, faster time-to-market, faster ramping of production volume and lower total product costs.

Celestica and Solectron provide Juniper Networks with turnkey system manufacturing. The manufacturing process includes prototyping, material procurement, final assembly, testing, control and shipment to Juniper Networks customers.

IBM Corporation manufactures Juniper Networks ASICs with the latest silicon production technologies.

Sales and Distribution

Juniper Networks sells products and services through a combination of its world-wide direct sales force, specialized value-added resellers and distributors.

Scott Kriens
Chairman, President and Chief Executive Officer
Pradeep Sindhu
Vice Chairman, Chief Technology Officer, Founder

Engineering a Global IP Network with Juniper Networks Technology

Cable & Wireless is a global provider of advanced communications services, including Internet, data, voice, video and wireless. Cable & Wireless is one of the largest Internet backbone carriers in the world. Customers in 70 countries include Internet service providers, carriers, mobile operators, content providers, businesses and governments.

Cable & Wireless' recent business story is radical transformation from a traditional carrier to a premier global supplier of best-in-class Internet Protocol (IP) services. All services run on the Cable & Wireless-owned core network built with Juniper Networks technology.

Juniper Networks underpins the Cable & Wireless global IP infrastructure

The transformation of Cable & Wireless included the purchase of MCI's US Internet communications business in 1998. The Cable & Wireless business strategy was to build and own a profitable global IP network providing top quality of service. MCI's IP business—already one of the largest in the world—was then evaluating routers from Juniper Networks as the basis for a new generation IP backbone.

"We looked to Juniper Networks because we ran out of gas in the old network," says Jeff Young, vice president of network engineering at Cable & Wireless Global. Young conducted that evaluation while working for MCI prior to the acquisition. "We knew many people recruited to work at Juniper Networks and had great confidence in their IP routing and engineering abilities." Cable & Wireless adopted Juniper Networks new generation of IP technology as the worldwide core routing standard after acquiring MCI.
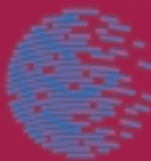
"A lot of our future rests on giving our customers the confidence that they can move their mission critical applications to Cable & Wireless," Young says. "The philosophy is, unless you're controlling the technology and costs of the Internet infrastructure, it's difficult to provide quality services and make money on it."

Performance and system stability are key requirements

Maximizing backbone bandwidth is crucial for an IP-focused service provider like Cable & Wireless because the technical complexity of routing logical IP connections overwhelms too many long-haul links. By packing more traffic on one link, Young says Cable & Wireless can simplify routing—often to just one hop. This capability makes the network more valuable to Cable & Wireless customers.

"Faster equipment makes the core of the backbone operationally more simple and stable," Young says. Superior performance and system stability is why Cable & Wireless uses technology from Juniper Networks.

Cable & Wireless operates a US backbone of several OC-48 city-to-city links; each link provides throughput of about 2.5 gigabits-per-second. The company also operates a North American OC-192c link at 10 Gbps; that link will soon cross the Atlantic. In 2001, the Cable & Wireless global infrastructure plans to include 84 hubs linked by more than 7,000 miles of optical fiber in Europe, 6,000 in Japan and 17,000 in North America. The company also owns 460,000km of submarine cable.

The core network technology linking Cable & Wireless' IP infrastructure includes more than 60 Juniper Networks M40 routers and more than 20 M160 routers. All of these products run the same feature-rich version of JUNOS Internet software.

"Juniper Networks equipment has been remarkably stable for IP networking," says Young. "I am quite impressed by Juniper Networks' nearly perfect operational performance." More big routers from Juniper Networks are planned for the Cable & Wireless network spanning the United States, UK, Europe and Japan.

Business demand drives core network upgrades

Business demand for IP services drives frequent upgrades to the Cable & Wireless core network. "Network bandwidth demand has always grown more than 100% annually, sometimes as much as 300% per year," Young says.

To meet this demand, Cable & Wireless upgrades core network equipment with new, higher-capacity equipment from Juniper Networks. Replacement takes place an average of every 12 to 18 months. "Useful life for telco equipment was 15 years," says Young. "Newer core technology now lasts five to seven years."

> *Juniper equipment has been remarkably stable for IP networking. I am quite impressed by Juniper's nearly perfect operational performance.*
>
> **Jeff Young**
> **VP of Network Engineering**
> **Cable & Wireless Global**

Cable & Wireless redeploys existing core gear from Juniper Networks to the network edge to provide faster dedicated access links to enterprise customers.

The use of Juniper Networks IP infrastructure has enabled Cable & Wireless to connect its global network to more places than any other network, according to Young. Based on the performance and reliability of Juniper Networks technology, Cable & Wireless pledges high customer standards, including guaranteed Internet connections, reliability, speed, security, flexibility and quality of service.

"Every time we move to a new generation of Juniper Networks technology, it's more stable than the generation before," Young says. "We're very happy."

Building Ultra-fast Optical IP Backbones with Juniper Networks

Metromedia Fiber Network Inc. (MFN) is a leader in deployment of optical IP Internet infrastructure and services within key domestic and international metropolitan areas. MFN's business strategy differs from other IP network providers in that it also owns ultra high speed, long haul optical links directly connecting businesses between areas of its metro coverage.

The MFN optical infrastructure provides business customers with unprecedented network and application performance, reliability and security. The core network infrastructure is built substantially with Juniper Networks technology.

Building an optical IP WAN with Juniper Networks

MFN's original business provided optical fiber network infrastructure in large metropolitan areas. Their strategy changed in 1999 when MFN started acquiring companies to give customers more value. The goal was to offer managed Internet services plus high capacity, wide area network connectivity for Internet, data and multimedia applications.

MFN purchased AboveNet and MIBH. AboveNet pioneered the idea of providing co-location sites for Internet service providers and businesses with mission-critical use of the Internet.

MIBH was a transit resale backbone-outsourcing provider and a Juniper Networks customer. Its team included major players in the construction of giant network backbones for UUNET, Sprint and Genuity.

"Our job was to implement the union of MFN business units and build out an international optical IP network backbone," says Stephen Stuart, vice president of research and advanced development at MFN. Stuart worked for MIBH prior to the acquisition. "MFN needed to own the wide area network backbone," Stuart says.

A technology engineering relationship of trust

MFN tapped into a significant engineering relationship by continuing its use of Juniper Networks technology. "Our team has many combined years of experience working with Juniper

Networks engineers," Stuart says. "We all know each other's names and see each other at standards committee meetings. We've worked with Juniper Networks from the beginning of its product development."

The team chose Juniper Networks technology because it was the only core IP backbone systems provider meeting all requirements for implementing MFN's business strategy. Requirements included line-rate packet forwarding for true 10 gigabits-per-second OC-192c system throughput; routing protocol expertise; and integrated capabilities for operations, administration and management. "Juniper is one of the few who have all three," Stuart says.

MFN recently finished lighting the first 10,000 miles of its 18,000-mile optical backbone between major metro areas across North America. The MFN backbone is capable of transmitting the equivalent of all content in the Library of Congress in just seven seconds.

The North America network is also linked to MFN's metro service regions in Europe for global optical-based connectivity. The global backbone includes implementing 170 M160 routers from Juniper Networks, plus a handful of M20 routers for space-constrained peering locations. JUNOS software allows the core network to interoperate with gear from other suppliers.

Juniper Networks provides better use of capital

Juniper Networks IP backbone router platforms also provide MFN with better use of capital. "I can provide more service for the capital dollars because Juniper Networks has the industry's best utilization of bandwidth," says Stuart. Juniper provides almost three times the router interface capacity of its competitors.

Another key benefit afforded to MFN customers by Juniper Networks technology is better network security. The Internet Processor II application-specific integrated circuit (ASIC) used in all Juniper Networks' routers provides peak performance—even when MFN filters off denial-of-service attacks from hackers. "We need the features that Juniper Networks provides to stay on the cutting edge of technology."

> " Our team has many combined years of experience working with Juniper engineers. We all know each other's names and see each other at standards committee meetings. We've worked with Juniper from the beginning of its product development. "

Stephen Stuart
VP of Research & Advanced Development
Metromedia Fiber Network

In the competitive landscape of IP backbone service, Juniper Networks' devotion to customer service is a business necessity, according to Stuart. In its quest to provide superior office-to-office global IP connectivity, what MFN values most is the implementation of technology features it requests of Juniper Networks. "It's hard to get this kind of responsiveness from big vendors," says Stuart. "Juniper Networks' response is great. That's rare in the industry."

Executive Officers

Scott Kriens
Chairman, President and Chief Executive Officer

Pradeep Sindhu
Vice Chairman and Chief Technical Officer

Marcel Gani
Chief Financial Officer

Michael Dodd
Vice President of Operations

Steven Haley
Vice President of Worldwide Sales and Service

Carl Showalter
Vice President of Marketing

Peter Wexler
Vice President of Engineering

Directors

William Hearst
Kleiner, Perkins, Caufield & Byers

Vinod Khosla
Kleiner, Perkins, Caufield & Byers

C. Richard Kramlich
New Enterprise Associates

Stratton Sclavos
VeriSign, Inc.

William R. Stensrud
Enterprise Partners

Corporate and Investor Information

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Investor Relations

For further information on the company, including the 10K,
please visit www.juniper.net/company/investors.

Stock Listing

Juniper Networks common stock is quoted
on the Nasdaq National Market under the
symbol JNPR.

Transfer Agent

The transfer agent and registrar for the common stock is
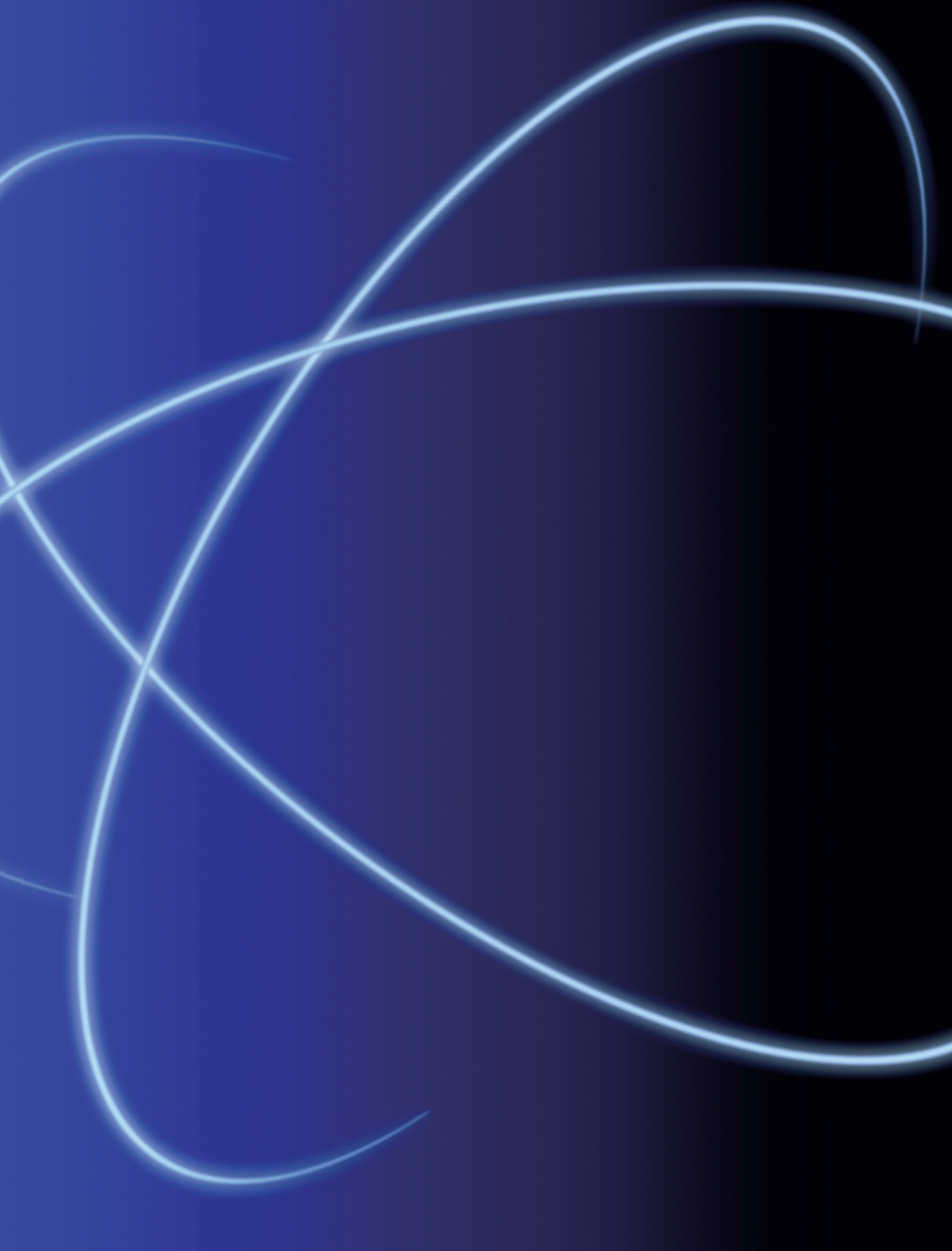Norwest Bank Minnesota, N.A. 800.767.3330

Legal Counsel

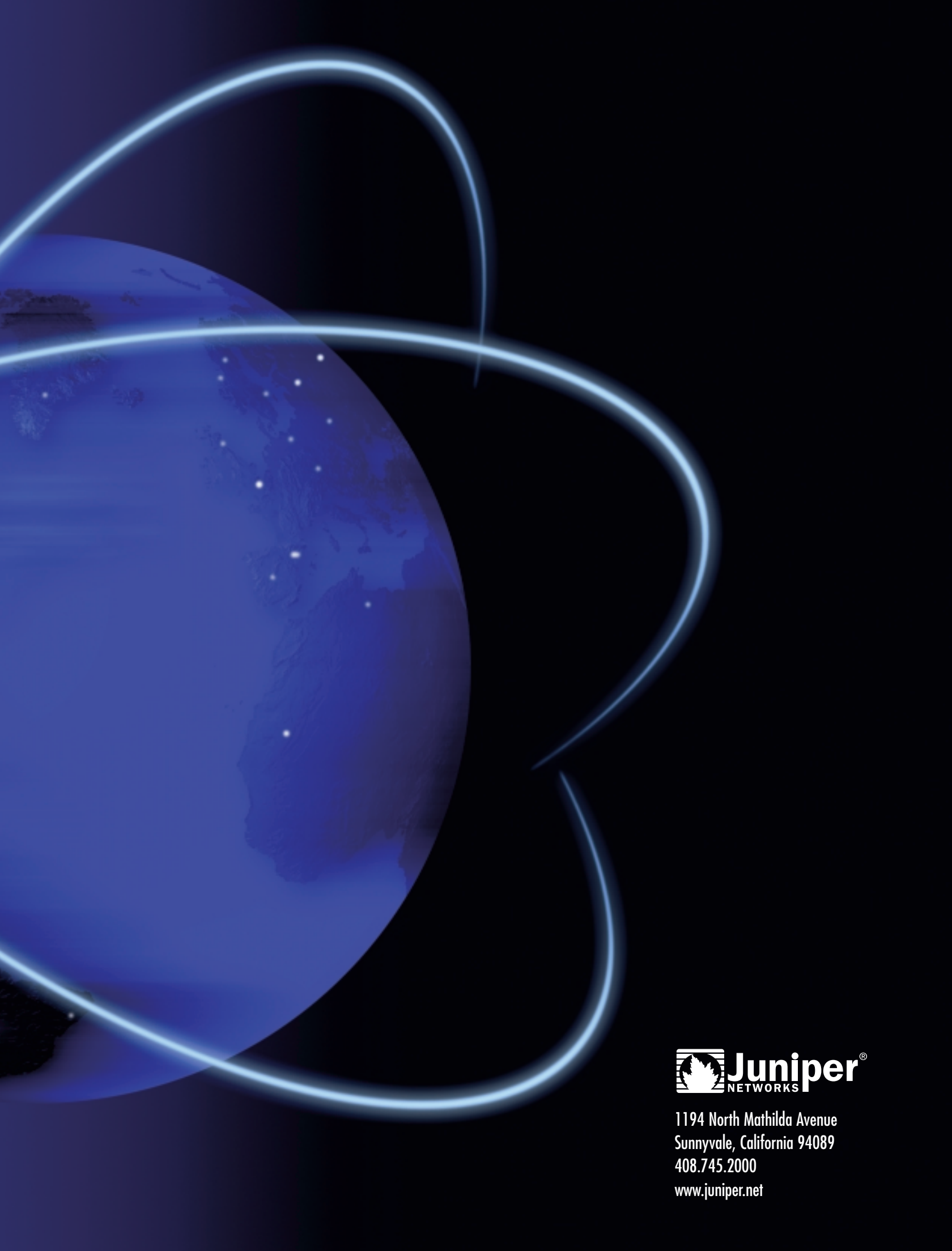Wilson Sonsini Goodrich & Rosati
Palo Alto, California

Auditors

Ernst & Young LLP
Palo Alto, California

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